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Challenges and Opportunities in Health Professions Education

Perspectives in the Context of Cultural Diversity

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Preface

Health professions education has been developing fast, globally, with the ultimate aim of graduating health professionals who can effectively contribute to improving the society's quality of health care and quality of life. The use of best evidence educational practices provides the foundations for contemporary curricula designs in undergraduate and postgraduate training programs. However, we see limited application of these educational principles in continuing medical education or in continuous professional development courses. Despite extensive studies and evidence in education, best practices are not geographically and equally distributed. Based on research carried out in North America and Europe, educational concepts and constructs are mostly from the "Western" countries. Therefore, there are concerns on the transferability and applicability of the studies to other contexts, such as countries with different socio-cultural values and lesser resources. This has led to issues and challenges when these concepts or constructs being implemented in non-Western settings to provide high-quality locally relevant training. It is important to conduct more health professions education studies in the underrepresented regions to understand the multiple effects such as the context, local work-based cultures and values. This will hopefully assist in designing training programs for health professionals with higher returns and value.

One of the critical factors in health professions education is the impact of local culture. The cultural practices can be observed when people carry on their day-to-day activities, their responses to engagement with persons, and in their behavior artifacts. Culture is deeply embedded in one's values, tacit knowledge, norms, and beliefs. Since education, including health professions education, is a complex system overall, applying best evidence without understanding the cultural contexts could jeopardize overall success and the outcome of the activity or the program. A systematic approach to understand and explore the evidence and cultural contexts, is to use the cultural dimensions shared by Hosftede (2010). This was written collaboratively by a group of health professions education scholars, to reveal underlying context specific critical issues for a global audience. The volume covers a timely topic, pivoting on relevant cultural contexts and implications, with Hofstede's framework as a general guide to structure the exploration. The readers of this book will obtain interesting

and genuine analysis on the generic topics on medical education related to culture, local evidence, and examples. We follow the basic sequences of facilitating student-centered learning, moving to technology-enhanced learning, and then continue to clinical education, community-based education, and importantly, student-centered assessment. We also continuously discuss issues critical to professional health care providers and educators, such as quality assurance, leadership, continuing personal and professional development, interprofessional education, and student and faculty wellbeing.

Through a cultural lens, the exploration in this edited volume is expected to expand the readers' general knowledge on the importance of embracing cultural values and local contexts to encourage best practices in health professions education. At the same time, this volume also opens new avenues for further studies in health professions education, especially in areas such as leadership, program design, and assessment development where evidence is still lacking. The analysis in this volume introduces valuable insights mostly from Asian scholars' perspectives in health professions education; lead authors are from Southeast Asia (Indonesia, Malaysia, Singapore), South Asia (India, Sri Lanka), and East Asia (Japan), supported by few authors from internationally recognized center of excellence in health professions education (The Netherlands, USA, South Africa, and the World Health Organization representative). With the globalized health professions education movement, being reminded of the essence of local values to support best practices is indeed an invaluable journey.

The ultimate goal for better health professions education is better healthcare service. Both can only be achieved by being sensitive to person and community's local wisdom, as the vital social accountability of medical and allied health professions schools. We hope you enjoy reading the thirteen chapters and inspired to integrate your understanding into your daily practice in developing best evidence-based health professions education with awareness of local perspectives and contexts.

"The best teacher is the best learner,
To learn better we shall have deeper reflection,
To reflect critically, we need to appreciate the culture."

* * *

The writing process of this edited volume began right before the COVID-19 pandemic in early 2020. The review and finalization of all chapters were accomplished in 2021. Consequently, we do not specifically address cultural responses to the online learning system during the yearly pandemic. Few chapters in this volume had touched on how students and teachers, from the hierarchical and collectivistic culture, were responding to the distance learning issue during the pandemic. Still, this new emerging problem had better be continued in a special edition. Our prayers and spirits are for experts, health professionals, and the society who strive to end the pandemic, so students and teachers can meet, shake hands, hug, and also feel and inspire social skills (i.e., communication, teamwork, and leadership), the core of twenty-first-century abilities.

With all best wishes,
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We are motivated by the effort of all authors who put their attentions and efforts in exploring the “eastern” or “southern” hemisphere’s contexts comprehensively to strive for better global medical education. Our high gratitude is also for patients, students, and fellow medical teachers who contributed to our daily work and allowed us to have rich insights to make necessary changes and improvements in health professions education.

Executive Summary

Chapters in this book are structured based on the general framework of Health Professions Education (HPE) subject field. This range from basics of facilitating learning at both preclinical and clinical settings as well as in community settings. The chapters then focus on learning resources, curriculum development, and assessment construction to leadership and management of HPE. The final chapters focus on quality assurance in HPE, the need for the well-being of student and faculty, and their academic/career development, continuing HPE. The last chapter reflects on matters concerning global medical and health professions education. We are struggling with implementing the HPE guides from the Western world to our context in actual practice. We also notice that our fellow faculties have on many occasions changed or adapted these Western-based concepts/constructs to suit their learning environments. Unfortunately, these are not published or they have difficulties in publishing them in Western-based journals where the editors and/or reviewers do find it difficult to understand the changes leading to the manuscripts being rejected. These challenges do not stop us from writing this book. We do not wait until we have sufficient and strong evidence in every domain because we believe that we need to start somewhere. Therefore, we provide space for our contributors to share their valuable daily experiences in their education and clinical practice presented in the boxes that readers will find throughout the book. We believe that readers will enjoy those reflections because they focus on actual local practices there by sharing the wisdom and bring the content presented down to earth.

Additionally, we depend on textbooks and journals as our primary references and use conference proceedings and thesis references. Those scientific products are also sources of rich information. Below is a detailed description of the following chapters to discuss the cultural influence across the HPE programs.

Interchanged terms:

In this edited volume, “medical-education” may be used interchangeably with terms of “health professions,” “medical-students” with “allied health professions students,” the “global northern” with “western” contexts (that mostly are developed

countries), and also the “global southern” or “eastern contexts” that mostly are the developing or underdeveloped countries.

Contents

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Chapter 1
Culture and Learning

Nur Afrainin Syah, Mora Claramita, Astrid Pratidina Susilo, and Francois Cilliers

Abstract Student-centered learning (SCL) has been a well-known principle of educating future health professionals globally. SCL was based on the 'constructivism' and 'socio-theory of learning' in which active participation and two-way dialogue of students and teachers are the keys for self-directed learning. In this chapter lays the conceptual foundations for using Hofstede's dimensions of culture model in exploration in the rest of the edited volume of the interplay between culture and health professions education. This first and overall chapters are focusing on work from Eastern settings with hierarchical and collectivistic cultures. The model and its derivation are explained and critiqued. Given the contextual focus of the book, the power distance and the individualism–collectivism dimensions of the model are unpacked in some detail and illuminated using examples from health professions education. Honoring calls for more evidence-based practice in health professions education and the contextual knowledge of local researchers and practitioners, widely adopted approaches like problem-based learning, models of communication skills,

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and feedback are critiqued using the model on the one hand and contextually relevant literature on the other.

1.1 Introduction

1.1.1 Definition of Culture: Culture as Mental Programming, Could Culture Change?

The word "culture" derives from a French term, which is originally from the Latin "*colere*", which means to tend to the earth and grow, or cultivation and nurture. Conceptions of culture have diverged over time such that there is no unitary definition that currently enjoys widespread support (Archer 2005; Borgatta 2001; Peterson 1990). Commonly invoked components of definitions derive from different research traditions. Anthropological perspectives see culture as "codes of conduct embedded in or constitutive of social life" (Peterson 1990, p. 498). Examples of this might include how beliefs, values, norms and social practices characterize the culture of a nation, an organization or an academic program. Sociology of knowledge perspectives see culture "in the symbolic products of group activity" (Peterson 1990, p. 498). Examples of this might include how cultural objects or events that are the products of a group like artists or curriculum designers encode and convey worth, authority, power. Hofstede et al. (2010) maintain that the manifestations of culture can be categorized as symbols, heroes, rituals, and values. Culture can be seen to operate at different levels including national and organizational (Hofstede et al. 2010; House et al. 2002; Johnson 2000), departmental (Knight and Trowler 2000) and in educational contexts, even program (Bing-You et al. 2019). While Archer (2005) critiques assumptions of coherent integration of ideas and that culture is common to all members of a group, a pragmatic approach is needed to navigate the meaning and manifestations of national culture in health professions education. To that end, in this book, we mainly apply Hofstede's cultural dimension theory as a theoretical lens. This theory has been widely applied in explaining cultural phenomena underlying dilemmas in health professions education (Hofstede et al. 2010; Frambach et al. 2012; Claramita and Susilo 2014; Suhoyo et al. 2018).

Hofstede's dimensions are often used in social research because of their simplicity in understanding and measuring culture (Kirkman et al. 2006; Fang 2012). The work of Hofstede is very highly cited in the field of social science (Cardon 2008). However, Hofstede's ideas have also been critiqued. Challenges include (1) the reduction of culture into four or five dimensions (Kirkman et al. 2006; Jones 2007; Soares et al. 2007; Fang 2012), (2) the temporal origins of the data—research was conducted in 1967–1973 and the profiles for each country may be outdated (Steenkamp et al. 1999; Jones 2007; Tsoukatos and Rand 2007; Fang 2012), (3) the measurement of culture using only work-related values (Steenkamp et al. 1999), and (4) the origin of respondents from only one company (i.e., IBM) (Jones 2007; Tsoukatos and Rand 2007).

Despite criticism of cultural dimension theory, the identification of measurable dimensions makes describing and comparing cultures easier. Hofstede et al. (2010) believe that understanding the culture will facilitate business and relationships across countries. We believe there are grounds for and value in extrapolating those understandings to education and, specifically, health professions education (HPE) where we interact intensively with patients of diverse cultural origins. Culture has a significant influence on the teaching and learning process at schools, including (1) teacher–student–parents interaction, (2) division of power and responsibility between the parties, (2) budget allocation, (3) educational policy and system, (3) gender influence, (4) the purpose of education, (5) defining learning achievement, (6) learning resources, (7) learning environment, and (8) evaluation program. Understanding dimensional differences between cultures is essential in developing curriculum and learning processes that are appropriate to the culture of students in the interests of effective learning.

Hofstede uses the term collective mental programming or software of the mind to refer to the different patterns among cultures. Mental programs, the collective pattern of thoughts, feelings and actions, of a group are formed by their social environment (such as countries, regions, workplaces, schools, family, and neighborhood), and the events experienced in the lives of the group members (Hofstede et al. 2010). The majority of people's mental programs are developed during childhood, akin to the deeply seated meaning perspectives Mezirow (1991) describes. To learn something different from the mental program that has been developed requires discarding or adapting what has been learned and assimilated, before being able to construct a new mental program. To unlearn a mental program is more challenging than learning it for the first time. Thus, it is difficult to totally change someone's culture.

However, humans have agency and the ability to escape from the programming process and take unexpected action. Thus, people's personality and behavior is not fully determined by their social group's mental programs. A person's personality, is her or his uniqueness (Hofstede et al. 2010). The personal mental program does not need to be shared among members of a social group. Different from shared culture, the personal mental program underlying an individual's behavior is based on traits which are partly inherited and partly learned as modification from their culture and personal experience. Consequently, someone's reaction to something can at best be estimated by knowing their culture and past experiences. However, in everyday living in a social environment, individual behavior is constrained or enabled by the collective pattern of values, norms, and rules shared within the social group (Hofstede et al. 2010).

Values and norms are often used interchangeably; however, values are more general and abstract, whereas norms are more specific. 'It is important to be honest' is a value. 'Not cheating and obeying the examination rules' are norms. Drawing on Hofstede's dimensions briefly to illustrate how this might play out in an educational setting, in a hierarchical and collectivistic culture, maintaining social harmony (by remaining silent in the face of confusion, to avoid conflict in class and keep social harmony) is more important than being honest but potentially inviting confrontation (by questioning the teacher). Given, then, that it is difficult for individuals with a variety of personalities to 'escape' from their cultures in every facet of their lives,

including in educational processes, it becomes apparent why considering culture in educational settings is so important.

1.1.2 Culture, Learning, and Students

To understand the existence of cultural differences that can influence the success of any learning strategy, a discussion of how culture is relevant in helping students to optimize their learning process is in order. Current students in this century are mostly labeled as "generation Z" (born between 1997 and 2010) and the "Alpha generation" (born 2011 and upwards). They are digital natives who have grown up alongside massive advances in digital technology (pewresearch.org; businessinsider.com). They are used to using mobile learning in accessing the abundant information available on the web and are considered to be more independent than the previous generation. They do not wait for parents to teach them or tell them how to make decisions. They are considered tolerant of cultural differences and very concerned about the environment. The Z and Alpha generations are claimed to be more culturally tolerant than preceding generations, including in the learning process (forbes.com). However, this claim may not be entirely correct.

As discussed above, culture is difficult to change. Individuals are nurtured into a culture from birth by parents according to the parents' own mental programming and that of their collective social group. Attending university is often the first time that an individual is confronted with the cultures of others and the culture of the institution, of the field or discipline they seek to become part of. Interacting with these cultures ideally results in positive growth experiences and in student engagement and retention (Zepke 2013) but can result in alienation (Barnhardt and Ginns 2014; Wimpenny and Savin-Baden 2013) which when extreme, can engender explosive student activism as happened recently in South Africa (Nyamnjoh 2017). As noted, transformative engagement with a new culture is no simple matter.

It could be argued that communication and information technology will effect significant cultural change, including in education. Hofstede and his colleagues (2010) dispute this contention. This technology supposedly makes cultural differences disappear, as interconnectedness rises and the world becomes a global village. Hofstede and his colleagues argue (2010, p. 391) that "the software of the machines may be globalized, but the software of the minds that use them is not." The software of the mind determines the information that individuals look for and accept, as well as whether and how they interpret and apply that information according to their own values. Values lie at the core of Hofstede's onion representation of culture. Symbols are on the skin of the onion, while heroes and rituals are in between. Symbols, heroes, and rituals are classified as practice of culture. They are more volatile and dynamic. Communication and information technology may change the practice of a culture in terms of symbols, heroes, and rituals. However, the technology cannot change values of a culture. Values are more permanent and durable, represented by choices between opposing conditions, such as evil versus good, dirty versus clean, dangerous versus

safe, forbidden versus permitted, decent versus indecent, moral versus immoral, ugly versus beautiful, unnatural versus natural, abnormal versus normal, paradoxical versus logical, irrational versus rational, etc. Moreover, Hofstede et al. (2010) argue that the communication and information technology, in contrast, could increase the awareness of the world community that they are different from each other because the information allows them to compare and contrast themselves with others.

1.2 Dimensions of Culture

1.2.1 High 'Power Distance' and Collectivistic Culture

It is quite difficult to examine the influence of culture in education as so many indicators or components could be named under a definition of culture. The work of Hofstede and his colleagues (2010) posits a more systematic approach to engaging with culture. The dimensions of culture model has six dimensions of 'power distance', 'individualism/collectivism', 'masculinity/femininity', 'uncertainty avoidance', 'short/long term orientation', and 'indulgence/restraint'.

The 'power-distance' dimension leads to the acceptance of inequalities within community, leading to questions about how power will be divided and distributed. The 'individualism-collectivism' dimension is how members of a community relate to each other within their community; questions will be on how much "I" or "We" influence decisions. 'Masculinity/femininity' lies in appreciation for work performance and assertiveness. Work performance and achievements are very important for individuals coming from masculine cultures because achievement and competitiveness are indicators of success in this culture. On the other hand, feminine culture values quality of life and caring for others. Being the top is not important in this culture. 'Avoidance of uncertainty' means how people within community deal with uncertainty in a matter. The characteristic of communities with high uncertainty avoidance will be greater anxiety and stress compared to community with low uncertainty avoidance. 'Long or short'-term orientation has to do with how communities will think–react over change that happens within their community. Communities with a long term orientation will have many truths, and be more open and accepting of change, expending more effort to achieve certainty. Communities also could be with 'indulgence and restraint'. Indulgent communities will accept free gratification of basic and natural human drives, for example, allowing a member of the community to accept a gift for the things that they have done.

In this book, the discussion on the influence of culture on health professions education focuses on the first two dimensions of the dimensions of culture model, 'power distance' and 'collectivism/individualism'. We have selected these two dimensions as the basis of our discussions because this edited volume aims at exploring health professional education practice in a group of countries on the upper right axis of Hofstede's figure (Hofstede et al. 2010) (Fig. 1.1). These countries are similar in

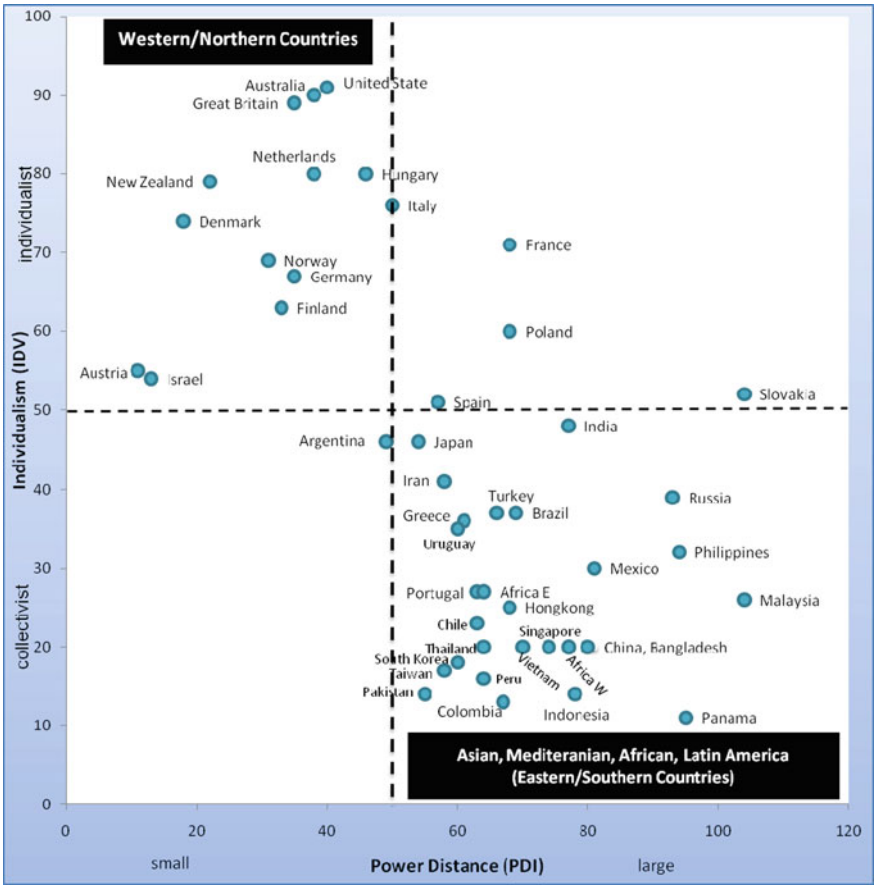

Fig. 1.1 The grouped countries re-illustrated based on Hofstede (2010) of the cultural dimensions

the two dimensions as having a high power distance index (hierarchical) and being collectivist (communal). They are mostly located in the southern hemisphere, and are commonly referred to as part of the 'global south', 'eastern countries', or 'developing countries'. Many of the world's most populated areas such as China, India, Africa, Arabian, and Indonesia are in this group. We use the terms of 'eastern', 'southern', interchangeably in this book. These countries can be compared with countries on the lower left axis of Hofstede's figure, which hold more egalitarian or partnership culture and are individualistic in decision-making. These countries are commonly referred to as being part of the 'global north', 'northern countries', 'developed countries'. These terms are also used interchangeably in this book.

There are of course some variations in terms of the degree of power distance and individualism between countries in the global south and the global north. Japan, for example, which is included as a developed country, is grouped into the right upper axis but hold less 'power distance', less collectivism in decision-making,

but a sharply distinguished masculine–feminine culture, and uncertainty avoidance. However, personally, we believe that the Japanese, in reality, perhaps have a wide 'power-distance' culture based on the ethical attitude of 'bowing', and following instructions, to show respect to elders, including teachers. There are also countries in the right upper axis that feature a bit lower on 'paternalism' but higher on 'collectivism' or the other way round. Hence, Hofstede et al. (2010) pointed out that the power distance index (the PDI) tends to be negatively correlated with the individualism index (the IDV). Countries that hold wide 'power distance' tend to correlate with 'collectivism'. In this book, we are going to discuss the influence of these two cultural dimensions on health professions education. Throughout this book, we invite you, the reader, to thoughtfully interpret the message based on the individual variation of the cultural dimensions in your context. More information about comparing countries based on their cultural dimensions can be found in this website: https://www.hofstede-insights.com/product/compare-countries/

1.3 Hierarchical and Communal Culture: How They Affect Teaching and Learning?

1.3.1 Power Distance

'Power distance' is a characteristic of a culture that describes the degree to which community members who are less powerful stakeholders estimate and accept that power is distributed unevenly. The basic challenge here is how people deal with inequality between them. Hofstede et al. worked on measuring the power distance dimension of cultures across the globe using the Power Distance Index (PDI) that they developed. The PDI is measured based on the IBM Company's employees answers to three types of questions: (1) the worry and fear of the employees have in expressing disagreement with their managers, (2) employees' perception on their work environment related to autocratic and paternalistic style of their managers in decision-making, and (3) the employees' preferences on the style of their managers. The PDI has a value between 0 and 102, 0 is the lowest and 102 is the highest. Of the 'eastern countries', Malaysia was the highest (102) and Japan was the lowest (54).

Hofstede et al. (2010) argued that power distance occurs in a company or institution between superiors and subordinates. Consciously or not, power distance is more often felt by subordinates than superiors, because superiors have power that subordinates do not have. Consequently, power distance can be defined as the distance of power between superiors and subordinates. In high power distance contexts, superiors or managers expect the obedience of their subordinates or team members. If subordinates want to refuse, they will not state this openly. The subordinates or employees expect to be told what to do and when. Control is expected and managers are respected for their position. As a result, in cultures with high power distance, subordinates or employees are more likely motivated to work by looking at more

examples and emulating leadership behavior, and the paternalistic nature of leadership that pays attention to employees, whereas in low power distance environments, employees are more motivated to work independently and do not depend on the leadership behavior of their superiors.

Hofstede et al. (2010) argued that the power distance not only affects employees and managers' interaction at work, it also affects peoples' interactions at home, in schools, the healthcare system and the country in general. Hofstede et al. (2010) maintain that people living in a country with high power distance accept a hierarchical order where everyone has a place without needing further justification. On the other hand, people living in a society with a low power distance try to achieve an equal distribution of power and recognition of power inequalities. High power distance cultures have the assumption that certain groups of people are considered superior to others. This is based on social status, financial ability, gender, race, age, education, birth, achievement, background, and so on. People who have more power usually dominate people who have less. In countries with a high power distance dimension, it is common practice that young people must respect those who are older, acting more politely and in a different way from their socializing with their peers.

Parents and teachers are expected and accepted as having more power and being superior to their children and students. Children–parents interaction at home is similar to students–teachers relationship at school. Parents and teachers are the sources of wisdom, values, norms, knowledge, and regulations. This hierarchical position is a ground rule not needing further justification. In contrast, in low power distance cultures, unequal roles are established for convenience. Bandura and Ramachaudran (1994) argues that students as learners are inseparable from the influence of their social environment (culture). Thus, teacher-centred learning (TCL) strategy seems more acceptable and comfortable in high power distance cultures.

In TCL, the teacher is the main source of learning because he or she is believed to have extensive knowledge. The teacher will be perceived by students as someone who is always right in her or his opinion. Students tend to listen, pay attention, and have their learning dictated by the teacher's way of learning. Teachers in the class are very active because in this learning system the teachers give more lectures and provide learning material. The learning process is conceptualized as a transfer of knowledge and skills from the teachers to students, one extreme of conceptions of learning and teaching (Otting et al. 2010; Trigwell et al. 1999). Teachers are expected to tell students what to do. Students are accustomed to acquiescence so are more passive in the learning process. They will not ask questions or speak up if they are not asked by their teachers in order to show respect. Table 1.1 compares teacher–student interaction in low and high power distance culture (Hofstede 1986, 1998, 2010).

Table 1.1 The power distance dimension in teacher/student and student/student interaction (adapted from Hofstede 1986, 1998, 2010; Frambach et al. 2012; Claramita et al. 2013)

Small power distance societies	Large power distance societies
"Truth" is impersonal and can obtained from any competent people	Teacher "wisdom" is important in teacher/student relationship
The independence of students is respected	Teachers have to be respected by their students
Student-centered learning is promoted	Teacher-centered learning is more acceptable
Students are expected to initiate communication	Teachers are expected to initiate communication
Students are expected to find their own way	Teacher are expected to show paths for students to follow
It is acceptable for students to speak up spontaneously in class	Students cannot speak up without teachers' invitation
It is acceptable if students have different opinion with and criticize their teachers	It is not acceptable if students openly express different opinions to and criticize their teachers
Two-way communication in class is important for effective learning	The capability of teacher is important for effective learning
Teachers and students are equal outside the class	Students have to respect teachers inside and outside the class
Parents side with students in teacher/student conflict	Parents side with teachers in teacher/student conflict
Students prefer younger teachers	Students respect older teachers more

1.3.2 Individualism–Collectivism

According to Hofstede (2010), individualism and collectivism are opposite values. This means that the higher the level of individualism of a culture, the lower the level of its collectivism. The dimension of individualism/collectivism shows to what degree an individual is integrated into their social groups. In collectivist cultures, people are interdependent and an integrated part of their social group. This emphasizes the obligations of an individual toward society or group rather than her or his personal rights. The individual is expected to sacrifice her or his personal interests and goals for the group's goals, such that obedience is at a premium and individuals adjust to the group or organization in order to maintain harmony. On the other hand, in individualist cultures, an individual is separate to and independent of other individuals. A society with a culture of individualism encourages its members to be independent, autonomous. This culture emphasizes personal responsibility and rights. Individual needs, desires, interests, and goals take precedence over group goals.

Hofstede (2010) developed the individualism index (IDV) based on the employees' perception of how important a list of work goals was for them regardless of their current working condition, i.e., personal time (for personal or family life), freedom, challenge, training, physical (working condition), use of skills, earnings, recognition, (career) advancement, (living in a) desirable area, cooperation (with

colleagues), (fringe) benefits, (job) security, and (relationship with) manager. Data analysis showed that the first six objectives related to the dimensions of individualism and collectivism, while the next eight objectives reflected the masculinity and femininity dimensions. Important work goals for the individualist pole were personal time (having sufficient time for personal or family life), freedom in choosing an own approach to the job, and challenge (getting personal sense of accomplishment due to a challenging work). People at the collectivist pole perceived that training opportunities for improving or learning new skills, having good working space, and being skillful and competent on the job, were important for them.

The choice of work targets for each cultural group both individualism and collectivism illustrates the relationship between the individual and their group. The importance of work goals in the form of personal time, freedom, and challenges (personal) in the side of individualism shows the importance of the independence of employees within an organization in this cultural group. On the other hand, collectivist groups emphasize the importance of support provided by the organization for employees, which shows employees' dependence on the organization. Furthermore, Hofstede and his colleagues indicated that individualist groups tended to come from high-income countries and vice versa—collectivist groups tended to come from lower and middle-income countries. In high-income countries, training, physical condition, and use of skills are absolute requirements for work, so they are not the target of their work. Conversely, in lower and middle-income countries, these three things determine a person's position in the work field.

The IDV has a value between 0 and 100, 0 is the lowest (collectivist pole) and 100 is the highest (individualist pole). Most of Eastern countries have the IDV below 50. India is the highest (48), Japan is in the second place (46), and Indonesia is the lowest (14), positioning India as the most individualist country in Asia, and Indonesia as the most collectivist. It is interesting that IDV and PDI tends to be negatively correlated. Many countries with high power distance index (PDI) such as Malaysia, Bangladesh, China, and Indonesia have low IDV, indicating they are more collectivist. Japan, on the other hand, has low PDI and high IDV. Meanwhile, India is the most individualist country in Asia but with significantly high power distance.

Similar to the dimension of power distance, cultural characteristics of individualism also affect the learning process. Students from collectivist cultures tend to maintain harmony of the group and avoid conflict. As a result, they will not speak up in a large class discussion because of the large variety of the group members. Nevertheless, they are more willing to speak up in a smaller group discussion because they know the discussion members better than in the large group. Thus, small group discussion seems more appropriate learning strategy for the collectivist culture. However, teachers are expected to be aware that, if the collectivist background students are allowed to form the group discussion by themselves, ethnicity and other background will be the basic consideration of forming the small group. Nepotism is common in the collectivist culture. In individualist culture, conflict and confrontation are not avoided as long as they can maintain respect for one another. In contrast to individualist culture, in which students are encouraged to be more independent, students in collectivist society are more likely to be dependent on their teacher; as discussed

Table 1.2 The individualism and collectivism dimension in teacher/student and student/student interaction (adapted from Hofstede 1986, 1998, 2010 and Claramita et al. 2013)

Collectivist societies	Individualist societies
Interaction is regulated by the traditional roots	Can accept something new easily
Learning is for young people	Learning is for all—both young and old
Learning how to do is expected from students	Learning how to learn is expected from students
Students speak up in class when they are invited personally by teachers	Students speak up in class in response to a general invitation by teachers
Individuals prefer to speak up in a small group	Individuals speak up in any size of group
Particular criteria (e.g., ethnic affiliation) are used as a basis for group formation	Universal is criteria (task type) are used as a basis for group formation
Classes strive to maintain formal harmony at all times	Conflict and confrontation is acceptable
Losing face should be avoided both for teacher and student	Face-consciousness is not significant
Education is for gaining prestige and status	Education for increasing ability and competencies
University certificates are important and published	University certificates are symbolic
Teachers are expected to consider the students' background (affiliation with influential persons or status) in dealing with them	Impartiality is strict in teacher/student and student/student interaction

before it is important for them to get support from others. The degree of student dependence on teachers in Eastern countries is not only caused by the cultural dimension of collectivism but is also reinforced by the high social distance culture. Teachers are the main source of knowledge in high power distance societies. They are expected to transfer knowledge and skills to their students. Therefore, it is necessary to understand that the lack of student independence is predicted to be a problem of active learning in most of Eastern countries. The Table 1.2 compares teacher–student interaction in individualist and collectivist culture (Hofstede 1986).

1.4 Common Design for Teaching and Learning in a Diverse World: Evidence for Challenges and Opportunities

Currently, due to the potential benefits of student centered learning (SCL) for the effective development of students' hard and soft skills, SCL which originated from individualist Western cultures with low power distance, have been widely implemented in collectivist Eastern countries with high power distance cultures. One

thesis, using systematic review methods, articulated the benefits of one SCL-oriented strategy, problem-based learning (PBL), that in many studies from Western and Eastern contexts, has been shown to increase student self-directed learning (Silawani 2019). However, we frequently hear complaints from teachers in Eastern countries that their students are passive and do not want to voice their opinions in group discussions; and that students are happy if they are given learning material in lectures in front of the class. On the other hand, teachers also express their distrust of students' ability to learn independently and are not happy on their students' acquisition of knowledge through the SCL process. These phenomena are also validated by the particular thesis which underlined that the students from hierarchical and collectivist cultures tend to respect their teachers more, in terms of ethical attitudes of politeness, and have greater dependency on teachers' direction than their peers from more egalitarian and individual cultures (Silawani 2019). In short, students from the 'global south' have greater challenges being independent learners than their peers from the 'global north'.

Since its development at McMaster University in 1960, PBL has been widely adopted by medical education institutions around the world. However, five decades of globalization of PBL has yielded inconsistent results (Hartling et al. 2010). Claims and evidence that PBL can increase knowledge acquisition, group interaction, problem-solving skills, and increased learning motivation compared to traditional learning methods are not unchallenged (Azer and Azer 2015; Hartling et al. 2010; Koh et al. 2008; Colliver 2000; Berkson 1993). It has been argued that the inconsistent results of PBL implementation in facilitating student learning is influenced by the cultural background of the parties involved (Frambach et al. 2012; Jippes and Majoor 2011; Gwee 2008). The cultural dimension is, then, an important catalyst in knowledge formation (Alavi and Leidner 2001) and has to be taken into consideration if institutions want the benefit of PBL (Al-Shobaili et al. 2010).

Around two decades ago, van der Vleuten et al. (2000) wrote a plea to invite teachers of health professionals to use evidence-based practice in education. They observed that although many clinicians were keen to use evidence-based medicine in their clinical practice, they did not recognize that the education domain should also be informed by evidence-based practice. We are strong believers that "there is nothing so practical as a good theory" (Lewin 1952, p. 169). With ongoing reforms in health professions education, the use of theory is becoming more extensive. Theory should feed on evidence and evidence should drive theory (Cilliers et al. 2012). As most research in HPE emanates from the global North—in a study of which countries produce most HPE literature, only one of 15, Brazil, was from the global South (Doja et al. 2014)—there is a great need for more contextually valid local evidence.

We close this chapter with some brief examples of the material that will be covered in the book. In the field of communication skills training, experts in the United Kingdom developed consensus on communication skills content for undergraduate medical curricula. This was an extensive model resulting from rigorous studies conducted mostly in Western settings (Von Fragstein et al. 2008). While the model has face validity, we advocate the importance of strengthening local evidence in communication skills from hierarchical and communal cultures (Claramita et al.

2013). We have used Hofstede's work extensively as the theoretical basis of our work. In the last 5 years, we have conducted several studies related to this topic to accumulate evidence on communication skills training from the Southeast Asian context that was summarized in Claramita and Susilo (2014). Parallel to this, we have noted an increasing number of publications focusing on the influence of culture in health profession education (Frambach et al. 2012; Jippes 2013). A Master's thesis from Indonesia systematically reviewed the challenges and opportunities faced by students in paternalism–collectivism and egalitarianism–individualism culture in PBL tutorials as described above (Silawani 2019). Other publications on clinical education also emphasize the different perception of feedback in this cultural context. Feedback tends to be perceived as 'instructions' rather than a stimulus for learning (Suhoyo 2018). Teacher–student relationships have also been found to be far from the idealized partnership dialogue (Nugraheny et al. 2016). While extensive community-based education studies have been undertaken in the southern hemisphere context, there are still many educational areas to be improved, from objectives, feedback in community settings, experiential-based curriculum, and formative assessment (Talaat and Ladhani 2014; Kristina et al. 2006; Widyandana et al. 2011; Dhital et al. 2015; Claramita et al. 2019).

Nevertheless, for some topics, the relevant evidence from this cultural context is scarce. For example, we experienced challenges supporting the chapter on Continuing Professional Development with sufficient evidence. Some studies from these parts of the world have focused on needs assessment of different professionals' views (Micallef and Kayyali 2019; Mizuno-Lewis et al. 2014; Younes et al. 2019). A scoping review about interventions on mentorship for health workers only found four studies, which were from Rwanda, Afghanistan, Jordan, and Bostwana (Schwerdtle et al. 2017). A review about CPD in pharmacists included 19 studies, in which only four studies came from countries with hierarchical and or collectivistic culture (Micallef and Kayyali 2019).

1.5 Summary

We dedicate this chapter to the promotion of combining theory in education with local evidence from educational practice. We advocate the use of evidence-based practice throughout this edited volume and have sourced local evidence from various sources of publication. We encourage the use of existing evidence from different cultures to tailor educational interventions to local needs. We honor the contextual knowledge of local researchers and practitioners and seek to enrich the global discourse on health professions education with this view from the global South.

Key Learning Points

- Culture has a significant influence on the deployment of educational innovations in settings contextually different from where those innovations originate.
- While there is no consensus definition of culture, Hofstede's dimensions of culture model offers a practical tool to explore the interplay between culture and health professions education.
- The research base for educational innovation in the global South can be meaningfully expanded using theoretical models that allow local advances to be related conceptually to approach the student-centered learning.

References

Archer MS (2005) Structure, culture and agency. In: Jacobs MD, Hanrahan NW (eds) The Blackwell companion to the sociology of culture. Blackwell Publishing Ltd., Malden, MA, pp 17–34

Alavi M, Leidner DE (2001) Knowledge management and knowledge management systems: conceptual foundations and research issues. MIS Q 25(1):107–136

Alshahrani A (2017) Power distance and individualism-collectivism in EFL learning environment. Arab World English J 8(2)

Al-Shobaili HA, Al-Robaee AA, Al-Zolibani AA et al (2010) Utilization of self directed learning allocated times by medical students. Saudi Med J 31(3):333–335

Azer SA, Azer D (2015) Group interaction in problem-based learning tutorials: a systematic review. Eur J Dent Educ 19(4):194–208

Bandura A, Ramachaudran VS (1994) Encyclopedia of human behavior, vol 4. Academic Press, New York, pp 71–81

Barnhardt B, Ginns P (2014) An alienation-based framework for student experience in higher education: new interpretations of past observations in student learning theory. High Educ 68(6):789–805

Berkson L (1993) Problem-based learning: Have the expectations been met? Acad Med 68(10):79–88

Bing-You R, Ramani S, Ramesh S, Hayes V, Varaklis K, Ward D, Blanco M (2019) The interplay between residency program culture and feedback culture: a cross-sectional study exploring perceptions of residents at three institutions. Med Educ Online 24(1):1611296

Borgatta EF (2001) Culture. In Borgatta EF (ed) Encyclopedia of sociology, 2nd ed, vol 1. Macmillan Reference, New York

Cardon PW (2008) A critique of Hall's contexting model: a meta-analysis of literature on intercultural business and technical communication. J Bus Tech Commun 22(4):399–428

Cilliers FJ, Schuwirth LWT, van der Vleuten CPM (2012) Modelling the pre-assessment learning effects of assessment: evidence in the validity chain. Med Educ 46(11):1087–1098

Doja A, Horsley T, Sampson M (2014) Productivity in medical education research: an examination of countries of origin. BMC Med Educ 14(1):243

Claramita M, Nugraheni MD, van Dalen J et al (2013) Doctor–patient communication in Southeast Asia: a different culture? Adv Health Sci Educ 18(1):15–31

Claramita M, Susilo AP (2014) Improving communication skills in the Southeast Asian health care context. Perspect Med Educ 3(6):474–479
Claramita M, Setiawati EP, Kristina TN et al (2019) Community-based educational design for undergraduate medical education: a grounded theory study. BMC Med Educ 19(1):1–10
Colliver JA (2000) Effectiveness of problem-based learning curricula: research and theory. Acad Med 75(3):259–266
Dhital R, Subedi M, Prasai N et al (2015) Learning from primary health care centers in nepal: reflective writings on experiential learning of third year Nepalese medical students. BMC Res Notes 8(1):1–9
Fang T (2012) Yin yang: a new perspective on culture. Manag Organ Rev 8(1):25–50
Frambach JM, Driessen EW, Chan LC et al (2012) Rethinking the globalisation of problem-based learning: How culture challenges self-directed learning. Med Educ 46(8):738–747
Gwee MC (2008) Globalization of problem-based learning (PBL): cross cultural implications. Kaosiung J Med Sci 14-S22
Hartling L, Spooner C, Tjosvold L et al (2010) Problem-based learning in pre-clinical medical education: 22 years of outcome research. Med Teach 32(1):28–35
Hofstede G (1986) Cultural differences in teaching and learning. Int J Intercult Relat 10(3):301–320
Hofstede G, Hofstede GH, Hofstede GH et al (1998) Masculinity and femininity: the taboo dimension of national cultures, vol 3. Sage, New York
Hofstede G, Hofstede GJ, Minkov M (2010) Culture and organizations: software of the mind, intercultural cooperation and its importance for survival, vol 3. McGraw-Hill, New York, pp 79–107
House R, Javidan M, Hanges P, Dorfman P (2002) Understanding cultures and implicit leadership theories across the globe: an introduction to project GLOBE. J World Bus 37(1):3–10
Jippes M, Majoor GD (2011) Influence of national culture on the adoption of integrated medical curricula. Adv Health Sci Educ 16(1):5–16
Jippes M (2013) Culture matters in medical schools: how values shape a successful curriculum change. Thesis Maastricht University
Johnson G (2000) Strategy through a cultural lens: learning from managers' experience. Manag Learn 31(4):403–426
Jones M (2007) Hofstede–culturally questionable? Paper presented to the Oxford Business & Economics Conference, United Kingdom
Kirkman BL, Lowe KB, Gibson CB (2006) A quarter century of culture's consequences: a review of empirical research incorporating Hofstede's cultural values framework. J Int Bus Stud 37(3):285–320
Knight PT, Trowler PR (2000) Department-level cultures and the improvement of learning and teaching. Stud High Educ 25(1):69–83
Koh GCH, Khoo HE, Wong ML et al (2008) The effects of problem-based learning during medical school on physician competency: a systematic review. CMAJ 178(1):34–41
Kristina TN, Majoor GD, Van der Vleuten CPM (2006) A survey validation of generic objectives for community-based education in undergraduate medical training. Educ Health Change Learn Practice 19(2)
Lynch EA, Mudge A, Knowles S et al (2018) "There is nothing so practical as a good theory": a pragmatic guide for selecting theoretical approaches for implementation projects. BMC Health Serv Res 18(1):1–11
Lewin K (1952) Problems of research in social psychology. In: Cartwright D (ed) Field theory in social science: selected theoretical papers by Kurt Lewin. Tavistock Publications Limited, London, p 346
Mezirow J (1991) Transformative dimensions of adult learning. Jossey-Bass, San Francisco, CA
Micallef R, Kayyali R (2019) A systematic review of models used and preferences for continuing education and continuing professional development of pharmacists. Pharmacy 7(4):154

Mizuno-Lewis S, Kono K, Lewis DR et al (2014) Barriers to continuing education and continuing professional development among occupational health nurses in Japan. Workplace Health Saf 62(5):198–205

Nugraheny E, Claramita M, Rahayu GR et al (2016) Feedback in the nonshifting context of the midwifery clinical education in Indonesia: a mixed methods study. Iran J Nurs Midwifery Res 21(6):628

Nyamnjoh A (2017) The phenomenology of Rhodes Must Fall: student activism and the experience of alienation at the University of Cape Town. Strat Rev South Afr 39(1)

Oda Y, Koizumi S (2008) Status of medical education reform at Saga Medical School 5 years after introducing PBL. Kaohsiung J Med Sci 24(3):S46–S53

Otting H, Zwaal W, Tempelaar D, Gijselaers W (2010) The structural relationship between students' epistemological beliefs and conceptions of teaching and learning. Stud High Educ 35(7):741–760

Peterson RA (1990) Symbols and social life: the growth of cultural studies. Contemp Sociol 19(4):498–500

Schwerdtle P, Morphet J, Hall H (2017) A scoping review of mentorship of health personnel to improve the quality of health care in low and middle-income countries. Glob Health 13(1):1–8

Silawani S (2019) Problems in the implementation of problem-based learning in different culture of paternalism-collectivistic and egalitarian-individualistic: a systematic review. Thesis, Universitas Gadjah Mada. http://lib.ugm.ac.id/ind/?page_id=248

Soares AM, Farhangmehr M, Shoham A (2007) Hofstede's dimensions of culture in international marketing studies. J Bus Res 60(3):277–284

Steenkamp JBE, Ter Hofstede F, Wedel M (1999) A cross-national investigation into the individual and national cultural antecedents of consumer innovativeness. J Mark 63(2):55–69

Suhoyo Y, Schönrock-Adema J, Emilia O et al (2018) Clinical workplace learning: perceived learning value of individual and group feedback in a collectivistic culture. BMC Med Educ 18(1):1–6

Talaat W, Ladhani Z (2014) Community based education in health professions: global perspectives. WHO, Geneva

Trigwell K, Prosser M, Waterhouse F (1999) Relations between teachers' approaches to teaching and students' approaches to learning. High Educ 37(1):57–70. https://doi.org/10.1023/A:1003548313194

Tsoukatos E, Rand GK (2007) Cultural influences on service quality and customer satisfaction: evidence from Greek insurance. Manag Serv Qual Int J 17(4):467–485

Wimpenny K, Savin-Baden M (2013) Alienation, agency and authenticity: a synthesis of the literature on student engagement. Teach High Educ 18(3):311–326

Widyandana D, Majoor GD, Scherpbier AJJA (2011) Effects of partial substitution of pre-clinical skills training by attachments to primary health care centers: an experimental study. Med Teach 33(6):e313–e317

Van Der Vleuten CPM, Dolmans DHJM, Scherpbier AJJA (2000) The need for evidence in education. Med Teach 22(3):246–250

Van Merriënboer JJ, Clark RE, De Croock MB (2002) Blueprints for complex learning: the 4C/ID-model. Educ Tech Res Dev 50(2):39–61

Von Fragstein M, Silverman J, Cushing A et al (2008) UK consensus statement on the content of communication curricula in undergraduate medical education. Med Educ 42(11):1100–1107

Younes NA, AbuAlRub R, Alshraideh H et al (2019) Engagement of Jordanian physicians in continuous professional development: current practices, motivation, and barriers. Int J Gener Med 12:475–483

Zepke N (2013) Student engagement: a complex business supporting the first year experience in tertiary education. Int J First Year High Educ 4(2)

Chapter 2
Facilitating Student-Centered Learning: In the Context of Social Hierarchies and Collectivistic Culture

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Abstract Following the nature of student–teacher relationship in the hierarchical and collectivist culture, facilitating learning in this context brings its consequences. Few studies from this cultural context show that students from this cultural background perceive the small group discussion differently from the Western students. In this culture, teachers are seen as the ultimate rules, so small group discussion to formulate learning objectives may be puzzling, as the conclusion is the final words from the teachers. Therefore, health professional students anywhere in the world should be carefully trained to reflect on experiences and pieces of evidence and to learn from the lessons confidently. To be independent, self-regulated, and

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self-directed learners, students should begin to trust their reflections to plan further learning. Consequently, to stimulate reflection needs sufficient feedback, which means two-way dialogue between students and teachers. In this chapter, we emphasize on teacher training to start a constructive discussion and avoid misuse of social 'power'. However, we understand that the majority of teachers that grew up in this cultural context have a lifetime experience of social-power. So, generation gap are potentially influencing their approaches in educating future health professionals. This chapter will discuss the endeavor of teachers in this cultural context in approaching student-centered learning.

2.1 Introduction

2.1.1 The Philosophy Tree of Knowledge

"The metaphysics is the root, physical sciences on the trunk, and other sciences are in the branches; which grouped into medicine, mathematics, and ethics. By the science of morals, I understand that the highest and the most perfect which presupposing the entire knowledge of other sciences is the last degree of wisdom." René Descartes (1676).

Descartes, the father of modern philosophy, had his most profound reflection on the goal of education and the purpose of learning, which can be found in his metaphor of 'Tree of Knowledge'. His philosophical tree of knowledge illustrated that the root of the philosophical tree is the metaphysics or ideas from God and the trunk is the most real subjects; the atomic, quantum physics, chemical, and how the universe work, and then it has three branches of medicine, mechanics, and ethics. These branches illustrated the life sciences from plants, animals, human, and biological living system, mechanicals that can help the live ones have better living, and also the ethics which include psychosocial sides of the human; behavior and mental state, and finally to the interaction of social, believes, education, culture, economics, politics, and linguistic (Ariew 1992; Bicknell 2003).

Figure 2.1 illustrated the development of knowledge in the philosophical tree. We can see that 'medicine', 'mechanical sciences', and 'social sciences' can be interrelated. Medical and allied health professions education can consider the sociocultural factors, i.e., health believes, which lies in the knowledge of 'social science'. All factors that can influence health has been known as the 'social determinants of health' (WHO 2019). When the 'medicine' needs tools or techniques to improve health, i.e., the cardiovascular ring to prevent heart attack, then 'medicine' also studies about 'mechanical sciences.' So, at this point, 'medicine' actually considers all range of sciences, from physics, life sciences, behavioral science, to social sciences.

There has been a long discourse of where in the knowledge tree, the 'medical-education' lays. 'Medicine' is in one branch of 'life-science', and 'education' is in the other branch of 'behavioral' or 'social science.' Therefore, based on the continuum

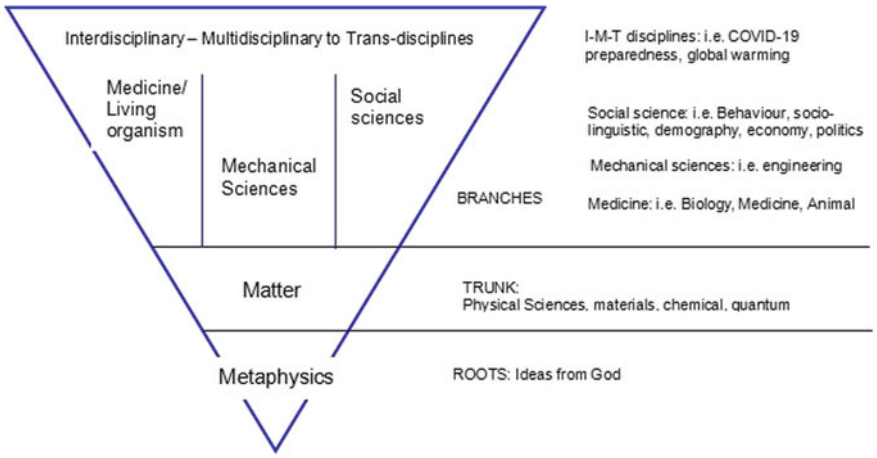

Fig. 2.1 Modification of the 'Tree of Knowledge' from René Decartes, 1676 into an 'Inverted Triangle of Knowledge'

and the nature of the 'medical-education' at the philosophy tree of knowledge, 'medical-education' which dedicates to empower medical teachers to teach medicine appropriately and to motivate students to learn to be the better health professions, is placed in the two branches of knowledge: the 'life sciences' (for the biomedical site) and the 'behavioral-social sciences' (for the educational side). Consequently, those who learn 'medical-education' should understand the nature of both sciences.

'Medicine' is also about taking care of the patients who have many factors, included in the social-determinants of health, who may not know anything about 'medicine' or 'diseases.' So the psychosocial part of the patients cannot be neglected; otherwise, patients may fail to achieve their utmost health outcome, which also the failure of the health professionals in facilitating the patients to understand the approach toward better health outcomes. Therefore, understanding the specific branch of 'medical-education' (both sides of biological and behavioral sciences) will help medical teachers to approach their students and patients better. To have the skills to facilitate the learning process of human bio-psycho-socio-cultural science for medical students is the goal of medical or health professions education.

2.2 Learning Theories in Medical Education

The main universal challenge of medical education lies in the equilibrium of approaching both biomedical and behavioral sites, when facilitating medical students within their journey medical curriculum. However, as reviewed in the first chapter about the cultural context, perhaps the reasons of this equilibrium issue in most of global southern/eastern part of the world are the acceptance of 'wide power

distance' and 'collectivistic decision making' culture. The influence of modern logical medicine, which initially comes from the northern/western context, may seem like the focus of medical and health professional training globally. However, when the 'western' evidences is moving toward 'patient-centered care' and empowering the students to be independent learners (student-centered learning), the 'eastern' still focusing down on the diseases and the teacher-centered learning. This phenomenon primarily occurs also because of the cultural nature that is oriented toward acceptance of the wide social gaps as explained in Chap. 1.

Where the socio-hierarchical gap exists, people may perceive that higher hierarchy is other people outside their local territory. And because the other part is the 'western', then the eastern people will perceive that the western people has the higher hierarchy that eastern should follow, consequently. This acceptance of the social hierarchy also leads to a minimum dialogue between the two hemispheres during the adaptation of the northern evidences to the local eastern wisdom. Ideally, the eastern context should develop medical education evidences based on their healthcare circumstances, the variety of diseases, the culture, and uniqueness of the people, instead of directly following the evidence from others that may not be fully well suited their cultural context. However, to reach this stage of independence and interdependent stage, which means a global collaborative network, we need to work hard on the elements of learning, as discussed further in this chapter.

To understand the learning process and the skills to facilitate learning for medical students, in the context where socio-hierarchy and collectivism in decision-making exist, we need to know several 'learning theories.' The following discussion emphasizes on the development of learning theories which developed from the 'behaviorism' paradigm in the mid-twentieth century and moving into a more 'humanistic' paradigm. Behaviorism started with famous Pavlov's dog research (1890) (Rehman et al. 2020), positive reinforcement for a particular behavior could stimulate a stable specific behavior.

Although 'behaviorism' is an old theory, the fact that behaviorism is still in practice recently, cannot be ignored. In this world of socio-hierarchy, some teachers still reinforce the students to have a certain behavior, i.e., 'respect' to their teachers but, the behavior was not expected based on what the teachers 'do, but because as students, they have to obey, or to show politeness to the teachers by having minimum questions and following teachers' instruction. In deep hierarchical cultural settings, this kind of behaviorism enforcement can lead to the non-verbal etiquettes of politeness (Claramita et al. 2013), and thus in the extreme continuum is, to come to the dishonesty. People tend to please others who they perceived as at the higher hierarchy (i.e., teachers, parents, government officials, health professionals), even if they should not tell the truth. Unfortunately, or perhaps it is fortunate, that the perceived higher hierarchy in this cultural context will usually feel pleased, instead of exploring the truth. The example is written by the famous medical-anthropologist from Harvard, Kleinmann (1981). In one of the chapters, he explained that in Chinese background of cultural context (one of the countries with wide power distance gap), when a family member was on a palliative care, none of the family, neither the patient, would talk

about the patient's condition, his needs, worries, or expectations. However, everybody seems to know the current condition and prognosis. Instead of talking about these issues, the family gathers around the patient every day, as they would accompany the patients to the end of life, and it seems enough. Everybody seems to know what they should do, but they never say anything or discuss it. Other example is another book of 'When the spirit catches, and you fall down', a famous story from Hmong people of Vietnam, explains about a stigma that a 'spirit' is the one who makes you ill ('disease' is the unfamiliar term) (Fadiman 2012) and everybody in that particular culture tries to believe it that instead of exploring or listening to the more logical healing process.

'Behaviourism' also enriched by Skinner (1989); who explains that specific behavior is an active mind who always seeks the truth, different with Pavlov that considers a passive subject that does not have mind/will. The most significant contribution of Skinner in education is the learning objectives, which will guide the educators to focus on the end of the educational process. This called a 'cognitivism'. The ending of 'cognitivism,' raised 'humanism' paradigm of learning theory which see human as a complex creature, see learning as an integral part, influenced by human physiology and psychology. Albert Bandura (1991) raised a new paradigm, the 'social constructivism', a paradigm that sees how human change is based on what they know through interaction. As a consequence of his theory, 'modeling' will be a key of people to change.

On the other side of psychology, starts in 1900, human has their personality, which influences how they perceive their environment, including on how feedback comes. Therefore, only humans with specific personalities could reach their optimum development in their lives. In this perspective, several theories of personality already develop such a theory of Freud, as part of developmental psychology theory. It is proven that any broken stage of psychological development will influence how people react or behave on a specific environment in the future adults and influence on how people learn in their adulthood (McLeod 2018).

2.3 Student-Centered Learning

Trends in the current medical education are based on the 'social constructivism' theory since medical school involves many components like learning environment; physical, biological, psychological, including the teachers, media for learning, and the students. Medical science is also moving from understanding the diseases (up to early twentieth century) into recently, more understanding about the patients, culture, and socio-behavioral factors that influence the health outcome. A new paradigm is also transforming from teacher-centered into more student-centered learning (SCL). European principles of SCL put the students as the center of learning, to facilitate their individual goals, toward medical and professional abilities. Thus, teachers will serve as facilitators rather than provide straight directions (EHEA 2016). Vigotsky, in the 1930s, found the scaffolding system to facilitate the students for better learning.

The key is to ask questions. He described with an illustration of a mother who is helping her under a 5-year-old daughter to find her doll. The mother is just asking questions, "Is it in the living room? No – said daughter," "Is it in your room? No—said daughter," "Is it in the bathroom?" And finally, the daughter can find the doll by herself assisted by the question of her mother (Werstch 1993). This questioning skills, nowadays, are the core skills for facilitating learning (van Berkel Henk et al. 2010).

Along with the time, the peak of SCL was in 1994 with the development of the Coalition of Essential School by Theodore Sizer. Seven principles as student-centered learning's characteristic already stated, (1) student have a positive relationship with peer and environment that care, (2) believe in, and hold them; (3) students' needs (physical, psychological, and safety) are met; (4) student are fully embraced for who they are and develop a sense of positive identity and belonging; (5) student have the freedom to pursue their interest with the teacher who facilitates them; (6) student solve a real-world problem and learn skills that they will use in their world; (7) students mastering clear learning objectives and receive support for that; and the student learns in the simulated community (Sizer 1994). In medical education, Mehta (2013) and colleagues wrote the consequences of student-centered learning. Thus, article also implies technology, which will bring the disruptive era to medicine and encourage medical educators to be aware of technology, which could be used to enhance teaching and learning activities by putting the students at the center of learning.

The problem-based learning strategy, one of spirits to implement the SCL approach, had been started at McMaster University, Canada, in the mid-'60s, which introduce a structured small group discussion facilitated by a tutor. The small groups was intended to increase collaboration among students, to have a more peer-group learning rather than individual, to help the teachers to act as facilitators instead of giving information, and to give the group an adequate space of independent learning to work individually, in between the sessions. There were many studies and guides that were made afterward by Maastricht University, The Netherlands, and many other followers, to make PBL globally implemented in health professions institutions, from the '80s until today (van Berkel Henk et al. 2010). Now PBL is already known worldwide, of course with range of variation of its implementation.

One recent study using a systematic review found that students from the egalitarian and individual culture and students from hierarchical and collectivistic culture, have similarities in the perception of the benefits of PBL. PBL in both cultures was found satisfying to support student-centered learning, self-directed learning, the depth of learning strategies, and medical skills acquisition (Silawani 2019). However, one specific challenge in the hierarchical and collectivistic culture is the teacher-centered learning conditions (Silawani 2019). Students from this context has more dependent opinions toward the teachers. So, the students from the Western contexts seem to be more adaptable to PBL. Many medical schools in the Asian region claimed to have a student-centered learning approach. However, the evidence of interaction between students–teachers and health provider–patient did not maximally show what was intended in the curriculum.

Interestingly, there was a phenomenal teacher from Indonesia, from one of the hierarchical countries, in mid'20th, Ki Hadjar Dewantara recognized the student-centered learning principle and called it, with his famous idiom of "Tut Wuri Handayani" (let the students lead the way) (Tauchid et al. 1962). He was one of a prince with a well-known royal name of 'Raden-Mas' that can distinguish him from the ordinary people. But, he preferred to have the name of an ordinary people as 'Ki' and that he would like to be called 'Ki Hadjar Dewantara' than with his real royal name. He often mentioned that the purpose of changing his name was to erase the social gap between him and the people of Indonesia. He became the first Minister of Education of Republic Indonesia in 1945. He established several schools from kindergarten to high schools with a specific name of 'Taman-Siswa' (Garden of students) in early'20-'30, accommodating student-centered learning principles (McVey 1967; Tsuchiya 1975; Hing 1978). It is interesting that at almost the same time as Vygotsky's time of 'socio-constructivism,' there was a movement for a more socio-constructivism learning approach in one of the deeply rooted socio-hierarchical country of Indonesia.

Ironically, almost none of Dewantara's students and followers understand the meaning behind 'Taman-Siswa' or the 'Tut Wuri Handayani' principle. Therefore, although this motto stays as the symbol of the current Ministry of Education Rep. of Indonesia (Ministry of Education Rep Indonesia 2015), Dewantara's schools and philosophy did not widely well-recognized throughout the decades. One famous national semi-military high school was considering his philosophy in the '90s (Taman Taruna Nusantara). However, those schools still exist until today, the principles by KHD were not fully recognized by its *civitas academica* (Parmi IT 2009). The general reason can be as simple as that the Indonesian society, which holds a rather hierarchical culture, was failed to understand the message of a more partnership relationship between students and teachers that Dewantara proposed. Dewantara did not use a simple term as we used today, like the 'student-centered learning.' Instead, he used Javanese's terms of being 'present' (*Among*), being like a 'pedagog' (*Momong*) to follow the students to prevent them from harm, and 'being facilitators' (*Ngemong*) by letting the students to find their own way. Indonesia is the fourth highest populated country and Java is one of the 700 s its ethnic tribes, but including the most dominant and having the Javanese local language; beside the Malay dominancy who uses Bahasa Indonesia—the national language. But not only the terms of Dewantara that were difficult to digest, the message of an equal principle of education also seemed to 'fall from the sky', so no one in the society, can understand it easily.

2.4 Student Motivation

To understand more about student-centered learning and self-directed learning, we should recognize student-motivation to learn. There is a Hadith from the Islamic perspective about 800 after century, said 'Innamal amalubinniah', which means that everything that humans do will depend on his/her motivation/niah/niat. This Hadith fits with the motivation theory, in which 'niah' means something came from inside

human mind and could become an externally seen as behavior/action (Syarah Arba'in by Imam Nawawi, ninth century, rewritten in Al-Bugha and Mitsu, translated in Bahasa Indonesia 2018) (Al-Bugha and Mitsu 2018). So the motivation theory is not a new one, it is already originated in the ninth century and perhaps away behind centuries.

The current theory of motivation, start from Maslow who said that humans would act according to his five levels of needs; physiological needs, safety needs, social needs, esteem needs, and self-actualization needs. However, the theory struggling in the application of its hierarchy of needs, because it is hierarchical, the basis of levels will have to fulfill before the higher ones (Maslow 1987). In medical-education, we knew that motivation divided into two, internal and external, internal from inside the person and external from the outside environment that stimulates a person to do/learn something. Ryan and Deci (2000) raised the self-determination theory (SDT) of motivation that said people has his/her determination on how they will become, which in turn will influence how they will seek information, doing things, and then learning. They also imply that motivation is like a fluid thing that could change. A recent article adds more on the quality of the motivation; it divides internal motivation into three stages that has sequential power: only to know/understand, to experience, and to pursue; whereas external motivation are: externally regulated, introjection, to identification (Vallerand et al. 1992). Vallerand (1992) also add assessment tools that determine people's motivation, whether internal or external or a motive. Thus elaborated by Kursurkar, she explains more on how medical student motivation could change, from original motivation or external regulation to gradually move into internal motivation (Kusurkar et al. 2011). Capturing the journey of students' motivation will be an interesting study.

Kursurkar detected factors of student-motivation such as (1) unmodified factors (age, gender, ethnicity, socioeconomic status, personality traits, and educational backgrounds, year of the medical curriculum, teacher, and parents support), and (2) modified factors (autonomy in learning, relatedness, and competence). Therefore, student-motivation should be monitored, followed, and nurtured in the curriculum accordingly as part of students 'professional identity' development. Figure 2.2 explains the continuum of student motivation. In the socio-hierarchical gap context, to increase students' autonomy in learning is already a challenge, especially when the students brought up from the primary schools with a more teacher-centered

	A-motivation	**Extrinsic Motivation**			**to**		**Intrinsic Motivation**	
		External regulation	Introjected regulation	Identified regulation	Integrated regulation	To experience stimulation	Towards accomplishment	To know
Examples	Does not want to do any of the topic	Source of motivation is derived by external rules, regulation, norms, believe	Source of motivation is fear, obligation, guilty	Source of motivation is achievement of personal development	Source of motivation is internally recognized and regulated	Source of motivation is to have a new experience/ new sensation	Source of motivation is towards accomplishment of something new	Source of motivation is to comprehend the curiosity
		Least autonomous	←				→	Most autonomous

Fig. 2.2 Modification of continuum of student-motivation in medical education from Ryan and Deci 2000, based on Kursurkar 2011

approach. To increase relatedness (by overcoming barriers in the dialogical communication between senior–junior students and between teacher–student) is also quite a trial. Both components of autonomy and relatedness will affect students' acquisition of competencies. An example is the lack of team-based clinical supervision and constructive feedback, especially in a context that is highly hierarchies; which applies only one national exit-examination which determine student passing grade to be a medical doctor (Suhoyo et al. 2018).

From our recent national survey across 12 medical schools in Indonesia (number of samples was 850 students), we learn about 60% of Indonesian students have the tendency of internal motivation to choose the medical schools (Nurokhmanti et al. 2022). However, the followed up qualitative interview, 72 students think that they decided to choose the medical schools, but apparently, mostly their parents (especially the mothers) who asked them to do. The parents are even more direct them to pursue which of medical specialty to continue further. The main reason is to maintain the higher social status by being medical doctors. Nurokhmanti further found that when feeling down, students get re-motivated by these two main motivations: 'for the sake of their parents' (half students) and 'was helped by their peers' (another half). We can see that as part of the hierarchical culture and collectivistic, students might base their answers to both cultural dimensions (the parents for the hierarchical cultural dimension and the peers for the collectivistic part), not to neglect that they are still in the adolescent period who needs parents and peers at the most until 25 years old (Sawyer et al. 2018). Therefore, the challenge to facilitate the medical students to move to a more internal motivation can be done by considering these cultural factors in the construction of the curriculum.

2.5 Peer-Assisted Learning

Peer-assisted learning (PAL), which is often referred to as peer learning, is a particular teaching–learning approach where students learn from their peers who are not qualified teachers or professionals (Ross and Cameron 2007). PAL implementation has been recorded as early as Plato's era and is still widely used in the current medical and health professions education (Olaussen et al. 2016). The unique attributes of PAL are 'social congruence' and 'cognitive congruence'. Social congruence reflects on the similarity of learners' and teachers' social level as peers or colleagues in the learning journey (Lockspeiser et al. 2008). The similarity might result in a more convenient learning environment for learners. Simultaneously, cognitive congruence between learners and peer teachers allows easier understanding of complex concepts as explained by fellow students (Lockspeiser et al. 2008). Both characteristics are favored by students, faculty members and educational institutions.

In a high-power distance and collectivistic community, the student–teacher relationship could be top-down. Students might have fears approaching their teachers due to the relationship nature. The employment of student-teachers to facilitate PAL

may remedy the challenging relationship. Institutions should not hesitate to implement peer learning as PAL is comparable to faculty-led teaching, as reported in a systematic review (Yu et al. 2011). Moreover, PAL will provide advantages to peer teachers, not only learners. Peer teachers might have better learning acquisition as teaching is among the best learning methods to improve knowledge and skills retention (Masters 2013). The application of PAL also nurtures leadership and teaching skills to prepare future medical teachers (Herrmann-Werner et al. 2017).

PAL is applied in a range of learning activities in medical and health professions education. The use of PAL to facilitate clinical skills learning has been reported effective in many countries (Nomura et al. 2017; Weyrich et al. 2009). Interprofessional learning activities can also be delivered using peer learning to enhance engagement and outcomes (Carr et al. 2016). Peer teachers may also effectively facilitate small group discussions or tutorial sessions (Herrmann-Werner et al. 2017). PAL is also effective in facilitating laboratory practical sessions (Manyama et al. 2016). The overall acceptability of PAL application in various settings proves that it is a valuable pedagogical approach in medical education.

2.6 Epistemology Belief

Concerning the cultural challenges, we find the term of epistemological beliefs interesting in this regard. The definition of 'trust epistemology' (epistemological belief) is the individual belief of the certainty of knowledge, organizational knowledge, and individual control of the acquisition of knowledge (Schommer-aikins and Hutter 2002). According to Schommer, epistemological beliefs can be divided into five dimensions, as explained in Table 2.1.

Various studies show that epistemological beliefs have an impact on student achievement, the ability of understanding, as well as the ability of learners to search for information. In the case of search information, people with the maturity level of confidence higher epistemology showed better ability in terms of addressing conflicting resources and identify the source of authoritative information (Whitmire 2003).

Also, studies show that trust epistemology is closely related to motivation and learning strategy selection. Individuals with mature epistemological beliefs will have good self-efficacy and tend to be motivated intrinsically. Research by Hofer and Pintrich (1997) showed the importance of the effect of epistemological beliefs in self-regulated learning (SRL). Quick learners with learning and fixed beliefs abilities tend not to use the strategy SRL. They do not have the planning, control, and monitoring of their learning activities.

The more naive belief of an individual in terms of stability and the structure of knowledge, they will increasingly rarely evaluate or monitor the results of their learning in terms of learning strategies. Budiastuti (2017) reported that during a discussion in a Problem-Based Learning (PBL) program, students who have a

Table 2.1 Dimensions of epistemology-belief according to Schommer-Aikins and Hutter (2002)

Dimensions of epistemological-belief	Continuum of naive learners	Continuum of mature learners
Source of knowledge	*Omniscient authority* Knowledge gained from omniscient figure (example: teachers, professors)	Knowledge is acquired as a result of a process of reasoning and empirical evidence
Stability of knowledge	*Certain knowledge* Knowledge is fixed	Knowledge is growing, and is not sure/tentative
Organization of knowledge	*Simple knowledge* or knowledge is simple	Knowledge is complex and is an integrated concept
Control of acquisition of gaining knowledge	*Fixed ability* (Intelligence/ability to learn it is permanent and derived genetically)	The intelligence can be increased, and can be obtained from the experience
Knowledge acquisition speed	*Quick learning* (Knowledge can be acquired and mastered quickly)	Knowledge is acquired with the business, and can be mastered gradually

naive epistemological belief are more likely to use problem-solving way for a well-structured problem. They use a sequence of steps, logical, detailed, and is limited to solve a problem that is systematically arranged. Meanwhile, students who have more confidence and mature epistemology, do a thorough analysis of a given scenario (scrutinizing and analyzing). They like to analyze the scenario to be able to find the problem, connect the data or information to be able to see issues in their entirety. Therefore, students who have mature epistemology belief prefer a tutor who can conduct a critical analysis of the data submitted when discussing with the student to approach deeper understanding. This phenomenon is different from the student with a naive epistemological belief. They hold the view that a tutor who can manage a good discussion is capable of making the discussion be structured. In addition, they also depend on the tutor to lead the discussion. According to them, an excellent tutor is a tutor who always provides assistance or guidance to learners. Most of the students' population in Budiastuti's study, the first-year students of one of the countries with wide power distance culture of Indonesia, falls into the 'naive' group. Although the result was not generalized to national or regional levels, it may be an indication of the characteristic of students in a hierarchical and collectivistic culture.

Metacognition ability can also affect one's maturity level of confidence epistemology indirectly. There are many factors that can affect a person's maturity level of confidence epistemology. Among them are age, level of education, constructivism learning environment, and parenting (Hofer and Pintrich 1997). Various studies have also shown that the development of individual epistemology beliefs influenced by cultural factors around the individual. Various studies have shown differences in the maturity level of epistemological belief among Asian countries, the Middle East, and the West (America and Europe). The results showed that the respondents from Asia and the Middle East have in common, which tends to have certain knowledge

epistemology and simpler knowledge, in which knowledge is originating from the authority figure. While the results of research in the global north of the United States and Europe indicate that their respondents tended to believe that knowledge is tentative and is complex, and can be obtained from anywhere, regardless of the authority figure (Chan and Elliott 2004; Hussain et al. 2007).

Given the above, then the application of learning strategies should always pay attention to many factors, and among them are cultural factors. Cultural factors include many things, including parenting, perspectives about what is considered appropriate and inappropriate, and others that will ultimately affect the formation of epistemology beliefs. At this point, surprisingly, Dewantara as cited by Tauchid and colleagues (1994) in the second book about 'Culture', had explained around better parenting, the psychological background of parenting from the perspective of Javanese, and also how parenting and cultural beliefs can intensely influence education.

2.7 Challenges of Student-Centered Learning in Hierarchical and Collectivistic Culture

In medical-education, it is well known that the curriculum for medical doctor divided into (1) undergraduate bachelor degree (the classic classes and laboratory sessions) and clinical phase in the hospital or ambulatory care settings, with some various type of modifications, (2) postgraduate education, and (3) continuing medical education (World Federation in Medical Education 2015). However, each dimension of Hofstede's theory has consequences within the medical, educational contexts.

From the above explanation, we know that the student-centered learning approach depends on student self-directed learning (SDL), students' motivation to learn, and epistemology beliefs. Some significant and recent studies in medical-education areas explored the differences between students from the Western and Eastern contexts, using the data collected from its original sources of mostly the Eastern world. Frambach and colleagues study (2012) explains that students from a more hierarchical culture (in her example were Asian and Arabian), during small group discussions at their undergraduate medical education, depends more on teacher direction than a student from a more egalitarian culture (in her example was the Netherlands). The context of doctor–patient relationship in one of Asian countries, is also found to be more one-way style (Claramita et al. 2013). Similar phenomena were found in the same region, between other allied health professional–patient interaction (Susilo et al. 2013). Therefore, reflecting into the cultural context, it is not surprising that during the clinical phase of medical education, specifically, there is evidence on how cultural effects on minimum feedback by the clinicians to their students (Suhoyo et al. 2018). The unfamiliar dialogical interaction was found between students and teachers in the clinical phase of education. A similar study also found in a midwifery training (Nugraheny et al. 2016). These evidences followed by many publication afterwards. Overall,

new findings from the hierarchical and collectivistic culture articulated significant challenges of interaction between three parties as the core stakeholders of medical-education: 'teacher-student-patient'. Lack of two-way dialogical communication, meaning lack of observation-based feedback to medical students, can lead to less self-directed learning, and hamper the student-centered learning principles.

2.8 The Im/possible Solution of Strengthening the 'Soft-Skills' in the Hierarchical and Collectivistic Culture Within the Global Movement of Information Technology

While it remains a significant challenge to approach students in the hierarchical and collectivistic culture to be independent learners and ultimately to be better health professionals and future leaders, hence the global stream of technology information comes.

> How can we prepare students for jobs that have not yet been created, tackle societal challenges that we cannot yet imagine, and to use technologies that have not yet been invented? How can we equip them to thrive in an interconnected world where they need to understand and appreciate different perspectives and worldviews, interact respectfully with others, and take responsible action toward sustainability and collective well-being? (OECD Future of Education and Skills 2030)(OECD/CERI 2008)

The practice of medicine in the twentieth century is marked by the rapid technological advances in the field of biomedical science. This progress produced a lot of new information and the emergence of unique specialties and caused the practice of medicine to be fragmented. A medical student must remember so much current information in his education that may no longer be relevant when they graduate and practice as a doctor (Muller 1984). Students are also expected to be active and able to study independently. Students must be equipped with the ability to identify, formulate, and solve problems; understand and use basic concepts; and to be able to collect and assess data critically, to become independent learners.

Today, in the twenty-first century, rapid advances in information and communication technology and globalization are changing the paradigm of current medical practice (Dent and Harden 2013; Wartman 2017). Especially when the pandemic of Covid-19 affect worldwide, medical education has been enforced to use mostly online learning system instead of face-to face. On top of that, rapid advances in information and communication technology have enabled patients to use any media to get information whenever and wherever they are. This phenomena changes the pattern of conventional visits to the clinic to telemedicine and telehealth. And consequently can only be done by collaborative work with other health care workers, even with some other health professionals that have not been defined at this time. Large data-based patient management to be managed and analyzed; the increasing role of machines to replace human roles; and the globalization of the health economy

and medical services that changed the concept of 'local' doctors to become open to regional, national and even international information, as well as being internationally recognized, which changed patterns in doing business of care (Pellegrino and Hilton 2013; Bialik et al. 2015; Wartman 2017).

2.8.1 What is the Twenty-First-Century Skills?

Twenty-first\-century skills are not a set of skills that have just emerged but are a set of skills that were previously known and considered useful since centuries ago (Pellegrino and Hilton 2013; Ontario Ministry of Education 2016). This twenty-first century a series of skills shows an increase in their needs in society, along with an increase in people's desire for someone to be able to apply what they have learned at school to the real world—which in the past was not considered necessary (Pellegrino and Hilton 2013). Emphasis on what a person can do with the knowledge he has is the core of twenty-first-century skills (Silva 2009). Most people say it is the 'soft-skills' or 'human skills' that will determine individual success.

Several different terms are used in finding and formulating a series of fundamental skills/competencies in the twenty-first century, including 'deeper learning,' 'college and career readiness,' 'student-centered learning,' 'next-generation learning,' 'new basic skills', 'competence-based education', and 'higher-order thinking' (Pellegrino and Hilton 2013). These terms usually include cognitive and non-cognitive skills, which can all be demonstrated in the core content of academic activities and are useful for one's success in every aspect of his life as responsible adults (as parents, workers, and citizens).

The formulation of twenty-first-century learning skills from the National Research Council (NRC), USA, is used as a main reference in this discussion. The formula divides skills into three domains, namely 'cognitive', 'intrapersonal', and 'interpersonal'. The cognitive domain includes reasoning and memory; the intrapersonal domain includes the capacity to control his behavior and emotions to achieve his goals, and the interpersonal domain includes how one conveys ideas, interprets, and responds to messages from and invite others.

Pellegrino and his colleagues define the skills into these following details: (1) Cognitive domain: critical thinking skills, reasoning and argumentation, information literacy, and innovation, (2) Intrapersonal domain: intellectual openness, self-awareness and self-evaluation, conscientiousness, and metacognition, and (3) Interpersonal domain: communication skills, teamwork and collaboration, and ultimately leadership. These three domains represent different aspects of human thought and are in line with previous efforts to identify and organize the dimensions of human behavior. An example is in Bloom's taxonomy (1956), learning goals are divided into three broad domains, namely, cognitive, affective, and psychomotor. Based on Bloom's taxonomy, the National Research Council considers the cognitive domain to involve thinking and other related abilities such as reasoning, problem-solving, and memory. The intrapersonal domain is similar to the affective domain in Bloom's

taxonomy, which involves emotions and feelings and includes self-regulation to determine and achieve its goals. The proposed interpersonal domain was not based on the Bloom's taxonomy but based on the latest research from NRC (Pellegrino and Hilton 2013). The interpersonal skills are quite a new set of skills toward leadership that comes from the attitude (the inside skills), but articulated as manners, communication skills, furthermore teamwork, and leading team.

2.8.2 The Cognitive Skills

Critical thinking is defined as the ability to apply higher order cognitive skills (conceptualization, analysis, evaluation) and the disposition to be deliberate about thinking (being open-minded or intellectually honest) that lead to action that is logical and appropriate' (Papp et al. 2014). Critical thinking has been defined more specifically in medical and health professions education context, such as critical judgment, clinical reasoning, diagnostic reasoning, and adaptive expertise, by which critical thinking is a process of assessing information, retrieving further information and interpreting them to finally come with problem-solving or decisions (Krupat et al. 2011). The skills are becoming more critical in the current era because it is needed to process the information overload experienced by students critically. The notion that critical thinking skills are a developmental process should inform the medical and health professions education curricula. It is proposed that the milestones of critical thinking skills consist of five stages which can be implemented contextually (Papp et al. 2014):

Stage 1—Unreflective thinker

The unreflective thinker does not have the ability to think about his/her cognitive process, is often fixed with his/her own beliefs, and has a single approach in gathering and processing information, for example, through rote memorization.

Stage 2—Beginning critical thinker

Students at this stage understand different approaches of thinking in him/herself and others, although it requires the external motivation to stay reflective and receptive of feedback. He/she still often come to incorrect conclusions or still having challenges in applying their understanding of principles into practice.

Stage 3—Practicing critical thinker

Students can apply conscious effort in critical thinking, more open-minded to uncertainties and new approaches, and can utilize new approaches for problem-solving.

Stage 4—Advanced critical thinker

Students at this stage perform critical thinking effectively, and he/she understands different approaches of critical thinking. He/she seeks feedback consistently based on the need and can apply different analytical strategies to solve a problem.

Stage 5—Accomplished critical thinker

Students are mature and responsible in their thinking and improve their thinking approaches continuously. Students at this stage are creative and can approach problems innovatively using elaboration of analytical and intuitive approaches.

Critical thinking skills, therefore, become foundations of the development of other twenty-first-century skills such as intellectual openness and information literacy. Information literacy includes the ability to search the best evidence available, critically appraise the information, and apply that for practice. It is indeed beyond technical ability to suggest the right keywords and hit the searching process on the online search engine. Given the development of big data with high velocity, volume, veracity, variety, value, and variability (Wang and Alexander 2015), information literacy is increasingly important. Also, medical and health professions education should also instill competency for evidence-based practice through specific courses within the curriculum by considering local resources and context (Widyahening et al. 2012).

2.8.3 Intra-Personal Skills

Reflective thinking is also closely related to intrapersonal skills in which emphasize on the self-awareness of his/ her potential and limitation. Through continuous 'self-talk' based on honesty and integrity, one may find their strength and weaknesses, and therefore seek information and feel the need of others to help them to grow together. Cognitive competence has been widely studied compared to intra and interpersonal competencies. The results showed a consistent and positive (medium size) correlation between cognitive abilities and desired educational, career, and health outcomes (Pellegrino and Hilton 2013).

Traditionally, cognitive competencies such as critical thinking, analysis, and problem-solving have been considered as key indicators for success. However, changes that occur in the economic, technological, and social contexts of the twenty-first century show that intrapersonal and interpersonal competencies are increasing in importance compared to the previous period. Business owners increasingly value soft skills, such as work skills in groups and leadership. Human skills ('people skills') are important determinants of the work and wages received, and the social skills possessed by adolescents influence their employment prospects in adulthood.

Studies on health and well-being show that between intrapersonal and interpersonal competencies, the characteristics of perseverance, fortitude, tenacity sometimes become more accurate determinants of one's success than IQ scores. Among intrapersonal competencies, conscientiousness (a tendency to be organized, responsible, and work hard) is the highest relation to education, employment, and health outcomes (Pellegrino and Hilton 2013).

2.8.4 Inter-Personal Skills

Following the ability to communicate with one-self, comes the ability to communicate with others. The ability to communicate is not only, verbally and in writing with various media but also the ability to 'listen' and more importantly in the context of hierarchical culture is the ability to 'listen to what is unsaid', or to catch the non-verbal cues (Claramita et al. 2013). When one can communicate well with other individuals, he/she may start communicating with groups. Then comes collaboration as the ability to work in groups, learn from and contribute to the learning of others, (use) social networking skills, (and demonstrate) empathy in working with others. However, in this cultural context that deeply discussed in this edited volume, there is a one-way practiced communication during health provider–patient consultation, as well as teacher-student interaction, in purpose to maintain harmony between people and to avoid conflict (Claramita et al. 2013; Nugraheny et al. 2016). The root of the minimum dialogue also starts at home (i.e., between parents and children and between siblings—the younger and elder ones) (Geertz 1989).

As given shreds of the evidence above, for the society that holds wide gaps in the social hierarchy and also collectivism in decision-making, to apply the cognitive skills can be more possible than to apply the 'intra' and inter-personal skills, which are much perplexing. 'Interpersonal skills', perhaps sounds easy, as to chat with everyone and being nice, as we hold the non-verbal etiquette of politeness culture in this part of the southern world. Still, the ideal interpersonal skills that will lead to teamwork and leadership cannot be started without originated from a truthful intra-personal skills or self-talk with deep reflection, and critical thinking, as the initial steps of opening one's mind to him/herself. In a context with non-verbal etiquette of politeness culture, to speak up the thought is considered impolite. As consequences, generally, people rarely speak what they thought, rarely asking questions (also implies with medical students), and that they accept people from the perceived higher hierarchy to have their opinion. Often, people are also accepting the information as it is. Curiosity can be regarded as impolite as well. So, to teach reflectivity to medical students in this cultural context, is a true challenge. There are many guidance of reflection tools, i.e., GIBBS reflection cycle (Gibbs 1988), that can be used. But should be done continuously within the curriculum and with adequate and constructive feedback. A portfolio of learning should be strongly emphasized for medical education in this cultural context (Driessen et al. 2008) (Greviana et al. 2020). Not only the documentation, but more importantly is the continuous feedback and teacher–student dialogue of learning plan.

2.9 Learning for Transfer

Reflecting back to the 'socio-constructivism' theory of learning as the basis of student self-directed learning and furthermore student-centered learning, the current recommendation of strengthening the 'intra' and 'inter' personal skills toward teamwork and leadership, to produce the 'agent of social change', are tied up. The essence of twenty-first-century skills is what a person can do with the knowledge and skills he has in the real world (transferable knowledge and skills). Therefore, we need a learning environment that can support the achievement of cognitive, intrapersonal, and interpersonal competencies that can support anyone to apply what they already know into new conditions and new problems.

Studies showed the relationship between transfer and deeper learning needs effective instructional methods. It is effective if (1) previous knowledge that is well organized in a domain is ready to be reused into the new problem in the same domain, (2) requires extensive training with extensive feedback that can help students to correct the mistakes, and (3) meaningful/contextual learning which supports transfers (Pellegrino and Hilton 2013; Suto 2013; Qomariyah et al. 2016). In his articles, KHD also emphasize the three design for contextual learning that is in line with the current evidences of student-centered learning: (1) working in a more partnership with the students, (2) enhancing local culture and community activities as rigorous learning resources, and (3) strengthening the professionalism, begin at home and school. He said "*Everyone is a teacher and every home is a school*" (Claramita 2016). So, in the context of wide power distance and collectivism, more well-structured and more inviting student participation of instructional design is needed, emphasizing the development of student as a person and as professional, with more constructive feedback and two-way teacher–student dialogue that are even more essential than ever.

There are many theories of instructional design that we can use. The one that strongly recommended is the four component of instructional design 4C/ID which proven to increase self-reflection and learning, also in the wide socio-hierarchical gap settings (Susilo et al. 2013; Musharyanti et al. 2019). The emphasize of the 4C/ID is the space for experience, space to be heard concerning the experience, space for constructive feedback, space for supportive information, and space for independent learning. If we reflect to the conception of 'teaching' by the medical teachers in the southern world, mostly they come up with 'teaching is giving information to the students' (Cilliers et al. 2011). So we should work on this conception, first, before we create the more compatible instructional design to come to the world of 'facilitating student-centered learning.'

2.10 Future Abilities for Medical and Health Professionals

Globally, Human Development Index (HDI) is considered as a reflection of a country's prosperity and governmental success. The HDIs which comprises life expectancy, education and per capita income indices are evaluated regularly to assess whether the development is on the right track (UNDP 2019). The development in health sector also aims to support the prosperity of the countries and their citizen. As suggested by Frenk and his colleagues (2010), the healthcare needs should define the competence of medical and health professionals and the way they are taught and prepared in their education and training. Furthermore, the development of smart system and machine as well computational world, the expansion of communication tools and global connectivity, and the extension of life expectancy, foster healthcare to become more predictive, personalized, precise and participatory (Auffray et al. 2010). These phenomena further encourage innovation and changes in medical and health professions education, one of which by introduction of new literacies for future medical doctors and health professionals which consist of data, technology and human literacies (Aoun 2017). Data literacies cover capabilities in interpreting and utilizing the data and big data in the current era. Technology literacies expected to support students and graduates in using technology and collaborating with automated system wisely. Finally, human literacies are also the backbone of future competence through humanities and values, communication, and design that are important for facilitating learning in the twenty-first century.

Given expanded expectation of future medical and health professionals, teaching and learning processes which take place in the curriculum should support the development of relevant competencies. In terms of knowledge, skills, and attitude outcomes, it is argued that human competencies should be transformed to fulfil future needs. For example, since knowledge has been developing vastly and that it can be stored in huge external databases and easily accessed anytime, more critical capacities of human are in practicing metacognitive skills in which ones critically appraise the knowledge, constructive new knowledge and apply it to solve encountered problems. In addition, human is also expected to be able to collaborate with machine and technology. This is even more important in medical and healthcare context since the presence of machine and technology may improve patient outcomes when human doctors and health professionals can use them wisely according to the patients' problems. Human doctors and health professionals can collaborate with the technology/machine which can be allocated to conduct automated process thus human can focus more on interacting, caring and emphasizing with patients and their families (Susskind and Susskind 2015). Finally, it has also been highlighted that further human skills such as complex problem-solving, creativity, people management, coordinating with others, emotional intelligence, judgment and decision-making, service orientation, negotiation and cognitive flexibility should be developed in the education and training, which can be categorized in cognitive, intrapersonal and interpersonal domains (National Research Council 2012).

2.11 Some Examples on the Strategies in Student-Centered Curriculum

2.11.1 Innovation, Design Thinking and Entrepreneurship

Innovation is new ways of thinking, processes, products which touch and support everyday life of human. Skills in approaching problem which aim to create solution based on the understanding of the users' needs, one of which using the design thinking approach, are believed to support climate for innovation (Brown 2008). While medical and health professions students have to learn basic science and clinical knowledge and other relevant skills to contribute in health problem prevention and health care in the future, they are expected to be innovators who have design mindset. It is suggested that design thinkers have several characteristics which are empathy, integrative thinking, optimism, experimentalism, and collaboration (Brown 2008). Design thinking process involves several steps (Plattner 2010): a. *Emphatize*; the very first step to understand people whom the innovation will target on. This is very central since any innovation should always be meaningful. It can be done through observation, engage, discuss, and listen to the people to contextualize the innovation well, b. *Define*; following empathy process, design thinkers need to define the challenge they are taking on. It is similar to developing problem statement to start the innovation, c. *Ideate*; it is a transition from defining the problem to create solution. The ideation process can be done systematically using value proposition canvas hence the ideas will always be grounded on the previous processes (emphatize and define), d. *Prototype*; generation of artifacts to visualize, communicate, start the conversation of the idea. By doing this, innovators can fail early and improve the idea early before building it to the next level, e. *Testing*; the innovation is then tested to the actual users and can get further feedback on.

The steps are basically cyclical and can be implemented iteratively until certain innovation can be improved and better answer the users' needs. They can be implemented in the medical and health professions education to initiate design mindset among students as well as transdisciplinary or interdisciplinary collaboration (van de Grift and Kroeze 2016). While educational strategies to integrate this approach may vary (McLaughlin et al. 2019), it is highly potential to introduce disruptive approach of complex healthcare problem-solving to medical and health professions students as well as students from different fields (van de Grift and Kroeze 2016; McLaughlin et al. 2019).

Design mindset and innovation are ideally followed by entrepreneurship hence the innovation can actually be actualized and become valuable for wider users. Of course, in medical and health professions context, the entrepreneurship capacity should still be framed within professional conduct. Critical attributes which support this capacity are autonomy, innovation skills, risk taking and proactive attitude, and willingness to compete (Bacigalupo et al. 2016). The emphasis is on the value creation which further promote social technopreneurship and digital entrepreneurship. The EntreCom conceptual model introduces three main areas in entrepreneurship: ideas

and opportunities, resources, and action, which are further elaborated as 15 competencies. The 15 competencies are as follows (Bacigalupo et al. 2016): a. Ideas and opportunities (5 competencies): taking the initiative, planning and management, coping with ambiguity, uncertainty and risk, working with others, learning through experience, b. Resources (5 competencies): self-awareness and self-efficacy, motivation and perseverance, mobilizing resources, financial and economic literacy, mobilising others, c. Into action (5 competencies): spotting opportunities, creativity, vision, valuing ideas, ethical and sustainable thinking.

Project-based and experiential-based learning involving students from different backgrounds can be considered as a way to integrate the development of design and innovation mindset, collaboration, and entrepreneurship in medical and health professions education both in preclinical and clinical years.

2.11.2 Teamwork and Collaboration

Teamwork and collaboration are among critical skills that need to be mastered by medical and health professionals. The strategy of solving health problems within silos of health professions and specialty is obsolete and does not prepare the professionals to face more complex problems in the future (Frenk et al. 2010). Trust and interdependence are believed to be the foundations of collaborative skills which further requires critical thinking, willingness to share, accept responsibility, and create things together (Oganisjana 2015; Preston and Rich-Tolsma 2018). In medical and health professions education context, interprofessional education has been introduced for the past 15 years (Reeves et al. 2016) and it aims to nurture interprofessional collaboration competence which includes teamwork, roles and responsibilities, communication, learning and critical reflection, relationship with and recognizing the need of the patient, and ethical practice (WHO 2010). The impact of interprofessional education toward interprofessional collaborative care and quality of patient care still needs to be strengthen since studies mostly highlight results on satisfaction, behavioural and organizational change (Reeves et al. 2016). Beyond interprofessional education of medical and health professions students, the scope of teamwork and collaboration learning experience can also be expanded to other fields (van de Grift and Kroeze 2016). The development of teamwork and collaboration skills should also consider the role of technology and overall health system (Samarasekera et al. 2018).

2.11.3 Leadership

Given dynamic transitions of global population, environment, social-economy, technology use and health problems, future health care should be more precise, participatory, predictive and preventive, it is not exaggerating when the aim of medical and health professions education is to nurture change agents who can be part of creation

of the future better world (Frenk et al. 2010). Becoming change agents requires leadership skills in addition to subject content expertise and professional development. Leadership can be considered as a means of shaping goals, motivations, and actions of others to create changes or assure sustainability which is constructed by both leadership and followership interaction (Spillane et al. 2004). All three elements: leadership, followership and management, are all required in making the change with consideration of task, role, and context (McKimm and O'Sullivan 2016). The knowledge, skills, and attitude of effective leadership can be taught and learned in medical and health professions education. It is recommended that medical schools take necessary actions in developing leadership skills among students (Till et al. 2018).

2.12 Summary

2.12.1 The Emphasize of the Student-Teacher Two-Way Dialogue

To facilitate the innovative project, teamwork learning, and leadership skills for the medical students globally, and especially those who come from Eastern cultural context with wide power distance and collectivistic culture, a project-based and experiential-based learning seems suitable to offer a deeper and meaningful engagement of a group as well as each individual students; while giving them adequate time and responsibilities to learn independently. In the Eastern context of mostly developing and underdeveloped countries, the community-based/rural-based educational project and the interprofessional-education and collaborative practice project, can be a longitudinal curriculum theme with specific instructional design that will enhance student-centred learning principle.

A longitudinal project-based and experiential-based educational program will disseminate the tasks that require students to fulfill systematically, by working in groups, as well as leaning independently, in a period of time. Motivation, autonomy, and relatedness shall be stimulated with this kind of longitudinal project. Students in a collectivistic culture will have more space to work with their peers and will develop maturity when they deal with the community, but still under supervisors of the teachers. Student will also learn from their community context by having dialogue directly with the community members. Students will learn between the ideal and reality that happens naturally in life. The educational program should also start with the simplest skills,, i.e. listening skills, responding skills, surveys, peer group feedback, and move along within the year of the medical curriculum to the more complex ones i.e. health promotion, informed and shared decision-making skills.

However, those innovative longitudinal programs which will emphasize more on the complex skills, may be in dilemma with the basic medicine that the students

will learn in the early years of medical school; such as anatomy and biochemistry, that needs minimum interaction with living people. At this point, the feedback from the facilitators of the learning experience is the key to stimulate student-reflection and furthermore, the learning process. Teachers should be skillful in listening to what students have learn, in the class, or in the community context, and furthermore, questioning the students to stimulate reflection. Generally, any instructional design that we use, should emphasizes on the feedback and reflection. Again, two-way dialogue between student–teacher should be continuously nurtured in a culture which mostly having the hierarchical and social gap acceptance. In clinical education, the dialogue should be expanded to the simulated patients, furthermore, the real patients and the community members. The facilitating tasks are not as easy as just pouring information to the students; moreover, all information are now can be accessed within the electronic learning media. As Vigotsky explain about scaffoldings, questioning is the skills to facilitate thinking and learning. If Dewantara, who were born and raised in a high score of hierarchical country can have the idea of a more partnership relationship between students and teachers in early twentieth century, then we who live in the twenty-first century should do better than those philosophers.

Key Learning Points

- The development of 'medical education' as a branch of knowledge moves towards the 'socio-constructivism' theory, where constructive dialogue between people is critical for independent learning
- The culture that holds wider 'power distance' hinders the dialogue between people with different capacities (i.e., teacher–student, doctor–patient, and parents–children), limiting meaningful learning and ultimately preventing future independence
- The challenge of facilitating student-centered learning in this kind of culture may use the other cultural characteristic that allows interactional dialogue, that is 'collectivism,' i.e., by empowering people with similar capacity/peers, but should not neglect individual autonomy in decision-making that is the critical element for future leadership ability

References

Al-Bugha D, Mitsu M (2018) Syarah Arba'in Imam Nawawi (631–676 Hijriyah/800 century/9th century) translation. Keira Publishing, West Java

Aoun JE (2017) Robot-proof: higher education in the age of artificial intelligence. MIT press, Cambridge, MA

Ariew R (1992) Descartes and the tree of knowledge. Synthese 92(1):101–116. https://doi.org/10.1007/BF00413744

Auffray C, Charron D, Hood L (2010) Predictive, preventive, personalized and participatory medicine: back to the future.Genome Med 2(8):57. https://doi.org/10.1186/gm178
Bacigalupo M, Kampylis P, Punie Y et al. (2016) EntreComp: the entrepreneurship competence framework, vol 10. Publication Office of the European Union, Luxembourg, p 593884. https://doi.org/10.2791/593884.
Bandura A (1991) Social cognitive theory of self-regulation. Organ Behav Hum Decis Process 50(2):248–287. https://doi.org/10.1016/0749-5978(91)90022-L
Bialik M, Fadel C (2015) Skills for the 21st Century: what should students learn? Center of curriculum redesign, Boston
Bicknell J (2003) Descartes's rhetoric: roads, foundations, and difficulties in the method. Philos Rhetor 36(1):22–38. https://doi.org/10.1353/par.2003.0012
Brown T (2008) Design thinking. Harv Bus Rev 86(6):84
Budiastuti V (2017) Epistemological belief factors in the collaborative learning of problem based learning. Disertation. Yogyakarta: Doctorate study program. Faculty of Medicine, Universitas Gadjah Mada. http://etd.repository.ugm.ac.id/penelitian/detail/116912
Chan KW, Elliott RG (2004) Relational analysis of personal epistemology and conceptions about teaching and learning. Teach Teach Educ 20(8):817–831. https://doi.org/10.1016/j.tate.2004.09.002
Cilliers FJ, Schuwirth LW, Herman N, Adendorff HJ, van der Vleuten CP (2012) A model of the pre-assessment learning effects of summative assessment in medical education. Adv Health Sci Educ 17(1):39–53. https://doi.org/10.1007/s10459-011-9292-5
Claramita M, Nugraheni MD, van Dalen J, van der Vleuten C (2013) Doctor–patient communication in Southeast Asia: a different culture? Adv Health Sci Educ 18(1):15–31. https://doi.org/10.1007/s10459-012-9352-5
Claramita M (2016) Revealing "Tut Wuri Handayani"-a student-centred learning approach-by Ki Hajar Dewantara from the early 20th century: a literature review. Jurnal Pendidikan Kedokteran Indonesia: the Indonesian Journal of Medical Education 5(1):1–14. https://doi.org/10.22146/jpki.25295
Dent JA, Harden RM (2013) New horizons in medical education. A Practical Guide for Medical Teacher. Elsevier, London, pp 3–7. https://doi.org/10.1177/0310057x0102900620
Driessen E, Van tartwijk J, van der Vleuten C, et al (2007) Portfolios in medical education: why do they meet with mixed success? A systematic review. Med Educ 41(12):1224–1233. https://doi.org/10.1111/j.1365-2923.2007.02944.x
EHEA (2016) Student centered learning, European Health Education Area, Europe
Fadiman A (2012) The spirit catches you and you fall down: a Hmong child, her American doctors, and the collision of two cultures. Macmillan. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1114928/
Frambach JM, Driessen EW, Chan LC et al (2012) Rethinking the globalisation of problem-based learning: how culture challenges self-directed learning. Med Educ 46(8):738–747. https://doi.org/10.1111/j.1365-2923.2012.04290.x
Frenk J, Chen L, Bhutta ZA et al (2010) Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. The Lancet 376(9756):1923–1958. https://doi.org/10.1016/S0140-6736(10)61854-5
Geertz H (1989) The Javanese family: a study of kinship and socialization. Waveland Press Inc., USA
Gibbs G (1988) Learning by doing: a guide to teaching and learning methods. Further Education Unit, Oxford
Greviana N, Mustika R, Soemantri D (2020) Development of e-portfolio in undergraduate clinical dentistry: how trainees select and reflect on evidence. Eur J Dent Educ 24(2):320–327. https://doi.org/10.1111/eje.12502
Hasso Plattner Institute of Design at Stanford (2010) An introduction to design thinking: process guide. Stanford University, California

Herrmann-Werner A, Gramer R, Erschens R et al (2017) Peer-assisted learning (PAL) in undergraduate medical education: an overview. Z Evid Fortbild Qual Gesundhwes 121:74–81. https://doi.org/10.1016/j.zefq.2017.01.001

Hing LK (1978) The Taman Siswa in Postwar Indonesia. Indonesia 25:41–59

Hofer BK, Pintrich PR (1997) The development of epistemological theories: beliefs about knowledge and knowing and their relation to learning. Rev Educ Res 67(1):88–140. https://doi.org/10.3102/00346543067001088

Hussain J, Millman C, Scott J et al (2007) Ethnic minority graduate entrepreneurs in the UK: characteristics, motivation and access to finance. Ind High Educ 21(6):455–463. https://doi.org/10.5367/000000007783099845

Kleinmann A (1981) Patients and healers in the context of culture: an exploration of the borderland between anthropology, medicine, and psychiatry. University of California Press, California

Krupat E, Sprague JM, Wolpaw D et al (2011) Thinking critically about critical thinking: ability, disposition or both? Med Educ 45(6):625–635. https://doi.org/10.1111/j.1365-2923.2010.03910.x

Kusurkar RA, Ten Cate TJ, Van Asperen M, Croiset G (2011) Motivation as an independent and a dependent variable in medical education: a review of the literature. Med Teach 33(5):e242–e262. https://doi.org/10.3109/0142159X.2011.558539

Lockspeiser TM, O'Sullivan P, Teherani A, Muller J (2008) Understanding the experience of being taught by peers: the value of social and cognitive congruence. Adv Health Sci Educ Theory Pract 13(3):361–372. https://doi.org/10.1007/s10459-006-9049-8

Manyama M, Stafford R, Mazyala E et al (2016) Improving gross anatomy learning using reciprocal peer teaching. BMC Medical Education 16:95. https://doi.org/10.1186/s12909-016-0617-1Maslow AH (1987) Motivation and personality, 3rd edn. Pearson Education, Delhi, India.

McKimm J, O'Sullivan H (2016) When I say… leadership. Med Educ 50(9):896–897. https://doi.org/10.1111/medu.13119

McLaughlin JE, Wolcott MD, Hubbard D, Umstead K, Rider TR (2019) A qualitative review of the design thinking framework in health professions education. BMC Med Educ 19(1):98. https://doi.org/10.1186/s12909-019-1528-8

McLeod SA (2018) What are the most interesting ideas of Sigmund Freud. Simply Psychology:1–3

McVey RT (1967) Taman Siswa and the Indonesian national awakening. Indonesia 4:128–149

Mehta N (2013) Beyond transparency: the spatial argument for experiential externalism. Philosopher Imprint 13(8):1–19

Ministry of Education Rep Indonesia (2015) Tut wuri handayani, Ministry of Education Republic of Indonesia. https://www.kemdikbud.go.id/main/informasi-publik/logo-kemdikbud

Muller S (1984) Physicians for the twenty-first century: report of the project panel on the general professional education of the physician and college preparation for medicine. J Med Educ 59:1–208

Musharyanti L, Claramita M, Haryanti F, Dwiprahasto I (2019) Why do nursing students make medication errors? A qualitative study in Indonesia. J Taibah Univ Med Sci 14(3):282–288. https://doi.org/10.1016/j.jtumed.2019.04.002

National Research Council (2012) Education for life and work: Developing transferable knowledge and skills in the 21st Century. Committee on Defining Deeper Learning and 21st Century Skills. The National Academies Press, Washington DC

Nomura O, Onishi H, Kato H (2017) Medical students can teach communication skills—a mixed methods study of cross-year peer tutoring. BMC Med Educ 17(1):103. https://doi.org/10.1186/s12909-017-0939-7

Nugraheny E, Claramita M, Rahayu GR et al (2016) Feedback in the nonshifting context of the midwifery clinical education in Indonesia: a mixed methods study. Iran J Nurs Midwifery Res 21(6):628–634. https://doi.org/10.4103/1735-9066.197671

Nurokhmanti H, Claramita M, Emilia O (2022) Students' motivation to choose general practice as their career pathway. Manuscript #1111087467; Accepted at Int J Med Educ (February 2022-in Press)

OECD/CERI (2008) 21st century learning: research, innovation and policy, directions from recent OECD analyses. OECD CERI International Conference. Learning in the 21st Century: Research, Innovation and Policy, OECD, Paris. http://www.oecd.org/site/educeri21st/40554299.pdf

Oganisjana K (2015) Promotion of university students' collaborative skills in open innovation environment. J Open Innov Technol Market Complexity 1(2):18. https://doi.org/10.1186/s40852-015-0021-9

Olaussen A, Reddy P, Irvine S, Williams B (2016) Peer-assisted learning: time for nomenclature clarification. Med Educ Online 21(1):30974. https://doi.org/10.3402/meo.v21.30974

Ontario Ministry of Education (2016) Towards defining 21st century competencies for Ontario:21st century competencies. Ontario Ministry of Education, Canada

Papp KK, Huang GC, Clabo LML et al (2014) Milestones of critical thinking: a developmental model for medicine and nursing. Acad Med 89(5):715–720. https://doi.org/10.1097/ACM.0000000000000220

Parmi IT (2009) Reflection of educational principles of Ki Hadjar Dewantara towards national integration: historical and cultural approach. Dissertation, Yogyakarta State University

Pellegrino JW and Hilton ML (2013) Education for life and work: developing transferable knowledge and skills in the 21st century. https://doi.org/10.17226/13398

Preston S, Rich-Tolsma M (2018) Competing in an Era of Disruption. real-leaders.com

Qomariyah N, Savitri T, Hadianto T, Claramita M (2016) Formulating employability skills for graduates of public health study program. Int J Eval Res Educ 5(1):22–31. https://doi.org/10.11591/ijere.v5i1.4518

Reeves S, Fletcher S, Barr H et al (2016) A BEME systematic review of the effects of interprofessional education: BEME Guide No. 39. Medical Teacher 38(7):656–668. https://doi.org/10.3109/0142159X.2016.1173663

Rehman I, Mahabadi N, Rehman CI (2020) Classical conditioning. StatPearl Publishing LLC, Treasure Island, Florida

Ross MT and Cameron HS (2007) Peer assisted learning: a planning and implementation framework: AMEE Guide no. 30. Med Teach 29(6):527–545. https://doi.org/10.1080/01421590701665886

Ryan RM, Deci EL (2000) Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. Am Psychol 55(1):68–78. https://doi.org/10.1037/0003-066X.55.1.68

Samarasekera DD, Goh PS, Lee SS et al (2018) The clarion call for a third wave in medical education to optimise healthcare in the twenty-first century. Med Teach 40(10):982–985. https://doi.org/10.1080/0142159X.2018.1500973

Sawyer SM, Azzopardi PS, Wickremarathne D, Patton GC (2018) The age of adolescence. Lancet Child Adolescent Health 2(3):223–228. https://doi.org/10.1016/S2352-4642(18)30022-1

Schommer-Aikins M, Hutter R (2002) Epistemological beliefs and thinking about everyday controversial issues. J Psychol 136(1):5–20. https://doi.org/10.1080/00223980209604134

Silawani S (2019) Problems in the implementation of problem-based learning in different culture of paternalism-collectivistic and egalitarian-individualistic: a systematic review. Thesis, Universitas Gadjah Mada

Silva E (2009) Measuring skills for 21st-century learning. Phi Delta Kappan 90(9):630–634

Sizer TR (2004) Horace′s compromise: the dilemma of the American high school: with a new preface. Houghton Mifflin Harcourt, Boston

Skinner BF (1989) The origins of cognitive thought. Am Psychol 44(1):13–18. https://doi.org/10.1037/0003-066X.44.1.13

Spillane JP, Halverson R, Diamond JB (2004) Towards a theory of leadership practice: a distributed perspective. J Curric Stud 36(1):3–34. https://doi.org/10.1080/0022027032000106726

Suhoyo Y, Schönrock-Adema J, Emilia O et al (2018) Clinical workplace learning: perceived learning value of individual and group feedback in a collectivistic culture. BMC Med Educ 18(1):1–6. https://doi.org/10.1186/s12909-018-1188-0

Susilo AP, van Merriënboer J, van Dalen J et al (2013) From lecture to learning tasks: Use of the 4C/ID model in a communication skills course in a continuing professional education context. J Contin Educ Nurs 44(6):278–284. https://doi.org/10.3928/00220124-20130501-78

Susilo AP, Dalen JV, Scherpbier A et al (2013) Nurses' roles in informed consent in a hierarchical and communal context. Nurs Ethics 20(4):413–425. https://doi.org/10.1177/0969733012468467

Susskind RE, Susskind D (2015) The future of the professions: How technology will transform the work of human experts. Oxford University Press

Suto I (2013) 21st century skills: ancient, ubiquitous, enigmatic? Research Matters. Cambridge Assess Public 15:2–18

Tauchid M, Soeratman S, Lahade RS et al (1962) Book 1-Repository of articles written by Ki Hadjar Dewantara from 1920–1960, 1st edn. Taman Siswa Publishing, Yogyakarta, Indonesia

Tauchid M, Soeratman S, Sajoga, et al (1994) Book 2—culture—repository of articles written by Ki Hadjar Dewantara from 1920–1960, 2nd edn. Taman Siswa Publications, Yogyakarta, Indonesia

Till A, McKimm J, Swanwick T (2018) Twelve tips for integrating leadership development into undergraduate medical education. Med Teach 40(12):1214–1220. https://doi.org/10.1080/0142159X.2017.1392009

Tsuchiya K (1975) The Taman Siswa movement: its early eight years and Javanese background. J Southeast Asian Stud 6(2):164–177

UNDP (2019) Human Development Index (HDI). http://hdr.undp.org/en/content/human-development-index-hdi

van Berkel HJ, Scherpbier A, Hillen H (2010) Lessons from problem-based learning. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199583447.001.0001

Vallerand RJ, Pelletier LG, Blais MR et al (1992) The academic motivation scale: a measure of intrinsic, extrinsic, and amotivation in education. Educ Psychol Measur 52(4):1003–1017. https://doi.org/10.1177/0013164492052004025

van de Grift TC, Kroeze R (2016) Design thinking as a tool for interdisciplinary education in health care. Acad Med 91(9):1234–1238. https://doi.org/10.1097/ACM.0000000000001195

Wang L, Alexander C (2015) Big data in medical applications and health care. Curr Res Med 6(1):1–8. https://doi.org/10.3844/amjsp.2015.1.8

Wartman SA (2017) The role of the physician in 21st century healthcare. Association of Academic Health Centers. http://www.aahcdc.org. Accessed 28 May 2020

Werstch J (1993) Voices of the minds. Harvard University Press, New York

Whitmire E (2003) Epistemological beliefs and the information-seeking behavior of undergraduates. Libr Inf Sci Res 25(2):127–142. https://doi.org/10.1016/S0740-8188(03)00003-3

WHO (2010) Framework for action on interprofessional education and collaborative practice No. WHO/HRH/HPN/10.3. World Health Organization

WHO (2019) WHO strategic meeting on social determinant of health, World Health Organization. https://www.who.int/social_determinants/en/. Accessed 28 May 2020

Widyahening IS, van der Heijden GJ, Moy FM, van der Graaf Y, Sastroasmoro S, Bulgiba A (2012) From west to east; experience with adapting a curriculum in evidence-based medicine. Perspect Med Educ 1(5):249–261. https://doi.org/10.1007/s40037-012-0029-9

World Federation in Medical Education (2015) No Title. https://wfme.org

Yu TC, Wilson NC, Singh PP et al (2011) Medical students-as-teachers: a systematic review of peer-assisted teaching during medical school. Adv Med Educ Pract 2:157–172. https://doi.org/10.2147/AMEP.S14383

Chapter 3
Learning Resources Development for Medical and Health Professions Education: The Challenges from Low Cost Materials to Modern Technology

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Abstract Countries that hold wide power-distance / socio-hierarchical cultures are mainly developing countries. They may have similar geographical characteristics, and various natural resources are available instead of high technology. By having adequate comprehension of the trends of the 4.0 era, in which digital information and app-based learning are prominent, we should not neglect that health professions may make the maximum use of the natural resources to develop appropriate learning resources for health professions education. Many international studies reported the effectiveness of simulated-based learning by integrating simulated patients with mannequins, for example, for the intravenous line insertion skills. In this kind of context, the mannequins can be replaced by available natural resources, affordable, fun, and more effective in diverse simulated practices and empowering the local community (community-industry). Teachers and students can also reproduce by themselves and will not be dependent on high-fidelity technology. This chapter will provide examples of natural resources and learning resources, one which received intellectual property rights and has been widely promoted in the health professions-education in the rural and remote areas.

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3.1 Introduction

Four themes of curriculum development

Technology has been changing rapidly in the last few decades. Various forms of information delivery have been promoting flexibility and convenience for consumers. Global network connectivity has enabled an individual to search for adequate knowledge from different parts of the world seamlessly. Furthermore, the healthcare system's development is as rapidly as novel medical devices to support essential services (Frenk et al. 2010).

Future society expects current educators to shape medical and health professionals proportionally. In terms of modernization, students are equipped with sophisticated learning media that nurture the academic atmosphere. Readiness, communication, collaboration, and ethics were several essential skills to be mastered among twenty-first-century learners. Coronavirus Pandemic has obliged campus to adapt with information technology to address the emerging challenges on top of this demand. Following trends of medical education and global development, four themes need to be considered for future curriculum development: the patient safety, competency-based education, community-based education, and the advance technology (Han et al. 2019).

First, in this chapter we will discuss the learning resources related to the patient safety practices with a humanist approach to motivate and facilitate collaboration. Previously, patients care was dominated by medical intervention, which focused on the doctors' centered care. This phenomena are common in a hierarchical and collectivistic context (Claramita et al. 2013). Shifting paradigm and practice that includes active patient participation leads to better overall health outcomes. Patient centered care (PCC) well-known terminology is introduced to allow patients to participate in decision-making and respect individual autonomy. PCC requires meaningful communication between providers and patients. More health professionals are involved in the care delivery resulting in increased patient recovery along with satisfaction (Green and Johnson 2015; Interprofessional Education Collaborative Expert Panel 2011; Nguyen et al. 2018). The medical curriculum should empower interprofessional education where multidisciplinary approach and collaborative practice were trained in the curriculum.

Secondly, we will discuss global medical education endorsed competency-based education, facilitating early clinical exposure in interprofessional, longitudinal, and integrated clerkships. Medical and health profession students frequently experienced anxiety and a lack of confidence during their first clinical encounter. Barriers include communication gap, inadequate patient information, and less proficiency in performing clinical procedures identified daily. Despite students already practicing in the pre-clinical setting, the first time applying knowledge, skills, and attitude to the actual patients is complicated. Early clinical exposure in medical and health professions education is successfully improved students' confidence, clinical reasoning, and interprofessional communication (Khabaz Mafinejad et al. 2016; Widyandana et al. 2012). The early exposure in the context of hierarchies and collectivistic should

emphasize on the delivery of constructive feedback and students' reflection. Again the two-way dialogue between students and teachers should be promoted since early medical education, especially in these cultural context.

Third, implementation of community-based education (CBE) is necessary to balance student exposure with the hospital setting. Students in the community setting were challenged to identify public health needs and recommend alternative solutions. Apart from being the driven solution, students are expected to empower the community and families to participate in the idea generation and decision-making. As the solution associated with public health outcomes, the community acts need to be developed in various methods, including participatory action research or participatory rural appraisals (Kakar et al. 2020; Ruszczyk et al. 2020; Smit et al. 2020). A more student-centered learning (SCL) should lead to a more patient-centered (PCC) and community-oriented empowerment. Both SCL and PCC have the key to inviting participations of the learners in the process of learning and decision-making. CBE was found to provide long-term benefits for society health at the time of adequate community participation (Diab et al. 2013). Along with the CBE program, students should be trained with a 'low-cost' learning resources that can easily be found nearby the community settings. Students can also facilitate the community to comprehend health problems via easy and understandable illustrations.

Fourth, we will discuss that students are facilitated with advanced technology that enables social interaction and promotes independent learning resources. Modern technology in medical and health professionals has been able to answer nurturing cognitive and skills learning. In the learning process, information and technology also assist college educators in establishing objective assessment and evaluation. Therefore, diverse technology applied in the learning activities sparks student interaction, which connects them to the educational outcomes. (BERGER 2016; Council for Adult and Experiential Learning 2013; Herold 2016; Lassnigg 2015; Makulova et al. 2015; Wallenstein et al. 2010). Students in the hierarchical and collectivistic culture are usually come from the southern hemisphere or developing countries. Lack of information technology facilities is challenging in this regard. However, the advance technology in information has been the main resource to connect people, even more during the pandemic in 2020 where most of the classes are nowadays online.

3.2 Patient Safety in a Collaborative Learning Environment

Over the past decades, patient safety in healthcare services has remarkably improved. However, this principle still needs to be enhanced across the medical, nursing, and health profession educations (Fereidouni et al. 2019; Gordon et al. 2017). Undergraduate and postgraduate education are promising to create safer and more reliable health care in the future. The patient safety initiatives are established in the diagnosis and treatment, prevention and rehabilitation, and care delivery. Common causes

of errors should be periodically identified, accident reporting system initiated, and various approaches highlighted for the safety culture.

Collaborative practice is presumably accepted due to the importance of a professional team-based approach for care delivery. Beginning with education; collaboration has been particularly identified as an enabler toward sustainable healthcare models. The practice suggested overcoming barriers, increasing specialization, and professional behavior. Collaboration breaks out a traditional system into a connected car service.

The function of learning resources for teachers is to direct all educational activities and set of competencies that should be taught to students. For students, learning resources offer guidance in the course of study whilst defining specific goals, skills, knowledge, and competencies. In terms of student evaluation, learning resources measure both educators' and learners' performance as it delivers valuable feedback for future improvements (Hagemeier et al. 2014; Lopreiato and Sawyer 2015).

Relevant teaching materials include instructions, objectives, assistive methods, links to external resources, exercises, evaluation, and feedback to grading (Littlejohn et al. 2008; Mazgon and Stefanc 2012; Roffey 2007). Several functions that learning resources serve are (1). increase learning productivity, (2). encourage and support individual learning, (3). provide more scientific foundation of learning, (4). engage learning processes, (5). present actual learning opportunity, and (6). extend broader learning possibilities.

Learning material should be produced wisely. Various considerations should be taken prior to learning outcomes establishment and type of the learning resources. A comprehensive understanding of vital principles is necessary to ensure the effectiveness and relevance of the learning resources. Five main characteristics of learning materials including self-instructional; self-contained; standalone, adaptive, and user-friendly (Bušljeta 2013; Maile 2018; Gagne et al. 2005; Horton 2006).

Patient engagement in medical and health professions is fundamental. Simulated and real patients are useful in teaching knowledge and skills with positive outcomes for both parties (Fejzic and Barker 2015; Smithson et al. 2015; Sorce and Chamberlain 2018). Patients diagnosed with chronic illnesses can be considered as an expert individual who can bring their illness experience and teach emotional, psychological, social, and economic aspects. Traditionally, patients have been actively involved in clinical teaching and assessment, often achieved by the standardized patient. This simulation aims to bring patient voices into the education regarding the illness and its impact on patient lifestyle, personal and psychological well-being, and socioeconomic aspects.

Simulated patients (SPs) are an established education component, training, and further education in national and international health care. The specially trained actors credibly take on patients' roles and other functions in the healthcare system to facilitate teaching and examining medical education scenarios. First developed by Howard Barrows in the 1960s for neurology, the method is now used world-wide across the whole range of health professionals (May 2008; Sommer and Thrien 2019). One of the reasons for this wide adoption in medical education is its methodological advantages compared to real patients.

However, engaging patients in the preparation of medical and health professions education requires stronger partnerships between patients and institutions. Patients should be involved in the decision-making process. Adequate patient involvement enhances patient care, satisfaction, treatment adherence, and long-term health outcomes (Fell et al. 2017; Khuntia et al. 2017; Wilhite et al. 2019).

In the context of hierarchical and collectivistic culture, obtaining patients' feedback is uncommon. If there is a 360° feedback, the rating is usually used but forgetting the feedback for improvement. Patients in these cultural contexts are hesitated to provide feedback or comments to their doctors, so patients usually rate better ranks (i.e. 8 or 9 as a socially desirable answer) of 10 point-scale. As explained in the first two chapters that dialogue between teacher-student is rare and so is between doctor-patient. Therefore, the reflection of feedback should be emphasized in the use of real patients or simulated patients as learning resources for medical and health professions education in the cultural context of this edited volume. More about clinical education with real patients as learning resources will be discussed in Chap. 4.

3.3 Competency-Based Education Enhance Student Centered Learning

Competency-based medical education has been established as a successful learning model, especially in developing countries, and is increasing in gaining popularity in the global society. This educational model is intended to train students to become efficient graduates who work to take care of diverse clients in health care (Design 2015; Elsevier Education 2014; Galloway et al. 2016). Previously, it was known that education mainly concerns with intellectual aspects. Whilst medical and health professions are required to provide services and fulfill patient needs, necessary clinical skills are less likely to be trained in adequate ways. In the last decade, healthcare providers' soft skills have been strengthened in relation to communication, provider-patient relationship, and professional behavior.

Competence-based education proposes fostering students' ability, not only in the knowledge acquisition but also in skills performance. Healthcare providers are expected to perform various skills successfully and efficiently (Chongloi et al. 2017; Toader 2015). Thus, practice at the educational level is mandatory. Inevitably, the higher education institution needs to develop an approach to ensure that students are mastering essential competencies to meet patients' need in different care levels.

In terms of learning outcome achievement, time-based training promises a more beneficial end result for students (Balasooriya et al. 2013; Rawekar et al. 2016). This endorses the utilization of appropriate learning resources which are widely available, both natural and artificial. Numerous resources can be used to enrich the learning experience such as 'living learning resources', including simulated patients and peers. The implementation of such learning resources dominate in the life-science majors, including psychology, medical and health professions education. On the other

hand, human learning resources depicted in business and economics studies portray consumer behavior and preference.

As there are several skills that embody invasive procedures, competency-based education ensures that the environment is safe and sound. In a controlled skills laboratory, students are enabled to perform different procedures ethically and responsibly. While advanced devices and existing tools are available to support learning, simulations such as standardized patients or simulated patients are increasingly applied in the health sciences.

A simulated patient (SP) is a well-trained individual for educational purposes. SP is responsible for simulating a set of symptoms, problems, or attitudes based on the scenario. Learners are expected to perform a wide range of skills, such as communication, physical examination, and professionalism. In medical and health professions education, learners are encouraged to learn clinical reasoning and critical thinking as a basis for therapy. Moreover, peers are also a potential learning resource. Peers can work as simulated patient or a teacher. As a teacher, peers are able to facilitate student's learning (Havnes et al. 2016). Fellow students' advice and constructive feedback function as formative assessments. Learning with appropriate peers enable students to motivate each other. Peers' existence embraces a sense of understanding and familiarity between students and nurtures learning in a safe and comfortable environment.

In a complex world of health care, current challenges, bewildered by the double or triple burden of diseases, well-established teamwork produces a collaborative practice to accomplish a common goal. Traditionally, most of the work is presumably completed by a single profession, whereas current significant tasks are completed by a group of healthcare professionals, and many of them involve leading care providers. Today, Interprofessional collaboration is recognized as an essential skill to achieve effective and meaningful results. Diversity among the team members brings multiple individual and professional perspectives into the practice. This practice creates more comprehensive efforts than individual work, producing more significant knowledge. Knowledge generation is higher when students are working collaboratively, which is appreciated as a key ingredient for success in today's global health care.

Competency-based education can foster students' creativity. An innovative and creative outlook is required for personal and professional success in this modern day. Creativity and innovation are closely related to the other global skills. Innovation in this era involves adaptability, leadership, teamwork, and interpersonal skills to build upon fundamental skills. Today, innovation capabilities are linked to connecting with others and enabling concepts sharing through collaborative practice and excellent communication. The nature of a learning environment promotes creativity among students, especially when low-cost material exists and demanding the utilization of available resources into the healthcare services (Takase et al. 2019; Widyandana et al. 2011).

3.4 Community-Based Education in Low-Cost Setting

Community-Based Education (CBE) has many benefits both for learners and the people in the community (Claramita et al. 2019; Lee et al. 2014; Lubbers and Rossman 2017). CBE provides the necessary health data and a healthy environment that learners can use to understand the healthcare contexts and many kinds of diseases before students work in clinical settings. Learning and working with the community can also help to solve personal and community health problems. Short-term benefits for the community include community health service, community health education on preventive care or self-care, and home visits. In community-based Education, students are blended to patients', families', and clients' environment where they deliver services. This enables seamless knowledge application and skills practices.

Through the facilitation of learning in a controlled environment, CBE has successfully developed students' essential skills. Several skills pertinent to address present health challenges are critical thinking, communication, collaboration, and creativity.

In the provision of future healthcare providers, critical thinking skill is fundamental. Medical doctors are required to interpret clinical findings into a diagnosis. Nursing and other profession deliver care based on patient's responses and manifestations. Analysis, interpretation, precision, and accuracy are worth more than content knowledge to determine student success. CBE improves learners' abilities, including a higher level of concentration, deeper analytical aptitudes, and thought processing (Art et al. 2007).

The second essential competence present to healthcare providers is communication. As a global society, interaction among patients and professionals is built upon effective information exchange. Both patient and care providers need to express thoughts and feelings clearly, articulate opinions understandably, translate readable instructions, and motivate others. Despite the above-mentioned skills being valued highly in academia, today, especially in health education, the skills are even more critical and suitably enhanced by CBE (Bailey et al. 2015; Heestand Skinner et al. 2008).

*In CBE, a non-digital learning media mainly consist of paper-based sources, such as printed books, personal notes, handouts, and white-board. Although digital learning resources are extensively accessible in many subjects, the conventional learning method that embraces non-digital resources remains interesting for some extent of learners (*Bocconi et al. 2013*).*

In general, learning resources support the educational components and play a significant role in knowledge construction and comprehension among learners. When producing and choosing learning resources, one should consider many aspects, including fundamental principles that inspire effective and efficient learning processes to inspire students to embrace digital learning.

3.5 Locally Rooted Community-Based Education

In the context of health profession education, community-based learning offers several advantages (Dashash 2013). Community-based Education enables students to develop professional autonomy behavior. As a result of the education institution's intense approach, improvement of the local community health status was remarkably acknowledged. Students can integrate their psychological, cultural, and biomedical knowledge into practice.

Ki Hajar Dewantara, the first Ministry of Education, Republic of Indonesia, published a learning philosophy relevant to the character of student-centered learning (Tauchid et al. 1962). Contextual and collaborative principles as the basis of student-centered learning were identified among his publication in the early twentieth century. This concept remains applicable to the global learning environment.

Learning resources should be able to establish equity between educators and learners. A more partnership relationship between students and teachers promotes two-way, dynamic, and fruitful dialog between teachers and students. However, Indonesian people's social and cultural context lies on a vertical hierarchy rooted deep in the community, as explained in previous chapters. Dewantara articulates equity principles in Education. The great perspective of Dewantara has gradually led to the changes in the education system.

Based on Dewantara's principles, community-based education facilitates students to learn meaningfully using local resources and culture. The use of cultural events and community aspects as relevant learning resources initiated by Dewantara, such as local musical instruments and dances (i.e. gamelan https://en.wikipedia.org/wiki/Gamelan), traditional games (i.e. pencak silat, https://en.wikipedia.org/wiki/Pencak_silat), and many more (Claramita 2016) can stimulate students to engage with the community's health needs. This learning strategy aims to enable students to reflect upon concrete experience and transfer it into an abstract understanding. The emphasis on learning from reality in the CBE program is linear to contextual and collaborative learning, which stands for student-centered learning. Box 3.1 explains an example of the use of local resources as a low-cost learning resources that is also involved community members.

While learning is facilitated more by the supervisor in clinical setting and campus, the promotion of self-directed learning is identified from the community-based Education. Community services highlighted the elemental principle that emphasizes facilitative work for students to learn from their experience through adequate reflection. Empowerment toward patients and family members is purposed to assist the development of intelligence from a responsible learner (Howe and Anderson 2003; Khuntia et al. 2017). More about CBE will be discussed in Chap. 5.

Box 3.1 Example of low-cost materials for learning resources

As an application of the Dewantara's principles of low cost materials obtained from local sources, we present the modification of the Zoe mannequin; inserted with local fabrics of uterus-form (which can be easily multiplied), to train midwifes, doctors, nurses, and other health professionals and traditional midwifes.

We collaborate with local tailors around a Ministry of Health Diploma of Midwifery School at Province of Riau, Sumatera, to create what we called Gamma MK3 (Patent-Indonesia No. 000059205). The development of this low cost materials resulted from a master thesis in medical education (Metha 2011) and then continue with the supports of Ministry of Education Republic of Indonesia and now has been used by hundreds of midwifery educational center in Indonesia and proven to provide benefits for local community as well as students.

The GammaMK3 model can be used to learn:

1. Normal delivery
2. Manual placenta
3. Maneuver delivery

3.6 Advanced Technology in Learning Resources

Past teaching modalities mainly concern with material produced by teachers. Previously, knowledge transfer occurs when educators wrote information on a board or paper sheets. The current teaching process is offered in different methods, encouraging teachers to combine both creativity and initiatives. Conventional in-class lectures are losing popularity, shifting into modern learning resources. The rationale that technology suggests significant contribution in the teaching process challenges educators to address learner's needs and preferences adaptively (Bocconi et al. 2013; Dziuban et al. 2018). Well-structured learning resources that attract student participation ultimately help educators improve teaching quality, increasing students' intellectual and emotional capacity. We should realize that learning resources are provided in

various forms. Based on the technology engagement, a distinction is made between digital and conventional learning. Digital learning is an education that is accompanied by technology or using teaching practices that utilize technology. Digital learning incorporates a broad spectrum of methods, including blended and virtual learning, while non-digital learning conserves learning without any technological assistance (Aschbrenner et al. 2019; Littlejohn et al. 2008). Both of the learning resources have distinct characteristics in the utilization of media. Existing digital learning resources have been endorsing educational purposes. These include electronic devices which allow information exchange through communication networks via a smartphone application (web-based or native), lecture slides, online test questions, Internet repository, podcasts, e-books, digital camera, laptop, and personal computers.

3.6.1 Virtual Reality Simulation

The digital learning resources include virtual simulation. The simulation produces a similar experience without encountering the real event. This learning resource depicts recreated reality on a computer screen, which involves an authentic system operator. It is a simulation that places people in a central role through decision-making, motor control, and communication skills exercise (Farra et al. 2015; Lopreiato and Sawyer 2015). Simulation opens up opportunities that are not available in real event learning, such as clinical apprenticeships, which provide a multifaceted safety environment for learning. A controlled environment is an essential consideration for learners, especially in professional training where students are encouraged to learn from mistakes without threat to occupational safety. In particular to clinical learning, simulations succeed in substituting real patient encounters or other clinical situations for learning purposes.

3.6.2 Augmented Reality

Medical and health professions education is organized through in-campus and workplace-based learning. Learning in these institutions involves the acquisition of complex skills tailored to professional behavior in a clinical environment. As practices may not always be established in the context of the actual setting due to safety, cost, or teaching reasons, alternative methods have been proposed.

Simulation is popular in terms of alternative learning methods. In this modern day, the simulation offers an advanced reality experience that supports complex skills learning. Augmented Reality (AR) adds digital content into the real world, depicting the reality perceived by students (Ke and Hsu 2015; Vaughn et al. 2016). Both undergraduate learning and postgraduate residency training benefit from the utilization of this advanced technology.

AR encourages meaningful learning experiences and boosts the transfer of knowledge and skills mastery. Therefore, several prerequisites should be completed prior to the technology implementation. Learning activity needs to build interaction between students and the world, in a clinical environment that facilitates learning. To develop student's ability, AR is intended to integrate prior knowledge and novel experiences and directed to goal achievement.

Augmented reality technology provides a bridge between two types of media, namely, textual and multimedia scenarios. This technology bridges the advantages of text scenarios to offer content and core information emphasis. This technology also bridges the flexibility of the multimedia scenario interaction. The bridge will cover the differences in students' understanding when reading writing. Students will feel less bored when they see a boring presentation. This technology also helps the module increase motivation in learning because interactive participation involves many senses (Luckin and Fraser 2011). Students' understanding of the module's content will also be improved. Students are given a more straightforward interpretation of information. The trick is that students combine the range of time, space, and context according to related information (Tettegah and Taylor 2006). Box 3.2 illustrated our findings of creating an AR scenario for a tutorial discussion for medical students which increased students' participation. Participation (with adequate feedback and reflection) is the key to better learning.

Box 3.2 an example of AR used in a tutorial session

Our study proved that AR for a tutorial session increases students' participation in the discussion significantly (observed and also from students' perception using the student-intrinsic motivation scale/ IMMS (Nugroho 2017). Learning media in the form of Augmented Reality influences the tutorial learning climate. This finding is medium, but several other technological learning activities corroborate the results. These studies show the strong positive influence of learning media on the learning climate in a large sample. Learning can be influenced by multimedia technology, which involves many human natural senses (listening, visualization, and even smells, except touching. So, AR provides the benefits of content interpretation and learning context. This convenience led to a more pleasant learning situation in these studies (Luckin and Fraser 2011; Tettegah and Taylor 2006; Pérez-lópez and Contero 2013). Thus, instructional media designers need to consider using scenarios using technology like augmented reality to increase the frequency of participation.

Digital learning resources also have their advantages and disadvantages. Although these resources are available anytime and anywhere as long as students have access to these resources and provide various learning styles and preferences, educators must anticipate student resistance that may arise to changes in the type of offering these learning resources. Students who are not used to operating specific software on a computer, for example, may need

enough time to recognize the software before finally following the lessons given. Even though it looks trivial, all the obstacles that occur in each learning process must be anticipated by the educator as a form of responsibility to ensure the readiness and completeness of learning in the lesson plan.

3.7 Challenges in Development of Instructional Design for the use of Learning Resources

The adoption of appropriate learning resources is fundamental for an educational institution. Screening, prioritization, and feasibility study of learning resources should be made initial implementation to the teaching process. Each type of learning resource represents an individual value that provides different impacts on the learner. Therefore, institutions need to promote the creation of learning resources and experiences so that students' knowledge and skills are rapidly acquired and applied. In this context, the proper instructional design provides a practical and systematic approach to design an effective curriculum. It is also important to accommodate various learning styles for students. Encouraging the implementation of individual learning styles, boosting student's performance, and creating meaningful experience (Buşan 2014; Hernandez et al. 2020; Khanal et al. 2014).

Jeroen van Merrienboer specifies four components for the instructional design (4C/ID), namely 'learning task', 'supportive information', 'part-task practice', and 'just in-time information'. Students should have clear objectives by the end of learning period, i.e. a semester, a block curriculum, or at the end of year, and tasks to complete the objectives. Tasks are the effective way to invite participation of the students and teachers, to engage in a more meaningful learning, in an active cooperation and collaboration learning. Furthermore, to complete the tasks, students should also be supported with other three components of the ID. So the learning tasks are the main 'stream' in the curriculum, and the other components are complimentary. To make sure that the resources are properly established, validation of these four components is essential for educators (Findyartini et al. 2020; van Merriënboer and Kester 2014).

There are several considerations to design an advanced learning modality. The designer must define a task-achievement among students in order to ensure that learning outcomes are completely attained (Van Merrienboer et al. 2002; van Merriënboer and Kester 2014). Educators are also required to measure the amount of the delivered information in the resource and reflect students' ability. For sure, in this development, learning resources should engage between abstracts and substantial experience where learners enable to connect their knowledge and behavior. Finally, in terms of nurturing the value of care providers in medical and health professions, the clinical practice remains vital to endorse skills acquisition.

Students are expected to understand and realize the learning outcomes. In a complex learning process, learning tasks are defined sequentially. Students are encouraged to promote schema construction. Excellent learning task will confront learners with all constituents to approach the attainment of the whole complex skill. Inductive processing of the learning task stimulates students to shape a comprehension of a concrete experience.

During the study, it is vital to supply students with an adequate amount of information. Educational processes bridge students' prior knowledge and existing learning task. Supportive information components elaborate on previous information, thereby allowing students to establish a connection between newly presented information elements and prior knowledge. The elaboration process produces highly complex schemata for a deep understanding of the particular subject.

Learning stimulation should be done at least once. Learning resources are supposed not to hinder knowledge acquisition. Valuable learning resources provide students with the essential step-by-step knowledge to take control over recurrent skills. This information promotes the compilation of situation-specific knowledge into cognitive rules for the students. Foundation of the four components of instructional design can be assembled upon the opportunity of experiences, information displays, demonstration, and also corrective feedback.

Most of the resources focused on fostering learner intelligence. However, skills and attitudes may not be neglected since those aspects are connected to each other. Repeated practice of the skills in learning tasks facilitates the compilation of recurrent elements from a complex skill. In a rare episode, a high level of automaticity requires frequent repetition to strengthen the particular aspect of learning. Implementation of the part-task practice to promote learners' skill need to consider several aspects: practice items, JIT information for part-task practice, and overtraining.

Various instructional designs in learning resources development are presented in Table 3.1. Ensuring the appropriateness of media for learning purposes is fundamental. Thus, to effectively facilitate achieving learning outcomes, the following methods need to be implemented properly. As the technology changes rapidly, institutions are required to take into consideration any enabler and risk to the teaching processes.

The learning process is complex and requires the interaction of various factors and that these factors occur together in the classroom environment is very important and sensitive. Important factors involved in the classroom's learning process are the physical, emotional, and personality state of students, teachers, training content, etiquette training, storage space, and, most importantly, assistive devices. These factors are, as theory and practice, clinical skills aids coordinating a special place involving an atmosphere such as a clinical setting (clinical simulation). Appropriate teaching aids will make the material presented in a language structure suitable for students. In this regard, the simulator as a teaching aid/teaching aid with appropriate technology should be based on the following four points:

Table 3.1 Instructional design and implementation to the learning resources development

Approach	Steps	Implementation	Example
NINE STEPS GAGNE	9 steps: – Gain attention – Inform student with information – Stimulate recall of prior knowledge – Present the content – Provide learning guidance – Elicit the performance – Provide feedback – Assess the performance – Enhance retention and transfer to task	1. Provide a video or narrative that guides the media clearly, interestingly, and according to their needs 2. Come up with tasks and pieces of information that will be used when using media 3. Do the question and answer prior learner's knowledge 4. Simulate the media 5. Give the necessary book references 6. Empower the media so that they can be used independently by learners 7. Empower the media to be able to provide feedback 8. Empower the media to be able to measure learner competencies 9. Link the results of media use with the needs of the learner	Buscombe (2013), Hricko (2011)
ASSURE	6 steps: – Analyze learners – State Objectives – Select methods, media, and materials – Utilizing technology, media, and materials – Requirement learner's participation – Evaluate and revise	1. Analysis of student needs 2. Determine student achievement 3. Choose learning media around you and their delivery methods, such as drawing pears to study the blood circulation of the heart 4. Add text, ornaments, or functions of the media such as drawing pears to show the location of blood vessels and heart space 5. Invite students in the activity of drawing the pears 6. Give questions and feedback	Smaldino et al. (2004)

(continued)

Table 3.1 (continued)

Approach	Steps	Implementation	Example
ADDIE Model	5 steps: – Analysis – Design – Development – Implementation – Evaluation	1. Make and analyze a list of learning objectives, learning activities, and assessments 2. Perform e-learning design according to the resulting analysis pattern 3. Develop the form of delivery and e-learning companion modules 4. Carry out trials and implementations 5. Make note of improvements to the results of the implementation that is not in accordance with the design	Cheung, (2016), Widyastuti and Susiana (2019), Woo (2018)
ARCS	4 steps: – Attention – Relevance – Confidants – Satisfaction	6. Give an introduction that raises the interest of learners for example introducing learning applications 7. Explain to learners the relationship of applications to learners' needs 8. Asking active learners to use the application, ask about their confidence when facing a situation that is simulated by the application 9. Evaluating learner satisfaction about the knowledge they get. Be careful not to focus too much on media use but on learning experiences	Boonphadung (2013), Jenkinson (2009), Keller (2008)

(continued)

Table 3.1 (continued)

Approach	Steps	Implementation	Example
4C/ID	Consist of 4 steps: – Learning tasks – Supportive information – JIT information – Part-task practice	1. Inform the learning tasks that should be achieved in the end of learning 2. Give information that can bridge learners' prior knowledge toward learning tasks 3. Give additional information for learners to engage learning 4. Provide plenty of time for learners to practice to achieve automation of competency by providing appropriate learning resource	Van Merriënboer et al. (2002)

a. Realistic

The reliability of teaching aids is the primary or main criterion in developing these teaching aids. With useful tools, students can imagine the original form of, for example, human anatomy so that learning can be given as if it were in a real setting.

b. Cheap

Inexpensive teaching aids will support student learning programs because there will be so many procurements of goods and the students themselves. When students' ratio and assistive devices become smaller, students can use tools more often to achieve the required level of competence.

c. Durable

Assisting devices should be developed from materials that do not break or tear easily so that students can use the utmost care. This tool's durability also supports students to learn clinical skills repeatedly so that they can achieve the competencies taught by clinical supervisors or class teachers. The equipment's durability is one of the criteria determined by an item because new goods' procurement to replace damaged goods will be less frequent.

d. Safe

With a safe device, students will maintain patient safety principles in clinical action. Tools that use relatively safe materials without the involvement of dangerous chemicals or objects with surfaces will not injure students who are practicing using these tools.

However, when we think about learning resources, *'Have all educators who have different cultural differences always prepare themselves to equip themselves with lesson plans and completeness before stepping into the classroom to teach?'* This question is fundamental to ponder because the most important thing in learning related to learning resources is not books or other primary learning sources. Still, educators are essential learning resources that always direct students to determine the appropriate learning resources besides the educator for these students.

As an affirmation, both print and non-print, digital or non-digital, or online and offline learning resources must have their respective advantages and disadvantages. Therefore, in writing a learning plan, educators must have understood the list of advantages and disadvantages. The learning resources introduced to students will be right on target, from a personal perspective of the student itself, which may be closely related to cultural factors and the availability of these learning resources.

3.8 Future Development of Learning Resources

Learning resources are required to meet the instructional attributes of learning facilitation, which employs students' autonomous learning behavior. The resources must clearly define its goals to meet the self-instructional principle, either specific or broad objectives. Also, learning resources are expected to facilitate students' study course by providing relevant knowledge in particular units and activities (Tomlinson 2011).

Well-structured learning resources should be built upon a relevant subject that specifies particular competence or sub-competence to accomplish the learning objectives. The entire package contains complete relevant information related to the topic. Containment of detailed knowledge helps learners deeply comprehend and further modify individual perspectives, values, beliefs, and behaviors (Carneiro and Steffens 2013).

The third fundamental aspect of learning resources is self-sufficient or self-sustaining. This principle requires an independent material which conceivable to be learned discretely, not rely on another resource (Christiansen et al. 2013; Littlejohn et al. 2008). Without any additional reference, a standalone material should be sufficient to represent unit or sub-competencies.

Since global development occurred in the last few decades, learning resources are projected to be adaptive toward science and technology progression. Learning resources must contain materials which the potential to enhance students' knowledge related to specific subjects. Therefore, the digital learning environment's rapid growth offers opportunities to produce agile, flexible, and upgradeable resources (Lalima and Lata Dangwal 2017; Sinclair et al. 2016; Voutilainen et al. 2017).

While previous fundamental aspects of learning resources focused on functionality, the latest principle mounted on the learners' perspective. Educators need to pay attention to user experience. Learning instructions and information are intended to help students in a friendly, convenient, and purposeful manner. The materials must promote seamless knowledge acquisition and transparent transfer of information (Kennedy 2014; Littlejohn et al. 2008).

Different forecasts present streamlined trends in which information technology is widely applied in the future. Friedman et al. (2016) suggested that advanced healthcare services will result in two major themes, documentation and biomedical knowledge. Consistent care documentation in digital versions in the near future, as well as shared big data across national infrastructure, can improve learning within the health system. Biomedical knowledge cloud soon integrated into healthcare facilities, provided easy access for medical personnel and patients, family, or the community. Future learning resources development should have followed general direction and prerequisites to ensure its purpose with the education (Ryan et al. 2019).

Several aspects need to be considered, including meeting the users' profile, connecting interactive technology, being flexible, blended with synchronous activity, and adapting to changes. Students' level of knowledge and specific needs should be answered with the existence of learning resources. Suitable media improved student's

motivation and enhanced lesson comprehension. In particular to knowledge retention, appropriate learning resources can assist students in short-term and long-term memory management, which benefits future recall.

Imminent students are demanding more interactive technology. While smartphones, tablets, and desktops being an integral part of daily life, younger educators are increasingly engaged with digital learning resources (Camilleri and Camilleri 2017). The growing interaction between students and the learning contents is increasing critical thinking. In many ways, interactive technology supply learning motivation, induce curiosity, and approaching the targeted outcomes. Recently, game-based learning was found to suit with millennials generation, where they are accustomed to gaming. The young age nowadays could spend hours playing with video games. The habits with the notion of education should have been switched over learning activity.

5 Giga mobile networks offer lower latency and faster response times of Internet connection. For educational purpose, learners will be free from any limitation, borderless to the global sources of knowledge, and linked without geographical barriers. Mobile technologies offer a high impact on teaching and learning processes (Toktarova et al. 2015). Easier access, open-source, affordable yet high-quality materials will be available for learners around the world. Electronic learning became a strategic objective to transform the conventional educational methods into more electronic-based learning.

Despite distant interaction between educators and learners, reflecting all of the educational process components through interactive devices accessible, face-to-face sessions remain the gold standard, especially for clinical skills teaching in medical and health professions education (Mccutcheon et al. 2015). Skills are defined as a set of actions to complete a purposeful procedure. In general, students may perform well in the communication and history taking skills both in distance learning or in-class. However, such a complex skill of communication is challenging to be comprehensively mastered. Other skills such as physical examinations, wound care, and cardiopulmonary resuscitation are also required more intense interaction between students and tutor for constructive feedback and reflection. While interactive devices offer various benefits in the context of clinical skills acquisition, students reported lack of engagement compared to conventional on site laboratory (Ke and Hsu 2015; Vaughn et al. 2016).

The existence of virtual reality and artificial intelligence boost the advantages of technology for learning purposes. Basic forms of media, including text, picture, video, and audio recordings, exist and support current educational activities. Virtual reality in medical and health professions education aptitude the future of skills simulation. Rather than performing different procedures with basic tools in a standardized environment, virtual reality portrays artificial patients and surroundings in a healthcare setting (Farra et al. 2015). A tutor will be able to write and execute many scenarios following the learner's competence and the objectives. Virtual reality constructs learner's procedural knowledge and trains various skills.

Given that the technology is rapidly changing over time, it is essential to ensure that applied learning resources can be updated. The learning resources should

adapt to global trends and continuously developed. Poorly maintained technology thereby losing its existing users. Research and development play a significant role in answering upcoming challenges and variations. Learners and educators are also expected to periodically enhance their knowledge regarding up-to-date technologies as they will take advantage of the learning resources.

Within the context of significant culture changes due to the introduction of advanced communication and information technology as disputed by Hofstede et al. (2010), adjustment of the teaching and learning materials is demanding over time. Old-fashioned learning resources have been transformed into modern and digital products. Despite these educational materials offered in various types and cast for different purposes, individual learners will likely interpret and apply their knowledge in their own way. Therefore, it is essential to design inclusive and effective instructional strategies for the education process.

Medical and Health Profession education proposes the equilibrium between small and large power distance societies. As the truth in this subject mostly generated from evidence-based-findings, wisdom and expertise transfer by lecturer or health professionals may not be neglected. Combination of aforementioned models is efficient to strengthen theoretical understanding as well as reflects on practical experience in the field. While learning resources support the individualist dimension and urge the needs of independence in terms of SCL, students are expected to act collectively in the care delivery system. Shared decision-making and collaboration in professional practice should be endorsed earlier to facilitate student's growth of both hard skills and soft skills. Thus, proper development of content delivery is necessary to promote learners achieving competencies beyond the learning outcomes.

Indeed, there is much room for improvement. Key points of the learning resources development are intended to transform conventional education methods into an interactive way of learning. Students' motivation, accessibility, and affordability of the learning resources make the consequence of learning more meaningful and enhance knowledge comprehension, which appropriately constructs cognitive knowledge among students (Dent and Harden 2013; Epignosis 2014; Simionescu et al. 2017).

3.9 Summary

Any collection of materials provided by educators in terms of organizing teaching activities is intended to achieve learning outcomes. The learning resources that account for tangible and intangible aspects facilitate students to develop specific knowledge, skills, and attitudes. At the developmental stage, learning resources follow several criteria to meet the eligibility. To some extent, lecturers or teachers also need to adapt to the available learning environments, whether in the context of high-fidelity technology or in a low-cost setting.

In Health Profession Education, learning resources are classified into three groups based on the product, delivery method, and object. Product categories consist of digital and non-digital resources, which include Internet databases and printed books,

respectively. Online learning, compared to offline learning, divides the resources based on their delivery method. Since health education at the end of the day is expected to provide service for the human being, human learning resources (in the form of patient-simulation) are required. The last category differs from the subject of learning.

Health professional education has significantly grown in the past decades. Beyond this age, utilization of learning resources offers opportunities and pose challenges to the nature of learning. Modern learning resources promote student-centered learning where lecturers play a role in supporting and directing students during their journey. Later, the selection of the learning resources is one of the processes that may not intentionally be ignored. The philosophy of learning theories is required to match with the instructional design. The maintenance of the learning resources management cycle is proven to benefit educators and learners. Frequent updates to the learning materials help students to understand the subject material. Professionalism is also promoted through the relevant learning resources.

As a diverse region that accounts for hundreds of millions of global population, learning resources are demanded to embed multicultural aspects in health profession education. However, the learning media is supposed to provide clear and concise guidelines of this concept. Three concepts of (1) 4C-ID, (2) twenty-first-century four competence, and (3) the local context of education are provided in this chapter. The concepts are inter-related to various learning theories and instructional design. Any form of learning activities, including series of practices, is mandatory to seize multicultural education.

The Industrial 4.0 Revolution took health profession education into different development stages. Current learning resources are seamless, with high technology, yet affordable. Adaptation in the learning trends has made teachers and students move forward in the post-modern era. As a global community, vast information distribution and emerging health issues challenge academia to adapt to the situation quickly. However, in a successful health service delivery, the emotional touch and psychological intervention remain invaluable as part of the humanistic approach.

Key Learning Points

- Medical and health professions education widely implement advanced technology to support teaching and learning processes. However, local wisdom and cultural context should be embedded in the technology adaptation
- Current resources provide alternatives for the educators and learners to select and customize their most appropriate teaching–learning materials
- Adapting high fidelity technology for the learning resources implies a determination to enhance effectiveness and efficiency in achieving learning outcomes.
- Well-developed learning resources promotes the simulation of the real-world setting for students in illustrating future career and challenges

References

Art B, Deroo L, De Maeseneer J (2007) Towards unity for health utilising community-oriented primary care in education and practice. Educ for Health: Change Learn Pract 20(2)

Aschbrenner KA, Pratt SI, Bond GR, Zubko L, Naslund JA, Jue K, Williams G, Kinney A, Cohen MJ, Godfrey MM, Bartels SJ (2019) A virtual learning collaborative to implement health promotion in routine mental health settings: protocol for a cluster randomized trial. 84(July). https://doi.org/10.1016/j.cct.2019.105816

Bailey RJ, Baingana RK, Couper ID, Deery CB, Nestel D, Ross H, Sagay AS, Talib ZM (2015) Evaluating community-based medical education programmes in Africa: a workshop report. Afr J Health Professions Educ 7(1 Suppl 1):140–144. http://www.ncbi.nlm.nih.gov/pubmed/26523230

Balasooriya C, Olupeliyawa A, Iqbal M, Lawley C, Cohn A, Ma D, Luu Q (2013) A student-led process to enhance the learning and teaching of teamwork skills in medicine. Educ Health: Change Learn Pract 26(2):78–84. https://doi.org/10.4103/1357-6283.120698

BERGER (2016) Whitepaper summary: skill development for Industry 4.0. Roland Berger GMBH. BRICS Skill Development Working Group, India Section, 1–50. http://indiainbusiness.nic.in/newdesign/upload/whitepaper-summaryskill-development-for-industry-4-0.pdf

Bocconi S, Kampylis P, Punie Y (2013) Framing ICT-enabled innovation for learning: the case of one-to-one learning initiatives in Europe. Eur J Educ 48(1):113–130. https://doi.org/10.1111/ejed.12021

Boonphadung S (2013) ARCS for Critical Inf Retrieval Dev 7(9):1282–1286

Buşan A-M (2014) Learning styles of medical students - implications in education. Curr Health Sci J 40(2):104–110. https://doi.org/10.12865/CHSJ.40.02.04

Buscombe C (2013) Using Gagne's theory to teach procedural skills. Clin Teacher 10(5):302–307. https://doi.org/10.1111/tct.12051

Bušljeta R (2013) Effective use of teaching and learning resources. Czech-Polish Historical Pedagogical J 5(2):55–69. https://doi.org/10.2478/cphpj-2013-0014

Camilleri MA, Camilleri AC (2017) Digital learning resources and ubiquitous technologies in education. Technol, Knowl Learn 22(1):65–82. https://doi.org/10.1007/s10758-016-9287-7

Carneiro R, Steffens K (2013) International handbook of metacognition and learning technologies 28:601–614.https://doi.org/10.1007/978-1-4419-5546-3

Cheung L (2016) Using the ADDIE model of instructional design to teach chest radiograph interpretation. J Biomed Educ 2016:1–6. https://doi.org/10.1155/2016/9502572

Chongloi N, Thomas P, Hansaram A, M., & Deepak, K. K. (2017) Attitudes of undergraduate nursing students toward objective structure practical examination: an exploratory study. Int J Nurs Sci 4(1):68–72. https://doi.org/10.1016/j.ijnss.2016.12.003

Christiansen ET, Kuure L, Morch A, Lindstraom B (2013) Problem-based learning for the 21st century. In Aalborg University

Claramita M (2016) Revealing "Tut Wuri Handayani"—a student-centred learning approach- by ki hajar dewantara from the early 20th century: a literature review 5(1):1–14. https://doi.org/10.22146/jpki.25295

Claramita M, Setiawati EP, Kristina TN, Emilia O, Van Der Vleuten C (2019) Community-based educational design for undergraduate medical education: a grounded theory study. BMC Med Educ 19(1):1–10. https://doi.org/10.1186/s12909-019-1643-6

Claramita M, Nugraheni MD, van Dalen J, van der Vleuten C (2013) Doctor-patient communication in Southeast Asia: a different culture?. Advances in health sciences education: theory and practice, 18(1):15–31. https://doi.org/10.1007/s10459-012-9352-5

Council for Adult and Experiential Learning (2013) 2013 CAEL forum & news: competency-based education. Council for adult and experiential learning. http://ezproxy.bethel.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED547415&site=ehost-live&scope=site

Dashash M (2013) Community-oriented medical education: bringing perspectives to curriculum planners in Damascus University. Educ Health (abingdon, England) 26(2):130–132. https://doi.org/10.4103/1357-6283.120708

Dent JA, Harden RM (2013) A practical guide for medical teachers (C. Livingstone (ed.); Fourth). Elsevier

Design S (2015) The nature of knowledge competency-based learning capabilities sample design implementations description

Diab PN, Naidu T, Gaede B, Prose N (2013) "Cross-cultural medical education: using narratives to reflect on experience." African J Health Professions Educ 5(1):42–45

Dziuban C, Graham CR, Moskal PD, Norberg A, Sicilia N (2018) Blended learning: the new normal and emerging technologies. Int J Educ Technol Higher Educ 15(1):1–16. https://doi.org/10.1186/s41239-017-0087-5

Elsevier Education (2014) Competency-based education. Achieving superior outcomes through flexible, personalized learning. In: Elsevier Education. elsevieradvantage.com/perspectives

Epignosis (2014) e-learning Concepts, Trends, Applications. Book, 5. https://www.talentlms.com/elearning/elearning-101-jan2014v1.1.pdf%0Ahttp://www.talentlms.com/elearning/elearning-101-jan2014-v1.1.pdf

Farra SL, Miller ET, Hodgson E (2015) Virtual reality disaster training: translation to practice. Nurse Educ Pract. https://doi.org/10.1016/j.nepr.2013.08.017

Fejzic J, Barker M (2015) Implementing simulated learning modules to improve students' pharmacy practice skills and professionalism 13(3):1–8. https://doi.org/10.18549/PharmPract.2015.03.583

Fell N, Clark A, Jackson J, Angwin C, Farrar I, Bishop C, Stan H (2017) The Evolution of a Community-Wide Interprofessional Fall Prevention Partnership: Fall Prevention as a Vehicle for Community and University Collaboration and Interprofessional Education. 8:47–51. https://doi.org/10.1016/j.xjep.2017.05.006

Fereidouni Z, Sarvestani RS, Hariri G, Kuhpaye SA, Amirkhani M, Kalyani MN (2019) Moving into Action: the Master Key to Patient Education 27(1):1–8

Findyartini A, Soemantri D, Greviana N, Hidayah RN, Claramita M (2020) Guide Book for Adaptation of medical and health professions education during Pandemic Covid 19 era. Buku Panduan Adaptasi Pendidikan Kedokteran dan Profesi Kesehatan di Era Pandemi Covid-19. UI Publishing

Frenk J, Chen L, Bhutta ZA, Cohen J, Crisp N, Evans T, Fineberg H, Garcia P, Ke Y, Kelley P, Gates M (2010) Health professionals for a new century : transforming education to strengthen health systems in an. 1923–1958. https://doi.org/10.1016/S0140-6736(10)61854-5

Gagne RM, Wager WW, Golas KC, Keller JM, Russell JD (2005) Principles of instructional design (5th edn). Performance improvement, 44(2):44–46. https://doi.org/10.1002/pfi.4140440211

Galloway DA, Laimins LA, Division B, Hutchinson F (2016) HHS Public Access 26(3):87–92. https://doi.org/10.1016/j.coviro.2015.09.001.Human

Gordon M, Fell CWR, Box H, Farrell M, Stewart A (2017) Learning health 'safety' within non-technical skills interprofessional simulation education: a qualitative study. Med Educ Online 22(1):1–9. https://doi.org/10.1080/10872981.2017.1272838

Green BN, Johnson CD (2015) Interprofessional collaboration in research, education, and clinical practice: working together for a better future. 29(1):1–10. https://doi.org/10.7899/JCE-14-36

Hagemeier NE, Hess R, Hagen KS, Sorah EL (2014) Impact of an interprofessional communication course on nursing, medical, and pharmacy students' communication skill self-efficacy beliefs. Am J Pharm Educ 78(10):186. https://doi.org/10.5688/ajpe7810186

Han ER, Yeo S, Kim MJ, Lee YH, Park KH, Roh H (2019) Medical education trends for future physicians in the era of advanced technology and artificial intelligence: an integrative review. BMC Med Educ 19(1). https://doi.org/10.1186/s12909-019-1891-5

Havnes A, Christiansen B, Bjørk IT, Hessevaagbakke E (2016) Peer learning in higher education: patterns of talk and interaction in skills centre simulation. Learn, Cult Soc Interact 8:75–87. https://doi.org/10.1016/j.lcsi.2015.12.004

Heestand Skinner DE, Onoka CA, Ofoebgu EN (2008) Community-based education in Nigerian medical schools: students' perspectives. Education for Health (Abingdon, England)

Hernandez JE, Vasan N, Huff S, Melovitz-Vasan C (2020) Learning styles/preferences among medical students: kinesthetic learner's multimodal approach to learning anatomy. Med Sci Educ 30(4):1633–1638. https://doi.org/10.1007/s40670-020-01049-1

Herold G (2016) Leadership in the fourth industrial revolution. Stanton Chase Bus J 22(12):15

Horton W (2006) e-Learning by design. Wiley

Howe A, Anderson J (2003) Involving patients in medical education. BMJ: Br Med J

Hricko M (2011) Gagne's nine events of instruction. Encyclopedia of information technology curriculum integration, pp 353–356.https://doi.org/10.4018/978-1-59904-881-9.ch058

Interprofessional Education Collaborative Expert Panel (2011) Core Competencies for Interprofessional Collaborative Practice: Report of an Expert Panel

Jenkinson J (2009) Measuring the effectiveness of educational technology: what are we attempting to measure? Electron J e-Learn 7(3):273–280. https://doi.org/10.2307/1164231

Kakar R, Combs R, Ali N, Muvuka B, Porter J (2020) Enhancing the design and utilization of asthma action plans through community-based participatory research in an urban African American community. Patient Educ Couns 2019:6–11. https://doi.org/10.1016/j.pec.2020.08.032

Ke F, Hsu YC (2015) Mobile augmented-reality artifact creation as a component of mobile computer-supported collaborative learning. Internet Higher Educ 26:33–41. https://doi.org/10.1016/j.iheduc.2015.04.003

Keller JM (2008) First principles of motivation to learn and e 3 -learning. Distance Educ 29(2):175–185. https://doi.org/10.1080/01587910802154970

Kennedy J (2014) Characteristics of massive open online courses (MOOCs): a research review, 2009–2012. J Interact Online Learn 13(1):1–16. http://search.proquest.com/docview/1651864883?accountid=14624%5Cnhttp://resolver.rero.ch/unige?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=article&sid=ProQ:ProQ:ericshell&atitle=Characteristics+of+Massive+Open+Online+Courses+(MOOCs

Khabaz Mafinejad M, Mirzazadeh A, Peiman S, Khajavirad N, Mirabdolhagh Hazaveh M, Edalatifard M, Allameh SF, Naderi N, Foroumandi M, Afshari A, Asghari F (2016) Medical students' attitudes towards early clinical exposure in Iran. In J Med Educ 7.https://doi.org/10.5116/ijme.5749.78af

Khanal L, Shah S, Koirala S (2014) Exploration of preferred learning styles in medical education using VARK modal. Russ Open Med J 3(3):1–8. https://doi.org/10.15275/rusomj.2014.0305

Khuntia J, Yim D, Tanniru M, Lim S (2017) Patient empowerment and engagement with a health infomediary. Health Policy Technol 6(1):40–50. https://doi.org/10.1016/j.hlpt.2016.11.003

Luckin R, Fraser DS (2011) Limitless or pointless? An evaluation of augmented reality technology in the school and home. Int J Technol Enhanced Learn 5(3):15

Lalima D, Lata Dangwal K (2017) Blended learning: an innovative approach. Univers J Educ Res 5(1):129–136. https://doi.org/10.13189/ujer.2017.050116

Lassnigg L (2015) Competence-based education and educational effectiveness: a critical review of the research literature on outcome-oriented policy making in education. December. http://www.ssoar.info/ssoar/handle/document/46739

Lee SWW, Clement N, Tang N, Atiomo W (2014) The current provision of community-based teaching in UK medical schools: an online survey and systematic review. BMJ Open 4(12):e005696.https://doi.org/10.1136/bmjopen-2014-005696

Littlejohn A, Falconer I, Mcgill L (2008) Characterising effective eLearning resources. Comput Educ 50(3):757–771. https://doi.org/10.1016/j.compedu.2006.08.004

Lopreiato JO, Sawyer T (2015) Simulation-based medical education in pediatrics. Acad Pediatr 15(2):134–142. https://doi.org/10.1016/j.acap.2014.10.010

Lubbers J, Rossman C (2017) Satisfaction and self-confidence with nursing clinical simulation: novice learners, medium-fidelity, and community settings. Nurse Educ Today 48:140–144. https://doi.org/10.1016/j.nedt.2016.10.010

Makulova AT, Alimzhanova GM, Bekturganova ZM, Umirzakova ZA, Makulova LT, Karymbayeva KM (2015) Theory and practice of competency-based approach in education. Int Educ Stud 8(8):183–192. https://doi.org/10.5539/ies.v8n8p183

Maile CA, Cooper MS (2018) The CIMC guide to developing modules for self-paced learning a handbook for teachers

May W (2008) Training standardized patients for a high-stakes clinical performance examination in the California Consortium for the Assessment of Clinical Competence. Kaohsiung J Med Sci 24(12):640–645. https://doi.org/10.1016/S1607-551X(09)70029-4

Mazgon J, Stefanc D (2012) Importance of the various characteristics of educational materials: different opinions, different perspectives. Turk Online J Educ Technol 11(3):174–188

Metha JM (2011) Development and validation of insertion of uteri-form local resource into Zoe mannequin for midwifery training. Magister of Medical Education study program, Faculty of Medicine Universitas Gadjah Mada, Yogyakarta

Nguyen Q, Tong M, Brennan H, Goodwin J, Gimeno T (2018) Implementation of a student-led interprofessional education clinic at a safety net community health center. J Interprofessional Educ Practice 11:74–79. https://doi.org/10.1016/j.xjep.2018.02.009

Nugroho D (2017) Innovation of tutorial discussions using augmented reality scenarios. Magister of Medical Education study program, Faculty of Medicine Universitas Gadjah Mada, Yogyakarta

Pérez-lópez D, Contero M (2013) Delivering educational multimedia contents through an augmented reality application: a case study on its impact on knowledge acquisition and retention 12(4):19–28

Rawekar A, Jagzape A, Srivastava T, Gotarkar S (2016) Skill learning through early clinical exposure: an experience of indian medical school. J Clin Diagn Res 10(1):JC01–4. https://doi.org/10.7860/JCDR/2016/17101.7022

Roffey S (2007) Creating learning materials for open and distance learning

Ruszczyk HA, Upadhyay BK, Kwong YM (Connie), Khanal O, Bracken LJ, Pandit S, Bastola R (2020) Empowering women through participatory action research in community-based disaster risk reduction efforts. Int J Disaster Risk Reduction 51(August):101763.https://doi.org/10.1016/j.ijdrr.2020.101763

Ryan TJ, Grimes T, Henman MC, Sheachnasaigh EN, Dwyer MO, Roche C, Ryder SA, Sasse A, Walsh JJ (2019) Design and implementation of an integrated competency-focused pharmacy programme: a case report

Simionescu S, Šuníková D, Kubincová Z (2017) Gamification of peer assessment in learning management system. In: 2017 18th international carpathian control conference, ICCC 2017, pp 571–575.https://doi.org/10.1109/CarpathianCC.2017.7970465

Sinclair PM, Kable A, Levett-Jones T, Booth D (2016) The effectiveness of Internet-based e-learning on clinician behaviour and patient outcomes: a systematic review. Int J Nurs Stud 57(1):70–81. https://doi.org/10.1016/j.ijnurstu.2016.01.011

Smaldino SE, Russell JD, Heinich R, Molenda M (2004) Instructional technology and media for learning 8th edition (p 432)

Smit BHJ, Meirink JA, Berry AK, Admiraal WF (2020) Source, respondent, or partner? Involvement of secondary school students in participatory action research. Int J Educ Res 100(February):101544.https://doi.org/10.1016/j.ijer.2020.101544

Smithson J, Bellingan M, Glass B, Mills J (2015) Standardized patients in pharmacy education: an integrative literature review. Curr Pharm Teach Learn 7(6):851–863. https://doi.org/10.1016/j.cptl.2015.08.002

Sommer M, Thrien C (2019) Simulated patients in medical education—a survey on the current status in Germany. Austria and Switzerland 36(3):1–16

Sorce G, Chamberlain J (2018) Evaluation of an education session using standardized patients and role play during perinatal bereavement. J Neonatal Nurs, August, 0–1. https://doi.org/10.1016/j.jnn.2018.11.007

Takase M, Niitani M, Imai T, Okada M (2019) Students' perceptions of teaching factors that demotivate their learning in lectures and laboratory-based skills practice. Int J Nurs Sci 6(4):414–420. https://doi.org/10.1016/j.ijnss.2019.08.001

Tauchid M, Soeratman S, Lahade RS, Soendoro SA (1962) The culture—Book 2 (1st edn) (1st Editio). Taman Siswa Pub.

Tettegah S, Taylor K (2006) Can virtual reality simulations be used as a research tool to study empathy, problems solving and perspective taking of educators?: theory, method and application. Educators 522–523.https://doi.org/10.1145/1179295.1179331

Toader E (2015) Clinical simulations for learning medical skills: a work-based approach to simulators. Procedia—Soc Behav Sci 197(February):2443–2448.https://doi.org/10.1016/j.sbspro.2015.07.408

Tomlinson B (2011) Introduction: principles and procedures of materials development. Mater Dev Lang Teach 1–31

Van Merrienboer JJG, Clark RE, De Croock MBM (2002) Blueprints for complex learning: the 4C/ID-model. Educ Tech Res Dev 50(2):39–64. https://doi.org/10.1007/bf02504993

van Merriënboer JJG, Kester L (2014) The four-component instructional design model: multimedia principles in environments for complex learning. The Cambridge Handbook of Multimedia Learning, Second Edition, pp 104–148.https://doi.org/10.1017/CBO9781139547369.007

Vaughn J, Lister M, Shaw RJ (2016) Piloting augmented reality technology to enhance realism in clinical simulation. CIN: Comput, Inf, Nurs 34(9):402–405. https://doi.org/10.1097/CIN.0000000000000251

Voutilainen A, Saaranen T, Sormunen M (2017) Conventional vs. e-learning in nursing education: a systematic review and meta-analysis. Nurse Educ Today 50:97–103. https://doi.org/10.1016/j.nedt.2016.12.020

Wallenstein J, Heron S, Santen S, Shayne P, Ander D (2010) A core competency-based objective structured clinical examination (OSCE) can predict future resident performance. Acad Emerg Med: Official J Soc Acad Emerg Med 17(Suppl):2. https://doi.org/10.1111/j.1553-2712.2010.00894.x

Washington DC Interprofessional Education Collaborative, May, 1351. https://doi.org/10.1097/ACM.0b013e3182308e39

Widyandana D, Majoor GD, Scherpbier AJJA (2011) Comparison of three clinical environments for pre-clinical clinical skills training. Med Teacher.https://doi.org/10.3109/0142159X.2011.558141

Widyandana D, Majoor G, Scherpbier A (2012) Preclinical students' experiences in early clerkships after skills training partly offered in primary health care centers: a qualitative study from Indonesia. BMC Med Educ 12(1):35. https://doi.org/10.1186/1472-6920-12-35

Widyastuti E, Susiana (2019) Using the ADDIE model to develop learning material for actuarial mathematics. J Phys: Conf Ser 1188(1). https://doi.org/10.1088/1742-6596/1188/1/012052

Wilhite JA, Velcani F, Watsula-Morley A, Hanley K, Altshuler L, Kalet A, Zabar S, Gillespie CC (2019) Igniting activation: Using unannounced standardized patients to measure patient activation in smoking cessation. Addict Behav Rep 9(March):0–5.https://doi.org/10.1016/j.abrep.2019.100179

Woo WH (2018) Applying ADDIE model to ideate precision medicine in a polytechnic biomedical science programme. J Biomed Educ 2018:1–5. https://doi.org/10.1155/2018/4268517

Chapter 4
The Encounters of Clinical Teaching in Hierarchical and Collectivistic Contexts

Yoyo Suhoyo and Ova Emilia

Abstract The socio-hierarchical context brings many consequences to student-centered learning, not only in the classrooms but also in clinical settings. The ideal observation-based learning may not work as expected during workplace-based clinical education and patient-care services. The ultimate summative assessment, which will be discussed in another chapter, will drive students' motivation to pass the final clinical examination as if it is the only way to succeed in their clinical education. Therefore, clinical learning likely lacks dialogue, supervision, observation, and feedback. Constructive comments are rare, as well as self-reflection, participatory learning, and initiatives. Using an experience-based learning model as the concept for clinical teaching in the 21st century, we discuss the difficulties and challenges of the country with collectivist and large power distance cultures. To implement the concept of clinical teaching in this cultural context medical teachers should be aware of tension between precondition for implementing the concept and cultural countries characteristics. In a collectivistic culture, serial discussions should be taken to reduce this tension while keeping the underlying ideal clinical teaching. We shared our experience in implementing innovation to improve clinical teaching in a hierarchical and collectivistic cultural context.

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https://doi.org/10.1007/978-981-16-7232-3_4

4.1 Introduction

Clinical teaching in hierarchical and collectivistic culture

The cultural dimension of large power distance and collectivistic culture brings many consequences to the student–teacher relationship. Not only in the classrooms during small group discussions, as explained in Chap. 2, but also in clinical settings. The ideal clinical education learning strategy: direct observation-based learning may not work as expected, as illustrated in this edited volume. Students and residents individually may learn in a less-observed environment during their daily clinical education and patient-care services. The ultimate summative assessment, which will discuss in another chapter, will drive their motivation to pass the clinical stations as if it is the only way of the success of their clinical education. The process of clinical learning is, therefore, lack of dialogue, supervision, observation, and feedback. Constructive comments are rare, as well as self-reflection, participatory learning, and initiatives. The 'blaming' culture is on top of these circumstances. Patient-safety is highly threatened.

The legal laws to make sure the observation-based learning implemented by the senior consultants to their graduate and undergraduate students in clinical education sometimes is inadequate. Especially when the rules and regulations allow the physicians to practice in more than two hospitals at the same time. Therefore, consultants are somewhere in their way between hospitals, and so the closest teachers in place, maybe the junior residents, who still need lots of supervision and feedback. Health professions' education is in their endeavor toward partnership-based clinical training. Nevertheless, this chapter will also discuss best practices of the effort toward better clinical education, which highly appreciated in this kind of context.

Clinical teaching is a critical phase in medical and health professional education (Spencer 2003; Teunissen and Wilkinson 2011). The clinical setting is an ideal setting for students to learn clinical competencies, e.g., history taking, physical examination, professionalism, clinical judgment, and communication through some learning activities, either by independent learning or formal teaching–learning activities in the ward, outpatient clinic, emergency department, and operating theater. These learning activities are based on the triadic relationship as the main characteristic of clinical teaching: clinical teachers, students, and patients (Dornan et al. 2010, 2019; Teunissen and Wilkinson 2011). The interaction patterns between clinical teachers, students, and patients, and the social position between them is deeply rooted in society's culture (Hofstede 1986, 2001, 2011). It is the cultural dimensions of collectivism and power distance that are at stake here as will be explained in the following paragraphs.

4.2 Teaching and Learning in Collectivist and Large Power Distance Countries

Collectivism is "*a society in which people from birth onwards are integrated into strong, cohesive in-group, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty*" (Hofstede 2001). People in collectivistic countries are interdependent. That means self and others are interrelated (Markus and Kitayama 1991). People in this culture support others' goals, adjust to the group, take appropriate action and pay attention to other people's feelings and thoughts that are not expressed—read other people's thoughts (Singelis 1994; Markus and Kitayama 1991). The ability to adapt and maintain harmony with others is essential in this culture (Markus and Kitayama 1991; Hofstede 2001). As a result, they control and regulate their personal needs, goals, and desires not to conflict with others' needs, goals, and desires. They also avoid discussing the performance of others publicly. These things can also be found in teaching and learning processes and teacher-student interactions (see Table 4.1) (Hofstede 1986, 2001, 2011).

Power distance is a measure to show the difference between someone more powerful—superior—and someone less powerful—subordinate (Hofstede 2001). In large power distance, superiors try to maintain and increase the distance with subordinates, so that the emotional distance between superiors and subordinates remains large. For subordinates, it is challenging to approach and contradict superiors. Subordinates become dependent on superiors. It also applies to patterns of interaction between teachers and students as explained in Table 4.1. The table is used to elaborate each point as illuminated in the clinical settings, which then elaborated in this chapter.

Table 4.1 Hofstede's model of cultural dimensions: the individualism and power distance dimensions in educational contexts (Hofstede 1986, 2001, 2011)

Low individualism (collectivism) · Teachers deal with students as a group · Students will not speak up in class or large groups · Harmony, saving face, and shaming in class	**High Individualism** · Teachers deal with individual students · Students expected to speak up in class or large groups · Students' selves to be respected
Large Power Distance · *Students expect teachers to outline paths to follow* · Quality of learning depends on the excellence of teachers · Teachers initiate all communication in class	**Small Power Distance** · *Teachers expect students to find their own paths* · Quality of learning depends on two-way communication and excellence of students · Students initiate some communication in class

4.3 Clinical Teaching in the Twenty-First Century

Dornan et al. (2019) have developed the experience-based learning model as the concept for clinical teaching in the twenty-first century. It is based on their work in 20 years, surveying workplace learning theory, extracting evidence from nearly 300 published articles, conducting program research, and publishing a series of articles. In this model, clinical teaching in the twenty-first century should be not about teaching, but about supporting students' learning from real patients within clinical practice. They emphasize that clinical teaching should ensure: students can participate in practice; members of the clinical workforce and patients can support students' participation, and clinicians can help students learn reflectively from real patient experience. These may lead to the capability and identity of a safe, effective, and compassionate doctor and health professional. It brings implications to three parties involved in the triadic relationship: clinical teachers, students, and patients.

In an experience-based learning model, clinical teachers should support students' participation in clinical practice, help them step outside their comfort zones, learn reflectively from doing so, and become more capable (Dornan et al. 2019). Clinical teachers should do some activities to support students' participation in clinical practice: relating with students, briefing students, practicing within the educational triad, managing the dynamic of observing, rehearsing, and contributing within the educational triad, and debriefing students. To help students step outside their comfort zone, clinical teachers should provide organizational, pedagogic, and affective supports. In helping students learning from real patient experience, clinical teachers should facilitate students to do the reflective process in which students link prior learning to memorable patients and restructure, consolidate, reinforce, and contextualize what they have learned into capability. Feedbacks have to be provided by clinical teachers in all these aspects of clinical teaching and given as a dialogue (Ende 1983; Hewson and Little 1998; Branch and Paranjape 2002; Hattie and Timperley 2007; Ramani and Leinster 2008; Cantillon and Sargeant 2008).

In the current era, students and patients should give more active contributions in clinical teaching. The patients' contribution is to co-participate with students during a clinical encounter. Students' contribution is to build relationships with clinical teachers, participate actively in clinical practice, learn reflectively, and develop their capabilities (Dornan et al. 2019).

4.4 Challenges in Collectivist and Large Power Distance Countries

Some authors argue that the concept of education cannot be easily transferred from one culture to another (Bleakley et al. 2008; Lam and Lam 2009). Our previous study obtained empirical evidence that an educational concept model cannot be directly translated into other cultures (Suhoyo et al. 2014a). However, our study

also shows that culture is not always a barrier to the implementation of educational concepts that are designed and developed in other countries with different cultures. The successful implementation of concepts developed in other cultures must pay attention to local culture (Suhoyo et al. 2014b). Therefore, to implement the concepts of clinical teaching for the twenty-first century in the collectivist and large power distance countries, we should be aware of the difficulties and challenges in this culture and not compatible with these concepts.

1. **Supporting participatory learning**

a. **Relating to students**

Clinical teachers are expected to be close with students such as should get to know them, acknowledge them as individuals, make them feel invited, valued, comfortable, and relax, and inspire them with enthusiasm and love of learning (Dornan et al. 2019). Even Clinical teachers should treat students as junior colleagues and reduce hierarchical distance with students and patients. It will be a real challenge in large power distance countries because, in this culture, superiors tend to maintain distance between themselves and their subordinates (Hofstede 1986, 2001, 2011). On the contrary, students will be happy to be close with the clinical teacher because, as subordinate, they always attempt to reduce the distance. They need an outline from the clinical teacher to be followed (Hofstede 1986, 2001, 2011).

b. **Briefing students**

The clinical teacher should determine students' capability to meet their learning needs, help them choose learning goals and ways of achieving these, tell them what their expectations, and orientate them before participation begins (Dornan et al. 2019). The challenge here is how to deal with students individually because each student has a different ability and need. In a collectivistic culture, the clinical teacher usually deals with students as a group (Hofstede 1986, 2001, 2011; Suhoyo et al. 2018).

c. **Practicing within the educational triad**

Clinical teachers should obtain patients' consent, handle sensitive consultations carefully, and be open, willing, friendly, kind, and helpful toward patients. To students, they also should become a role model for the attributes of a good doctor: be clinically skilled, respectful, and well mannered; demonstrate positive attitudes toward patients' families and fellow staff. The clinical teachers should empower both student and patient to co-participate by, such as giving a student a task and asking a patient to join them in giving constructive feedback and use physical examination as an opportunity for students to come close to patients and overcome inhibitions (Dornan et al. 2019). The challenge is to encourage students to participate actively in clinical practice. Students may feel afraid for losing face by making mistakes in front of other students because usually, clinical teachers observe individual students in front of the group due to dealing students as a group in collectivistic culture (Hofstede 1986, 2001, 2011). The clinical teachers need to observe students in front of the group

to identify students' deviations from the group standards to maintain harmony and integration in the group. Students also may wait for the clinical teacher's instruction to interact with patients because usually, clinical teachers in large power distance take all communication (Hofstede 1986, 2001, 2011).

d. **Managing the dynamic of observing, rehearsing, and contributing to the educational triad.**

There are three types of students' participation in clinical practice: observing, rehearsing, and contributing (Dornan et al. 2019). To manage the dynamic of observing (being present at and learning from practice without being hands-on involved) within the educational triad, clinical teachers should: use observation to give students a breadth of learning; encourage students to observe situations they are not yet ready to perform or are too complex; give students written guidance about what to observe, when, and how; make it possible for the student to be present and comfortable about being there; activate observation by engaging students; arrange the furniture so everyone can make eye contact and feel included; ensure conversations are triadic; detail students to observe how you, residents, and other professionals practice and ask students to report on this; and promote active participation. To manage to rehearse (performing tasks of practice without contributing to patient care) and to contribute (being given the responsibility to perform tasks of practice) within the educational triad, clinical teachers should: task a student; provide opportunities for them; summarize previous records and or investigations of complex patients; perform procedures they have been trained to do; detail students to assemble information, organize aspects of care, and communicate with patients and professionals on your behalf; and manage time pressures.

Some challenges can be found:

- The clinical teachers' motivation in making guidance such as study guide. In large power distance cultures, students need guidance from the clinical teacher to be followed (Hofstede 1986, 2001, 2011). However, guidance like a study guide may be perceived as just additional learning sources for the clinical teacher. Education in countries that are high on power distance is teacher-centered (Hofstede 1986, 2001, 2011).
- Promoting students' active participation because they may feel afraid to be observed by clinical teachers and to discuss with them (Hofstede 1986, 2001, 2011).
- The clinical teacher may not observe all students because they tend to observe students' representative as consequences of dealing student as a group (Hofstede 1986, 2001, 2011; Suhoyo et al. 2018)
- Debriefing students

Clinical teachers should encourage reflection through some activities such as stimulate students to reflect on patients' sensitivities, help them verbalize real patient learning, help them identify new capability and reinforce it, and encourage them to put their thoughts and feelings into words on which they can continue to reflect. Students also can be asked to interpret patients' problems, then propose, justify,

and choose different approaches, and invite them to comment critically on clinical teachers' practice (Dornan et al. 2019). At the end of debriefing students, the clinical teachers' should summarize the conversation, reinforce the take-home messages, advise students on how to structure future experience, suggest alternative ways of rehearsing tasks, and transfer capability into authentic practice. These last parts are what clinical teachers should do during the feedback process as an essential teaching activity in clinical teaching.

The characteristics of large power distance and collectivistic culture can be the challenges in the briefing students. The clinical teachers should do the dialogue or two-way communication during the debriefing process. It may be difficult in large power distance because, in this culture, clinical teachers initiate all communication, and students should follow what they said (Hofstede 1986, 2001, 2011). So, communication tends to be directive or one-way communication.

Students should actively explain or comment or express what they find and feel during encounters with the patients. However, students are more reluctant to speak up in a collectivistic culture as they want to avoid losing face by making a mistake. They will generally strive to fit into the group, adjust their behavior to achieve this, maintain group harmony, and focus on the group's priorities rather than on their desires (Hoftsede 1986, 2001; Marku and Kitayama 1991).

2. Helping students step outside their comfort zone

Clinical teachers can do three types of support to help students step out of their comfort zones and co-participate with patients and clinicians (Dornan et al. 2019). First, organizational support through providing facilities, resources, and the organization of students' experiences. Second, pedagogic support in which divided into formal and informal pedagogic supports. Examples of formal pedagogic support are modeling good practice, engaging students in clinical activities, and advising them on structuring and learning from their experiences. The examples of informal pedagogic supports are thinking aloud, helping students think along with them, explaining, asking questions, listening, and conversing about practice. Furthermore, the last is affective support by having positive attitudes toward educational and clinical practice and relating positively to students at the group and individual levels.

For organizational support, the people's willingness and involvement from the top hierarchy are crucial in large power distance cultures (Hofstede 2001). For formal and informal pedagogic and affective support, clinical teachers should shift the educational paradigm from teacher-centered to students centered and from directive to two-way communication. Clinical teachers also should be close to students that mean they should decrease the distance with students as subordinate (Hofstede 2001). In a collectivistic culture, clinical teachers should try not only to deal with students as a group but also to deal with students individually (Hofstede 2001; Suhoyo et al. 2018).

3. Reflecting on experiences of participation (real patient learning)

During reflection, clinical teachers must listen well, and judiciously prompt students to talk about their whole experiences. The challenges are the same as the challenges

in debriefing students' process. Feedback to students is a very critical factor during the reflection process.

4. Providing feedback to students

Van de Ridder et al. (2008) define feedback as "*specific information about the comparison between a trainee's observed performance and a standard, given with the intent to improve the trainee's performance*."Feedback can enhance students' behavior and level of competence and improve their performance" (Sachdeva 1996; Kilminster and Jolly 2000; Veloski et al. 2006; Kilminster et al. 2007; Nicholson et al. 2008; Van de Ridder et al. 2008).

With adequate supervision and assessment, feedback is an essential factor in achieving clinical competence in clinical settings (Daelmans et al. 2004). Feedback encourages student learning through information about their strengths and weaknesses (Norcini and Burch 2007). Information about strengths and weaknesses fosters self-reflection and self-remediation and encourages students for advanced training (Epstein and Hundert 2002). The literature shows some more effective feedback than others (Archer 2010; Norcini 2010). The following characteristics are acknowledged to be able to facilitate feedback effectively in clinical settings:

- The feedback providers should know the standards that can be compared with student performance; therefore, they should be an expert and credible person (Veloski et al. 2006; Archer 2010; Daelmans et al. 2004; Van de Ridder et al. 2008). The level of seniority can distinguish the quality of feedback (Daelmans et al. 2004, 2005).
- Direct observation should be conducted before giving feedback because the strengths and weaknesses of student performance must be identified (Nicholson et al. 2008; Norcini 2010; Van de Ridder et al. 2008; Van Hell et al. 2009; Ende 1983; Hewson and Little 1998; Gordon 2003; Cantillon and Sargeant 2008). Through direct observation, clinical teachers can assess students' level of needs and performance (Parsell and Bligh 2001; Snell et al. 2000). Feedback based on direct observation is very influential on the achievement of student competencies.
- Students must take the initiative to solicit feedback from their clinical supervisors as a part of their active participation in the learning process during clerkships (Ramani and Leinster 2008). The aim is to ensure that the feedback given is suitable for students' learning needs and can increase students' internal motivation. Van Hell et al. (2009) reported that feedback based on student initiatives has more influence on the learning process than feedback based on clinical teacher initiatives.
- Feedback to students should provide information regarding the strength or what was done well of students (Gordon 2003; Nicholson et al. 2008; Hewson and Little 1998; Ramani and Krackov 2012). It will support good practice because the appraisal of good performance will enhance students' confidence.
- Feedback to students also should provide information on which aspect(s) of their performance needs to be improved (i.e., weaknesses) (Nicholson et al. 2008;

Hewson and Little 1998; Gordon 2003; Ramani and Krackov 2012). Students need information on performance deficiencies to set learning goals.

- The comparison between students' performance and a standard such as professional judgment, local standard, or guideline should be conducted during feedback (Veloski et al. 2006; Nicholson et al. 2008; Van de Ridder et al. 2008); Ende 1983; Cantillon and Sargeant 2008). By making this comparison, students will be aware of their progress.
- Students need sufficient information to correct errors; therefore, during feedback, they should be informed of the correct performance that elaborates what, how, and why performance is correct or not (Shute 2008).
- The feedback provider should invite and discuss the plan of action with students (Nicholson et al. 2008; Van de Ridder et al. 2008; Hewson and Little 1998; Parsell and Bligh 2001; Ramani and Krackov 2012). It will improve students' performance by helping them applying feedback in practice to narrow the gap between actual and desired performance (Cantillon and Sargeant 2008; Ramani and Krackov 2012).

We have studied the eight characteristics above in Indonesia as a country with a large power distance and collectivistic culture. The first study investigates the first three characteristics (Suhoyo et al. 2014a):

1. The feedback provider must be an expert and credible person.
2. Feedback must be based on direct observation.
3. Students must take the initiative to ask for feedback from their clinical teachers.

In this study, we replicated a Dutch study (Van Hell et al. 2009) in Indonesia to analyze whether there are differences in feedback practices and their effects on the perceived learning value of feedback. We found that the perceived value of feedback learning did not differ significantly between the two countries. However, significant differences were found in each of the three characteristics. A study in Indonesia revealed that feedback from specialists was considered to have more learning value than feedback from residents, whereas, in the Dutch study, there was no significant difference in the learning value of feedback between specialists and residents. In Indonesia, we found no significant difference between the value of learning feedback based on direct observation or not based on direct observation. In contrast, in the Netherlands, feedback based on direct observation is considered to have more learning value. In Indonesia, feedback is considered to have more learning value when students and supervisors jointly initiate the feedback moment than when students only initiate it. Meanwhile, the Dutch study did not show significant differences in perceptions about the value of learning feedback initiated by students or joint initiatives. These differences are following each country's cultural characteristics and can be explained from the cultural dimensions of Power Distance and Individualism. For example, in large power distance countries, interaction patterns are more hierarchical; therefore, most individual interactions are with people whose social position is closest to them. It might explain why Indonesian students receive the most feedback from the population. Furthermore, students consider feedback from specialists more

instructive. The power distance dimension can also explain this result. The higher the power distance, the more respect students have for teacher expertise, and the higher the perceived learning value. In the Netherlands, a country classified as low in power distance, students receive most of the feedback from specialists, and Dutch students consider feedback from residents and specialists to be equally instructive.

In the second study conducted in Indonesia, we analyzed the effect of five other feedback characteristics on the perception of the learning value of feedback (Suhoyo et al. 2017). For each feedback received, students are asked to note whether the feedback provider (1) tells students what went well, (2) mentions aspects of performance that need to be improved, (3) compares student performance with standards, (4) further explain or show the correct performance, and (5) prepare an action plan with students to improve performance. Furthermore, students are also asked to rate the learning value of each feedback they receive on a 5-point Likert scale. As a result, students consider feedback more valuable when the feedback provider mentions their weaknesses, compares their performance with standards, explains or shows the correct performance, and prepares an action plan with students. This result might be influenced by Indonesian culture as a large power distance and collectivistic country. Students may think of feedback with these four characteristics as outlines of specialists that need to be followed and achieved. Teacher goals and expectations are important factors that influence student motivation to learn in the collectivistic and large power distance cultures (Hofstede 1986, 2001; Markus and Kitayama 1991). In this culture, students also expect their teachers to determine the learning path. One characteristic, mentioning strength, was found not to affect the value of learning feedback. It might be caused by a character in a collectivist culture that tends toward simplicity and values not to stand out but to fit in with others so that students might think that mentioning what was done well as an act of kindness (Markus and Kitayama 1991). Therefore, mentioning strength might have little learning value for students.

Providing individual feedback to students and their importance is the most widely discussed in the education literature. However, group feedback has been found as a general educational practice in a particular culture (Sully de Luque and Sommer 2000). In our study in Indonesian clerkships, we found that group feedback was given more often than individual feedback, and the perceived learning value of group feedback was received higher than individual feedback (Suhoyo et al. 2018). Also, characteristics of effective feedback—namely observable competencies (except physical examinations), use of standards, and action plan to improve performance—are more often used in group feedback. Correcting performance deficiencies is the only characteristic that more often found in individual feedback. It may relate to the characteristic of collectivist cultures. In this culture, teachers' expectations are essential for students learning, and students expect teachers to determine their learning pathways (Hofstede 1986, 2001, 2011; Markus and Kitayama 1991). This study showed that the concept of feedback formulated from a rather individualist perspective, not sufficiently complete for collectivist cultural needs. The fact that group feedback meets more effective feedback requirements, and its perceived learning value was higher than individual feedback underline the importance of group feedback in a collectivistic culture.

4.5 Implementing the Concepts of Clinical Teaching for the Twenty-First Century in the Collectivist and Large Power Distance Countries

In implementing the concept of clinical teaching for the twenty-first century in the collectivist and large power distance countries, we should be aware of the tension between precondition for implementing this concept and these countries' characteristics. We should make a serial decision to reduce this tension while keeping the underlying clinical teaching concept for the twenty-first century. Changes will be needed.

A systematic approach, such as Gale and Grant's (1997) steps for managing medical education innovations, can be used. In this approach, we should: establish the needs and benefits, find the power to act, design the innovation, consult, publicize the change widely, agree on the detailed plan, implement, provide support, modify plans and evaluate outcomes. During the implementation process, collectivistic and large power distance characteristics have to be taken into account. It implies that during the implementation of the concept of clinical teaching for the twenty-first century: (1) people from higher-level hierarchy have to be involved in decision making, and (2) decisions have to be made collectively by all stakeholders (Hofstede 2001). The involvement of people in the top organization in large power distance culture is vital to obtain the power to act and encouraging clinical teacher to implement the educational concept because in this culture clinical teachers as subordinates expect to be told what to do by them who are in the top (Hofstede 2001; Smith et al. 2002). Collective decisions and involvement from all stakeholder groups are essential in collectivist culture because it can create harmony (Hofstede 2001).

Furthermore, all stakeholder groups who are representatives of experts, policymakers, managers, and top leaders should be involved in the implementation process. Expertise, key people, and authority are also vital for obtaining the power to act in managing an innovation process (Gale and Grant's 1997). The needs, benefits, and strategic choices of implementation should be discussed, consulted, and agreed with all stakeholders.

Strategic choices of implementation should consist of strategic choices on clinical teachers, students, and patients in implementing the educational concept. The example of strategic choices for clinical teachers:

- To help the clinical teacher to support participatory learning, help students step outside their comfort zone, facilitate reflection on the experience of participation and provide feedback to students; medical school should write detailed guidelines and train them before the implementation. Clinical teachers need to be told what to do (Hofstede 2001).
- To strengthen commitment, we can provide an additional reward for the clinical teacher's participation and involvement in clinical teaching, especially for whom teaching is not their core business because the majority of them are not university staff, but hospital staff. Alternatively, the performance of the clinical teacher in

clinical teaching is part of the evaluation of work and promotion. The lack of incentives and rewards for teaching has been acknowledged as a problem in the clinical setting (Spencer 2003; Ramani and Leinster 2008).

- To prevent students for being afraid in front of other students (Hofstede 1986, 2001), and motivate them to be active participation in clinical practice (Dornan et al. 2019), the clinical teacher can be asked to be more often observing and providing feedback to students individually (Suhoyo et al. 2014a, b).

The example of strategic choices for students:

- To encourage students to be more active and teachers to give space for students' initiative (Dornan et al. 2019), we require students to ask the clinical teacher to participate in clinical practice and get feedback individually. Both should know this policy. It is needed because in a collectivistic culture; students are reluctant to speak up and discuss their performance with clinical teachers because they are afraid to lose face by making a mistake in front of other students (Hofstede 1986, 2001). Besides, in countries with large power distance, teachers initiate all communication (Hofstede 1986, 2001).
- To support students learning, the clinical teacher should provide clinical learning resources like a study guide. In large power distance cultures, students need an outline from clinical teachers to be followed (Hofstede 1986, 2001). Furthermore, a study guide written by the clinical teacher may be taken as a standard and expectation that students have to achieve. In a collectivist culture, meeting teachers' expectations is an essential motivation for students learning (Markus and Kitayama 1991).

The example of strategic choices for patients: to encourage patient participation so that students get clinical practice experience, the clinical teacher should select the patients directly and tell their expected role. In large power distance cultures, patients are subordinate who need to be told what they should do by their doctor (clinical teacher) as superior in the hierarchy (Hofstede 2001). Furthermore, clinical teachers are acquainted with their students' experience and performance levels (Kilminster et al. 2007). Therefore, clinical teachers can judge whether students work within their competence and avoid unsafe situations for patients if inexperienced students examine them.

To give an illustration of how to implement the experiential learning models (Dornan et al. 2019) in large power distance and collectivistic cultures, we will explain our study in implementing the mini-CEX in Indonesia (Suhoyo et al. 2014b). We conducted this study to improve feedback during clerkships (Hauer 2000; Hill and Kendall 2007; Norcini 2005). We face some cultural challenges in implementing the mini-CEX. First, Indonesian students receive mostly individual feedback from residents rather than specialists (Suhoyo et al. 2014a). To change to individual feedback from specialists means a significant change in interaction patterns between specialists and students. Second, direct observation may occur in front of other students, making students afraid of losing face (Hofstede 1986, 2001, 2011). Third, previously, group feedback from specialists was the most common practice during clerkships

(Suhoyo et al. 2018). Therefore, the shift from group to individual feedback is also a significant change for specialists.

To implement mini-CEX optimally, maintain strength, and optimally handle mini-CEX challenges, we developed a comprehensive implementation strategy (Suhoyo et al. 2014b). We made some clear strategic choices about how mini-CEX should be implemented. For example, the examiner must be a specialist, observation and feedback must be carried out individually, and the patient selected by a specialist. Also, we made the new assessment program lean and feasible.

In order to evaluate the effectiveness of our implementation strategy, we have conducted two evaluations. First, we compared the final clinical competence of students who completed their clerkship before and after the mini-CEX implementation (Suhoyo et al. 2014b). All students were examined with the assistance of a modified Objective Structured Long Examination Record (OSLER). After implementing mini-CEX, OSLER results were significantly higher in Internal Medicine. However, in Neurology, no significant differences were found that we assumed it caused by the "ceiling effect" (where the scores were already very high).

Second, we evaluate the appreciation of students and specialists toward the mini-CEX (Suhoyo et al. 2020) because the acceptance of assessment formats is essential for its effectiveness (Van der Vleuten 1996; Sternberg 2007). They were asked to complete a 19-item questionnaire consisting of two main categories: the practicality of mini-CEX (5) and its impact on learning, which were divided into global impacts on learning (11) and professional development (3). As a result, students and specialists feel positive about the practicality of mini-CEX and its impact on learning and professional development. There was no significant difference between the opinions of students and specialists about mini-CEX, except for two items. The first item is about observation: teachers are significantly more positive about direct observation than students. The characteristics of a collectivist culture may explain this difference. In this culture, specialists need frequent observation to identify deviations from group standards in order to maintain harmony and integration within the group. On the other hand, being observed may be an unpleasant experience for students, for fear of failure and losing face. The second item relates to previous mini-CEX experiences: students were significantly more positive than teachers about the perception that students' past mini-CEX experiences influenced their recent mini-CEX results. A possible explanation for this result is that the specialist did not know the student's previous results. Therefore, specialists can provide a general opinion. On the other hand, students might interpret this question from an individual point of view and feel stimulated to appear different (better) in the next mini-CEX.

Based on both evaluations, we conclude that by considering carefully local culture, context, and demands, and using systematic and targeted measures, mini-CEX can be implemented as intended in countries with large power distance and collectivist cultures. The high satisfaction scores of Indonesian specialists and students with mini-CEX support our conclusion that the implementation process was successful. We believe the same will happen in the implementation of clinical teaching concepts in the twenty-first century. As we found in our study, culture does not necessarily

become an obstacle in applying educational principles sourced from countries with different cultures. We only need to pay attention to local cultural characteristics.

4.6 Summary

In all educational principles based on teacher-student interactions, cultural differences must be considered because the patterns of teacher-student interaction are rooted in each country's culture. It also applies to experience-based learning models as the head of clinical teaching education for the twenty-first century. Improving the quality of medical education that meets international standards and current literature recommendations can not only be done by adopting and applying educational principles that have proven successful in other countries. Managing the implementation process carefully and considering the local culture and context will increase the chances of applying these educational principles without changing the underlying learning principles. More studies are needed in implementing educational principles that are not directly fit with the local culture. Hopefully, this chapter will inspire and encourage other medical educators to further explore cultural differences in medical education, especially in clinical teaching.

Key Learning Points

- An educational concept model cannot be directly translated into other cultures.
- To implement the concepts of clinical teaching for the twenty-first century in the large power distance and collectivist countries, we should be aware of the difficulties and challenges in this culture and not be compatible with these concepts.
- Culture does not necessarily become an obstacle in applying educational principles sourced from countries with different cultures, and we only need to pay attention and respond to local cultural characteristics.

References

Archer JC (2010) State of the science in health professional education: effective feedback. J Med Educ 44(1):101–108

Bleakley A, Brice J, Bligh J (2008) Thinking the post-colonial in medical education. J Med Ed 42(3):266–270

Branch Jr WT, Paranjape A (2002) Feedback and reflection: teaching methods for clinical settings. Acad Med 77(12 Part 1):1185–1188

Cantillon P, Sargeant J (2008) Giving feedback in clinical settings. BMJ 337:a1961
Daelmans HEM, Hoogenboom RJI, Donker AJM et al (2004) Effectiveness of clinical rotations as a learning environment for achieving competences. Med Teach 26(4):305–312
Daelmans HEM, Hoogenboom RJI, Donker AJM et al (2005) Effects of an in-training assessment programme on supervision of and feedback on competencies in an undergraduate internal medicine clerkship. Med Teach 27(2):158–163
Dornan T, Scherpbier A, Boshuizen H (2010) Supporting medical students' workplace learning. Experience-Based Learn, the Clin Teach 6(3):167–171
Dornan T, Conn R, Monaghan H et al (2019) Experience based learning (ExBL): clinical teaching for the twenty-first century. Med Teach 41(10):1098–1105
Ende J (1983) Feedback in clinical medical education. JAMA 250(6):777–781
Epstein RM, Hundert EM (2002) Defining and assessing professional competence. JAMA 287(2):226–235
Gale R, Grant J (1997) AMEE Medical Education Guide No. 10: managing change in a medical context: Guidelines for action. Med Teacher 19(4):239–249
Gordon J (2003) One to one teaching and feedback. BMJ 326:543–545
Hattie J, Timperley H (2007) The power of feedback. Rev Educ Res 77:81–112
Hauer KE (2000) Enhancing feedback to students using the mini-CEX (Clinical Evaluation Exercise). Acad Med 75:524
Hewson MG, Little ML (1998) Giving feedback in medical education: verification of recommended techniques. J Gen Intern Med 13:111–116
Hill F, Kendall K (2007) Adopting and adapting the mini-CEX as an undergraduate assessment and learning tool. Clin Teach 4:244–248
Hofstede G (1986) Cultural difference in teaching and learning. Int J Intercult Rel 10:301–332
Hofstede G (2001) Culture's consequences, comparing values, behaviors, institutions, and organizations across nations. Sage Publications, Newbury Park, CA
Hofstede G (2011) Dimensionalizing cultures: the Hofstede Model in context online readings in psychology and culture 2(1). https://doi.org/10.9707/2307-0919.1014
Kilminster SM, Jolly BC (2000) Effective supervision in clinical practice settings: a literature review. Med Educ 34:827–840
Kilminster S, Cottrell D, Grant J, Jolly B (2007) AMEE Guide No. 27: effective educational and clinical supervision. Med Teach 29:2–19
Lam TP, Lam YYB (2009) Medical education reform: the Asian experience. Acad Med 84:1313–1317
Markus HR, Kitayama S (1991) Culture and the self: implication for cognition, emotion, and motivation. Psychol Rev 98:224–253
Nicholson S, Cook V, Naish J, Boursicot K (2008) Feedback: its importance in developing medical student's clinical practice. Clin Teach 5:163–166
Norcini JJ (2005) The mini clinical evaluation exercise (mini-CEX). Clin Teach 2:25–30
Norcini JJ, Burch V (2007) Workplace-based assessment as an educational tool: AMEE Guide No. 31. Med Teach 29:855–871
Norcini JJ (2010) The power of feedback. Med Educ 44:16–17
Parsell G, Bligh J (2001) Recent perspective on clinical teaching. Med Educ 35:409–414
Ramani S, Leinster S (2008) AMEE Guide no. 34: teaching in the clinical environment. Med Teach 30:347–364
Ramani S, Krackov SK (2012) Twelve tips for giving feedback effectively in the clinical environment. Med Teach 34:787–791
Sachdeva AK (1996) Use of effective feedback to facilitate adult learning. J Cancer Educ 11(2):106–118
Shute VJ (2008) Focus on formative feedback. Rev Educ Res 78:153–189
Singelis T (1994) The measurement of independent and interdependent self-construals. Pers Soc Psychol Bull 20:580–591

Smith PB, Peterson MF, Schwartz SH (2002) Cultural values, sources of guidance, and their relevance to managerial behaviour: A 47-nation study. J Cross Cult Psychol 33(2):188–208
Snell L, Tallet S, Haist S et al (2000) A review of the evaluation of clinical teaching: new perspectives and chalanges. Med Educ 34:862–870
Spencer J (2003) Learning and teaching in the clinical environment. BMJ 326:591–594
Sternberg RJ (2007) Culture, instruction, and assessment. Comp Educ 43:5–22
Suhoyo Y, van Hell EA, Prihatiningsih TS et al (2014) Exploring cultural differences in feedback processes and perceived instructiveness during clerkships: replicating a Dutch study in Indonesia. Med Teach 36(3):223–229
Suhoyo Y, Schönrock-Adema J, Rahayu GR et al (2014) Meeting international standards: a cultural approach in implementing the mini-CEX effectively in Indonesian clerkships. Med Teach 36(10):894–902
Suhoyo Y, Van Hell EA, Kerdijk W et al (2017) Influence of feedback characteristics on perceived learning value of feedback in clerkships: does culture matter? BMC Med Educ 17(1):69
Suhoyo Y, Schönrock-Adema J, Emilia O et al (2018) Clinical workplace learning: perceived learning value of individual and group feedback in a collectivistic culture. BMC Med Educ 18(1):79
Suhoyo Y, Schönrock-Adema J, Emilia O et al (2020) How students and specialists appreciate the mini-clinical evaluation exercise (mini-CEX) in Indonesian clerkships. BMC Med Educ 20(1):144
Sully de Luque MF, Sommer SM (2000) The impact of culture on feedback seeking behavior: an integrated model and propositions. Acad Manage Rev 25:829–849
Teunissen PW, Wilkinson TJ (2011) Learning and teaching in workplaces. In: Medical education: theory and practice. Elsevier, Edinburgh, pp 193–207
Van de Ridder JMM, Stokking KM, McGaghie WC et al (2008) What is feedback in clinical education? Med Educ 42:189–197
Van Der Vleuten CPM (1996) The assessment of professional competence: developments, research and practical implications. Adv Health Sci Educ Theory Pract 1(1):41–67
Van Hell EA, Kuks JBM, Raat AN et al (2009) Instructiveness of feedback during clerkships: influence of supervisor, observation and student initiative. Med Teach 31:45–50
Veloski J, Boex JR, Grasberger MJ et al (2006) Systematic review of the literature on assessment, feedback and physicians' clinical performance: BEME Guide No. 7. Med Teach 28 (2):117–128

Chapter 5
Curriculum Design of Community-Based Education, Toward Social Accountability of Health Profession Education

Indika Karunathilake and Tri Nur Kristina

Abstract The traditional model of medical education and health professions education is centered on tertiary care hospital settings. However, with the changing healthcare scenario with more emphasis on primary healthcare, entirely tertiary care hospital-based training may not equip the future healthcare providers and physicians for optimum management of community health challenges. Literature suggests that health professions institutions should serve the closest community where the learning takes place. It supports the principles of social accountability of health professions schools. In a context that is hierarchical and collectivist, which is usually represented by developing countries, high-quality primary care services are vitally needed. The ultimate goal was promoted by the WHO Alma Ata declaration and continued with the Astana declaration with 'health for all' with concepts of equity, high quality of health care workforce, appropriate technology, and multi-sector collaboration. This chapter will discuss theories and examples of implementation of community-based educational approaches in health professionals' education with the cross-cultural applications of Community Based Education as the conceptual framework.

5.1 Introduction

5.1.1 Community-Based Education

The traditional model of medical education and training is centered on tertiary care hospital settings. However, with the changing scenario of healthcare with more

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emphasis on primary healthcare, entirely tertiary care hospital-based training may not equip the future physicians for optimum management of community health challenges. Furthermore, it will be only a small percentage of patients who will end up in tertiary care settings (tip of the iceberg). Physicians should be able to manage the patients in the community settings and promote the health of individuals and families as well.

Literature suggests that health professions schools should serve the closest community where the learning takes place. It supports the principles of social accountability of health professions schools. In the context that is hierarchical and collectivist which is usually represented by developing countries, high-quality primary care services are vitally needed. The ultimate goal was promoted by the WHO Alma Ata declaration and continued with Astana declaration with 'health for all' with concepts of equity, high quality of health care workforce, the use of appropriate technology, and multi-sector collaboration (Chokshi and Cohen 2018). Curriculum for health profession education should accommodate the 'person–family–community-centered' and 'continuity of care' principles by optimizing interprofessional education and practice approaches (Funk 2008). 'Community-oriented' and 'community-based' educational strategies become the most recommended by global organizations to bridge the gaps between health education and healthcare services.

Global health problems lead to chronic illness in all countries, regardless it's developed, developing, or underdeveloped countries. Mboi et al. (2016) presented the shifting problems from infectious to chronic illnesses in Indonesia for the last 15 years. It means that doctors who are now serving the community were educated 10–20 years ago when their curriculum emphasizing the infectious diseases. When these doctors mentor current medical students for community attachment, there are lots of areas to be considered when giving feedback to the students. Developed countries had established general practitioners to be specialists in family medicine or general practice. In its postgraduate curriculum, family medicine emphasizes the person-centered care, continuity of care, and great attention for the prevention of chronic illnesses. But the postgraduate educational context may not happen in developing countries where GPs still come from undergraduate students who can directly practice in the community settings. Therefore, a community-based educational setting in developing countries needs lots of effort to reflect on the experiences and local as well as global health needs. At present, the global needs include the primary prevention for the Coronavirus as a pandemic.

This chapter will discuss theories and examples of implementation of community-based educational approach in health education, which require enormous resources, and commitment of local leaders and managers. The cross-cultural applications of Community-Based Medical Education (CMBE) will be discussed based on the four-dimensional cultural model by Hofstede (2011).

5.2 What Are COME and CBME?

Community-Oriented Medical Education (COME) consists of training efficient human resources in such a way that they may be suited to the needs of the community in order to provide, maintain, and improve physical, mental, and social health of the individuals in the society. Community-based medical education (CBME) offers unique learning opportunities within diverse community settings to learn medicine in an integrated manner (Hamad 1991). It consists of learning activities that utilize the community extensively as a learning environment in which not only students but also teachers, members of the community, and representatives of other sectors are actively involved throughout the educational experience. CBME should be implemented by providing real-world scenarios with a wide range of learning opportunities in a variety of clinical situations and range of common clinical conditions not seen in inpatient care. It should encourage interaction, mentoring, and lifelong learning with multiple stakeholder involvement throughout the educational experience. These stakeholders include; students, teachers, health professionals, members of the community, and representatives of other sectors.

5.3 Educational Rationale and Theoretical Underpinning

Community-Oriented Medical Education (COME) and Community-Based Education (CBE) are linked with the changing health system, clinical governance, effective use of health workforce, health financing, quality, and accessibility of service delivery. Furthermore, COME and CBME should take into account changing disease patterns such as the growing crisis of Non-Communicable Diseases (NCDs), unhealthy lifestyle and public health threats, pandemics and new infections, natural disasters, social demographic changes, aging populations, changing vulnerabilities and risks (Fig. 5.1).

These complex interactions call for cross-cultural applications including the culture of the health system. Hofstede provided a conceptual framework in understanding these complex cultural differences and their impact on medical education. The four-dimensional cultural model described by Hofstede has four pedagogical values relevant to health system (Hofstede 2011). (a) individualism/collectivism (b) uncertainty avoidance; (c) femininity/masculinity, and (d) power distance.

In this chapter, the discussion on the influence of culture on medical education focuses on the first two dimensions of the Hofstede's, the 'power distance' and the 'collectivism/individualism'. Power distance is defined as the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally. The majority of eastern countries have a high power distance index with India having a score of 77 and Sri Lanka having a score of 80. This results in teacher-centered learning, and the cultural background does

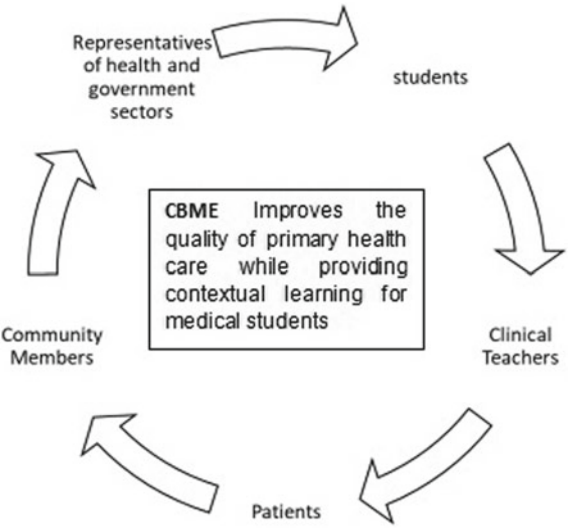

Fig. 5.1 Stakeholder involvement in a CMBE program

not support accurately the interactive participation of students during the learning process.

The fundamental issue addressed by the dimension 'individualism/collectivism' is the degree of interdependence a society maintains among its members. The individualism index of eastern countries is generally below 50, with India having a rather intermediate score of 48 and Sri Lanka having a comparatively lower score of 35. The students tend to speak in small groups, and the classes maintain formal harmony at all times in consequence of this collectivistic culture.

5.4 Global Scenario

Community-Oriented Medical Education (COME) was introduced following the first conference of medical education in Edinburgh and during the Almaty Conference on Primary care in 1978. COME consists of training efficient human resources in such a way that they may be suited to the needs of the community in order to provide, maintain, and improve physical, mental, and social health of the individuals in the society. Community-Based Medical Education (CBME) offers unique learning opportunities within diverse community settings to learn medicine in an integrated manner. It consists of learning activities that utilize the community extensively as a learning environment in which not only students but also teachers, members of the community, and representatives of other sectors are actively involved throughout the educational experience.

These principles were supported by the Reorientation of Medical Education (ROME) project of the World Health Organization during the 1990s. It was during

this time period, many medical schools worldwide such as Mahatma Gandhi Institute of Medical Sciences, Sevagram, India (Garg and Raut 2016), Christian Medical College, Vellore, India (Anoop et al. 2004), University of Gezira (Hamad 1985), Suez Canal University (Hosny et al. 2013), and Flinders University, Australia (Worley et al. 2006) took pioneering initiatives in implementing community-based medical education. At Flinders University Australia, rural and community health is represented at all levels throughout the Doctor of Medicine program, and all medical students undertake at least 9 weeks of formal teaching in a rural environment.

5.5 Asian Context—Case Presentation of CBE Programs

Case studies will provide an insight into local wisdom in how that the culture of 'hierarchical and collectivistic' could bring a positive impact on medical education. For example, 'spirituality' may have a different perspective in the east when compared with the east (Vaughn et al. 2009). This section will discuss several such case studies from different countries in the South Asian region.

In a context that is hierarchical and collectivistic, dealing with the community leaders in order to involve them, and the community village for health education/empowerment is indispensable. This operation can be carried out through a participatory action research (PAR) or a participatory rural appraisal (PRA) (MacDonald 2012; Chambers 1994). Participatory action research (PAR) is an approach to research in communities that emphasizes participation and action. It seeks to understand the world by trying to change it, collaboratively and following reflection. A PAR allows the researchers to understand the community's lifestyle choices not only within a socioeconomic context but also within a cultural context. Using this approach, the generated research is informed by the experiences of community members and, therefore, is more valid and relevant to the community. PAR emphasizes collective inquiry and experimentation grounded in experience and social history.

A study on 'Building the Research Capacity of Clinical Physical Therapists Using a Participatory Action Research Approach', conducted in New Zealand, aiming to explore the experiences of physical therapists conducting research facilitated by a PAR approach proved successful with the conclusion that a PAR approach can be used to stimulate the research participation of clinical physical therapists. This finding shows that a PAR approach can be used as a novel tool to stimulate research participation in clinics. The research was based on the following PAR Cycle (Janssen et al. 2013) (Fig. 5.2).

Another method of Participatory Rural Appraisal (PRA) recently renamed Participatory Learning for Action (PLA), is a methodology used for interactive processes of social development. It is a way of learning from people, with the people, and by the people. It is, therefore, a methodology for analyses, planning, monitoring, and evaluation. The approach aims to incorporate the knowledge and opinions of rural people in the planning and management of development projects and programs.

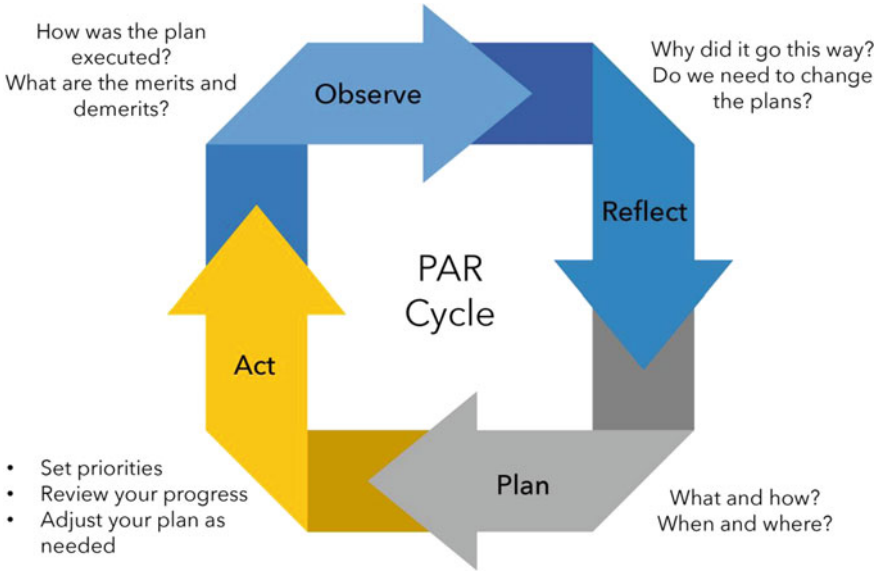

Fig. 5.2 The participatory action research (PAR) cycle is used to stimulate research participation of physical therapists working in a rehabilitation hospital (Adapted from Janssen et al. 2013)

A Research project on the Emergence of Participatory Rural Appraisal (PRA) Technique as a Strategy toward Sustainable Development, conducted in Sri Lanka, had identified PRA as an invaluable strategy to enhance the participation component under sustainable development (Koralagama et al. 2007) (Fig. 5.3).

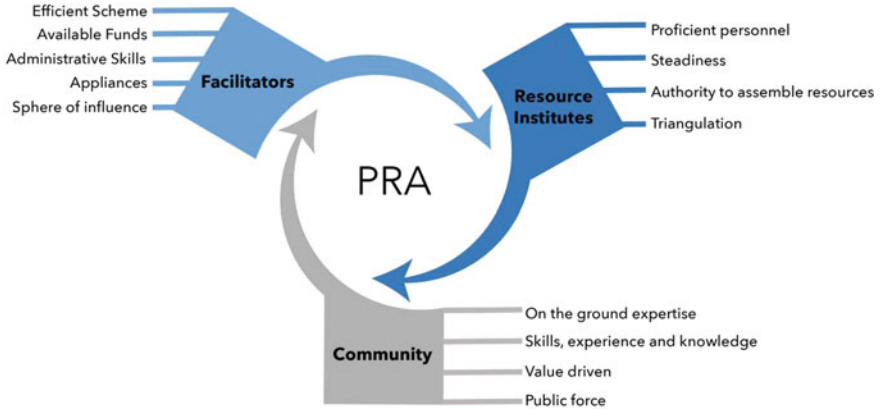

Fig. 5.3 The key components and their strengths in PRA (Adapted from Koralagama et al. 2007)

5.6 Case Study: Sri Lanka

Even though the 'educational environment' that is defined as everything that happens within the classroom, department, faculty, or university is crucial in determining the success of undergraduate medical education, effective management of learning is aided by understanding the educational environment and introducing appropriate changes. Due to the changing health needs and the disease pattern of the Sri Lankan community, early introduction to clinical and community learning environments focuses on areas such as communication skills, professionalism, and ethics while reducing information overload, improving generic skills, and imparting skills necessary to deliver better primary healthcare was considered effective. Moreover, the requisite to introduce a new stream that emphasizes behavioral sciences was brought about as a directly result of the community perception of poor doctor–patient communication skills of the medical graduates.

In the mid-1980s, the Colombo Medical Faculty felt the need to change its traditional curriculum. Some of the main reasons for this need to change were the awareness of newer trends in medical education, pressure created by the general public for better healthcare, emerging new public health problems, and awareness of the need to emphasize ethics in medical practice. However, the medical curriculum did not undergo a major revision until 1995, although many small-scale changes were made in keeping with international trends in medical education.

In 1995 Faculty of Medicine, University of Colombo, the leading medical school in the country adopted a more community-oriented curriculum with curriculum outcomes designed to fit with the community-oriented perspective of the faculty. Early exposure of students to community learning environments was one of the main features of the new curriculum.

Public health training is organized as a whole stream, which spans right throughout the medical course. It involves a wide range of teaching learning activities such as individual reflections, group discussions, fieldwork, student presentations, community and family attachments, and a research project. Theoretical inputs on the concepts of health and disease, health promotion, and the principles of health education are introduced during the first few terms. As they move forward in the curriculum, students begin fieldwork with groups of 15–20 students attached to selected communities and then 2–3 students attached to selected families. The Nine-day Residential Community Attachment Pro-gram (CAP) in a rural setting, which was introduced in 2014, is another innovative feature of the curriculum. The objectives of this program are to promote skills and attitudes required for working in rural sector of Sri Lanka and provide exposure to community health care facilities. The training takes place at selected public health and curative facilities in the area, which is located 200 km away from Colombo.

The teaching/learning methods have shifted from traditional lecture-based didactic teaching activities toward methods involving greater student participation. These include small group discussions (SGD), problem-based learning tutorials

(PBL), student seminars, staff seminars, dramas, debates, poster sessions, and field-based teaching. Students are assessed by stream examinations and module examinations, with continuous assessment components and end-of-stream assessments.

Following the Colombo example, the curriculum of the Faculty of Medicine, University of Kelaniya was changed from a traditional discipline-based model to an integrated organ system-based one in early 2004. The Community Health Strand spans the first 4 years of the MBBS course. During the first 2 years, students are familiarized with the various concepts of health and community medicine. At the end of the program, students are expected to develop skills in using the tools necessary to promote community health, learn about the organization and delivery of healthcare services and develop attitudes appropriate to the practice of public health and community medicine. Field-based training is assessed through reflective writing and a portfolio. The students are given the opportunity to conduct consultations themselves and are given one to one feedback on their consultations whereas small group discussions, seminars, and debates are introduced as interactive teaching methods. Problem-based learning sessions have been added to the traditional lectures and tutorials, while students are assessed via continuous assessments and traditional bar examinations.

In late 2004, the long-established traditional curriculum of the medical faculty in the University of Peradeniya was changed into a more integrated curriculum, and the objectives include improving generic skills and imparting skills necessary to deliver better primary healthcare. Communication skills and research skills are cultivated through community-oriented training, while community-based training and primary care electives provide students with a broader vision. Within the curriculum content arranged as streams, the Stream in Hospital and Community-based training spans from the third year to the final year. Community-based training takes place in a rural field practice area located just outside the campus.

In 2007, the Faculty of Medical Sciences, University of Sri Jayewardenepura changed into an integrated curriculum with community-oriented content arranged within the two concurrent streams, Community Health and Behavioral Sciences. The highlight of the community-based medical learning program of the curriculum was the 2-week residential community posting, which is a part of the community-based medical learning program. The objectives of this program are to promote skills and attitudes required for working in rural sector of Sri Lanka and provide exposure to community health care facilities. Students maintain well-structured log books, which include all objectives, time tables, pages for reflective writing, etc. The training takes place at selected public health and curative facilities in the area, which is located 200 km away from Colombo.

The Faculty of Health Care Sciences at the Eastern University of Sri Lanka was initiated with the aim of improving the healthcare services of the Eastern Province, from community health services to the tertiary healthcare. An innovative feature of this curriculum is integration of community-oriented teaching with the Department of Primary Health Care, which is one of the four departments of study in the faculty.

The Faculties of Medicine at the Universities of Ruhuna, Jaffna, and Rajarata have introduced innovative features within a traditional, discipline-based curriculum.

Fig. 5.4 Rural posting for all students at the end of the fourth year, Faculty of Medical Sciences, University of Sri Jayewardenepura (USJP)

Community-oriented teaching program of the Faculty of Medicine, Jaffna spans from first year to final and is integrated with clinical disciplines. The community attachment at Faculty of Medicine, Ruhuna includes voluntary activities by the students as well. The rural location at Saliyapura of the Faculty of Medicine, Rajarata facilitates community-based teaching (Karunathilake 2018).

5.7 Lessons Learned: Sri Lankan Context

Sri Lankan medical schools have initiated the move toward CBME as early as 1980s. Albeit the cultural background opposing the interactive participation of students, the rationale of the students' centered approach in developing communication skills, professionalism, and ethics among students, community stakeholders report greater involvement and satisfaction in CBME activities. There is considerable resistance for CBME, emanating from hierarchical clinician-centered system, expressing concerns that graduates will miss out on clinical exposure due to focus on CBME (Figs. 5.4, 5.5, 5.6, 5.7, 5.8 and 5.9).

5.8 Case Study: India

The Mahatma Gandhi Institute of Medical Sciences, Sevagram (MGIMS) was established based on Gandhian principles with the objective of improving the social

Fig. 5.5 Community-based Medical Education through Health Camps, Faculty of Medicine, Sabaragamuwa University of Sri Lanka

Fig. 5.6 Maternal and Child care program conducted by the Faculty of Medical Sciences, University of Sri Jayewardenepura (USJP)

Fig. 5.7 Field education on community medicine, Faculty of Medicine, University of Colombo

Fig. 5.8 Community-based learning experience, Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka (RUSL)

Fig. 5.9 Conducting awareness programs in the community, Faculty of Medicine, University of Colombo

consciousness of medical students as well as to equip them to work in rural areas. This illustrates Hofstede's model's pedagogical value of collectivism over individualism.

The general out-patient department of the MGIMS, Sevagram serves as a linkage between health system, peripheral health activities, and Kasturba Hospital, Sevagram. It works as replica of a primary health center in a teaching hospital and was started basically to reduce the workload of specialists by filtering out the patients who require specialist care. Besides serving as a referral unit, the GOPD provides treatment for minor illnesses and provides a setting for training interns, where they treat minor illnesses under supervision of postgraduate students and faculty members of Community Medicine. It also provides training in General Practice to postgraduates in Community Medicine.

The Department of Community Medicine of the MGIMS has developed a model of decentralized healthcare delivery at village level through Community-based Organizations and the Panchayati Raj Institutions. This provides a platform for the dissemination of behavior change communication (BCC) messages and runs community outreach clinics in 23 villages to provide curative health care to the rural populace. Through innovative strategies, family life education is provided to adolescent girls both in schools and out of schools in all the villages. The government health facilities provide settings for training the interns and postgraduates as well (Figs. 5.10, 5.11, 5.12, 5.13, 5.14 and 5.15).

Christian Medical College (CMC) was at the forefront of community-based education in India with immersion experience in the community through the Community Orientation Program (COP) and Community Health Program (CHP). The COP program takes place in four phases. The first phase familiarizes first-year students with the life of India's teaming millions living in the community. The experience consists of a 3-week block that exposes medical students working with physiotherapy, occupational therapy, nutrition, etc. to experiential problem-solving learning in a community setting. While the students proceed to live for 3 weeks in a village where

Fig. 5.10 Medical students visiting the villages, Mahatma Gandhi Institute of Medical Sciences, Sevagram

Fig. 5.11 Medical students visiting the villages, Mahatma Gandhi Institute of Medical Sciences, Sevagram

Fig. 5.12 Community-based education program of the Mahatma Gandhi Institute of Medical Sciences, Sevagram

they are faced with the realities of rural life, each group is assigned 10–13 households. With the guidance of the faculty, the students analyze the data and determine their usefulness and relevance in the light of the village's needs.

During the second phase that takes place in the first clinical year, students focus on the principles of epidemiology, health administration, and health planning, for 2 weeks. Data collection, analysis, patient interviews, time-and-motion studies, etc. are used as educational sources, and the student's knowledge regarding the principles of community health is evaluated at the end of the phase. In their second clinical year, the students participate for 3 weeks in the third phase of COP, which is more student-centered and aims at translating the gained knowledge into action. The important concept of teamwork and the problems of operating in isolation are addressed in this phase. The phase ends with a presentation by each group of students and students find this phase the most satisfying because of the unique experience in organizing programs on their own and in contributing something more substantial

Fig. 5.13 Community-based education program of the Mahatma Gandhi Institute of Medical Sciences, Sevagram

Fig. 5.14 Interactive learning of medical students, Mahatma Gandhi Institute of Medical Sciences, Sevagram

to the community. The final phase is a 3-month internship in the fifth year, which aims to shape the interns' behavior and prepare them to be 'basic doctors'. While developing their professional skills, the interns come to understand the necessity for a concerted approach to maintain an equilibrium in dealing with beliefs and values regarding sickness and health that are deeply rooted in the folkways of every culture (Joseph and Abraham 1993).

Fig. 5.15 Interactive learning of medical students, Mahatma Gandhi Institute of Medical Sciences, Sevagram

5.9 Lessons Learned: India Context

India's approach to CMBE has a strong philosophical and cultural underpinning, based on Gandhian and religious principles. Providing social service is a strong component. The community-based camp approach of teaching is used as the best method to understand the subject, which is an integration of task-oriented assignments, integration of social sciences within medical domain and active community involvement. In a country with vast diversity, CBME offers an opportunity to orient students to the local culture, customs, and beliefs. The community members perceive that the students communicated well with the people and some of their minor health problems were solved at their door steps. Logistical issues such as hot and humid climate, lack of formal classroom infrastructure, long distance between college and field, difficulty in adjusting the students' field visit time with family work schedule were identified as barriers to learning.

5.10 Case Study: Indonesia

In Indonesia, all medical schools have implemented CBE both during the preclinical and clinical phases in many variations of programs and instructional designs. The objectives in the preclinical phase, mostly to acquire public health experiences, include (1) identifying community health problems, (2) mobilizing the community to solve the issues, and (3) evaluating the results of their interventions. These activities should have collaboration with the key person in the community, head of the community health center, and health district officers (Kristina et al. 2006).

Indonesia implemented a universal coverage insurance system since 2014. Therefore, only selected patients will be treated in secondary and tertiary hospitals by specialists. However, the general practitioners in Indonesia are doctors without postgraduate training because no GP/family medicine specialist training exists until 2020. Thus, all medical students in Indonesia should give clinical experience in different clinical settings of primary and secondary health facilities. The problem with the CBE program in Indonesia is the lack of teachers who understand what feedback should be given in primary care settings. Most of the medical teachers are coming from hospital specialists or laboratory-based specialists. GPs in the community settings are considered preceptors but without proper training to be clinical educators (Claramita et al. 2019).

5.11 Primary Health Care Facilities in Indonesia

The community health center, known as *Puskesmas*, is a primary health care facility under the Indonesian Ministry of Health. Each *Puskesmas* is located in one subdistrict. There are officially about 11.000 *Puskesmas* across 13.000 islands in the Indonesian archipelago. But more than 2000 are without medical doctors and only run by nurses or midwives because lack of distribution of 100.000 medical doctors in Indonesia (who were mostly graduated in urban settings). Besides *Puskesmas*, there are also lots of Integrated Health Post (unique for mother and child health, or for teenagers and adult, and for the elderly) called 'Posyandu', as a community initiative, nurtured by Puskesmas. The voluntary community members manage the regular implementation of 'Posyandu', and most of their activities are done regularly each month.

As part of the Ministry of Health strategic planning, primary care in Indonesia is now getting prioritized. A fresh graduate doctors attachment to rural areas' *Puskesmas* are launched in 2016 (https://nusantarasehat.kemkes.go.id/), followed by fresh graduate specialist attachment to rural' hospitals. Furthermore, the team of health professionals in *Puskesmas* is now working for home visits to collect data from each family, to assess the current and past individual and family history (http://pispk.kemkes.go.id/id/). However, regarding all these efforts, the development of family medicine or general practitioners specialists is an urgency to be the individual and family advocate in the health care system. Otherwise, discontinuity of doctors who work at community settings and move to the hospitals cannot be avoided, and also the misdistribution of doctors exists.

5.12 Comprehensive Clerkship

Many medical schools in Indonesia implement the 'comprehensive clerkship' and an approach for the 'family medicine principles in undergraduate training. The emphasis

of this clerkship is to enhance independent functioning as 'a young doctor'; to apply acquired knowledge and skills during previous clinical clerkship to patient problems in the community settings; and to consider the socio-economic, education, and cultural aspects when solving the patients and/or family health problems. Thus, the specific learning objectives of the family medicine clerkship are the ability to work in a variety of community health care facilities; conducting disease prevention, health promotion, treat the patients in community health care facilities, and emergency care, referral system and interprofessional collaborative practice (with nurses, midwives, community health workers).

As an example, in the Faculty of Medicine Diponegoro University (FMDU), Semarang and Faculty of Medicine Gadjah Mada University (FMGMU), Yogyakarta has implemented clinical clerkship with CBE approach. The implementation of clinical clerkship in FMDU is done 50% in tertiary (teaching hospital) and 50% in the primary and or secondary hospital. After finishing all of that clinical rotation, 12 weeks of comprehensive CBE and family medicine clerkship are done in the primary and secondary facilities, whereas in FMGMU, the CBE clerkship is implemented as a part of clinical rotation (Kristina and Widyandana 2011).

Below are several students' activities during the family medicine clerkship (Figs. 5.16, 5.17, 5.18 and 5.19).

Fig. 5.16 Checking the larva of mosquito

Fig. 5.17 Helping to delivery baby under supervision of a midwife

Fig. 5.18 Immunization in the Integrative Post Health

This family medicine clerkship that is community-based program was done as a part of clinical rotation. Usually, it is about 4–6 weeks in the end of clinical rotation. Students are posted in the primary care facilities to apply their skills and knowledge and acquire a deep understanding of environmental, socio-economic, and cultural

Fig. 5.19 Put up the implant for family planning

aspects of community health problems. Students' following activities are a home visit to identify health problems in the community, apply family medicine approach when solving health problems, and work in the integrated post health for maternal and child health care.

5.13 Interprofessional Education (IPE) with CBE Approach

It was agreed that the community's health problems should also be solved collaboratively and comprehensively by involving several health professionals. The combination of Interprofessional education (IPE) with CBE approach might contribute to managing community health problems and enrich the experiences of health professional students on how to work together in the health team.

A study to develop and validate the model CBE-IPE has been done in FMDU. This program for undergraduate health professional students involves three study programs, i.e. Medicine, Nursing, and Nutrition. Prior to this implementation, the comparability of the curriculum between those three study programs was done and resulted in the agreement that this new program is sufficient if implemented for students in the sixth semester who already have enough knowledge and skill to be applied for learning activities in the community (Kristina et al. 2018).

5.14 Collaboration with District Health Office and Community Health Centers

To implement community activities, educational institutions should work together with the district health officer who has responsibility for the whole community health facilities in the same cities. It was agreed that within this IPE-CBE program, small group of three to four students from three study programs should work together to assess health problems in one family who has a pregnant woman. The reasoning why a house with a pregnant woman was chosen as a starting point, based on input from the head of the district health office that maternal mortality is still high in this city.

5.15 The Program 'The 1000 First days of Life'

This is a CBE program in Universitas Hasanudin (UNHAS), Makasar, as a routine community devotion from the Faculty of medicine to support MDSs in reducing maternal and child mortality rates and malnutrition among children (Chalid et al. 2014). Based on several kinds of research, it was concluded that the 'golden period' of child development starts from conception, infant growth, until 2 years old. This period will support long-term health. Thus, the 1000 first days of life also determine health quality in the future, both psychologists, emotion, and intellectuality. Environmental factors and nutrition during this 1000 day-window can positively affect a baby's growth, brain development, digestive tract, metabolism, and immune system. Thus, a well-balanced diet with essential nutrients in optimal amounts during early life plays a crucial role in future programming health.

The valuable CBE program in UNHAS for education and service in the community can increase the awareness of the importance of the 1000 first days of life start from pregnancy. This program was planned and structured as a continuity and longitudinal program involving several stakeholders including students, lecturers, district health office, *Puskesmas*, and community members. This is an innovative program and a fund for students and the community member, in which one student will be an accompaniment of one pregnant woman and follow the newborn baby until 2 years old. The students also have an opportunity as a part of community service from the Faculty.

5.16 Lesson Learned: Indonesian Context

Students need to have actual interprofessional teamwork to face health problems in the community. Students need to be aware of and about other health professions' role in facing health problems in the family. Instructors (lecturers) have the opportunity to do research at the community setting together with the students and stakeholders,

so can be a multidisciplinary research. Participants of the CBE program can be all health professional students. Usually, on small group of students consists of one to two students from medicine, one nursing, and one nutrition. One instructor from any of the three study programs supervised three small groups of students.

A CBE managerial team manages this program from the three study programs under the dean's responsibility. It is always difficult to find the same time for the three study programs to have a student attachment schedule, so here is the problem with commitment. Local Government Health Official is essential to be a close partner in this program to understand the current health issues, including government priority health programs in the community. Preparation is done for both students and instructors. The head of team manager gives a lecture about the reasoning and aim of this program. Presentation is also given from the head of the community health center about health problems in the area under his responsibility. Preparation includes a pocket book as a guidance for students and instructors.

Implementation of the CBE program includes home visit with cadre, identification of health problems especially in pregnant mothers and other family members, analyze factors related to health problems to find the solutions and discuss with the instructor, implementing intervention by encouraging family members to participate, and working together with cadre to monitor and evaluate the result of their intervention regularly. Students should make a report and present their work. We assessed students through peer-assessment feedback, report of students' activities, results of presentation and discussion, feedback from the family member about students' professionalism. By doing this way, small surveys proved that students' ability to work together in a professional team increased, as well as ability to communicate and empower community member for better self-care.

5.17 Challenges

Even though many medical faculties have implemented more community-oriented curriculums, some faculties find it difficult to implement intensive community-based programs due to the lack of human and financial resources. Furthermore, many practicing clinicians find it difficult to contribute toward community-based teaching activities due to time constraints. There is room for improvement related to the integration of community-based activities with clinical disciplines, particularly in the later stages of the curriculum.

The students themselves need to develop more positive attitudes toward community and social aspects of health. Although the student feedback indicates a degree of discontent regarding community-based training, tracer studies suggest that as doctors, they tend to appreciate the importance of public health training. There is a need to provide inputs from the beginning of the curriculum in order to reinforce the importance of public and community health in clinical settings.

In a pandemic situation, we recommend an online tele-education from the students and well as lecturers, to approach the community via many socio-media. However,

this kind of activity can be suitable for the youth but not for the elderly community, so extra efforts for home visits with physical distancing and telemedicine are vital for this period. The community needs rigorous and continuous information that are evidence-based. Health professionals, also students should be well trained and well equipped.

5.18 Summary

The development of health personnel who have the necessary knowledge, skills, and attitudes to address the health needs of the community primary healthcare is a challenge in medical education. With the dynamic nature of the health status in the community and rapidly changing healthcare needs, for instance, the increasing burden of non-communicable diseases and the increase in the elderly population, there will be many more challenges to be faced. Community-oriented medical education (COME) should be continuously reviewed and updated to suit the rapidly changing public health needs of the country. There should be an energetic attempt to further improve the attitudes toward community medicine and public health. Positive role modeling will play a major part in achieving this goal and encourage high-achieving students to pursue careers in Community Medicine and Public Health.

It has to be clearly understood that Community Based Education (CBE) is not synonymous with what community medicine or public health departments tend to do in conventional education. Although these departments may play a key role in the implementation, CBE should be the responsibility of the whole school and preferably also of other stakeholders.

Key Learning Points

- CBE offers unique learning opportunities within diverse community settings for health professionals' education in an integrated manner
- Active engagement of the members of the community during the teaching/learning process must be encouraged
- When planning CBE, the culture and context of the health system should be taken into account
- Providing constructive feedback and stimulating reflection of students based on the community-attachment experiences require proper skills of health professional teachers in initiating the meaningful dialogue.
- COVID-19 new normal will bring unforeseen challenges and opportunities for CBME.

References

Anoop S, Saravanan B, Joseph A et al (2004) Maternal depression and low maternal intelligence as risk factors for malnutrition in children: a community based case-control study from South India. Arch Dis Child 89(4):325–329

Chalid MT, Wahyuni T, Islam AA (2014) Buku Panduan Program 1000 hari awal kehidupan (Guidance Book 1000 first day of Life). Sagung Seto, Jakarta

Chambers R (1994) Participatory rural appraisal (PRA): challenges, potentials and paradigm. World Dev 22(10):1437–1454

Chokshi DA, Cohen L (2018) Progress in primary care—from Alma-Ata to Astana. JAMA 320(19):1965–1966

Claramita M, Setiawati EP, Kristina TN et al (2019) Community-based educational design for undergraduate medical education: a grounded theory study. BMC Med Educ 19(1):258

Funk M (2008) Integrating mental health into primary care: a global perspective. Available via World Health Organization. www.who.int

Garg BS, Raut A (2016) Community based medical education at Mahatma Gandhi Institute of Medical Sciences, Sevagram-a Gandhian way to achieve social accountability of an academic institute. Commun Family Med 2(02):33–39

Hamad B (1985) Problem-based education in Gezira. Sudan Med Educ 19(5):357–363

Hamad B (1991) Community-oriented medical education: what is it? Med Educ 25(1):16–22

Hofstede G (2011) Dimensionalizing cultures: the Hofstede model in context. Online Read Psychol Cult 2(1):8

Hosny S, Kamel MH, El-Wazir Y et al (2013) Integrating interprofessional education in community-based learning activities: case study. Med Teach 35(sup1):S68–S73

Janssen J, Hale L, Mirfin-Veitch B (2013) Building the research capacity of clinical physical therapists using a participatory action research approach. Phys Ther 93(7):923–934

Joseph A, Abraham S (1993) Community-oriented medical education in Vellore, India. Acad Med 68(5):336–339

Karunathilake I (2018) Undergraduate community medicine teaching in Sri Lanka: past, present and the future. J Coll Commun Phys Sri Lanka 24(2):53–55

Koralagama DN, Wijeratne M, De Silva WN (2007) Emergence of participatory rural appraisal (PRA) technique as a strategy towards sustainable development: a Sri Lankan experience. J Agricult Rural Dev Trop Subtrop (JARTS) 108(2):149–160

Kristina TN, Majoor GD, Van der Vleuten CPM (2006) Comparison of a community-based education programme executed with and without active community involvement. Med Educ 40:798–806

Kristina TN, Widyandana (2011) Clinical skills training in the community: Lesson learned from Diponegoro and Gadjah Mada University. Media Medika Indonesiana 45(2):69–73. http://ejournal.undip.ac.id/indexed.php/mmi

Kristina T, Sudaryanto S, Asmara F, Nuryanto N, Wirakusumah F, Syukriani Y (2018) Community-based health-professions interprofessional education: a collaborative and sustainable model. J Pendidikan Kedokteran Indonesia: Indonesian J Med Educ 7(1):46–53

MacDonald C (2012) Understanding participatory action research: a qualitative research methodology option. Can J Action Res 13(2):34–50

Mboi N, Surbakti IM, Trihandini I et al (2016) On the road to universal health care in Indonesia, 1990–2016: a systematic analysis for the global Burden of disease study. Lancet 392(10147):581–591

Vaughn LM, Jacquez F, Bakar RC (2009) Cultural health attributions, beliefs, and practices: effects on healthcare and medical education. Open Med Educ J 2(1):64–74

Worley P, Prideaux D, Strasser R et al (2006) Empirical evidence for symbiotic medical education: A comparative analysis of community and tertiary-based programmes. Med Educ 40(2):109–111

Chapter 6
The Discourse and Attempt of Student-Centered Assessment in the Context of Cultural Diversity

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Abstract In the context of where the nature of the learning environment allows only minimum feedback, and less participation in learning, a uniform national examination seems to be a feasible way to standardize quality in health professions education. However, this kind of high-stakes national examination may represent the social hierarchy indicated in this edited volume. Despite many external benefits,

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a high-stakes national exam, such as computer-based tests and objective-clinical-skills-examination/OSCE, will drive a society further away from the more dialogical observation-based assessment to approach the individual learning progress. This chapter will discuss the dilemma between the 'assessment of learning' and 'assessment for learning' in the context of hierarchical and collectivistic culture towards student-centered learning.

Introduction

In the context of cultural diversity, assessment in health professions education may face different challenges than the central discourse in the literature. According to the 'cultural dimensions' theory of Hofstede and colleagues (2010), there are regions in the world that have social-distance acceptance (known as 'wide power-distance' cultural dimension) and 'collectivistic' cultural dimension (when authority of decision is greatly influenced by group of people that are close to the individual, i.e., the family, friends, community, rather than individual decision). These regions are originally from Asian, African, Mediterranean, and Latin American cultures. In these regions, as explained in previous chapters, the consequences of these particular cultural dimensions are students face limited feedback and less active participation in learning, which means less partnership relationship between teachers and students. Besides, some of the national governments in these cultural backgrounds recognize the need to show the public that the quality of the graduates meets the quality and the purpose of patient safety in health care services. Thus, a nationwide, single summative assessment at the end of health professions education may be chosen because it is believed that this kind of assessment offers a feasible way to ensure all graduates achieve the minimum acceptable standard of competencies. The centralized-single assessment may represent the social hierarchy in a cultural context.

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The centralized assessment means that the judgment on the achievement of the learning outcomes is only taken based on a few opportunities, if it is not a single, formally called 'a national examination.' If this summative judgment paradigm is chosen, the national examination becomes the ultimate priority of the overall educational process. All faculty, time, and financial resources will be directed to this approach. Consequently, the importance of observation and feedback on the learners' progress in developing their competencies, therefore, is less prioritized; also, the faculty development training for providing useful feedback to stimulate meaningful learning. Harden (2009) wrote five myths that national examination cannot replace personal and professional growth of future doctors. Deciding the learning process of undergraduate education based on a single examination is rather unfair for students and the community. The case in which a high-stakes, summative assessment serves a different function (e.g., certification, CME, or licensure) always leads to a debate on whether its benefit outweighs the disadvantages. A quote from the first speech of President-elect Joe Biden, United States (2020), represents an analogy of a national examination compared to a continuous assessment system:

"It should not be an example of power, but the power of many examples."

This chapter consists of two parts. Part One, discusses the need for individual students' professional development, which can be nurtured with continuous observations and constructive feedback, that ultimately results in more in-depth students' reflection for further learning and teachers' reflection for better-facilitating learning. Therefore, gradual learning progress will occur from the beginning of the undergraduate education to the clinical education phase; and will not stop after graduation, representing 'lifelong learning.' Part Two, discusses the efforts to ensure the public of the quality and competencies of the graduates. We will discuss the dilemma of a national licensing examination (NLE) (an example of power) and multiple data points that are recorded in a portfolio (power of many examples).

6.1 Part 1: The Need for Medical Students Individual Professional Development

The traditional teacher-centered learning (TCL) is stated as inadequate for facilitating students in achieving educational objectives needed for the twenty-first century (Harden and Laidlaw 2012). Also, rapid development and the use of technology in education is inevitable in recent years. Students prefer a more flexible approach in learning, selecting, and searching for information on their own. This development leads to a change in the educational paradigm, where student-centered learning (SCL) plays a more significant role than teacher-centered learning (TCL) (Attard et al. 2010). In the SCL paradigm, students' motivation drives them to progress in their learning, and within individual uniqueness and boundaries, learners can choose what and how they will learn. Chung and Chow (2004) explain that SCL results from power-shifting in the learning process from 'teacher as an expert' to the 'students as

learners.' Therefore, 'active learning' driven by students' internal motivation is an essential concept in SCL.

The SCL approach, which originated from the western world, has been widely adopted worldwide, including the eastern countries. As chapter one indicated about the cultural differences between the west and the east (Hofstede 2010), medical educationalists may think that low-power-distance and individualism in decision-making in the western world are more compatible with an SCL approach. In contrast, high-power-distance and collectivist decision-making in the eastern world tend to use the TCL strategy. The SCL implementation in the eastern world can potentially interfere with the local culture if approaches to empowering students in their learning process are not considered seriously. Students in the eastern world could expect to be dictated by their teachers, as they do in daily circumstances as if they are in a family or with their parents. 'Asking questions' is not a habit because the answer can be challenging, and so people, in general, are avoiding disharmony in the society. Teachers are also expected to provide information rather than to ask questions. These practices are opposite to the principle of self-directed and active learning of SCL. Therefore, a strategy is needed to improve self-directed and active learning among students in the eastern world for an optimal result of the SCL implementation.

One strategy to approach the self-directed and proactive learning practice could be increased by providing sufficient feedback along the learning process for students. Not surprisingly, the latest multi-center nation-wide study, supported by the Ministry of the Education Republic of Indonesia, reported the lack of constructive feedback as the main problem in medical education in Indonesia, one of hierarchical and collectivist cultural context (Claramita et al. 2020). Groups of (1) students from bachelor, clerkships, and residential phases, and (2) groups of staff members from pre and clinical departments; all from six faculties of medicine in Indonesia, can articulated the need for continuous and individual constructive feedback for the students. The data was taken from 24 series of focus group discussions during summer-autumn 2020. The results are in line with a study by Cilliers and colleagues (2015) that feedback has to be based on a careful assessment of student-learning progress.

In the recent decade, van der Vleuten and colleagues (2010, 2012) introduced the concept of 'programmatic assessment.' The 'programmatic assessment' (PA) is defined as an assessment system emphasizing collecting evidence on learners' progress in achieving their competencies while providing feedback and the process for helping the students define their learning objectives to improve their competencies. Feedback focuses on the students' strengths and weaknesses in learning. This assessment strategy is believed to improve students' internal motivation. The perception that teachers' role becomes limited in this assessment system is less suitable (Attard et al. 2010; van der Vleuten et al. 2010). Even though students are expected to be self-directed, they need a mentoring system to help them plan and navigate their learning. A 'programmatic assessment' that can also be called 'systematic assessment' provides an effective mentoring process strategy (Schut et al. 2020). In this regard, the concept of PA shifts teachers' roles from giving expert judgment in an assessment to providing feedback to students. A specific, timely, and constructive feedback is believed to benefit students' learning achievement while supplementing

guidance for students in developing an improvement plan (van der Vleuten et al. 2018).

6.1.1 The Trends of 'Programmatic Assessment' to Enhance Learning

Assessment for learning is an approach whereby the assessment process blends into the education process. It provides vibrant information and directs and develops learning for each student to maximize his/her abilities (Schuwirth and van der Vleuten 2011). A functional assessment depends on its 'fitness for purpose.' Thus, a programmatic approach is recommended to design a comprehensive assessment program and also to ensure its quality. The model optimizes the assessment for learning and assessment for decision-making on student-learning progress. It is based on a set of assessment principles derived from empirical research.

One study attempted to develop a self-assessment tool to assess medical/health professions institutions in implementing 'programmatic assessment.' The tool evaluates the five components of 'programmatic assessment' based on van der Vleuten's (2012) model, adapted to the Indonesian context (Ainin 2017). There are five constructs in the model of 'programmatic assessment' implementation: learning activities, assessment activities, supporting events, intermediate evaluation, and final evaluation, as studied by Ainin (2017). These components are designed and complementarily placed to achieve the expected learning objectives. Supporting activities are designed for students to reflect the information obtained from the learning and assessment activities. Monitoring of student's achievement was conducted through an intermediate evaluation with feedback on the progress of their learning. And finally, judgment/decision-making will be done at the final evaluation, based on all multiple data points, preferably recorded in a portfolio. In 'programmatic assessment,' the underlying principle is to have the teacher as a mentor continuously discuss and provide feedback to the students during their learning process—based on the multiple learning results and observations, and finally to have experts making a decision based on various sources of assessment data (Driessen et al. 2012; van der Vleuten et al. 2012; Heeneman et al. 2015). Thus, the paradigm of programmatic assessment is from having no data points, moving to low-stake-data points where students meet the instructors, being observed and provided feedback and stimulate reflection, into the final high-stake decision by a committee of assessment (multiple assessors and stakeholders) based on the recorded data points, i.e., portfolio.

In the 'programmatic assessment' approach, students can use information from assessment results to direct their learning, which in turn, is the strength of programmatic assessment's function as assessment for (further) learning (Heeneman et al. 2015). To ensure this approach can successfully support student learning, educators must recognize these needs: a supportive learning environment, maximizing the use

of formative assessment, providing narrative and credible feedback, and opportunities to reflect on the feedback (Driessen and Scheele 2013). 'Programmatic assessment' has been implemented in the US, Canada, Australia, United Kingdom, and New Zealand for both undergraduate and postgraduate programs in recent years, based on van der Vleuten's (2012) conceptual model. The model connects 'learning activities' with 'assessment and supporting activities', also 'intermediate and final evaluation' (van der Vleuten et al. 2012, 2018). There are opportunities to use the 'programmatic assessment' concept to evaluate the current state of assessment practice in health care professions education institutions and of how it can be used to improve education quality in medical schools.

6.1.2 'Programmatic Assessment' to Evaluate Competency-Based Education

General health profession teachers may query that implementing the 'competency-based' education curriculum needs rigorous assessment methods to show that the graduates are competent enough to serve the public. However, when we think about 'competency-based' education, many medical education centers around the world mention the mastering of soft-skills, usually called the '21st-century skills,' consisting of abilities of 'metacognition,' 'communication,' 'collaboration,' 'teamwork,' and 'professionalism' (Can-Meds 2010; Pellegrino and Hilton 2013). To assure the attainment of these complex skills, we can refer to Miller's Pyramid (1990), which recommends using an 'observation-based' assessment for such complex skills. Other less complex abilities, like 'knowledge' and 'skills,' can be observed with other methods such as multiple-choice questions or 'objective and structured clinical skills or practical skills examination' (OSCE/OSPE). But the more complex abilities can be identified through a close look through observation, in line with the 'programmatic assessment' system, which collects data from continuous observations while giving feedback simultaneously. Students will receive comments and feedback from different perspectives and opportunities during the learning process that can stimulate their reflection (i.e., observation and feedback from various teachers, the variation of patients' problems, multiple situations, and clinical skills, periodically and continuously). In this regard, a more profound reflection from constructive feedback may enhance students' metacognition and better learning and action plans. Ultimately, learning will continue and become a habit when there are no more closer observations than formal training or education. By following this system, we promote the 'assessment for future learning' instead of 'assessment of previous learning,' eventually approaching the famous principle of 'life-long learning' in medicine (Heeneman et al. 2015).

6.1.3 Problems of Sociocultural Concepts Underlying Feedback-Giving in Clinical Education

Clinical education is the highest level of Miller's pyramid, which integrates cognitive, psychomotor, and affective domains in the actual clinical setting. The clinical environment consists of patient services at various levels of health facilities and public health services. Therefore, clinical learning requires sufficient and adequate supervision through observation and feedback that facilitates competence improvement in line with patient safety (Ramani and Leinster 2008).

The lack of observation and feedback during students' clinical education and the nearly impossible standardized criteria for observation prompted Norcini and Burch (2007) to introduce the concept of Workplace-based Assessment (WPBA). This concept is designed to improve the validity and reliability of assessment in clinical education through various formative assessments carried out through continuous observations and feedback to improve the quality of student learning. As WPBA became increasingly popular and adopted in clinical education, Miller and Archer (2010) conducted a systematic review of its impact on doctor's education and performance. The report concluded that WPBA has a positive impact on facilitating formative assessment and providing feedback. The validity of WPBA is strongly influenced by the quality of feedback, such as the suitability of feedback content based on student performance and the feedback interaction between students and supervisors (McGill et al. 2011; Weller et al. 2014; Govaerts 2015; Govaerts and van der Vleuten 2013; de Jong et al. 2017). An important study has proved that such a complex WBPA examination using Mini-Clinical Examination (Mini-CEX) and Direct Observations (DOPs) can reach adequate reliability compared to other assessment methods, i.e., multiple-choice questions/MCQ (Moonen-van Loon et al. 2013). Norcini also underlined that Mini-CEX is not (only) a rating scale but a dialogical discussion and feedback-giving to the students (Norcini and Burch 2007).

The complexities of WPBA require an understanding of holistic learning theory, especially when it is applied in the hierarchical context. Van der Zwet et al. (2011) proposed a sociocultural perspective to create a development 'space' on students' ability to interact in a clinical environment, manage emotions, and build self-confidence that emphasizes the process of cognitive conceptualization.

The specific sociocultural approach also investigated to understand how the culture of feedback is constructed (Ramani et al. 2017, 2019a, b). The shift of the feedback paradigm has been described in many studies in sharpening the 'anatomy' of feedback interaction between clinical supervisors and students. From a sociocultural perspective, the feedback credibility results from (1) clinical supervisors' ability to provide objective feedback based on the observations; (2) the students' self-reflection and determination; and (3) the cultural-relationship between clinical supervisors and students (Ramani et al. 2019a, b; Wilbur et al. 2019). Interestingly, as known in the sociocultural approach, the result in feedback interaction is not simply predicted. Ramani et al. (2019a, b) mentioned that politeness in feedback interaction could reduce honesty and objectivity. In conjunction, Møller and Malling (2019) believe

that the feedback interactions resulting from the positioning theory represent interpersonal communication. Hofstede (2010) mentions that the construction of power will influence interpersonal communication, including the educational setting. From this point of view, in a more paternalistic culture, the complexity of student–teacher interaction in WPBA can even be more sensed.

Meeuwesen and Colleagues (2009) examined cultural differences in doctor-patient communication with a qualitative approach and conceptualized that: (1) The wider the hierarchical social gap, the lower the information exchange between doctor and patient in a consultation, (2) The higher tendency of the culture to avoid uncertainty, the less attention is given when establishing relationships, such as eye contact, and (3) A culture that tends to distinguish the masculine-femininity has a lower number of social interactions. Based on these concepts, culture affects the communication between doctor and patient and the characteristics of health care services (Meeuwesen et al. 2009). Wong (2011) studied the influence of culture on anesthetic residents' education in two countries and found that there were differences in team performance in handling patients, in which residents in Thailand tended to work in teams while residents in Canada tended to work individually. Furthermore, sociocultural influences will shape feedback quality through interaction and the ability to give and receive feedback. Wilbur et al. (2019) studied the effects of culture on clinical education supervisors by concluding that supervisors in Qatar assessed students based on their current abilities, while supervisors in Canada determined based on expectations or achievement of student competencies (Wong 2011; Wilbur et al. 2019).

An ideal WPBA approach has not been widely applied in clinical teaching or postgraduate education in hierarchical countries like Asia. Cultures that hold a high-power-distance and low individualism can influence the fundamental aspects of WPBA, such as student-clinical supervisor relations, direct observation, and the feedback process (Tan et al. 2015). Although this power-distance in clinical education phenomenon may also be found in another part of the world (Ayyala et al. 2019), the sociocultural barriers probably pose the biggest challenge in adapting the WPBA approach in Asia (Tan et al. 2015).

6.1.4 The Students' Characteristics, Educational Policy, and the Health Care System

Suhoyo et al. (2018) and Sudarso et al. (2016) found that Indonesian students, as recipients of feedback in WPBA, tend to expect instructions from hospital specialist supervisors and prefer detail information about their performance, which represented a high power-distance culture. Three factors influence the WPBA in the hierarchical and collectivistic culture, namely: (1) the natural characteristics of interaction between lecturers and students, (2) the educational policy in the institutions, and (3) the health care system. We will discuss each of the factors below.

1. **The Interactions Between Lecturers and Students**

Ideally, during an observation, clinical supervisors should have the desire to look for aspects in their already good students and those that still have some 'space' for improvement. In a high-power-distance culture, clinical supervisors will have high authority, whereas students will follow instructions from their teachers. The effect of this high-power-distance culture will be more strongly felt in the feedback process. Based on recent studies, feedback is a dialogue with a partnership approach to create a conducive atmosphere for students to ask questions and develop their skills. When a high-power-distance influences feedback, there will most possibly be directive, instructional, and even inclined to be judgmental with any mistakes in students' activities with low individualism. Suhoyo et al. (2018) compared the characteristics of students in the Netherlands and Indonesia. The results show that Indonesian students tended to receive feedback from authority figures, from consultants, rather than their peers or other health workers.

Suhoyo et al. (2018) and Nugraheny et al. (2016) suggested that a collectivist culture and high power-distance in Indonesia significantly impact the 'feedback-culture.' Sociocultural barriers, including clinical supervisors' behavior, will influence interactions and the achievement of objectives in providing feedback in WPBA. In other publications, Sudarso et al. (2016) revealed that the internal process in student clinical learning in Indonesian culture is influenced by the content and way of delivering feedback, which is also facilitated by the interaction between clinical supervisors and students.

Implementation of WPBA requires quality interactions between clinical supervisors and students. The quality of interactions in providing feedback plays an essential role in supporting the validity of WPBA (Ajjawi and Boud 2017, 2018). Sociocultural barriers are problems that are very likely to arise in these interactions. Still, the extent to which culture will affect verbal and nonverbal communication during the interactions in feedback and its role in the continuity of WPBA needs further investigation.

Additionally, the patient-doctor relationships in the Asian region are largely paternalistic, with the doctor's dominant role. The form of communication and relationship between patients and doctors will indirectly affect the 'values' upheld by students and most likely impact the education approach, especially the 'social position' of lecturers with respect to their students (Claramita et al. 2013).

2. **The Education Institution's Policy**

As we tried to explain at the beginning of this chapter, medical institutions in the eastern continent may still believe in a high-stakes examination to be more valid, reliable, and socially accountable for the public. Therefore, all faculty resources and regulations will direct the medical teachers and students to approach something like a 'perfect-sound' of a final examination. So, rather than spending their resources on training the faculty members to provide constructive feedback, to develop a continuous formative learning program, and to learn how to approach more student-centered learning, medical institutions may likely direct all their resources to, for example,

developing national item banks, or organizing an OSCE at the end of the training year. The local and governmental policies are moving in that direction.

Considering a large number of populated countries like Indonesia (the fourth) and India (the second), where a large number of medical institutions are present with different levels of accreditation, a final and a national examination at the end of medical education may seem like an ideal educational policy solution, to the government. The argument is that the authority may not have enough confidence in the process of medical training in most medical schools. The impossible dialogue between teachers and students, and the health care system 'allow' the clinical supervisors to 'not have enough time for feedback' because of patient-load that should be handled in different hospital settings. More about practice in various hospitals is discussed below.

3. The Healthcare Services

In addition to the problems associated with lecturers and students' interaction, Tan and Colleagues (2015) raised other specific issues that could reduce WPBA's acceptability in Asia, namely, education policy, both at the institutional and national levels. Role conflicts between clinical supervisors and health services can affect the time and quality of WPBA. The integration between the health service and education should be fully supported by the government. The diversity between health services and education can be a disadvantage in clinical education, especially WPBA.

Regarding health services in Asia, Tan and Colleagues (2015) suggested that most countries in Asia have more disadvantages in the health service bureaucracy compared to western countries, as proven by the low ratio of doctors and patients and the uneven distribution of health services. With a heavy burden on health service obligations, the clinical supervisors in Asian countries will assume that the implementation of WPBA will only add to the workload.

In a country like Indonesia, which already has a national insurance system since 2014, the health care system allows medical doctors to practice in three different hospitals simultaneously. Thus, the consultants experience a lack of time for patient care, as well as for the supervision of medical students and residents. Although the national insurance takes the national capitation system's place, the spending and organization of this national insurance system still needs a great deal of improvement. The improvement should be made in many strategies of spending for the right patients—right ways (spending for better health outcome and preventive actions rather, than mostly focusing on curative which takes lots of spending for terminally ill/patients with many complications), spending more for the pre-services (education/training), and spending after service in the health care system (Tandon et al. 2016). Regarding the three challenges above, it is still a significant burden for a country like Indonesia, and perhaps lots of other countries with similar hierarchical and collectivistic cultures, to approach better student–teacher interaction in a continuous assessment system.

6.1.5 *Further Challenges for Deeper Student–Teacher Interaction in a Hierarchical Culture: The Entrusted Professional Activities (EPAs)*

Globally, the workplace-based assessment is moving towards the direction of entrusted professional activities (EPAs). EPAs were created to demonstrate the competency milestones, especially in the clinical years of the competency-based curriculum. Ten Cate (2018) ties the EPAs with WPBA methods, as in the case of the Mini-CEX rating scale as a visible method in EPAs implementation. The milestones in EPAs were a set of observable activities that lead to trustable stages, which influence the level of supervision such as supervisor as provider, proactive, reactive until it reaches the trustable stage without supervision. EPAs will bridge the expected day-to-day clinical competence (Tekian et al. 2015; Dhaliwal et al. 2015). Peters et al. (2017) define four critical stages in EPAs: competence, integrity, reliability, and humility. The steps are expected to progress from being aware of the standard procedure until performing a self-evaluation about deficiencies and actively seeking help. The implementation of EPAs during clinical education is supposed to positively impact patient care (Duijn et al. 2019). The building blocks of EPAs and milestones were suitable as the standard of achievement in the various assessment tools. Dhaliwal et al. (2015) noted that a different assessment method has a role in assessing the level of trustable activities.

Duijn et al. (2019) systematically reviewed the WPBA methods that could indicate a development in student's abilities to independently carry out a clinical action: the SPO (Short-Practice Observation), LPO (Long-Practice Observation), and CBD (Case-based discussion). The short observation method, namely, Mini-CEX and DOPS, has been widely implemented to determine EPAs. The long observation method, which refers to multisource feedback, should be part of the EPAs determination. WPBA methods should describe the EPAs and milestones achieved by students; at the same time, it should provide opportunities for students to increase their responsibilities. Therefore, each assessment method should be conducted based on the level of supervision, facilitating student autonomy, and a clear standardization to determine the achievement of competencies that end with the entrustment decisions (Dhaliwal et al. 2015; Duijn et al. 2019).

The fundamental role of WPBA in performing EPAs is a new challenge for the quality improvement of WPBA. Burch (2019) noted that still there is little awareness of the implementation of WPBA in providing feedback than to only fill out the rating scales. This critical purpose of WBPA corresponding with the competence development needed in EPAs facilitate direct and objective observation and feedback.

Feedback in EPAs is a stepping stone for learners to be aware of their competence development. There are countries in which WPBA is an unconventional method for learning and still acknowledges the traditional apprenticeships. Therefore, the discussion of EPAs can be something beyond the clinical education program's future, especially in a hierarchical cultural context.

6.1.6 *Summary of Part 1*

To reflect on the need to facilitate students' learning progress through sufficient feedback and reflection, we emphasize continuous assessment. Systematic assessment with many observations from various teachers using different methods or tools, followed with constructive feedback that allows students to reflect on experiences and planning better learning, are the 'two to tango' to support students' more profound and continuous learning process. The key to continuous learning lies in the dialog between students and teachers, where constructive feedback will help students' reflection and have a better plan of learning. Many studies have proven the reliability and validity of this 'low-stake' assessment program.

However, in the hierarchical and collectivistic culture, the dialogue between students and teachers is limited by the hierarchy and collectivism culture. Unfortunately, it is supported by the health care system and policy that allow lack of time for student–teacher interactions. Culture is characteristic, and it is not there to be changed easily. Medical educationalists still have to explore a suitable way of student-teacher interactions to improve the student–teacher dialogical quality in the hierarchical and collectivistic culture.

6.2 Part 2: The Need to Assure the Quality of the Graduates for Professional Practice in the Society

The complexity of creating a stronger partnership between clinical teachers and students necessitates the responsibility to assure the public of the graduates' ability. As explained at the beginning of this chapter, many countries may choose to implement a national examination with the primary purpose of 'standardizing' its graduates' competence using a National Licensing Examination (NLE). Considering the 'ideal-sound' of the NLE, this part will firstly discuss the NLE matters. We also present three examples of countries that have implemented a national examination or directing the policy towards it: the US Medical Licensing Examination, the near-future Medical Licensing Examination from the UK (GMC-UK, 2014), and the Indonesian Examination. We compared the three national examinations and the patient-care contexts to draw the lessons learned in the cultural context differences (Table 6.1). Without understanding the context of clinical education and the patient-care system in a particular country, an adaptation of a national exam can be antagonistic to student-centered learning. A national exam like the NLE represents one single point to prove the abilities of a student. Still, it is not always considering the previous clinical education process (i.e., lack of feedback) and further clinical career opportunities after completing the national exam. Ultimately, retention of abilities when only observed once or twice, will not last long. Therefore, in regards to ensure the abilities of the graduates, we also present another approach of multiple recorded data points using a portfolio. A portfolio can be used for formative as well as

summative assessment to decide pass/fail of a student, with continuous feedback and stimulation of reflection process along the way of the curriculum. Thus, a portfolio can promote the student-centered and life-long learning.

6.2.1 The National Licensing Examination

National Licensing Examination (NLE) has been implemented in various countries with different formats and objectives. National examinations often serve the function of certification or licensure. Archer et al. (2016a) in their systematic review mention several approaches, including (1) NLE as part of the education process and a requirement to obtain a license to practice, (2) NLE to obtain the doctor's license in practice, or (3) NLE only taken by international doctors to get their medical licensing certificate. Besides its essential purpose of NLE in improving health services, there has been a concerning problem related to the pass or fail decisions and 'stress and burnout' to achieve the passing mark.

The NLEs have been known to have a correlation with other assessment methods in the system; for example, with the results in schools' assessment (Hecker and Violato 2008) and better performance in postgraduate assessment, which supports the predictive validity of NLEs (Thundiyil et al. 2010; Miller et al. 2014). However, as Archer et al. pointed out, the different approaches to medical education in medical schools might affect the results (Archer et al. 2016a). The systematic review highlighted limited evidence for the improvement of the patient outcome as an NLE consequence.

Most of the literature on NLE explores the changes in medical schools in the US and Canada, as they have more experience implementing NLEs. In the US, the Step 2 Clinical Skills Assessment of the US Medical Licencing Examination (USMLE) drove clinical skills education changes. The impact on medical curricula, especially in-house clinical skills assessments, showed that many schools changed their priority in teaching and assessing clinical skills in medical education (Hauer et al. 2005, 2006). However, we should take into accounts that this phenomenon is closely related to the context of patient-care services that is likely more organized, i.e., in the US with the electronic or on-call patient-appointment system, adequate salaries for residential training, rigorous procedures of patient-care of mostly more than 15 min for one patient. The clinical education settings to clinical patient-care settings are also similarly presented with regard to the way professional practice rooms and medical equipments are organized, and consultants are available for feedback and responsible for the clinical education and patient safety; not to mention the validity-reliability of item banks, well-trained staff members, and standardized patients. These kinds of standardized logistic chain and procedures of a national examination in the US may be completely different in other countries that want to adapt a national examination. Considerations to implement an NLE should also include the previous learning process during undergraduate and clinical education that should already

apply with continuous feedback and coaching and the students' future clinical career as the benefits offered to the candidate who passes an NLE with satisfying results.

A systematic review by Archer et al. (2016) described the consequences of NLEs in countries with high development indexes, such as the US and Canada, to find equivalence with UK's upcoming medical licensing assessment. Their review revealed observed consequences on examinees, schools, regulators, policymakers, or broader society. These consequences can be intended or unintended, beneficial, or harmful Archer et al. (2016). Archer's review of NLEs' effects is limited to the area of examinees' performance, patient outcomes and complaints, and variation in performance between local and international graduates. Consequently, the way medical schools improved their quality was mostly through the unintended consequences of the NLE. Unintended consequences are the unforeseen and unpredicted impact of which was not mentioned in the literature. The findings in Archer's were: (1) competition between medical schools (since each school will be informed percentages of the graduates who pass the national exam), which drove (2) collaboration between stakeholders (preparation training for the national exam take places and supported by different stakeholders from health and educational institutions), and (3) burden of educational costs to implement a national computer-based test and national OSCE, and NLEs policy, which made the stakes even higher for stakeholders. These external consequences of an NLE drove external changes in medical education, but not much about internal changes of students' learning impact. Studies in Asian countries show the increasing use of clinical skills assessments, improvement of clinical skills teaching facilities in hospitals in Taiwan, South Korea, and Indonesia; all are external influences of a national examination (Hidayah 2018; Lin et al. 2013; Park 2012; Lee 2008).

6.2.2 Lesson Learned from the Three Countries that Implement a National Examination

Learning from the US and the UK national examination, continuous observation-based assessment at the previous stages of the curriculum has been rigorously developed in line with the patient-care services system. Alternative residential subjects to choose from with adequate salary for the postgraduate residential training is also available after a student completed a national examination. The use of a portfolio as multiple data-point records of learning in both undergraduate and postgraduate medical education in the UK has served as a fundamental guide for global medical education (Friedman et al. 2001). Therefore, the effort to ensure the quality of the medical graduates has been demonstrated within the medical curriculum, the national examination, the portfolio, and the alignment system of patient-care services (Tamblyn 2007, 2002). Adequate feedback to facilitate each student or resident's learning process cannot be replaced by only presenting a national exam at the end of medical education (Harden 2009).

Whereas, in Indonesia, as a consequence of a single national examination, medical students in clinical years can have many trials before attempting the national exam. The tendency of 'only' to try out the exam, happen, instead of learning and reflecting to improve the quality of clinical abilities, as was expected. The final stressful requirement can induce protest and disagreement among stakeholders. This 'example of a power' at the end of medical education, psychologically, drives the students' opinion that to pass the national exam is like to pass through a 'needle-hole,' in which in Bahasa Indonesia has the synonym of a significant danger or risk (Claramita et al. 2020).

Culturally, Indonesia is included as a hierarchical and collectivistic society, and therefore, during clinical years, it is not surprising that dialogue and feedback between teachers and students are limited (Suhoyo et al. 2018; Nugraheny et al. 2016; Claramita et al. 2020). From this point, there is not much facilitation of deeper learning for the medical students to go along within a medical curriculum, to the clinical education program and patient care, including the residential training. The relationship of teamwork-triangle of clinical consultant–the student–the patient, which is often seen in clinical education and patient-care services world-wide, is rarely seen in the clinical education-rounds in Indonesia. Thus, dialogical observation-based learning recommended in the WPBA is challenging in this setting.

General patients' problems in Indonesia are similar to the western world as chronic diseases are dominated, compared to two decades ago, when infectious disease was more prominent (Mboi et al. 2018). In Indonesia, general practitioners serve as the gatekeepers as in the UK system, but Indonesian GPs did not have graduate specialist training as the UK GPs, as the program is about to start in 2022. Primary care centers are known as Puskesmas; about 11.000 Puskesmas across Indonesia, with one or two GPs, can serve more than 100 patients a day, without an appointment. Around 2000 *Puskesmas* do not have a medical doctor and only serving with other health professionals such as midwives and nurses. Therefore, the gatekeeping system is not as ideal as it should be. The 'lack of time' is considered the main excuse for conducting a more one-way communication with patients, on top of the hierarchical culture (Claramita et al. 2013). There is a large number of referrals to hospitals because most of the medication should be firstly prescribed by the hospital specialists, and then can be continued by the GPs. The GPs cannot modify the medication in any way. So, national insurance has not yet achieved its ideal function (Tandon et al. 2016).

To reflect on the three countries phenomena, there are contexts that influence an NLE in a country, including cultural, political, feasibility, and the health-care system. From the US and the UK, examples of developed countries that implemented and will implement an NLE, both countries had taken into account the continuous process of learning with meaningful feedback and recorded learning process, i.e., a portfolio in their medical curriculum (Driessen and van Tartwijk 2013). Whereas, quotes from recent Indonesian study (Claramita et al. 2020) described that current medical students and teachers from Indonesia are yearnings for a more continuous assessment:

Table 6.1 Comparison of the NLE in three countries, clinical education, patient-care services, length of training before independent practice, and cultural context

Background	USA	UK	Indonesia
Information based on websites and other resources			
Name of the NLE	USMLE—the US Medical Licensing Examination®	National licensing examination in the U.K (Medical Licensing Examination—MLA—in 2023)	National Examination—UKMPPD
Information resources	https://www.usmle.org/	https://www.gmc-uk.org/education/standards-guidance-and-curricula/guidance/national-professional-examinations(2020)	National Act 20. 2013 https://peraturan.bpk.go.id/Home/Details/38895/uu-no-20-tahun-2013
	Claramita, 2014. Report of Fulbright Senior Scholar. University of Iowa	https://www.gmc-uk.org/registration-and-licensing/join-the-register/before-you-apply/medical-licensing-assessment(2023)	Dissertation of Hidayah R.N., 2018. Impact of the NLE in Indonesia: perspectives from students, teachers, and medical schools (Doctoral dissertation, University of Leeds, UK)
		Dissertation at SHE, Maastricht University, Harrison, C. 2017 https://she.mumc.maastrichtuniversity.nl/research-education https://www.globalfamilydoctor.com/	
Participants	Medical students' undergraduate to fresh graduate medical doctors, also foreign students	UK medical students and graduates outside the European economic countries (EEC)	Medical students of Indonesia at the final year
Steps	Step 1 about cognitive concepts can be done worldwide, whereas Steps 2 and 3 the clinical skills can only be done in the US	This national examination will be set as an exit exam, before the MD students could earn their MD degree and joining the postgraduate education	A national examination with computer-based test and OSCE. Both in the same period of time across medical schools in Indonesia. Served as an exit exam before earing MD degree. and joining the internship prior to a postgraduate education

(continued)

Table 6.1 (continued)

Background	USA	UK	Indonesia
Settings	There are several highly standardized examination sites in the US that can deliver the examination periodically in a year	Unavailable data (Future 2024)	CBT is organized online in certain day and the OSCEs are organized in each medical schools with the highest level of accreditation, all at the same period, four times/year across Indonesia
National body that govern	USMLE is governed by a committee that includes members from the ECFMG, FSMB, NBME, and the public. This committee is responsible for the overall direction of the program, identifying and approving procedures for scoring and determining the pass/fail standard, and all significant policies and procedures	General Medical Council (GMC) the UK	A national committee consist of medical schools, professional organization, Indonesia Medical Council, MoH, and MoE. Organized by the Ministry of Education—Directorate General of Higher Education
Writers of the items exam	USMLE test committee members represent a 'national faculty of medicine' drawn from medical schools, state medical boards, and clinical practice settings across the United States	Staff members from medical schools coordinated by the GMC	Staff members from medical schools coordinated by the national committee
Aim	To provide a national-wide licensing exam, highly standardized, to ensure physicians fairness and equity to professional testing standards	To grant a certificate of completion of training, we need to be confident that the doctor has demonstrated the competencies set out in the specialty curriculum through assessments including national professional examinations	To have a one single national standards for exit examination; consist of computer-based test and OSCE, which are delivered four times a year, in different centers for medical institutions/faculty of medicine. No further connection with the future postgraduate training

(continued)

Table 6.1 (continued)

Background	USA	UK	Indonesia
Population	333 million people (2021)—third most populated country	68 million people (2021)	277 million people (2021)—fourth most populated country
Number of medical schools	About 190 (2021)	44 (2021)	About 85 (2021)
Number of physicians	About 550.000 practicing physicians (2021)	About 123 practicing physicians (2021)	About 214.000 practicing physicians (2021). About 140 thousands registered as general practitioners without postgraduate training. About 40 thousands are hospital specialists. About 9.000 are GPs in the state primary care settings, 40 thousands are GPs independent practice settings. The rest of 50 thousands registered are unknown of their active professional practice
Ratio of MD/person	2.78/1000 population	2.8/1000 population	Less than recommended by WHO: 1/1000 population
Notes	US also fairly welcome medical doctors from other countries, when they pass USMLE	UK also fairly welcome medical doctors from other countries, when they pass the GMC-UK examination	Indonesia protects foreign doctors to practice in this country. Procedures are available but uncommon
Recruitment of residential training	Also based on other scores than USMLE, i.e., interview, recommendations, social experiences	Also based on other scores the NLE, i.e., interview, recommendations, social experiences, preferences	Does not connect with the UKMPPD results
	Monthly salary is available	Monthly salary is available	Monthly salary said to be available in the national act, but the implementation varies and residents still pay the tuition fee

(continued)

Table 6.1 (continued)

Background	USA	UK	Indonesia
Medical schools' curriculum (Wijnen-Meijer et al. 2013)	Requires 4 years of bachelor degree, then 4 years of medical school, and another more-less 4 years for residential training. Total training can be 12 years before independent practice	Requires 2 years pre-college, 6 years medical schools, 1–2 years of houseman-ship, and about 3 years residential training. Total training can be 12 years before independent practice	Direct entry from High school, 6 years medical schools, 1 year internship (can practice as a GP), and then another 4 years for postgraduate training for the hospital specialists (family medicine specialist training is about to begin in 2022)
Patient-care services	Depends on different medical insurance, but it is common that patients required to visit family medicine specialist first before referring to the other specialist	The NHS (National Health System) applied for all citizen (universal coverage). Each should visit their GP specialist before referred to the hospital specialists	The national insurance BPJS govern the universal coverage system, about 70 percent are covered. The GPs are the gate keeper, but has limited authority in diagnosis and treatment, and mostly by hospital specialists. Referrals are very high
Patient-appointment	Patient's appointment is obligatory unless for emergency and the walk-in clinic	Appointment is obligatory unless for emergency	Patients' appointment are available for hospital settings (maximum 30 patients per doctor in 3-h policlinic). In primary care settings, no appointment system available, 30 to 100 patients' walk-in every day in six working days of primary care settings

(continued)

Table 6.1 (continued)

Background	USA	UK	Indonesia
Authors' view			
Students' psychological background of motivation to sit in the NLE	To have higher scores for preferred residential training with the proper salary. So, to sit in the USMLE can feel like to apply for future comfortable job	To complete their medical education and to enter the residential training with proper salary	To pass the exam and to gain the 'medical doctor' degree. Without further prediction and direction of any postgraduate education
Alignment with the patient-care services	USMLE is to screen the applicants to have at least the minimum competence required to safely practice medicine during the residency training, while rewarding them for the service that they provide	Yes with the NHS system	Unavailable
Clinical education context	A more two-way dialog and team work collaboration between student-resident-consultant. Feedback is given after each patient, and each resident see patients together with the consultant	Similar clinical education context with the US	Lack of student–teacher's dialogue, constructive feedback, reflective learning, residents often by their own when dealing with patients
Cultural context (based on Hofstede 2010)	A more equal relationship between people and high individualism in decision-making	The UK falls into similar cultural characteristics with the US	Hierarchical and collectivistic cultural characteristic are assumed to prevent partnership relationship between people

In my point, formative assessment is the truth, and summative is just a fortune.

(A senior clinician)

No matter the health care system or the time limit of the teachers are, we need continuous feedback from them.

(A fourth-year undergraduate student)

In a hierarchical culture like Indonesia, when the daily learning is somewhat neglected, the final NLE seems like a direct paternalistic way that perceived as a logical way to force the students and medical institutions to have the same outcome as the other better medical schools to be ready to serve the community. Harrison et al. (2015, 2017) highlighted that there would be a minimum learning process, i.e., reflection after students taking the NLE, of both successful and unsuccessful groups of students (the deterrent feelings).

The impact of NLE can drive changes based on external regulation instead of internal motivation and reflections. As further consequences of minimum relatedness, co-working team, and less participation in learning of the students during their clinical education, graduates will likely be unaware of patients' involvement in their medical consultation that is also the key for the health outcome. Eventually, patient-safety can be threatened, and medical services are not optimum for patients' satisfaction.

6.2.3 The Portfolio

We now know about the dilemma of the use of longitudinal assessment (with multiple data points) or the national examination (with usually one-single data) to decide accomplishment of medical competencies. In a context where national exam is still needed by the society, we can put the one data point of national examination into the longitudinal data record of the students. Therefore, the final decision can be weighing a national examination data point as well as many other data. In this regards, a portfolio can describe the achievement of the competencies.

A portfolio can help both teachers and students reflect on learning experiences throughout the curriculum. The portfolio is not (only) an instrument; it is a continuous dialogue between students and teachers throughout medical education to reflect on the learning and plan further learning. Without the dialogue based on constructive feedback between teachers and students, a portfolio is meaningless.

A portfolio is defined as 'collection of work, evaluations, products and similar material of the learner collected over time that reflects professional development, annotated by the trainee's reflection on what has been learned in terms of learning outcomes' (Holmboe et al. 2008). The portfolio has been used as an assessment tool both at undergraduate and postgraduate medical education levels. According to Driessen and van Tartwijk (2013), there are three purposes of the portfolio in medical education, which are: (1) portfolio for assessment, (2) portfolio for reflection, and (3) portfolio for monitoring learners' development. Each purpose demands a different focus, format, and structure. The portfolio for assessment focuses on the evidence of

achievement that shows learning has taken place. Simultaneously, the focus of the portfolio for monitoring development is on what has been acquired and what needs to be further studied. It is especially useful in the clinical setting in which the cases and clinical tasks students encounter every day cannot be predicted, and not all of them are relevant for their competencies. Keeping a portfolio enables them to look back at their learning experiences and relate them with the educational objectives they have to attain.

The third type of portfolio is a portfolio for reflection where learners are expected to transform their work experience into knowledge, skills, and attitudes through the experiential learning cycle (Driessen and van Tartwijk 2013). Reflective practice is the core of this particular portfolio. When an experience occurs, learners analyze and reflect on it, and then list possible action plans and determine the one that fulfills the 'SMART' characteristics. Learners need to show how the reflection connects to the evidence presented in the portfolio. In developing the portfolio, the mentor's role is essential to pose reflective questions, identify any discrepancies in the thoughtful writing, and provide feedback and support since individuals are not accurate assessors for themselves.

Driessen and van Tartwijk (2013) listed factors that influence portfolio implementation success in a formal educational program, which are goals, the introduction of the portfolio, mentoring, assessment, portfolio format, and portfolio's position in the curriculum. The portfolio's objectives need to be clear, explicit, and focused, and how the portfolio relates to the overall curriculum. The format will be decided based on the goals. The portfolio format should be carefully considered to make it less exhaustive and deter learners from engaging with the portfolio. When the plans and format are already determined, then the guidelines for its development should be provided for learners (and also mentors). The mentoring system should also be established, including pairing up the mentor with mentees and training the mentors. If the portfolio would be used as an assessment tool, then the assessment system needs to be developed. The portfolio should be assessed by more than one person using a predetermined scoring rubric to maintain validity. Before the final judgment, there should also be opportunities for learners to be monitored and obtained feedback. It is suggested to start portfolio development from the early years of undergraduate education. At the end of the final year, an assessment committee consisting of stakeholders, i.e., the head of the study program, deans, professional organizations, the society representatives, Ministry of Education, Ministry of Health, should then collect appropriate data from teachers' observations and students' portfolio along with the curriculum and then summarize the data and decide whether the particular students can/cannot meet the criteria of a professional graduate.

We should also be aware that a portfolio for certification purposes will also put a lot of stakes on the individual data points that require specific procedures using information technology (IT) system. The up-down-loading and assessment-time often need very rigid technical skills from both students and teachers that can hamper learning. Thus, the dialogue of feedback, reflection, and learning plan is highly emphasized during portfolio assessment. When the IT system is minimal, we can start with a manual portfolio.

6.2.4 Summary of Part 2

The National Licensing Examination can be used to challenge the students to demonstrate their abilities at a particular time. The results can ensure the graduates' performance for further professional services for the public. However, the NLE is required not only for logistical matters; from the reliability of the tests instrument and item-bank to the human resources and equipment, but also equally important is to require a proper previous process of facilitating learning or guiding students (during undergraduate as well as clinical education), and future opportunities and clinical career pathway after the examination. Without considering the context of clinical education and the health care system that put the health professionals within the patient-care system, a national examination can drive the health professions education away from student-centered learning.

On the other hand, there is available method of recording the learning process through a portfolio; that is a series of learning evidences followed with intensive dialogue between students and teachers along with medical curriculum, undergraduate, clinical education, and residential training. In portfolio rigorous evidences are available for all stakeholders, showing that a future doctor can be trusted to do a professional practice according to medical ethics and the law. The candidates have shown many examples of abilities he/she gained and performed in the overall medical education program, and the document called portfolio is a lifetime evidential document. Therefore, the one-day observed performance in a national examination can be regarded as one evidence within a continuous proof of abilities throughout the years, to show the overall competence of a medical student.

6.3 Overall Summary: The Journey of Health Professions Education Towards the Student-Centered Learning

When the world of medical education began to introduce the concept of student-centered learning using, i.e., problem-based learning approach in the '60s, medical teachers were gradually learning that their roles were switching from sharing information into facilitating students' learning, from acting in front of a large class into facilitating small group discussions, from talking into more listening, observing, and giving feedback, from one-way teaching into more dialogical relationships with their students, and from judging students' performance to motivating students for better learning. Each country and its uniqueness of cultural and policy contexts influence the learning curve of implementing student-centered learning principles. Many still apply what they called as the 'PBL hybrid.' Others are implementing PBL without knowing where they are in the learning curve of PBL. After half of the century, many centers of excellence in medical education in the world is approaching the idea of student-centered learning principles. The global learning process towards SCL goes on.

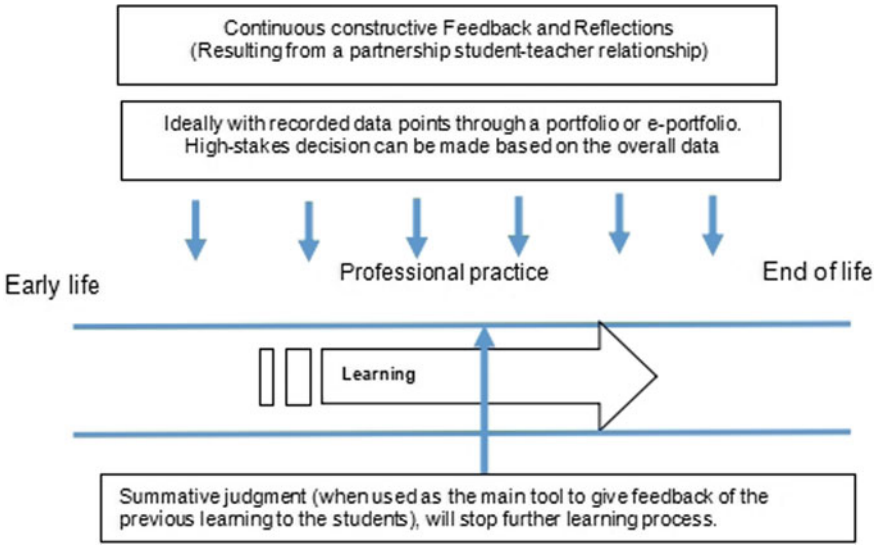

Fig. 6.1 An illustration on the process of lifetime continuous learning of a medical student as a person

Now, we introduce the concept of 'assessment for further learning' to evaluate the students' learning towards the SCL. The assessor's role should be to provide feedback, motivate students, and plan together with the students further learning actions, shifted from judging the results of students' learning. A paradigm-shifting is always challenging—another journey to go. For this challenge, we propose to develop a portfolio, cultivating reflection and feedback culture in the institution, and introducing the multiple approach to assess the students' competencies, can be baby steps for more systematic and continuous assessment. For many countries that hold hierarchical and collectivistic culture, perhaps one of the logically sound ways is that the results of an NLE to be put as a part of the students' portfolio. This transition should be done in parallel with a series of faculty development for feedback training before reaching a future step that a portfolio can be used as a high-stakes decision, as recommended in the programmatic assessment system.

Figure 6.1 illustrated a lifetime learning process that could be enhanced with constructive feedback that supports deeper reflection and metacognition process. In this figure, we can see that when a single big judgment was made to evaluate the previous learning process, the next learning process may stop. We recommend the recordings of multiple data points to assess the overall student-learning process; during each moment, the students will get constructive feedback that supports their reflection and simultaneously plans better learning and continues.

During a pandemic, like what the world just has been through in 2020–2021, the Covid-19, a large number of centers in medical education across the globe are feeling stressed in measuring the abilities of their students. Logistically, assessment is not allowed where many people gather in the same place, based on the 'physical distancing' rules (WHO 2020). The 'big-bang' national examination, suddenly, cannot be done for an indefinite time. Therefore, a series of observations based on a continuous formative assessment system, and a ready recorded portfolio, can help a high-stakes decision on each graduate to be, based on their learning records.

Key Learning Points

- Student-centered learning consequently requires student-centered assessment.
- Relying on one or two points of assessment (i.e., national summative assessment) during the overall medical curriculum may neglect the daily process of student learning and is a more hierarchical judgmental— than a continuous nurturing process.
- Rigorous points of assessment throughout medical curriculum had shown a more reliable abilities of medical students.
- The main challenge to implement student-centered assessment in this hierarchical and collectivistic cultural context lay on the interaction of reflection and constructive feedback.

References

Ainin DQ (2017) Instrument evaluation development based on the 'programmatic assessment'—student self assessment. Thesis, Universitas Gadjah Mada. http://etd.repository.ugm.ac.id/home/detail_pencarian/164087

Ajjawi R, Boud D (2017) Researching feedback dialogue: an interactional analysis approach. Assess Eval High Educ 42(2):252–265. https://doi.org/10.1080/02602938.2015.1102863

Ajjawi R, Boud D (2018) Examining the nature and effects of feedback dialogue. Assess Eval High Educ 43(7):1106–1119. https://doi.org/10.1080/02602938.2018.1434128

Archer J, Lynn N, Coombes L et al (2016) The impact of large scale licensing examinations in highly developed countries: a systematic review. BMC Med Educ 16(1):212

Attard A, Di Lorio E, Geven K et al (2010) Student-centred learning: toolkit for students, staff and higher education institutions. European Students' Union (NJ1):82. http://www.aic.lv/bolona/2010/Reports/SCL_toolkit_ESU_EI.pdf

Ayyala MS, Rios R, Wright SM (2019) Perceived bullying among internal medicine residents. JAMA 322(6):576–578. https://doi.org/10.1001/jama.2019.8616

Burch VC (2019) The changing landscape of workplace-based assessment. J Appl Test Technol 20:3–10. https://doi.org/10.4324/9781315749112-2

CAN-MED (2010) Future of medical Education in Canada: a collective vision. https://cou.ca/wp-content/uploads/2010/01/COU-Future-of-Medical-Education-in-Canada-A-Collective-Vision.pdf

Cate O (2018) A primer on entrustable professional activities. Korean J Med Educ 30(1):1–10. https://doi.org/10.3946/kjme.2018.76

Chung JCC, Chow SMK (2004) Promoting student learning through a student-centred problem-based learning subject curriculum. Innov Educ Teach Int 41(2):157–168. https://doi.org/10.1080/1470329042000208684

Cilliers FJ (2015) Is assessment good for learning or learning good for assessment? A. Both? B. Neither? C. It depends?. Perspect Med Educ 4(6):280–281. https://doi.org/10.1007/s40037-015-0229-1

Claramita M, Nugraheny M, van Dalen J et al (2013) Doctor-patient communication in Southeast Asia: a different culture? Adv Health Sci Educ 18(1):15–31. https://doi.org/10.1007/s10459-012-9352-5

Claramita M, Nurrohmanti N, Shitarukmi S (2020) Report on 'the 21st century learning skills'. Grantee of Basic Research Competition from Directorate of Higher Education, Min. of Education, Rep Indonesia

Dhaliwal U, Gupta P, Singh T (2015) Entrustable professional activities: teaching and assessing clinical competence. Indian Pediatr J 52(4):591–597. https://doi.org/10.1007/s13312-015-0681-3

Driessen E, Scheele F (2013) What is wrong with assessment in postgraduate training? Lessons from clinical practice and educational research. Med Teach 35(7):569–574. https://doi.org/10.3109/0142159X.2013.798403

Driessen EW, van Tartwijk J, Govaerts M et al (2012) The use of 'programmatic assessment' in the clinical workplace: a Maastricht case report. Med Teach 34(3):226–231. https://doi.org/10.3109/0142159X.2012.652242

Driessen E, van Tartwijk J (2013) Portfolios in personal and professional development. In: Swanwick T (ed) Understanding medical education: evidence, theory and practice. Wiley-Blackwell, Oxford, pp 193–200

Duijn CCMA, Dijk EJ, Mandoki M et al (2019) Assessment tools for feedback and entrustment decisions in the clinical workplace: a systematic review. J Vet Med Educ 46(3):340–352. https://doi.org/10.3138/jvme.0917-123r

Friedman BDM, Davis MH, Harden RM et al (2001) AMEE medical education guide no. 24: portfolios as a method of student assessment. Med Teach 23(6):535–551. https://doi.org/10.1080/01421590120090952

GMC-UK (2014) National licensing examination. https://www.gmc-uk.org/-/media/documents/06_National_Licensing_Examination.pdf_57876215.pdf

Govaerts M, van der Vleuten CPM (2013) The cross-cutting edge validity in work-based assessment: expanding our horizons 47(12):1164–1174. https://doi.org/10.1111/medu.12289

Govaerts M (2015) Workplace-based assessment and assessment for learning: threats to validity. J Grad Med Educ 7(2):265–267. https://doi.org/10.4300/JGME-D-15-00101.1

Harden RM (2009) Five myths and the case against a European or national licensing examination. Med Teach 31(3):217–220

Harden RM, Laidlaw JM (2012) Essential skills for a medical teacher. Churchill Livingstone, Elsevier

Harrison CJ, Könings KD, Schuwirth L et al (2015) Barriers to the uptake and use of feedback in the context of summative assessment. Adv in Health Sci Educ 20:229–245. https://doi.org/10.1007/s10459-014-9524-6

Harrison CJ (2017) Feedback: the need for meaningful conversations. J Grad Med Educ 9(2):171–172. https://doi.org/10.4300/JGME-D-17-00040.1

Harrison C, Könings KD, Schuwirth LWT et al (2017) Changing the culture of assessment: the dominance of the summative assessment paradigm. BMC Med Educ 17(1):1–14. https://doi.org/10.1186/s12909-017-0912-5

Hauer KE, Hodgson CS, Kerr KM et al (2005) A national study of medical student clinical skills assessment. Acad Med 80(10):S25–29

Hauer KE, Teherani A, Kerr KM et al (2006) Impact of the United States medical licensing examination step 2 clinical skills exam on medical school clinical skills assessment. Acad Med 81(10):S13–16

Hecker K, Violato C (2008) How much do differences in medical schools influence student performance? A longitudinal study employing hierarchical linear modeling. Teach Learn Med 20(2):104–113

Heeneman S, Oudkerk Pool A, Schuwirth LW et al (2015) The impact of 'programmatic assessment' on student learning: theory versus practice. Med Educ 49(5):487–498. https://doi.org/10.1111/medu.12645

Hidayah RN (2018) Impact of the national medical licensing examination in Indonesia: perspectives from students, teachers, and medical schools. Dissertation, University of Leeds

Hofstede G (2010) Culture consequenses. In: Thompson JB (ed) Comparing values, behaviors, institutions, and organizations across nations, 2nd ed. Sage Publication, Thousand Oaks, California

Holmboe ES, Davis MH, Carraccio C (2008) Portfolios. In: Holmboe ES, Hawkins RE (eds) Practical guide to the evaluation of clinical competence, 1st ed. Mosby Elsevier, Philadelphia, pp 86–101

de Jong LH, Favier RP, van der Vleuten CPM et al (2017) Students' motivation toward feedback-seeking in the clinical workplace. Med Teach 39(9):954–958. https://doi.org/10.1080/0142159X.2017.1324948

Lee YS (2008) OSCE for the medical licensing examination in Korea. Kaohsiung J Med Sci 24(12):646–650. https://doi.org/10.1016/S1607-551X(09)70030-0

Lin CW, Tsai TC, Sun CK et al (2013) Power of the policy: how the announcement of high-stakes clinical examination altered OSCE implementation at institutional level. BMC Med Educ 13:8

Mboi N, Surbakti IM, Trihandini I et al (2018) On the road to Universal Health Care in Indonesia, 1990–2016: a systematic analysis for the global burden of disease study. Lancet 392(10147):581–591

McGill DA, van der Vleuten CPM, Clarke MJ (2011) Supervisor assessment of clinical and professional competence of medical trainees: a reliability study using workplace data and a focused analytical literature review. Adv Health Sci Educ 16(3):405–425. https://doi.org/10.1007/s10459-011-9296-1

Meeuwesen L, van den Brink-Muinen A, Hofstede G (2009) Can dimensions of national culture predict cross-national differences in medical communication? Patient Education and Counseling Elsevier Ireland Ltd 75(1):58–66. https://doi.org/10.1016/j.pec.2008.09.015

Miller A, Archer J (2010) Impact of workplace based assessment on doctors' education and performance: a systematic review. BMJ 341(7775):710. https://doi.org/10.1136/bmj.c5064

Miller BJ, Sexson S, Shevitz S et al (2014) US medical licensing exam scores and performance on the psychiatry resident in-training examination. Acad Psychiatry 38(5):627–631

Miller GE (1990) The assessment of clinical skills/competence/performance. Acad Med 65(9 Suppl):S63–S67. https://doi.org/10.1097/00001888-199009000-00045

Møller JE, Malling BV (2019) Workplace-based communication skills training in clinical departments: examining the role of collegial relations through positioning theory. Med Teach 41(3):309–317. https://doi.org/10.1080/0142159X.2018.1464647

Moonen-van Loon JM, Overeem K, Donkers HH, van der Vleuten CP, Driessen EW (2013) Composite reliability of a workplace-based assessment toolbox for postgraduate medical education. Adv Health Sci Educ Theory Pract 18(5):1087–102. https://doi.org/10.1007/s10459-013-9450

Nugraheny E, Claramita M, Rahayu GR et al (2016) Feedback in the nonshifting context of the midwifery clinical education in Indonesia: a mixed methods study. Iran J Nurs Midwifery Res 21(6):628–634. https://doi.org/10.4103/1735-9066.197671

Norcini J, Burch V (2007) Workplace-based assessment as an educational tool: AMEE Guide No. 31. Med Teach 29(9–10):855–871. https://doi.org/10.1080/01421590701775453

Park HK (2012) The impact of introducing the Korean medical licensing examination clinical skills assessment on medical education. J Korean Med Assoc 55(2):116. https://doi.org/10.5124/jkma.2012.55.2.116

Pellegrino JW, Hilton ML (2013) Education for life and work: developing transferable knowledge and skills in the 21st century. https://doi.org/10.17226/13398

Peters H, Holzhausen Y, Boscardin C et al (2017) Twelve tips for the implementation of EPAs for assessment and entrustment decisions. Med Teach 39(8):802–807. https://doi.org/10.1080/0142159X.2017.1331031

Ramani S, Leinster S (2008) AMEE guide no. 34: teaching in the clinical environment. Med Teach 30(4):347–364. https://doi.org/10.1080/01421590802061613

Ramani S, Post SE, Könings K et al (2017) "It's just not the culture": a qualitative study exploring residents' perceptions of the impact of institutional culture on feedback. Teach Learn Med 29(2):153–161. https://doi.org/10.1080/10401334.2016.1244014

Ramani S, Konings KD, Ginsburg S et al (2019a) Meaningful feedback through a sociocultural lens.pdf. Med Teach 41(12):1342–1352. https://doi.org/10.1080/0142159X.2019.1656804

Ramani S, Kd, Koning, Ginsburg S et al (2019b) Twelve tips to promote a feedback culture with a growth mind-set: swinging the feedback pendulum from recipes to relationships. Med Teach 41(6):625–631. https://doi.org/10.1080/0142159X.2018.1432850

Schut S, Maggio LA, Heeneman S et al (2020) Where the rubber meets the road—an integrative review of programmatic assessment in health care professions education. Perspecti Med Educ 10:6–13

Schuwirth LWT, van der Vleuten CPM (2011) Programmatic assessment': from assessment of learning to assessment for learning. Med Teach 33(6):478–485. https://doi.org/10.3109/0142159X.2011.565828

Sudarso S, Rahayu GR, Suhoyo Y (2016) How does feedback in mini-CEX affect students' learning response? Int J Med Educ 7:407–413. https://doi.org/10.5116/ijme.580b.363d

Suhoyo Y, Schönrock-Adema J, Emilia O et al (2018) Clinical workplace learning: perceived learning value of individual and group feedback in a collectivistic culture. BMC Med Educ 18(1):1–6. https://doi.org/10.1186/s12909-018-1188-0

Tan J, Tengah C, Chong VH et al (2015) Workplace based assessment in an Asian context: trainees' and trainers' perception of validity, reliability, feasibility, acceptability, and educational impact. J Biomed Educ 1–8. https://doi.org/10.1155/2015/615169

Tandon A, Indonesia Health Financing System Assessment (2016) Spend more—spend right—spend better. Ministry of Health Republic of Indonesia, Ministry of Finance Republic of Indonesia, World Bank, Australia Government DFAT, Canada, European Union, Swiss Confederation, and The Vaccine Alliance Federation. http://documents1.worldbank.org/curated/en/453091479269158106/pdf/110298-REVISED-PUBLIC-HFSA-Nov17-LowRes.pdf

Tekian A, Hodges BD, Roberts TE et al (2015) Assessing competencies using milestones along the way. Med Teach 37(4):399–402. https://doi.org/10.3109/0142159X.2014.993954

Tamblyn R, Abrahamowicz M, Dauphinee D et al (2007) Physician scores on a national clinical skills examination as predictors of complaints to medical regulatory authorities. JAMA 298(9):993–1001

Tamblyn R, Abrahamowicz M, Dauphinee WD et al (2002) Association between licensure examination scores and practice in primary care. JAMA 288(23):3019–3026

Thundiyil JG, Modica RF, Silvestri S et al (2010) Do United States Medical Licensing Examination (USMLE) scores predict in-training test performance for emergency medicine residents? J Emerg Med 38(1):65–69

van der Vleuten CPM, Schuwirth LW, Scheele F et al (2010) The assessment of professional competence: Building blocks for theory development. Best Pract Res Clin Obstet Gynaecol 24(6):703–719. https://doi.org/10.1016/j.bpobgyn.2010.04.001

van der Vleuten CPM, Schuwirth LW, Driessen EW et al (2012) A model for programmatic assessment' fit for purpose. Med Teach 34(3):205–214. https://doi.org/10.3109/0142159X.2012.652239

van der Vleuten C, Lindemann I, Schmidt L (2018) Programmatic assessment': the process, rationale and evidence for modern evaluation approaches in medical education. Med J Aust 209(9):386–388. https://doi.org/10.5694/mja17.00926

Van der Zwet J, Zwietering PJ, Teunissen PW et al (2011) Workplace learning from a socio-cultural perspective: creating developmental space during the general practice clerkship. Adv Health Sci Educ 16(3):359–373. https://doi.org/10.1007/s10459-010-9268-x

Weller JM, Misur M, Nicolson S et al (2014) Can I leave the theatre? A key to more reliable workplace-based assessment. Br J Anaesth 112(6):1083–1091. https://doi.org/10.1093/bja/aeu052

Wijnen-Meijer M, Burdick W, Alofs L et al (2013) Stages and transitions in medical education around the world: clarifying structures and terminology. Med Teach 35(4):301–307. https://doi.org/10.3109/0142159X.2012.746449

Wilbur K, Driessen EW, Scheele F et al (2019) Workplace-based assessment in cross-border health professional education. Teach Learn Med 32(1):91–103. https://doi.org/10.1080/10401334.2019.1637742

Wong AK (2011) Culture in medical education: comparing a Thai and a Canadian residency programme. Med Educ 45(12):1209–1219. https://doi.org/10.1111/j.1365-2923.2011.040

Chapter 7
Cultivating and Nurturing Medical Professionalism in the Cultural Context

Rachmad Sarwo Bekti and Hiroshi Nishigori

Abstract Professionalism has been one of the essential topics in medical education in the last decades. Although much research about professionalism has been published in medical education journals, most of them are written by authors in the Western context. There are still few studies exploring medical professionalism from the Eastern context. This chapter 16 uses socio-cultural and socio-material research perspectives to redefine "context" and explore the context-specific aspect of medical professionalism in two Eastern countries to feature how medical professionalism is cultivated in the Eastern context. The authors argue how language and discourses mediate cultural and spiritual virtue and form the context-specific conception of medical professionalism.

7.1 Introduction

7.1.1 Conception of Medical Professionalism

What do we mean by professionalism? Or for more specific, medical professionalism? In a short answer, it is "ism" about professionals. In the simplest term, medical professionalism is all attributes, characteristics, beliefs, and conceptions related to the medical profession. However, in the last three decades, a study on medical work and professionalism has evolved dramatically. This is mainly because people's interest in the medical profession has been evolved from just an intention to define the character of the profession and its relation to the community to more complex and specific inquiries such as how this profession learns and how the

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profession develops the most efficient teaching–learning and assessment to produce the better ones. While the former inquiry was set by sociologists in establishing the basis for research in the profession, the latter has been the core inquiry behind the birth of medical education as an academic field where professional learning and professionalism become one of its core research topics. These developments made people's understanding of the medical profession and how it is defined have also evolved and getting more complicated. Especially when defining medical professionalism has become a contesting area not just for the profession but also for agencies outside the profession.

The profession is a type of occupation that closely linkages with public services. Medicine as a profession, therefore, is also bounded with this generic destiny. Scholars have argued that the role and function of the medical profession are centrally lied in the unwritten contract between society and the profession to facilitate the healing process of ill people. This concept is known as the social contract of the medical profession. In the past, medical associations became a powerful representation of the medical profession in establishing and maintaining the credibility and sustainability of the social contract. However, both the medical profession and the society they are served are changing. Medical knowledge and healthcare technology have evolved, allowing the expansion of new modes of care and specialties. The medical profession has become more specialistic, and people's expectation to medical profession has also steadily shifted. In turn, defining medical professionalism involved many competing parties and interests, and this has become a challenging task for medical education society. Defining and maintaining medical professionalism in the public discourse is tempting, relevant, and encouraging both for internal and external professional agencies. For internal agencies (medical and health profession researchers), developing medical professionalism discourse based on research-based evidence will strengthen the accountability discourse of the medical and health societies in maintaining their identity and special privileges in the community and at the same time finding the most acceptable form of social/moral contract. For external stakeholders (e.g., government, health authorities, and wider public stakeholders), keeping the professionalism discourse alive in society would enable these agencies to exercise new models of relationship (e.g., regulation or social control), which unlikely occurred in the previous days.

As a research topic, professionalism has played a critical role in the development of medical education both as a professional education practice and a distinctive academic field. Historically, the medical profession is the research subject in which the classic definition of a profession is emerged, and thus study on professionalism is grounded. The pioneers of professional and professional studies like Parson and colleagues have grounded their research on the medical profession. These early professionalism studies signify the expansion of research and education practices that help the professional development and learning of the medical profession. Moreover, the establishment of medical education as an academic discipline also cannot be separated from epistemic journeys of exploring and understanding how medical and health workforces, as a profession, learn to grow and develop. It is recorded in history that the earliest development of medical education as a research interest among medical educators was initiated by research inquiries such as "how

doctors learn?" and "how is the nature of doctor's clinical decision making?" (Norman 2002, 2012; Kuper et al. 2010). Research in medical education history has also shown that four topics: curriculum development, teaching and learning, assessment, and professionalism itself, have become four major research topics published in renowned and high impact medical education journals (Azer 2015; Atluru et al. 2015; Hafferty 2017; Rangel et al. 2017).

As time unfolded, studies on professionalism in medicine have evolved to be a big theme, not just an area of research interest for medical education researchers, but it also becomes a global movement to maintain and sustain the social contract of the medical profession in the changing society. Medical education as both emerging academic and practice fields become the main actor and the reactor (source of energy) of this movement. The medical education and the professionalism movement should have strengthened each-other existence. We believe research on the professionalism that allows us, as medical educators, to understand more how professionals learn and develop and nurture in a set of teaching–learning and assessment is a never-ending agenda in medical education practice. This is because the society and context where (and which) we develop our understanding of the profession are always changing. The big question is, however, how can professionalism be cultivated and nurtured in different multifaceted contexts, and what can medical educationists do to catch up with these changes?

This chapter is an attempt to cultivate the current conception of medical professionalism in the countries with hierarchy and collectivism, especially in the Asian context, the origin of the authors of this chapter. From this understanding, medical education researchers project away to nurture professionalism or professional development contextually. As two Asian origins of medical doctors and medical educationists, the authors come to a reflexive observation on the importance of redefining context and the critical role of socio-cultural and socio-material approach in researching and nurturing medical professionalism. The arguments to support the undertaking were mostly drawn from recent studies and the relevant emergent underpinning theories.

7.2 Revisiting Context in Conceptualizing Professionalism and Its Teaching–learning

Professionalism is a complex concept and has a multidimensional social construct (Ginsburg et al. 2000; Cruess and Cruess 2004; Hodges et al. 2011). Research showed that how people conceive professionalism is evolving over time and across different disciplines (Fenwick 2016). The feature of the conception shift of professionalism is summarized from the literature (Royal College of Physicians et al. 2005; Thistlethwaite and Spencer 2008; Martimianakis et al. 2009; Wynia et al. 2014; Burford et al. 2014; Levinson et al. 2014; Zukas and Kilminster 2014) and shown in Table 7.1.

Table 7.1 The different conceptualization of professionalism

Conceptions of Professionalism
Professionalism is the virtue (worldview, values, and ethics system) and ideal desirable qualities of medical profession (e.g., professionalism as realizing compassionate care; reflective practice)
Professionalism is a protected role of medical profession as a privileged community in society
Professionalism is a set of functional traits consisting of behaviors and competencies of individual profession that is entrusted by society to be committed by professional organization body
Professionalism is one among Identities (consists of set of values, attributes, and relationship) of medical profession that developed through special education and practice
Professionalism is a social movement to create new relationship between society and medical profession (e.g., professionalism as a social responsibility of profession to the community)
Professionalism is a discourse of controlling profession either exercised by professional body or external parties other than member of professional body

There is also ongoing debate in professionalism studies on what extent it is universal and to what extent it depends on local context (Ho et al. 2011; Jha et al. 2015). Although both authors of this chapter are among those who had evidence that the professionalism is contextual and culturally specific, we don't think extending this contestation would offer a productive outcome for a common vision to promote better professional learning. Rather, we see a big challenge (a common enemy) faced by medical educationists in every nation in the world on how we are facing disruptions in many sectors of the medical and healthcare system. These disruptions not only change how medical professionals work and function in the healthcare services and system, but the society in which the professions are serving is also disrupted. This should have made us aware that our understanding of the context in defining professionalism might be no longer relevant and therefore need to be redefined.

We used to call that the workplace, the home, and the community, as well as school, colleges, and universities, are profound examples of context for professional learning. That is true, and we call this the first definition of context, i.e., context as a container. This definition is possibly our dominant view of conceiving context for professional learning as Lave (1996) quoted from Mc Dermott:

> In all common-sense use of the term, context refers to an empty slot, a container, into which other things are placed. It is the 'con' that contains the 'text', the bowl that contains the soup. As such, it shapes the contours of its contents: it has its effects only at the borders of the phenomenon under analysis … A static sense of context delivers a stable world.
>
> (Mc Dermott, quoted in Lave 1996:22-3)

However, this understanding becomes problematic when we further believe on a discourse that professional learning should be lifelong. If professional learning is lifelong, then it cannot be about "container" anymore. Following work on situated learning (Lave and Wenger 1991), workplace, home, community, social media, and any other form of learning institutes can all be regarded as a level of learning within which there are specific situations. In this notion, there are other levels of learning contexts distributed across the associational order of each level, and they are embedded in practice to such an extent that this order is itself already a learning context. For example, if we say the workplace is a level of learning context, then there is always a possible question in which this context can still be broken down into several workplace situations such as "which workplace?", "which schedule?", "when working with who?", etc. Imagine what would be the answer for a physician who is working in an internationally networked hospital or those who are working in a teaching hospital, non-teaching hospital, and those who are just working in their private practice only. Here, the answer to these questions would refer to an order, and this associational order becomes what so-called a learning order in which all are linked as a meshwork of learning contexts. The boundaries of the workplace in this example become subtle, and therefore its understanding as a container for professional learning becomes no longer relevant (Edward 2009). We modified an illustration from Russell's work (2009) to feature the distinction between context as the container and context as the meshwork in Fig. 7.1.

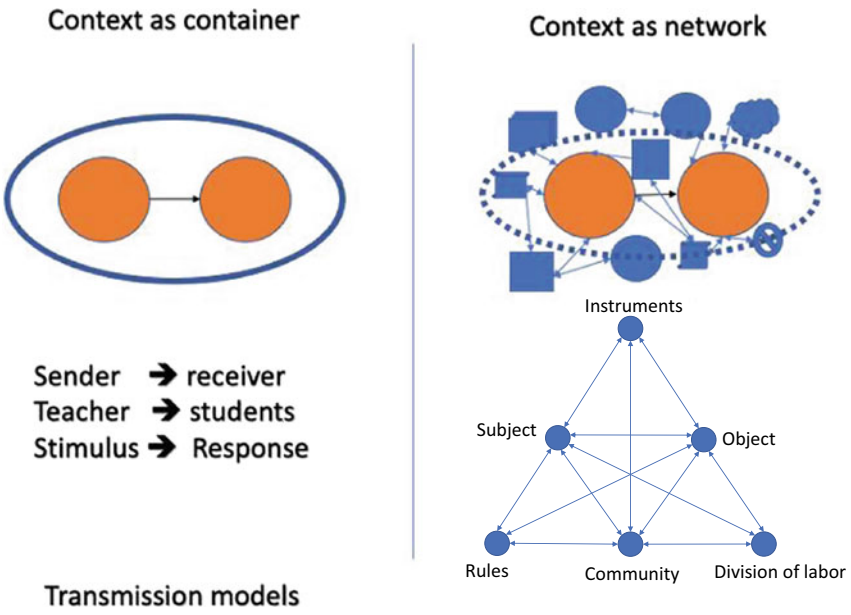

Fig. 7.1 Context as container or network, and their particular knowledge transmission model (Modified from Russell 2009. p. 19)

Russell's work (2009) is inspired by the work of Vygotsky on Activity Theory. Russell argues that the stimulus–response model of learning is no longer adequate in explaining the learning process that occurred in the current student–teacher interaction, especially in explaining the role of textual literature on teacher development at school. Therefore, he proposes the importance of bringing Cultural-Historical Activity Theory (CHAT) as the most plausible way of conceptualizing context to understand the complexity of knowledge transmission. Although Russell's conceptualization of context is in the field of the teaching profession, this illustration is also applicable in other professional learning situations such as medicine.

In Fig. 7.1, the transmission models of learning and communication, which are mostly suggested in behaviorism and information-processing cognitive psychology, generally focus on the transmission between individuals inside the container and grouping other than this interaction as context (the upper left side of Fig. 7.1). The socio-cultural perspective of learning, like CHAT approaches to learning, tends to use "network" as a metaphor for context. In this perspective, what people think (represented by language and symbols), what they do, and the tools they are using (material object, rules, community, instruments) are seen as a complex threading meshwork of interaction of human which all are manifested as activity or culture (Fenwick and Nimmo 2015). Therefore, the meshwork itself is the context (the right side in Fig. 7.1). It is interesting that etymologically, context (con-text) is derived from a Greek term that means weaving, as in textile or texture (Russell 2009).

In professional learning literatures, other emerging socio-cultural learning approaches such as communities of practice (Lave and Wenger 1991), actor networks (Fenwick and Edwards 2010), activity system (Zukas and Kilminster 2014), and complexity framework (Bleakley 2010) have emerged to the fore and have offered a potential to help our understanding of professional learning. These emerging approaches offer a new perspective as well as opportunities on how we define and conceive the relation of professionalism, professional responsibility, professional learning, and the context in different situations involving both space (place, nation, region, etc.) and time (past, current, and the future).

7.3 Exploring Asia Medical Education as a Context for Conceptualizing Professionalism

It is impossible to define Asia Medical Education as a context of this chapter because currently, the term "Asia", based on the United Nations, is representing a region occupied by 48 countries with different social, cultural, political, economic, and historical backgrounds. As an illustration, if we say "Asian" countries, it might mean we would generally be referring to Japan, Korea which are being original members of OECD (developed nations); and at the same time, we are referring to China, India, Indonesia, which become partners of OECD (a country with emerging

markets); and Bangladesh, Myanmar, Cambodia, which are listed as least developed countries; and Afghanistan and Yemen which are struggling in warfare. However, in order to bring forward the discussion of cultural background in professionalism narrative, inevitably, we should make a boundary of what we mean by Asia Medical Education. Facing this difficulty, we found Hofstede's national culture classification come up to the fore when discussing the role of culture in medical education studies. Hofstede's national culture classification is believed to be one of the most plausible explanations depicting how cultural discourse might affect the social system and therefore become a factor distinguishing the social practice of Asia from the rest of the countries in the world.

In Hofstede's narrative, culture is defined as "*.... the collective mental programming of the human mind which distinguishes one group of people from another"* (Hofstede 1986, p. 25). Through extensive studies in organizational studies, Hofstede proposes a model consisting of six domains that characterize the cultural difference of the world's country. They are called power distance index (PDI), individualism-collectivism (IDV), masculinity-femininity (MAS), uncertainty avoidance index (UAI), long-term or short-term normative orientation (LTO), and indulgence-restraint (IND). Based on Hofstede's model, countries in Asia have several characteristics in common, especially when they are compared to European and American differ significantly in all areas (Power Distance, Individualism, Masculinity, Uncertainty Avoidance, Long-Term Orientation, and Indulgence). However, if we used two domains (e.g., power distance and Individualism) as the differential factors to countries in other world regions (Europe, Africa, and North America), there is a significant mean difference among this region. Despite the result of some grounded study in doctor-patient communication, this might be the insight of why some medical education researchers originated from Southeast Asian country, arguably, in favor of using "hierarchical" and "collectivism" terms as the proxies to identify the cultural context of their society (Claramita et al. 2013; Claramita and Susilo et al. 2013; Suhoyo et al. 2014; Rahayu et al. 2016; Claramita et al. 2019).

Another possible approach to represent Asia Medical Education is by adopting a narrative used in postcolonial studies called postcolonial perspective (Bleakley et al. 2008, 2011). From a postcolonial perspective, the interest is on the examination of social-culture dynamics of former Western colonies and how they relate to the international relationships in the current days (postcolonial time). In this perspective, the main concern is the advancement of liberation and democratization that support decolonization and engages subaltern (colonized society) experience, which involves the perspectives of dominated, marginalized, oppressed, and subordinated peoples. The way to achieve this is by deconstructing assumptions about the nature of language and texts by critiquing the new modes of imperialism and master narratives of dominant like white, Christian, Western, and patriarchal (Hammer 2005). Using postcolonial perspective in representing Asia's Medical Education has a meaning that Asia Medical Education either as a practice of professional education or epistemic practice of medical education research, can be seen as a contested socio-political field between western, developed nations, expatriate

(Somewhat called Occident) culture and indigenous, developing nations, Asian (somewhat called Orient) culture. Through postcolonial lens, medical educators need to engage with the critical framework as they want to bring western medical education to Asia. Medical educators in Asia need to put aside the anxiety that appears when comparing their current medical education with medical education literature that national medical schools are not up to date if they do not (uncritically) adopt the latest learning approaches engineered in the metropolitan West. For example, Onishi and Yoshida argue that Japanese medical schools must catch up with the latest undertaking in medical education innovations such as PBL, the objective structured clinical examination (OSCE), and outcome-based education if they are to transcend the historically binding feudal *ikyoku-koza* system of apprenticeship based on strict hierarchy. However, many reports have informed that the quality of health care in Japan is outstandingly able to provide better outcomes for its citizens compared to many other countries, including Western nations at any number of points along the age spectrum (Rao 2006; Reich et al. 2011). Although many have criticized the long due of medical education leading to super specialization health-workforces, health-care in Japan is consistently better than health care in the USA or most of the Western-European countries (Rao 2006; Ban and Fetters 2011).

Hodges et al. (2011) offer a conceptual framework to help the researcher in mapping the current literature in professionalism and possible trajectories of how professionalism's conceptualization might be applied in teaching–learning and assessment practice (See Table 7.2). We believe that by using this conceptual framework, the exploration of context (e.g., cultural, organizational, social values, etc.) is encouraged as the space for discussion since this area is still underdeveloped in the medical education field.

According to some review on professionalism (Hodges et al. 2011; Birden et al. 2014; Jha et al. 2015; Wang et al. 2016), only a few researchers have been publishing papers under socio-cultural paradigm and thus trying to capture and elaborate professionalism discourse as a social practice or social dynamic which is constantly changing through the social system (represented as areas 3,6, 8, and 9 in Table 7.2). Two possibilities come up to the mind of why these areas become less traveled paths. First, subjectivist-constructionist—which is also called socio-cultural research paradigm—although becomes a trend in educational research and practice, is representing a minority among medical and health profession. Second, to capture professionalism under a social-cultural paradigm is methodologically challenging. For instance, a group of creative ethnomethodology approaches in understanding the nature of professional learning, such as video-reflective ethnography and image elicitation, are still facing the thickness of ethics-legal provisions in health care and data privacy and protection issues. However, these approaches inevitably offer a versatile methodology for dealing with the complexity of the workplace and professional practice.

There are studies to define the conception of professionalism and its components across cultural contexts. Among these attempts to consolidate some conceptions of professionalism written by Non-Western medical education researchers,

Table 7.2 Discourses in professionalism conception (Redrawn from Hodges et al. 2011)

		Order of Discourse		
Epistemology/Research Paradigm		Individual Discourse	Interpersonal Discourse	Societal/Institutional Discourse
		Professionalism as an individual characteristic, traits, behavior, or cognitive process	Professionalism as an interpersonal process or effect	Professionalism as a socially constructed way of acting or being, associated with power and agencies
Positivist-Objectivist	Generalizable	1	4	7
		Professionalism is an objectively definable phenomenon to be found in individuals, generalizable across culture and contexts	Professionalism is an objectively definable phenomenon to be found in interpersonal interactions, generalizable across culture and contexts	Professionalism is an objectively definable phenomenon to be found in social groups, generalizable across culture and contexts
	Limited generalizable	2	5	8
		Professionalism is an objectively definable phenomenon to be found in individuals, but shaped by cultural values and contexts	Professionalism is an objectively definable phenomenon to be found in interpersonal interactions, shaped by cultural values and contexts	Professionalism is objectively definable phenomenon to be found in social groups, shaped by cultural values and contexts
Subjectivist-Constructivist-Critical Realist		3	6	9
		Professionalism is subjectively constructed within individuals, arising from or shaped by culture and contexts	Professionalism is an interpersonally constructed phenomenon, arising from or shaped by culture and contexts	Professionalism is a socially constructed phenomenon, arising from or shaped by culture and contexts
		Think about: Professionalism conception that applied in most current undergraduate medical education program Professionalism in most of competency framework	**Think about:** Professionalism that applied and measured in certain residency program with patient-care services	**Think about:** Professionalism that applied in a warfare or conflicted nation, or in a rural community program which demand situated adjustment of professional standard due to socio-political-economic and cultural context

Al-Rumayyan and colleagues have identified three cultural conceptions of professionalism referred to as Arabic, Chinese, and Japanese conceptions (Al-Rumayyan et al. 2017). In this scoping review study, a consolidated ideal conception of professionalism among influential figures in the representing countries and cultures is presented based on four key articles. However, social culture as a source of context difference of professionalism conceptualization in the review is conceiving that professionalism is a reproducible construct that will provide some interpretation and understanding in a different time and practice contexts.

In the following sections, we will provide some cases of how the socio-cultural and socio-materiality perspective catalyzed the emergent understanding of professionalism in two professional contexts (undergraduate and postgraduate medical education). The case studies might help us to project how professionalism is contextually learned and possibly nurtured/taught. The first case study will elaborate on the national cultural heritage as a perspective in defining professionalism, which will take Bushido principles as the central discourse. The second case took a study in two medical specialties in Indonesia that render the emergence of spirituality/religiosity, multi-organizational influence, and social artifact discourse that influences the conception and application of professionalism in medical practice (the following case).

7.4 Socio-Cultural Perspective in Conceptualizing and Applying Medical Professionalism

7.4.1 Lesson Learned from the Bushido Principles to Build a Post-Modern Medical Professionalism

Using a constructivist paradigm, Nishigori described seven elements of Bushido principles in the Japanese medical professional practice that posit an indigenous cultural heritage value which cover almost all western-based conception of professionalism (Nishigori et al. 2014). The seven principal virtues in Bushido are rectitude (gi), courage (yu), benevolence (jin), politeness (rei), honesty (sei), honor (meiyo), and loyalty (chugi).

Although rooted in the historical tradition of Samurai spirit, it seems Bushido principles still enshrine most of Japanese medical professionals and inherited from generation to generation through a social practice of virtue ethics system. In this ethical system, the main concern of the society is the character of the actor. In ethical systems based on duties and rules like mostly applied in Western society, one judges whether a course of action is ethical or not according to its adherence to ethical principles, focusing on doing. Meanwhile, virtue ethicists judge whether an action is ethical according to the character trait the actor embodies, focusing on being. These seven virtues function as a moral compass that guide medical practitioner to perform excellence but with compassionate and respectful care.

While the ethical system on duties and rules needs a deliberate nurturance of the ethics principles and teaching. The virtue ethics on the contrary relies on the social structure that applied in layered levels of society and community practices. There are few numbers of formal teaching sessions or medical courses on Bushido principles in medical schools across Japan. But almost all medical practitioners naturally understand all seven principal elements of Bushido because they already applied in the society and day-to-day practice.

Here, we would like to focus on the concept of rectitude (Gi) in Bushido. In the sixteenth century, during Japan's Warring States period, the warlord Uesugi Kenshin was a man who believed in rectitude (Gi). At the time, Uesugi Kenshin's nemesis, Takeda Shingen, ruled over a land surrounded by mountains. The Takeda clan was allied with the Imagawa clan, who ruled the land facing the sea, but relations deteriorated and war broke out. When the Imagawa clan imposed an embargo on salt, Uesugi Kenshin is said to have sent salt to the Takeda clan, saying that if they were going to fight, they should do so on the battlefield and that the people living in Takeda territory were innocent. This episode was passed down as a proverb: "Send salt to your enemy". Uesugi Kenshin is considered to be a rare warrior who valued rectitude (Gi) at a time when it was considered natural to fight for personal gain and even deceive one's opponents.

The opposite concept to rectitude (Gi) is that for profit. In today's world, where the capitalist value system is dominant, it is said that doctors tend to choose specialties that require less workload and make more money. However, there are still many doctors in Japan who consider it their "rectitude (Gi)" to "work for their patients". As we have already seen in the Bushido article, this concept of "rectitude (Gi)" is equivalent to the professionalism of doctors in Western cultures.

On the other hand, rectitude (Gi) is very much a matter of values, and sometimes there is a difference of opinion about what is right. Readers may have already known that it is often difficult to decide what is right in medical practice, as in the trolley problem posed by Philippa Foot. When we engage in dialogue on the concept of rectitude (Gi), there is an argument to be made for "greater or lesser rectitude (Gi)". This is based on the idea that we should consider rectitude (Gi) from a larger perspective, and this perspective may be useful when we have difficulty in deciding which rectitude (Gi) we should follow.

Virtue ethics as a basis of Bushido is one among the many genres in educational philosophy that related with the emergence of reflective practice discourse. The reflective practitioner is regarded as an emerging professionalism conception post-modern professionalism discourse. General Medical Council and other health stakeholders in the UK issues a guideline that advocating of the professionalism teaching in medical school in the UK is to realize the production of reflective medical practitioner that could improve the quality and patient safety in nation's health care organizations (Academy of Medical Royal Colleges 2018; GMC 2020).

The elucidation of Bushido principles in the development of professionalism conception in Japan is an example of how context-based exploration of

professionalism provide a promising way forward to promote and nurture medical professionalism in all possible medical education continuum (undergraduate, post-graduate, and continuing professional education) in a country.

7.4.2 *Spirituality/Religiosity Discourse in Medical Professionalism Conception*

We chose the following definition of spirituality as we regard this definition covers the most features of components related to it:

> Spirituality is a dynamic and intrinsic aspect of humanity through which persons seek ultimate meaning, purpose, and transcendence, and experience relationship to self, family, others, community, society, nature, and the significant or sacred. Spirituality is expressed through beliefs, values, traditions, and practices (Puchalski et al. 2014).

In the above definition, Spirituality embraces both secular and philosophical perspectives, as well as religious and cultural beliefs and practices. Religiosity specifically relates to certain beliefs in a transcendent power or religious teaching (Koenig et al. 2010; Puchalski, Blatt, et al. 2014). Although spirituality and religiosity had their distinction, the use in healthcare and professional education context is mostly interchangeable. That's why we wrote it as a single-dual term by using a slash (S/R).

S/R theme has also emerged in professionalism studies. The main relational discussion of S/R and professionalism is especially on the perspective that professionalism conception is associated with the personal worldview and cultural belief which strongly influence how professional as an individual or as community member behave (Tilburt and Geller 2007). Recognizing the growing attention to the S/R in professionalism study and educational practice, Hodges et al. (2011) included S/R in the subjectivist-constructivist discourse, especially in the societal/institution columns (cell no.9 in Table 7.2) that it is part of the complex socio-cultural aspect that construct professionalism conception (Hodges et al. 2011).

In the study performed by one of the authors, the S/R theme has emerged among undergraduate medical teachers in a developing country when they are invited to define professional doctor's characteristics that need to be nurtured at medical school (Bekti et al. 2018). Spirituality and religious belief are among the influential discourse in both defining and applying professionalism in the everyday life of specialist medical practice. A study involving international medical teacher participants has also informed that the S/R theme is typically emerged among Asian origin medical teachers compared to their European counterparts. The Asian origin medical teachers assert that spiritually healthy professionals should be present as role models for students. Getting insights from these studies and other relevant literature, there are some ways S/R are related in professionalism conceptions.

S/R as a supernatural power that determines health

S/R discourse gives space for the personal belief in supernatural power (e.g., God in Abrahamic religion, spirit connection, miracle, etc.). This is popularly termed as transcendence in the healing process of disease beyond the bio-psycho-socio mechanism. This belief led to a perspective that the professional role in the doctor-patient relationship is a healing facilitator rather than being a healer itself. One among the statements made by a participant in a study reveals that belief in a supernatural power (e.g., God) see the health and cure from illness is a prerogative right of God and therefore should construct one's understanding of being professional.

This belief has long been recognized in the biopsychosocial-spiritual model of care. Recognizing the Spirituality of the patient in their possible transcendence belief plays a critical role in the care of patients with complex, serious, and chronic illnesses. In this notion, the S/R narrative is also being used to reason many unexplained cases when some medical problems are resolved without any complicated medical interventions. A historical story of the first successful surgical operation on the Siamese twin in Indonesia becomes a reference of how S/R discourse emerged when the modest neuro-surgical technology could overcome the complicated problem (at that time in Indonesia context) by involving the confidence in the presence of God. One Neurology professor participant replied his dialogue with the Neurosurgeon who successfully did the operation.

S/R as an individual-transcendent professional act.

S/R-belief is perceived as part of personal well-being that transcends professional acts (doctor-patient acts, work activities) as mediation to achieve personal happiness and life satisfaction. Al-Eraky and colleagues conceived Spirituality—dealing with God—as one of their four gates model of professionalism. In the "dealing with God" conception, self-accountability (*taqwa*) and self-motivation (*ehtesab*) are grounded in Islamic-Arab culture and, similarly, interpreted from the dominant Islamic culture, "barakah" and "Ihsan" concepts emerged in one of Bekti's study. While Arabic is not an official or first language in this country, Barokah is a Bahasa Indonesia translation of Arabic noun B*arakat or baraka (*بركة), *and Ihsan forms the translation Ihsan (*إحسان). Barokah is a concept rooted in Islamic Sufism, which means something is blessed with spiritual power or glory, while Ihsan means excellent deeds because of being continuously watched by God's surveillance (Nasr 1977; Schimmel 2011). Medical Specialist practitioner who believed in barokah concept perceived that good professional deeds (e.g., to the patient, to work accomplishment, etc.) are requisite for the transmission and achieving *barokah* life. This barokah life has become the feature of modern Moslem spirituality interpretation of a good life which is typically conceived as personal health, family happiness, financial satisfactory, business success, etc. (Schimmel 2011). In one instance, the barakah concept has a shared principle with the concept of Karma in Indian (Hindu religion) ethics, where it is believed that a good deed will be

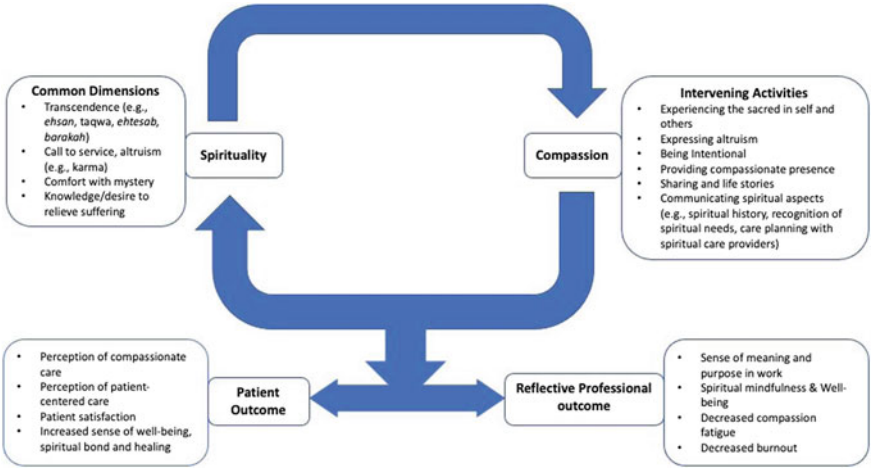

Fig. 7.2 The conceptual model of relational model between spirituality/religiosity, compassion, patient outcome, and professionalism (modified from Puchalski et al. 2014)

resulting in good life or a good impact in life. Conversely, evil deeds will negatively impact one or whole individual life (Olivelle 2014).

With these transcendental ethical reasonings, a religious or spiritual professional develops their compassion, contributing to the quality of patient care and/or professional well-being. This transcendental conception of compassionate work is parallelly conformed with a model developed from the United States National Consensus Conference on Creating More Compassionate Systems of Cared reported by Puchalski et al. (2014). In this model, spirituality is related to the ability of the professional to provide compassionate care. Compassion is an attitude that makes professionals able to approach other's need and thus help in their suffering. However, more importantly, compassion is a manifestation of spiritual thrust and practice, a way of being, a way of service to others, and an act of love. This model is redrawn in Fig. 7.2, depicting how spiritual care is entirely relationship-based where the spirituality and health model informs compassionate care.

S/R as a norm and governance in society

Confirm with the definition of Spirituality previously stated. S/R is not just localized in personal worldview, but it also represents a communal belief. As a communal belief, S/R is to be the reason behind the enactment of informal learning or hidden curriculum activities in student or residency training. In one of the specialist groups in Bekti's study, a group of religious teachers has involved a non-formal religious-based teaching activity (a weekly sermon) for their residents. These activities are believed to be significant in shaping and improving the resident's professional performance during the program. In justifying their acts, participants argued that the activities have been able to change the attitude and everyday behavior of residents in providing more humanist patient care.

7.5 Socio-Material Perspective in Conceptualizing and Applying Professionalism in Everyday Medical Practice

Socio-material approaches are broad terms named after some emergent theories and methodological approaches that take into account the non-human component of things (matters) as critical active components that matter in the development of knowledge (Fenwick and Nimmo 2015). The approaches help to make visible the material dynamics such as the relationship of agencies, tools, technologies, and settings as well as human intentions, expertise, and communication in professional practice situations (Fenwick et al. 2012). Therefore, socio-material researchers tend to approach the whole system, appreciating human/non-human action and knowledge as entangled in systemic webs, and at the same time, acknowledging the dynamic process of boundary-making. In other words, socio-material approaches are not only interested in human consciousness or intention but also explore how knowledge, knowers, and known (representations, subjects, and objects) emerge together with/in activity/ies or system. In the following sections, we provide two examples of emerging discourses in professionalism conceptualization that relate the presence of matters or objects in everyday professional practice. The examples were drawn from current studies where one of the authors is involved.

7.6 The Emergence Role of Matters in the Conception and Utilization of Medical Professionalism

What we mean by matter or materiality in this section is the non-human component of society. Some scholars, especially sociologists, used to call matters cultural artefacts. Materiality in a socio-material perspective might include tools, technologies, bodies, actions, objects, work arrangements, and organizational structure. Materiality might also include texts and discourses, but not in ways that over-privileged linguistic, intertextuality, and cultural circulations. There is emerging evidence from the different professionals (e.g., doctor, midwives, military leaders, organizational managers) that matters play a critical role in professional learning hence constructing conceptualization of professionalism and its learning (Zukas and Kilminster 2014; Johri 2014; Fenwick and Nimmo 2015). For example, Zukas and Kilminster (2014) examine how blue form in the Intensive care unit involve in the decision-making and the development of the reflective ability of medical practitioners. Nimmo (2014) observed how the arrangement of people, room, and tools during handover in the emergency unit participate in the development of reflective health professionals.

Through the socio-material lens, for example, toward Actor-Network Theory (ANT) sensibility, matters have already surpassed its nature as “a mere material” and become one among actors that embodied human values, meaning and transform

these values to human and the particular professional society (Fenwick and Edwards 2010). In his study, Bekti et al. (2020) also found that National Board Specialist Examination (NBE), as an event, in two studied specialties has been regarded as a critical matter in the development of professional specialist identity. NBE has been seen as not just an educational event, but it reflects the specialist tradition and pride that should be preserved as it is symbolizing the historical development of specialists (Bekti et al. 2020).

7.7 Upholding Professionalism in Multi-Organizational Hegemony of Medical Practice

In one segment of his doctoral study, Bekti found that despite providing a strong sense of ideal-spiritual/religious belief, medical specialists in a developing country acutely suffered from conflicting multi-organization interests in defining and applying professionalism in their professional practice. These conflicting interests create dilemmatic conditions which are difficult to be managed by only upholding the ideal conception of being professional. This made his participants come up with the idea of professional flexibility, a condition where merit, evidence-based knowledge of practice could not be applied; hence, adaptive context-based decision-making and situational acts should be done. The reason is that the professionals perceiving the condition are beyond their professional authority. However, the compassion made them seek the most plausible way beyond the professional knowledge they gained from teaching and experience. This is where organizational dispute becomes a new way of learning.

Inspired by Martimianakis et al. (2009), we provide a case illustration of a junior doctor who had a situation that challenges our understanding of professionalism and how the power relation in layered organizational interests might offer a different perspective of what being professional mean (see Box 7.1).

Box 7.1

Case: The emergency department is brimming with activity. Doing his best to distribute the many clinical tasks, Dr. Lee sends a clinical clerk, Marta, to assess Ms. Aminah, a pregnant patient who has had some bleeding. Dr. Lee is telling Marta to hurry so that they can discuss her final clerkship evaluation afterward. Marta finds the patient in the draughty and busy hallway. What could be the possible professional conduct Marta could perform in this situation?

Possibility 1. With an understanding that being professional means an ability to recall and apply the ethical principle in such a hapless situation. Marta thinks professional is to balance patient's right and belief system and personal efficiency as part of health provider. While she cannot find a proper private place to perform gynecology examination to respecting the patient

religious belief, she performs gynecological and vaginal examination quickly in the current place, covering the patient as much as possible, then report back to Dr. Lee. Despite the patient might being tearful. Instead, the patient still blessing Marta for what she did. She might decide not to mention the awkwardness of performing a vaginal examination in an open hallway. Instead, she would receive a positive evaluation from Dr. Lee for able to perform the task completely.

Possibility 2. Marta tells Dr. Lee that she is unwilling to examine patients in the hallway because it is against ethical principles and the school's diversity value. Dr. Lee agrees that the situation is less than ideal. He assists, helping Ms. Aminah to feel less embarrassed and showing Marta how to keep the patient unexposed. Empowered by her experience as a student activist, Marta later writes a formal letter to the Head of Emergency, declaring her concerns about hallway examinations. While Dr. Lee gives her a positive evaluation, he privately decides that he would not be keen to have her back in the ED. He may admire her professionalism but does not wish to be reminded by junior staff how many times he has tried and failed to correct the inadequate ED facilities. Meanwhile, Marta's letter arrives at the ED Head in the same batch of mail as a memo from hospital administration outlining further budget reductions in the coming year.

Possibility 3. Marta collaborates with the patient's nurse to find a more suitable location for the examination. This allows her to examine Ms. Aminah in a private situation like how she has learned. However, this made Marta lose Dr. Lee's time that day to perform her clerkship evaluation. It means she has to perform remediation on other days. As an influencer, she writes anonymously about her experience on Facebook's fan page in order to inspire her followers. Inspired by Marta's story, one of her social media followers carried the story to local health authorities, making the current religious Province Governor increase the hospital's budget to perform physical renovation in ED to add more spaces for doctors and nurses to perform more private examination space.

The condition encountered by Marta is likely to happen among the current situation of a problem in professionalism teaching and application in everyday professional life. In Possibility 1 in the Box 1, Marta's reaction is possibly representing the normative-adaptive of professionalism where she made a dialogue with her mind, recalling a memory of ideal ethical principles which help her act with rectitude and respecting patient's religious belief in fulfilling her professional duty. However, Marta's case is not "just" a journey of the individual learner in finding proper choice and balance between core professional, ethical principles (e.g., autonomy, non-maleficence, beneficence, and justice) to face such dilemmatic real

problem. Moreover, the practice situation is frequently more complex than this scenario, allowing students to reflect and act something different from the common normative belief. There are a number of solution possibilities for Marta's problem, which enmeshed in a number of interaction and relational possibilities of her and power structure distributed in stakeholder interests and conflicting articulation of being professional. The practice is connected not only with multiple human interests that professionals must try to prioritize and juggle but also with diverse non-human entities. Power is not limited to the human actors but is co-produced and distributed through the relations among all the human/non-human participants, which is often unheeded in ways it can materialize in surprising demands. Professionals often struggle with an array of negotiations and conciliations to achieve legitimate compromises (Fenwick 2016).

Another situated example of a possible different array of understanding professionalism in context is the existence of competing organizational influence appears in clinical and specialist training governance. Possibility 2 in the Box 7.1 might represent this situation where many workplace sites for teaching and learning professional skills are not deliberately designed and conditioned for educational purposes. Very often, doctors find themselves drowning in difficulty to adhere to guidelines for best practice because of the limitations they faced in the context of their work (lack of funding, under-staffing, under-resourced facilities, etc.). Frequently clinical workplaces are not all designed in an integrated provision to nurture future medical professional professions. Therefore, it is important to have a moment to discuss with trainees, the strategies for thinking about and working towards reconciling these competing priorities, particularly as they pertain to professionalism. The current wave of the Academic-Health System campaign might inspire an ideal vision of integrating Education-Healthcare services. However, the currently dominant practice of professional education is still a plethora of contestation of interest, struggling on efficiency and juggling with governmentality from one to other stakeholders (Rangel et al. 2017; Martimianakis et al. 2020).

As an illustration, we took Indonesia as a case to discuss this multi-organizational governmentality phenomenon. In Indonesia, specialist training has to be a degree-granting program that should be run by the Faculty of Medicine in a University where all medical teachers and educational infrastructure should be made available based on higher education provision. However, the education and competency standards are exclusively determined by the college of specialty, and almost all teaching–learning activities are held in a designated teaching hospital (usually an accredited tertiary referral hospital) or networked teaching hospitals owned by the Ministry of Health authority or provincial government (WHO 2017). Therefore, there is three-partite governance that overlooks specialist education in Indonesia, where each partite has its formulation and expectation of what a professional doctor should be. Referring to Foucault on governmentality, professionalism in this context has become a governmentality tool of different organizations to rule individual profession, and vice versa, it is also a governmentality tool for a professional organization to retain back their diminishing self-governance as one of social privilege (Evetts 2003; Martimianakis et al. 2009; Martimianakis and Hafferty 2013). This three-partite governance is featured in Fig. 7.3.

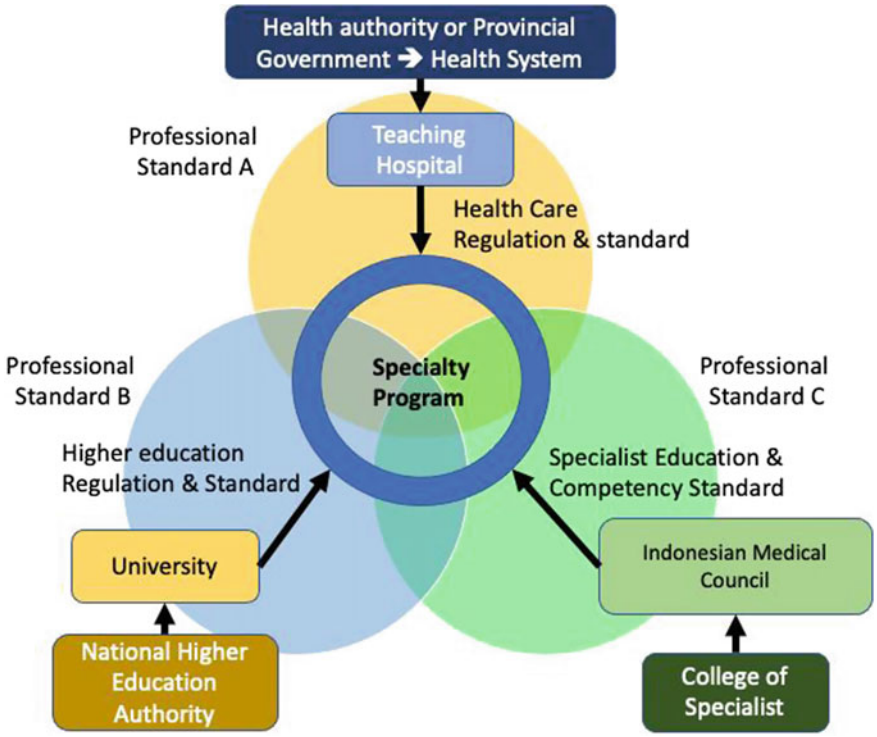

Fig. 7.3 The multi-organizational governance in specialty program in Indonesia

The issue of organizational governance in medical education is an emergent topic in professionalism discourse. Notifying this phenomenon, Martimianakis et al. (2020) assert that managing these competing organizational entities and creating a compassionate organization should be the new possible way to enable the nurturance process of the next generation of medical professionals in their identity formation. Teaching professionalism is no longer adequate, only relying on pouring students with the idealism of morality or Ethics principles when at the same time educational organizations do nothing on their educational policy and clinical ecology (Martimianakis et al. 2020). Consequently, the medical education institute needs to expand its function from a container of professional learning to be an active actor in aligning all possibilities and context to nurture professional development and produce the generation that is ready to fight to realize professionalism.

The fast development of information technology (IT) and the internet of things (IoT) inevitably disrupts medical education. Not only it changes the way professionals do their routine, but IT/IOT also offers a possibility of a different way of learning and being. In possibility 3 in Box 1, as a virtual activist, Marta aware that if in real life she could not do much to change anything, she wishes to do differently by the power of her virtual charisma of her as a virtual influencer. A new discourse

of 'professionalism has emerged with potentially significant effects, particularly for professional education. Some medical teachers might see posting anything about work on social media as strange behavior or even unethical conduct. However, the development of new research interests such as Data Science Ethics and Data Science literacy has created a new norm of the use of Data in the internet of things. New codes for online conduct appear in higher education and service-based institutions with long lists of prohibited behaviors. New training modules in mitigating the risk of social media users are becoming popular and thus offer a new landscape of how we define ethical and professional conduct of data use which may lead us to re-questioning whether there is shifting in our understanding of professionalism concerning the role of digital media and how they might potentially expand a professional practice. Here is where a socio-material approach is illuminating.

7.8 Impact on Teaching–learning and Assessment of Professionalism

As a research interest, professionalism has been widely studied and inspiring the formation of a social movement (Wear and Kuczewski 2004; Lynch et al. 2004; Mann 2006; Frenk et al. 2010; Birden et al. 2013; Wynia et al. 2014). This movement enables the institutionalization of professionalism in medical education practice. As a consequence, almost all competency frameworks or standards in the current hegemonic practice of competency-based medical education (CBME) are bringing professionalism as one of the domains, areas, or components of the competency framework.

Nevertheless, delivering professionalism as a learning outcome, learning a subject, and assessment method in CBME practice is still challenging for some students, faculty members, and even for medical educationists (Gaiser 2009; Bryden et al. 2010; Chaytor et al. 2012). The enactment of outcome-based education (OBE) or competency-based medical education (CBME) demands more defined learning outcomes (Holmboe et al. 2010; Frenk et al. 2010). Contrary, the evolving and fluid definition of professionalism align poorly with the provision of OBE/CBME, and this becomes a challenge for faculty members and medical educationist in translating professionalism in teaching–learning and assessment practice. A number of works on formulating professionalism as a learning outcome frequently produced an overarching ideal concept of professionalism. Despite this ideal framework is necessary, if we rely solely on the ideal professionalism in teaching–learning, it is insufficient and, in some instances, raised contra-productive outcomes such as distress and burning-out among students (Bryden et al. 2010; Doukas et al. 2013). The importance of teaching and assessing professionalism lead to the embedding of professionalism component in high-stake examination following medical licensure provision and accreditation process, which complicate the challenge of teaching professionalism (Whitehead et al. 2014). The reductionist

view on competence-based education, medical licensure, and accreditation demands more tangible evidence, which somewhat distracts students and educators from conflicting with the longitudinal-development nature of professional identity or professionalism learning.

Another challenge in realizing professionalism in teaching–learning practice is the incompatibility of the professionalism paradigm with the chosen teaching–learning practice and assessment. As it is shown in Table 7.2, professionalism conception that can be adopted in teaching–learning practice can be divided into nine areas of definition. Each area (cells with numbers 1–9) requires a different set of teaching–learning and assessment approaches. Like we discussed before, some medical educators might have agreed to adopt the most sophisticated definition of professionalism (say areas 6, 8, or 9), which is currently more popular with the term "nurturing professional identity formation". However, in practice, because of accreditation provision, or certain higher education policy, medical schools had to rely on lecturing sessions as the major modality of the teaching–learning method and the multiple-choice question examination as the sole assessment method. Consequently, the expected outcome will unlikely be achieved, and even this might become a lousy example for students of how unprofessional is a medical educator in teaching professionalism.

The framework offered by Hodges et al. (2011) presented in Table 7.2 highlighted the importance of aligning the educational paradigm with the teaching–learning and assessment approach of professionalism. Although adopting the available professionalism framework is tempting, cultivating and building an educational approach based on the professionalism conception that is plausible with the local context of the healthcare system, professionals, and the society is much more encouraged (Hodges et al. 2011; Al-Eraky 2015). This is because current reviews on teaching–learning and assessment in professionalism argue that there is no single teaching–learning and assessment method above and fit for all (Ernemr 2010; Wali et al. 2011; Cruess and Cruess 2012; Birden et al. 2013; Cruess et al. 2014). Although role modeling (and its similar approaches such as mentoring, coaching, apprenticeship, etc.) became the top preferred learning method on professionalism in some review, translating professionalism into teaching–learning and assessment practice need more complex consideration due to different contextual situation. Al-Eraky identifies 12 themes which are clustered in four aspects to consider in teaching professionalism which involves context, Teacher, Curriculum, and Networking (Al-Eraky 2015). Therefore, teaching professionalism efficiently would involve many social processes such as mission and structure alignments, commitment building and maintenance among the doers, and multi-institutional harmonization are needed to realize the education of professionalism (Al-Eraky 2015; Frederic W Hafferty 2017).

In previous sections, we have provided arguments that socio-cultural perspective in teaching–learning professionalism offered versatile ways of exploring the context-based or conception of professionalism. This will likely help in closing the gap between the ideal and real practice in nurturing professionals to serve their community better. In the following paragraphs, we will provide evidence from the

field of how medical educationists bring the socio-cultural and socio-material approaches into educational practice.

Claramita and colleagues developed an adaptive partnership communication model for teaching communication skills in family physician practice (Claramita et al. 2013). The model was developed based on the exploration of patient and family physician practice perspective of the doctor-patient relationship in Indonesia (Claramita et al. 2013). Other studies informed that a significant portion of the patient population still demands more vertical relation with their doctors. This might be in somewhat conflicting the patient-centeredness approach; one adopted western professionalism concept, in which physician is demanded to develop more horizontal health professionals-patient relationship (Sari et al. 2016; Claramita et al. 2019). If this study was not performed, and teaching professionalism is by adopting the available standards which are mostly presented under Western worldview, the teaching professionalism would potentially produce social conflict in practice. It might potentially hinder the ultimate goal of professional teaching, which is balancing between supporting professional development and better patient care.

In another study, believing that professionalism is a never-ending and multiple identities developments of professional roles, Bekti and colleagues developed overarching longitudinal development courses in undergraduate medical school called "doctoring" and "social entrepreneur" courses (Bekti and Barlianto 2013; Bekti and Astrid 2020). The later course was inspired by a student-led indigenous project—later become a renowned national project called Garbage Clinical Insurance (GCI)—in developing a garbage-based health insurance system. This GCI helped the underrepresented community to get healthcare access by exchanging garbage with insurance prime credits (Siemens-Stiftung 2021).

We argue that a socio-cultural and socio-material research approach that aligns with educational practice offers a promising methodology in cultivating and nurturing professionalism in the current changing context and society. In the given case studies presented in the previous sections, we assert that the Cultural-historical activity theory (also previously known as the Constructivist approach) and actor-network theory sensibility offer possibilities to support medical educationists in establishing their context- and evidence-based medical education research in professionalism. These cutting-edge epistemic approaches will allow medical education, as an emerging field, to see many possible determinants that influence the generation conception on professionalism and therefore identify the most plausible approach to nurture the professional development of the current (faculty members) and next generation (learners) of professionals.

7.9 Summary

In this chapter, we discussed the importance of revisiting our conception of context in understanding professionalism. This brought us to discuss the socio-cultural and socio-material methodological perspectives as emerging epistemic approaches in

our research to cultivate and nurture professionalism in context-dependent situations. Drawing from studies on the conceptualization of professionalism in two countries, we brought four cases in which culture, spiritual/religious belief, organization, and artifacts influence how professionalism is conceived both as an ideal and applied conception of professional life. Bushido principles and Religiosity/Spirituality were examples of the indigenous ideal (ideological) conception of professionalism, which could be the local (emic) ground for contextual social contract among the medical profession and society. At the same time, we brought in the critical role of matter and multi-organizational structure of professional practice, another possible situational context that might require a different set of professionalism. The socio-cultural and socio-material perspectives introduced in this chapter, namely, Cultural-Historical Activity theory and Actor-Network Theory sensibilities, allow us to see context as actively engaged actors, networked and situated in different social structures and professional role (diffractive roles of the professional community). These, in turn, placed professionalism as a Glocal (Global–local) phenomenon, consisting of a trace of local-cultural-contextual (emic) wisdom and featuring shared-global (*etic*) problems in medical professional practice. With these perspectives, the medical educationist community has an unlevelled position to cultivate their own context conception of professionalism and transform it into a more situated and creative form of teaching–learning and assessment practice. As Bleakley et al. (2011) conveyed, this is an approach in which professionalism as a research field could play its function as a democratizing force in the medical education field and closing the gap of the binary-ideal and reality (Bleakley et al. 2011).

Key learning Points

- Medical professionalism has a context-specific component that needs to be addressed by medical educators before deploying it as a learning outcome and teaching–learning activity. However, our understanding of context is frequently referred to the cultural and/or country difference. Hence, methodological approaches to address and cultivate the context-specificity of MP are mostly consensus-based which tend to be influenced by hegemony and ideological discourses.
- Redefining the meaning of context in medical professionalism research to surface and emancipate the critical aspect of medical education and medical service practice in which MP is conceived, acted and applied in everyday life need to be considered. Especially in the current interdependent but fragmented medical education and service.
- The socio-cultural and socio-material perspective on medical education research has the potential to help medical educators to cultivate and nurture medical professionalism amidst the complexity of context and ever-changing medical practice and its education continuum.

References

Academy of Medical Royal Colleges (2018) The Reflective Practitioner : Guidance for doctors and medical students. London

Al-Eraky MM (2015) Twelve Tips for teaching medical professionalism at all levels of medical education. Medical Teacher 37(11):1018–1025. https://doi.org/10.3109/0142159X.2015.1020288

Al-Eraky MM, Donkers J, Wajid G, Van Merrienboer JJG (2014) A Delphi study of medical professionalism in Arabian countries: The Four-Gates model. Medical Teacher 36 (SUPPL.1):7–16

Al-Rumayyan A, Van Mook WNKA, Magzoub ME, Al-Eraky MM, Ferwana M, Khan MA, Dolmans D (2017) Medical professionalism frameworks across non-Western cultures: A narrative overview. Medical Teacher 39(sup1). https://doi.org/10.1080/0142159X.2016.1254740

Atluru A, Wadhwani A, Maurer K, Kochar A, London D, Kane E, Spear K (2015) Research in medical education a primer for medical students (April), p 15

Azer SA (2015) The top-cited articles in medical education: a bibliometric analysis. Acad Med 90 (8):1147–1161

Ban N, Fetters MD (2011) Education for health professionals in Japan—Time to change. The Lancet 378(9798):1206–1207

Bekti RS, Astrid W (2020) Linking Social entrepreneur education to strengthen a medical school's social accountability mission. Social Innovation Journal, 3

Bekti RS, Barlianto W (2013) Integrating Local Wisdom in Professionalism Curriculum Development in Brawijaya Medical School—Research Grant Project Report (Unpublished). Malang City

Bekti RS, Irnanda CP, Soeharto S (2018) Teachers' perception of professionalism in competency-based medical education : are there any differences ? Jurnal Pendidikan Kedokteran Indonesia 7(1)

Bekti RS, O'Rourke R, Fuller R, Roberts TE (2020) High-stake examination as a socially accountable practice of medical professionalism. In: EBMA Conference 2020 [Online]. EBMA. Available from: http://ebma-conference.com/2020/theme_6_5.html

Birden H, Glass N, Wilson I, Harrison M, Usherwood T, Nass D (2014) Defining professionalism in medical education: A systematic review. Med Teach 36(1):47–61

Birden H, Glass N, Wilson I, Harrison M, Usherwood T, Nass D (2013) Teaching professionalism in medical education: A Best Evidence Medical Education (BEME) systematic review. BEME Guide No. 25. Med Teach 35(7)

Bleakley A (2010) Blunting Occam ' s razor: aligning medical education with studies of complexity. J Eval Clin Pract 16:849–855

Bleakley A, Bligh J, Browne J (2011) Medical Education for the Future, Identity, Power and Location (S. J. Hamstra, ed.). London: Springer

Bleakley A, Brice J, Bligh J (2008) Thinking the post-colonial in medical education. Med Educ 42 (3):266–270

Bryden P, Ginsburg S, Kurabi B, Ahmed N (2010) Professing professionalism: are we our own worst enemy? Faculty members' experiences of teaching and evaluating professionalism in medical education at one school. Acad Med 85(6):1025–1034

Burford B, Morrow G, Rothwell C, Carter M, Illing J (2014) Professionalism education should reflect reality: findings from three health professions. Med Educ 48(4):361–374

Chaytor AT, Spence J, Armstrong A, McLachlan JC (2012) Do students learn to be more conscientious at medical school? BMC Med Educ 12(August):54

Claramita M, Nugraheni MD, van Dalen J, van der Vleuten CPM (2013) Doctor—patient communication in Southeast Asia : a different culture ? Adv Health Sci Educ 18:15–31

Claramita M, Riskiyana R, Susilo AP, Huriyati E, Wahyuningsih MSH, Norcini JJ (2019) Interprofessional communication in a socio-hierarchical culture: development of the TRI-O guide. J Multidiscip Healthc 12:191–204
Claramita M, Susilo AP, Kharismayekti M, van Dalen J, van der Vleuten CPM (2013) Introducing a partnership doctor-patient communication guide for teachers in the culturally hierarchical context of Indonesia. Educ Health Change Learn Pract 26(3):147–155
Cruess RL, Cruess SR, Boudreau JD, Snell L, Steinert Y (2014) Reframing medical education to support professional identity formation. Acad Med 89(11):1446–1451
Cruess SR, Cruess RL (2004) Professionalism and medicine's social contract with society. Virt Mentor 6(4):12–16
Cruess SR, Cruess RL (2012) Teaching professionalism—why, what and how. Facts, Views & Vision in ObGyn 4(4):259–265
Doukas DJ, McCullough LB, Wear S et al (2013) The challenge of promoting professionalism through medical ethics and humanities education. Acad Med 88(11):1624–1629
Edwards R (2009) Introduction: Life as a learning context? In: Edwards R, Biesta G, Thorpe M (eds) Rethinking context for learning and teaching: Communities, activities and networks. Routledge, Oxon, pp 3–10
Ernemr MAM (2010) Professionalism in medical education. Yemeni J Med Sci 4:25–28
Evetts J (2003) The sociological analysis of occupational change in the modern world. Int Sociol 18(2):395–415
Fenwick T (2016) Professional responsibility and professionalism. Routledge, Oxon
Fenwick T, Edwards R (2010) Actor—network theory in education. Routledge, New York
Fenwick T, Nerland M, Jensen K (2012) Sociomaterial approaches to conceptualising professional learning and practice. J Educ Work 25(1):1–13
Fenwick T, Nimmo GR (2015) Making visible what matters: sociomaterial approaches for research and practice in health care education. In: Cleland J, Durning SJ (eds) Reseaching medical education. Wiley Blackwell, London, pp 67–79
Frenk J, Chen L, Bhutta ZA et al (2010) Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. The Lancet 376 (9756):1923–1958
Gaiser RR (2009) The teaching of professionalism during residency: why it is failing and a suggestion to improve its success. Anesth Analg 108(3):948–954
Ginsburg S, Regehr G, Hatala R et al (2000) Context, conflict, and resolution: a new conceptual framework for evaluating professionalism. Acad Med 75(10 Suppl):S6–S11
GMC (2020) Outcomes for graduates [Online]. Available from https://www.gmc-uk.org/education/undergraduate/undergrad_outcomes.asp
Hafferty FW (2017) Academic medicine and medical professionalism: a legacy and a portal into an evolving field of educational scholarship. Acad Med XX(X):1
Ho MJ, Yu KH, Hirsh D, Huang TS, Yang PC (2011) Does one size fit all? building a framework for medical professionalism. Acad Med 86(11):1407–1414
Hodges BD, Ginsburg S, Cruess R et al (2011) Assessment of professionalism: Recommendations from the Ottawa 2010 Conference. Med Teach 33(5):354–363
Hofstede G (1986) Cultural difference in teaching and learning. International Journal of Intercultural Relations,10, 301–320
Holmboe ES, Sherbino J, Long D, Swing S, Frank JR (2010) The role of assessment in competency-based medical education. Med Teach 32(8):676–682
Jha V, McLean M, Gibbs TJ, Sandars J (2015) Medical professionalism across cultures: a challenge for medicine and edical education. Med Teach 37(1):74–80
Johri A (2014) Engineering knowing in the digital workplace: aligning materiality and sociality through action. In Fenwick T, Nerland M (eds) Reconceptualising professional learning : sociomaterial knowledges, practices and responsibilities. Oxon: Routledge
Koenig HG, Hooten EG, Lindsay-Calkins E, Meador KG (2010) Spirituality in medical school curricula: Findings from a national survey. Int J Psychiatry Med 40(4):391–398

Kuper A, Albert M, Hodges BD (2010) The origins of the field of medical education research. Acad Med 85(8):1347–1353
Lave J (1996) The practice of learning. In: Chaiklin S, Lave J (eds) Understanding practice: Perspective on activity and context. Cambridge University Press, Cambridge, pp 22
Lave J, Wenger E (1991) Situated learning: legitimate peripheral participation. Cambridge University Press, Cambridge
Levinson W, Ginsburg S, Hafferty FW, Lucey CR (2014) A brief history of medicine's modern-day professionalism movement. Understanding Medical Professionalism. Lange Mc Graw Hill Company, New York, pp 37–51
Luckhaupt SE, Yi MS, Mueller CV et al. (2005). Beliefs of primary care residents regarding spirituality and religion in clinical encounters with patients: A study at a midwestern U.S. teaching institution. Acad Med 80(6):560–570
Lynch DC, Surdyk PM, Eiser AR (2004) Assessing professionalism: a review of the literature. Med Teach 26(4):366–373
Mann K (2006) Learning and teaching in professional character development. In: Kenny N, Shelton W (eds) Lost virtue: professional character development in medical education. Elsevier, Oxford, UK, pp 145–184
Martimianakis MA, Hafferty FW (2013) The world as the new local clinic: a critical analysis of three discourses of global medical competency. Soc Sci Med 87:31–38
Martimianakis MA, Maniate JM, Hodges BD (2009) Sociological interpretations of professionalism. Med Educ 43(9):829–837
Martimianakis MAT, Khan R, Stergiopoulos E, Briggs M, Fisman S (2020) Toward compassionate healthcare organizations. In Hodges BD, Peach G, Bennett J (eds) Without Compassion, there is no Healthcare. Montreal & Kingston: McGill-Queen's University Press
Nasr SH (1977) Sufi essays. Schocken Books, New York
Nimmo GR (2014) Materialities of clinical handover in intensive care: challenges of enactment and education
Nishigori H, Harrison R, Busari J, Dornan T (2014) Bushido and medical professionalism in Japan. Acad Med 89(4):98–101
Norman G (2012) Medical education: past, present and future. Perspect Med Edu 1:6–14
Norman G (2002) Research in medical education: three decades of progress. BMJ 324 (7353):1560–1562
Olivelle P (2014) Karma. Retrieved from https://www.britannica.com/topic/karma. Accessed on 16 Feb 2021
Puchalski CM, Blatt B, Kogan M, Butler A (2014) Spirituality and health: the development of a field. Acad Med 89(1):10–16
Puchalski CM, Larson DB (1998) Developing curricula in spirituality and medicine. Acad Med 73:970–974
Puchalski CM, Vitillo R, Hull SK, Reller N (2014) Improving the spiritual dimension of whole person care: Reaching national and international consensus. J Palliat Med 17(6):642–656
Rahayu GR, Suhoyo Y, Nurhidayah R et al (2016) Large-scale multi-site OSCEs for national competency examination of medical doctors in Indonesia. Med Teach 38(8):801–807
Rangel JC, Cartmill C, Martimianakis MA, Kuper A, Whitehead CR (2017) In search of educational efficiency: 30 years of Medical Education's top-cited articles. Med Educ 51 (9):918–934
Rao RH (2006) Perspectives in medical education 1. Reflections on the state of medical education in Japan. Keio J Med 55(2):41–51
Reich MR, Ikegami N, Shibuya K, Takemi K (2011) 50 years of pursuing a healthy society in Japan. The Lancet 378(9796):1051–1053
Hammer R (2005) Post-colonialism. In Ritzer G (ed) Encylopedia of Social Theory. SAGE Publications, pp. 576–578
Royal College of Physicians, Physicians, R.C. of and Royal College of Physicians (2005) Doctors in society. Medical professionalism in a changing world. Clin Med 5(6 Suppl 1):S5–40

Russell DR (2009) Text in contexts: theorizing learning by looking at genre and activity. In: Edwards R, Biesta G, Thorpe M (eds) Rethinking context for learning and teaching: communities, activities and networks. Routledge, London and New York, pp 17–30

Sari MI, Prabandari YS, Claramita M (2016) Physicians′ professionalism at primary care facilities from patients′ perspective: the importance of doctors′ communication skills. J Family Med Primary Care 5(1):56

Schimmel A (2011) Mystical Dimensions of Islam 35th Anniv. The University of North Carolina Press, Chapel Hill

Siemens-Stiftung (2021) Garbage clinical insurance. Empowering people. Network. [Online]. [Accessed 16 February 2021]. Available from https://www.empowering-people-network.siemens-stiftung.org/en/solutions/projects/garbage-clinical-insurance/

Suhoyo Y, Van Hell EA, Prihatiningsih TS, Kuks JBM, Cohen-Schotanus J (2014) Exploring cultural differences in feedback processes and perceived instructiveness during clerkships: replicating a Dutch study in Indonesia. Med Teach 36(3):223–229

Thistlethwaite J, Spencer J (2008) Professionalism in medicine. Radcliffe Publishing Ltd., Oxon

Tilburt J, Geller G (2007) Viewpoint: the importance of worldviews for medical education. Acad Med 82(8):819–822

Wali E, Pinto JM, Cappaert M, Lambrix M (2011) Teaching professionalism in graduate medical education: what is the role of simulation? Surgery 160(3):552–564

Wang X, Shih J, Kuo FJ, Ho MJ (2016) A scoping review of medical professionalism research published in the Chinese language. BMC Med Educ 16(1):300

Wear D, Kuczewski MG (2004) The professionalism movement: can we pause? Am J Bioeth 4 (2):1–10

Whitehead C, Kuper A, Freeman R, Grundland B, Webster F (2014) Compassionate care ? A critical discourse analysis of accreditation standards. Med Educ 48:632–643

WHO (2017) The republic of Indonesia health system review [Online]. Hort K, Patcharanarumol W (eds.). Available from http://apps.who.int/iris/bitstream/10665/254716/1/9789290225164-eng.pdf

Wynia MK, Papadakis MA, Sullivan WM, Hafferty FW (2014) More than a list of values and desired behaviors: A foundational understanding of medical professionalism. Acad Med 89 (5):712–714

Zukas M, Kilminster S (2014) The doctor and the blue form: learning professional responsibility. In: Fenwick T, Nerland M (eds) Reconceptualising professional learning: sociomaterial knowledges, practices and responsibilities. Routledge, pp 39–49

Chapter 8
Assuring Quality of Health Professions Education in the Context of Cultural Diversity

Titi Savitri Prihatiningsih and Charles Boelen

Abstract Countries with wide power distance in socio-hierarchy and collectivistic culture are mainly developing countries. Some have huge and large population with unique geographic and social environment (i.e., rural and remote areas). From the 'feasibility' and practical point of view, this kind of context tends to apply the 'quantitative' evaluation system, using numbers and statistics; and minimally applying the qualitative self-assessment & reflection in the accreditation system. Assuring quality for health profession education institutions in this kind of context is facing a dilemma due to the large numbers of institutions and study programmes, which have considerable disparities. The central and the local political decision affect the choice of the quality assurance system. This chapter discusses the definition of quality and standards in health profession education, as well as various accreditation systems in developed and developing countries. Characteristics of health profession education with social accountability values are also discussed which might influence the definition of quality.

8.1 Introduction

8.2 From health professions education to assuring its quality

In this chapter, five issues are discussed. The first is health professions education, what it is, its characteristics and its relationship with people's health. The second is defining quality in health professions education. In this section, quality in the

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industry and quality in higher education are contrasted. Looking at the characteristics of health professions education, critical questions are raised, i.e. could we use the same definition of quality or do we need to redefine the quality for health professions education. To have an appropriate definition of quality for health professions education is important because how we conceptualize quality will affect both how we formulate accreditation standards and also eventually what will be adopted in the accreditation procedures. This is explored in the third section. The fourth issue discusses the accreditation process in the context of cultural diversity in light of Hofstede's theory on cultural dimensions. Based on our conceptualization of quality in health professions education and our understanding of how cultural dimensions affect the way people work, we propose a culturally sensitive accreditation system for health professions education.

8.3 Health Professions Education

The history of medical and health professions education is as old as the history of medicine and health care. It is very much influenced and shaped by the progress and developments in health care. It can be dated back to the early centuries BC and is discovered in great civilizations which existed at the so-called 'dawn of history', such as Egyptian, Greek, Roman, Persian, Islamic and Chinese. Modern medicine started shortly after the Industrial Revolution in the eighteenth century when the way people lived and worked changed dramatically and this change affected their health risks. Scientific advancement at that time made possible many medical inventions, such as germ theory, new treatments of infectious diseases and new discoveries in public health interventions. The changes in health care and public health practices shaped the medical and health professions' education.

Before the development of the science of physical signs and the application of laboratory medicine, the physicians' relationship with their patients consisted almost entirely of dialogue between them, so that the physicians understood patients' problems comprehensively. Even now, the effectiveness of the physicians' interventions is dependent on their skills of listening and inquiring. Therefore, practicing medicine is considered a combination of art and science. The apprenticeship model of medical education that prevailed into the mid-nineteenth century provided time and space for medical students to role model the clinical consultants when caring for patients (Quintero 2014). This included how medical knowledge is applied, how clinical reasoning is exercised, how patient communication is conducted and how professional values and ethics are applied. This modeling is in line with Flexner's description of the ideal medical education which he detailed in his phenomenal report in 1910 entitled '*Medical Education in the United States and Canada'*. Flexner envisioned a clinical phase of education in academically oriented hospitals, where thoughtful clinicians would pursue research stimulated by the questions that arose in the course of patient care and they would teach the students to do the same. The academic environment has been radically transformed since the issuance of Flexner's Report. In academic

hospitals, research quickly outstripped teaching in importance. Research productivity became the measure by which faculty accomplishment is judged (Cooke et al. 2006). During those years, there was a growing complexity of medical sciences and technology. Increasing attention to quality care, patient safety and enhancement of medical practices have pushed aside the social purpose of medical education (Quintero 2014). The values of professions have become increasingly difficult to discern for medical students as clinical teachers are under intensifying pressure to increase their clinical productivity due to the implementation of quality management, evidence-based practices and the system approach in teaching hospitals. As a result, the teachers have less time available for teaching, while medical students have fewer opportunities to practice in the hospital setting when expensive and advanced medical technology has slowly replaced the 'art' of medicine. Medical care has been driven towards emphasizing the curative aspect in tertiary hospitals with sophisticated medical technology—rather than promotive and preventive care in the primary setting (Quintero 2014).

In this context, the WHO called for a 'Primary Health Care' movement in 1978, which is well known as the 'Alma Ata Declaration'. In this Declaration, the WHO reaffirms that health is a fundamental human right and the attainment of the highest possible level of health is the most important global social goal which can be achieved through the provision of primary health care. Primary health care addresses the health problems in the community, providing promotive, preventive, curative and rehabilitative care accordingly (WHO 1978).

This call still has a profound effect on how we value the medical and health professionals who have special privileges in society. There is an unwritten social contract between the profession and society. Society places their trust in this profession and they demand trustworthiness from the medical professionals who play a critical and central role as they provide health care for society. It is expected this pact will eventually bring health and well-being to all members of the society. There is a social obligation attached to them, therefore medical and health professions are considered a noble profession. Society demands health professionals who have the following virtues: compassion, empathy, helpful, caring, honesty, putting the care for patient above their own interest, righteous, high morals and competent in solving the health problems of patients, family and community, etc. As early as the fifth century BC, the Oath of Hippocrates was recited and is still read aloud during the convocation of new medical doctors. The Hippocratic Oath is the basis for medical ethics with which every medical doctor is expected to perform.

The question now is how can we—medical and health professions education institutions—be better able to deliver medical and health profession education that will produce medical doctors and other health professions with such characteristics amidst the rapid advancement in medical digital technology and the increasing application of virtual telemedicine?

The answer to this question was outlined in the WHO Document in 1995 on Defining and Measuring Social Accountability for Medical Schools. This document introduced specific social accountability values, namely relevance, quality, cost-effectiveness and equity. Boelen and Heck (1995) argued that medical schools have

social obligations to produce medical graduates who are relevant to the health needs of the society and capable to provide health care that embraces the social accountability values (Boelen and Heck 1995). This notion is strongly echoed by the Global Consensus for Social Accountability of Medical Schools in 2010 which outlined ten strategic directions for medical schools: to be socially accountable and requiring improvements in responding to current and future health needs of the society; reorienting their education, research and service in accordance with the prioritized health needs of the society; strengthening governance and partnership with stakeholders; and using evaluation and accreditation to assess their performance and impact (GCSA 2010).

"The Global Consensus on Social Accountability of Medical Schools is a landmark report, probably as important, if not more that the Flexner report published a century earlier, as it gives strategic directions to improve the quality of medical education and medical schools' governance relative to people's priority health needs and social determinants of health, particularly in a world that is endangered by climate change, unreasonable use of resources, increased health disparities within and between countries as well as health risks due to globalization".

8.4 Defining Quality in Health Professions Education

It is hard to define quality. Quality is in the eyes of the beholder. Quality is a multidimensional concept, and reducing it into one single definition is problematic. Some definitions are too specific, while other definitions are too general. On the contrary, it is easy to notice bad quality. From the industrial perspective, we can categorize how we look at quality into two perspectives, the producer and the customer. In the producer's point of view, quality is seen as meeting standards and regulations and any difference in quality leads to deviation from agreed properties. On the contrary, the customer's point of view sees quality as the ability to meet customers' needs and expectations. Quality can also mean 'excellence' and 'fitness for purpose'. We expect graduates to be "fit for the purpose", which is to bring a solution of health problems to people, not just in technical terms, but also by applying a person-centered approach (meaning considering the patient/the person in its entire context of life).

In higher education, quality is viewed from the perspectives of multi-stakeholders, namely academicians, managers, administrators, users and students. The quality model in higher education applied internationally and nationally accommodates these multi-perspectives by commonly having the following standards, namely: vision and mission of the university, graduates' competences, curriculum (content-process-student assessment), student recruitment and selection, staffing, facilities and infrastructures, student services, governance, stakeholders' feedback, evaluation and continuous improvement. The higher education sector is seeking excellence and they define quality in higher education as achieving 'exceptional outcomes' or excellence in those standards. Higher education ranking as portrayed in the Times Higher Education Series (THES) or QS World University Ranking is created to rank higher

education institutions in accordance with how best they achieve quality indicators. Although some agencies, such as the ASEAN University Network for Quality Assurance (AUNQA) define quality as 'fitness for purpose', in addition to 'excellence', to indulge efforts made by institutions to achieve their vision and mission.

Taking into consideration the definitions of quality in business and in industry, as well as in higher education, we need to be careful when we intend to apply such definitions in health professions education. As explained above, health professions education carries social obligations and social accountability because the graduates have to serve society to attain the highest level of health. This point is to demonstrate that health as the fundamental human right embodies the provision of health care. Since the issuance of the WHO's call for Social Accountability of Medical Schools in 1995, only a very small number of medical schools across the globe—to a clear and certain extent—have implemented this concept. As a result, we still have many challenges facing our healthcare system such as poor access to primary health care, poverty and unequal access to full-service health care, maldistribution of the health workforce and lack of key health workforce personnel, low engagement of the public towards healthy life styles, widespread social injustice and high prevalence of chronic diseases (Boelen et al. 2019). Medical schools are health care stakeholders that have tremendous potentials to mobilize resources to improve population health. The special combination of education, research and service delivery missions as well as their inherent code of ethics to put the patients and the society above any partisan interests can produce enormous impacts on population health if and when they partner with stakeholders. Boelen et al. (2019) proposed the definition of quality for health professions education which is encapsulated in the following triple capacity: (1) the capacity to identify current and future health needs and challenges of citizens and society as a whole, (2) the capacity to adapt schools' mission and programmes to address those needs and challenges and (3) the capacity to monitor the effects of relevant actions on identified needs and challenges.

8.5 Standards in Health Professions Education

In the previous section, we have discussed that one definition of quality is meeting the requirements or accepted standards. Conceptions of quality will then be elaborated into standards that will be used in the external quality assessment or accreditation process. In manufacturing industries, standards are used to reduce variation because the quality of a product is measured against its meeting the expected specifications.

Grant (2018) discussed the problems of standards in the manufacturing industry which are unsuitable for higher education in general and health professions education in specific. She argues that health profession education standards that are issued by a number of agencies, such as professional organizations, association of health professions education institutions, accreditation agencies, external quality assessment bodies and governments involve several problems. The first is the industrial mindset. As discussed above, the origin of quality concepts comes from industry. The

production line as applied in the industry might not be appropriate for health profession education. Students cannot be equated with raw materials since each student is unique and has different abilities and talents. The second is atomization and isolation from complex systems. In the production line, during the process of assembly, various smaller parts that are prepared separately are put together. In health professions education, students cannot be broken down into smaller parts and then put together. The third problem is that those industry standards provide less opportunity to reflect diverse and unique realities. As we all know, all institutions of health professions education and universities, in general, have unique features. They have formulated specific vision and mission statements according to their own stakeholders. There are no two universities or faculties of health professions education that are exactly the same. The fourth is that these standards are insensitive to environmental and cultural factors and often stifle originality and creativity. Higher education institutions are well-known for their production of new knowledge and cutting-edge technology at the frontiers of science. With this in mind, the next question is 'Can we actually standardize health professions education?'.

Throughout the past two decades, after the issuance of national, regional and international standards, many professional organizations, medical authorities or governments started to question how can we assess to what extent the education programme or the health professions education institutions meet the standards? If we have standards and do not assess their compliance with these standards, then what is the use of having standards? These are some of the important questions that unconsciously may have led many leaders to adopt the 'industrial mindset' to define quality as 'meeting the standards, meeting the requirements or meeting the manufacturer's specification'.

Considering the unique characteristics of health profession education and the concept of social accountability, quality standards for health professions education have been developed which is called Conceptualization-Production-Usability. The domain 'conceptualization' involves the collaborative design of the kind of professional, which is needed and the system that will utilize his or her competences. The domain of 'production' involves the main component of training and learning. The domain 'usability' involves initiatives taken by the institutions to ensure that its trained professionals are put to their highest purpose and best use. For each domain, several requirements are identified (Boelen and Woollard 2009). This model of standards is in line with the definition of quality of health professions education as proposed by Boelen et al. (2019). Some industries nowadays care for the environment and adapt to the local needs that is why the non-fossil energy industries is flourishing worldwide. Adaptation to local context of health professions education is also highlighted in this chapter.

8.6 Accreditation of Health Professions Education in the Context of Cultural Diversity

The twenty-first century started with an explosion in the number of higher education institutions. This massive expansion shows the increasing demand for higher education. The same situation has happened around the world in health professions education. Nowadays, several systems of accreditation are used worldwide to ensure the quality of higher education and of health professions education. However, defining the term accreditation is a challenging task. Accreditation has numerous meanings in various contexts and settings.

Van Zanten et al. defined accreditation as a review of an educational programme, conducted by a governmental organization or a private entity accountable at a government level, based on publicized standards and predetermined protocols (van Zanten et al. 2012). According to Vlasceanu et al., accreditation is the process by which a (non) governmental or private body evaluates the quality of a higher education institution as a whole or of a specific educational programme in order to formally recognize it as having met a certain predetermined minimum criteria or standards (Vlasceanu et al. 2007). The results of this process are usually the awarding of a status (a yes/no decision), of recognition and sometimes of a license to operate within a time-limited validity. Cueto et al. (2006) describe accreditation as a process whereby officially appointed external regulatory bodies, accountable at the government level, evaluate educational institutions using established criteria, standards and procedures. It entails gathering data on various aspects of the educational institution and making decisions regarding compliance with the standards. This is done primarily to ensure the quality of education required to produce competent graduates. Thurston in Cassie et al. explained accreditation is a process that examines a programme in order to determine whether it: (a) has appropriate purposes; (b) has the organization and resources to accomplish its purposes; (c) can demonstrate that it is accomplishing its purposes; and (d) gives reason to believe that it will continue to accomplish its purposes (Cassie et al. 1999).

Although the above definitions have different ways of looking at accreditation, there are a number of common features. First, accreditation is an assessment or a review, or an evaluation of quality at the programme or institutional level. Secondly, it can be done by a government or a non-government organization or a private agency, but it should be external to the programme or institution being assessed. Thirdly, there are standards and procedures, which include self-evaluation and site visits by the assessors. Fourthly, the definition of quality used is complying with predetermined standards. Fifthly, there are implications or consequences for positive and negative results.

The implementation of any accreditation system is influenced by the national and organizational culture. Culture in an organization is a unique identity that sets one apart from all others. Organizations have their own distinct culture that establishes their core identity, determining what values are upheld, what norms are followed and which behaviors are expected (Schraeder and Self 2003). Unlike the concrete

nature of codified policies and procedures, culture represents the unwritten 'rules of the game'—the unspoken but widely shared assumptions that unobtrusively manipulate organizational members. Forces that are created from social and organizational culture are powerful, because they operate outside our awareness. Therefore, it is important to understand how a culture operates, or otherwise, we can become the unwitting victim of culture (Schein 2016). Hofstede offers a theory on cultural dimensions which describes six dimensions as a framework to examine how cultural differences in different countries could affect the ways an organization is operated. Hofstede's theory is applied in this section to analyze the accreditation process from the context of cultural diversity (Hofstede 2001).

The theory is based on the idea that values can be placed into six cultural dimensions. These are power (equality versus inequality), collectivism (versus individualism), uncertainty avoidance (versus uncertainty tolerance), masculinity (versus femininity), temporal orientation, and indulgence (versus restraint). Based on the calculation of the six cultural dimensions index score as explained above, the selection of countries for the analysis is from the two different groups. The first group is the Western and developed countries, and the second group is Eastern and less developed countries. For the first group, the United States of America (USA) and Canada are chosen, and for the second group, Indonesia and other South East Asia countries (such as India, Bangladesh and Thailand) are selected for the comparison.

8.6.1 Accreditation in the Western and Developed Countries (USA and Canada)

The USA is selected because it has a long history of accreditation and it is there that the accreditation concept was first developed and practiced. The accreditation in USA and Canada for medical education share the same history, until in 1979 Canada established its own accreditation agency, although it still maintains a strong link with the USA.

The idea of reviewing medical education programmes started in 1847—when the American Medical Association (AMA) was established as a voluntary organization. AMA started to look into the curricula of medical schools in the USA which at that time the medical education was heterogenous in setting and quality (Dezee et al. 2012). Between 1830 and 1845, the number of medical colleges in the USA has doubled, creating a tough competition unrestricted by the professionals. The majority of medical schools during this time period were small, for profit schools with wide ranging, non-standardized curricula and educational goals (Irby 2011). This condition created major concerns among medical professionals. In 1844, there was a resolution promulgated by the Medical Society of New York regarding the quality of medical education. The first was that a four-month course for getting a medical degree was too short to include all branches of medical sciences, the second is the standards of premedical and medical education was too low and the third

is the union between teaching and licensing powers within medical colleges was susceptible to be abused (Eagle 2017).

Association of American Medical Colleges (AAMC) was established in 1847 by 250 delegates with the main purpose 'to elevate the standards of medical education'. Only until 1878, the then American Medical College Association adopted the resolution that medical schools had to have public recognition on the medical school's compliance to standards which then become a requirement to be included in the list of the member of the Association. However, the number of medical schools exploded to 133 by 1890. Between 1893 and 1903, representatives of medical colleges in the USA developed a register for medical colleges that met certain agreed standards. In 1905, the AMA established its own council on medical education, which produced a ten-category system for rating medical schools. The first list of medical schools accepted by the AMA was published in 1907 (El-Khawas 2001). Until the turn of the twentieth century, medical schools were closely inspected by two organizations, namely the AMA through its Council on Medical Education (CME) and AAMC. To follow up the resolution in 1844 that the granting of medical licensure should not be done by the medical college, in 1890 the National Confederation of State Medical Examining and Licensing Boards (NCSMELB) was established. Since then, there were three organizations safeguarding the quality of medical education, namely AMA, AAMC and NCSMELB. These three organizations—although rivalry was acknowledged—promulgated the agreed medical education standards to all medical colleges (Eagle 2017).

At the beginning of the twentieth century, the number of medical colleges remained growing rapidly and in 1904 the number was 166. The market of medical graduates had saturated. The AMA started to classify the medical colleges after deciding to do on-site inspections in 1906 using 10-point standards, where each school could receive 1 to 10 on each of the items of the 10-scale. The schools were grouped into A to F based on the attainment of the scores. Schools scoring 50–70 were deemed worth recognizing if they made improvements that could elevate the scores over 70. Concerned with the results of the schools' inspection where many medical schools scored under 50, AMA turned to the Carnegie Foundation for the Advancement of Teaching to seek assistance. The Carnegie Foundation sponsored Abraham Flexner to conduct an independent evaluation of medical schools in the US and Canada. One of the aftermaths of Flexner's report is the closure or merger of 37 medical schools with the score under 50 which were considered unacceptable (Eagle 2017).

After almost 40 years of increasing competition and rancor between AMA and AAMC, instead of having cooperation and collaboration, World War II began to draw them back together. In 1942, AMA and AAMC agreed to avoid duplication of efforts in evaluating the quality of medical schools by conducting a joint inspection of medical schools. A new committee was set up in 1942 sponsored by AMA and AAMC, which was called Liaison Committee for Medical Education (LCME). LCME was considered the formal accreditation agency for medical schools in the US and Canada. Their purpose is to establish and maintain educational standards by

surveying and assessing the relative rating of participating medical schools (Kassebaum 1992). Over the course of 75 years, LCME developed various guidelines, tools, instruments for the functioning of an accreditation agency in safeguarding the quality of medical education and for quality improvement (Eagle 2017).

Since the awakening of concerns regarding the quality of medical doctors and medical education in the nineteenth century, which was manifested in the establishment of two important organizations, AMA and AAMC in 1847, medical schools in Canada were always included in the conversation and site visits, including during the Flexner's independent inspection in 1908. Canadian medical schools have enjoyed a special relationship with the US medical education system for over a century as Canadian medical schools have furnished many medical practitioners in various states in the US. The AMA continued to include Canadian medical schools in its annual listing of approved medical schools in the Journal of American Medical Association (JAMA) (Eagle 2017). The most notable change in the relationship between LCME and Canada was in 1979 with the formation of the Committee on Accreditation of Canadian Medical Schools (CACMC). The reason why Canada established its own committee on accreditation was the decision to appoint a US Government representative to the LCME Board. With the involvement of the US Government in the LCME board, it has strengthened the role of LCME as the accreditation body for medical schools within the jurisdiction of the US. This situation created an unfavorable condition for Canadian medical schools (Shilliday 1983).

CACMS still maintains strong ties with the LCME by having an LCME member sits in CACMS Boards and the accreditation decisions are accepted by both bodies. All Canadian medical schools are automatically accredited by both LCME and CACMS. The standards, procedures, instruments and other tools for accreditation are the same. The accreditation report is sent to members of CACMS and LCME and other 45 independent reviewers. When CACMS makes a final accreditation decision, they always take into account the LCME recommendation (Shilliday 1983). In 2013, the sponsors of CACMS (CMA and AFMC) and the sponsors of LCME (AMA and AAMC) signed a Memorandum of Understanding to further codify the relationship between both accreditation bodies. This agreement provides CACMS a greater independence in decision making, standard setting and modification of accreditation procedures to align Canadian medical education programmes with their social accountability approaches (CACMS 2014).

One distinct feature of the Canadian medical education system is its commitment towards social accountability. By embracing this concept, Canadian medical schools are prepared to respond to the changing needs of the community by developing a formal mechanism to maintain awareness of these needs. Canadian medical schools work together and in partnership with their affiliated health care organizations, the community, other professional groups, policy-makers and governments to develop a shared vision of an evolving and sustainable healthcare system for the future. This social accountability concept is adopted in the accreditation standards and procedures (Cappon et al. 2001).

8.7 Characteristics of USA and Canada Accreditation System

The USA and Canada accreditation system stand out in three dimensions, namely: (1) accreditation is a non-governmental, self-regulatory, peer review system; (2) nearly all of the work is done by volunteers; and (3) accreditation relies on the candor of institutions to assess themselves against a set of standards, viewed in the light of their mission, and to identify their strengths and concerns, using the process itself for improvement (Brittingham 2009). Accrediting associations were established as membership organizations, supported by dues and fees (and occasional private grants), providing the foundation for self-regulation and the independence that has helped accreditation preserve the autonomy of institutions (Brittingham 2009). It has taken almost 150 years from when the concern for the quality of medical education emerged in 1844 due to the wide variation of medical education programmes and the lack of external inspection (Eagle 2017).

Standards have moved from quantitative to qualitative, from prescriptive to mission-centered, and from minimal to aspirational. The general trend in accreditation has been a movement from focusing on inputs or resources to processes and outcomes or effectiveness. Every institution finds dimensions on which it wishes to improve and promotes productive engagement in the accreditation process. As accreditation developed, it embraced many of the essential elements of American higher education, including the role of the governing boards, the place of general education in the curriculum, the centrality of academic freedom for faculty and students, and opportunity for student development outside as well as inside the classroom (Brittingham 2009).

8.8 Analysis of the USA and Canada Accreditation System Using Hofstede's Cultural Dimensions

Although USA and Canada have many similarities due to their shared long border and languages (though in Canada they have English and French as official languages), differences can be found between these two nations. Both countries are multicultural and both are meritocracies; the concept of the 'American dream' applies just as strongly in Canada; the belief that anybody can be anything, regardless of background, ethnicity, gender or sexual orientation (Hofstede et al. 2010). Canadians are closer to the British culture where they value relationships and speaking in turn. On the other hand, Americans value problem-solving and entrepreneurship, to a certain extent they are more aggressive and straightforward. They also believe in the ability of the individual to achieve a self-identified goal.

The USA has a considerably low power distance which is characterized by decentralization, where the gaps between subordinate and superior are small, because hierarchy exists for the purpose of getting the job done effectively and efficiently.

Accreditation in the USA relies fundamentally on volunteers to carry out the work, volunteers are at the core of the work: teams are composed of volunteers, and it is volunteer peer reviewers who serve on the policy- and decision-making bodies. Americans also believe in self-improvement, an activity requiring self-evaluation and identification of areas that could benefit from enhancement. However, the government recognizes and trusts the results of accreditation activities conducted by the accrediting agencies set up by professional organizations such as AMA and the AAMC. In this instance, the government who has the governing power does not exercise the power in a dominant, authoritarian and centralized way. The Constitutions (state and national) and the Supreme Court have provided an equitable ecosystem that imparts autonomy to universities and higher education institutions. The Government respects this autonomy and leaves the quality assurance initiatives to the professional associations and associations of higher education institutions. Being granted trust by the government, these associations are motivated to develop an accreditation system that embraces and embodies the principles of good governance.

With a score of 39 on this dimension, Canadian culture is marked by interdependence among its inhabitants and there is a value placed on egalitarianism (Hofstede 2020). This is also reflected by the lack of overt status and/or class distinctions in society. Hierarchy in Canadian organisations is established for convenience. It can be understood that when the US Government was involved in the LCME through its representative, Canada chose to set up its own accreditation committee, despite its long history with the US.

As for the individualism-collectivism dimension, the USA has a high score for the individualism index, i.e. 91 (Hofstede 2020). Individualist societies value social achievement as individual goals. In schools, students are expected to individually speak up in class. Therefore, it is common in the USA to see people who are assertive and are willing to express their ideas freely in formal and informal forums. Hiring and promotion decisions for staff members are based on skills and tenure rules without involving personal or group interests. The relationship between employer-employee is based on the contractual arrangement. Completion of tasks is supremely important and prevails over relationships. In this context, occupational mobility is higher, with little or no lifelong contract (Hofstede 2020). In the accreditation practices, these characteristics of an individualist society can easily be observable. The implication of being an individualist society is that medical schools take serious and genuine action to meet the LCME standards. The accreditation status granted by LCME is considered an individual achievement of the medical school and creates a sense of pride.

An example is the John A. Burns Medical School who has recently received continued full accreditation for the maximum period of eight years. The process for preparing for the LCME site visit began two years before and included an extensive effort from the faculty, staff, students, and community participants. Activities included the completion of LCME's Data Collection Instrument (DCI), an Independent Student Analysis (ISA), an Institutional Self-study (IS) evaluation, and many hours of preparation for all the site visit participants. Conforming to national or international accreditation organizations ensures (both for the students and public)

that the highest quality education is being delivered and that commonly shared standards in medical education are being addressed in all areas of medical education. These include teaching and curriculum development, administration, faculty, finances, learning environment, facility resources and student services (Connolly et al. 2017).

Canada scores 80 on this dimension (its highest dimension score) and can be characterized as an Individualist culture (Hofstede 2020). This is similar to the US although the Canadian score is lower. This is in line with the result of qualitative research on the impact of accreditation on medical schools' processes where medical schools developed a system to distinguish from relying on a single individual to establish tasks.

The USA has a high masculinity index. In masculine societies, appreciation towards work is higher. People are willing to spend long hours of work and put tremendous energy into work completion, because they highly value their work production. The purpose of living is to work, to get higher pay, to have security and to have interesting jobs. Work is highly competitive; therefore, managers are demanded to be more aggressive, decisive and ambitious (Hofstede 2020). The USA is well-known for the best medical schools in the world producing Nobel prize winners, new inventions in medical technology and cutting-edge sciences which are applied all over the world. This spirit of competitiveness is reflected in their medical education standards. After more than 150 years of struggle to have an established accreditation system, they highly value the accreditation process as the leverage for quality improvement and as the platform to showcase their achievements. Because of this focus on outcomes, in the LCME accreditation report, the strengths of a medical education programme are highlighted.

Canada scores 52 on this dimension and can be characterized as a moderately 'Masculine' society. While Canadians strive to attain high standards of performance in both work and play (sports), the overall cultural tone is more subdued with respect to achievement, success and winning, when compared to the US. Similarly, Canadians also tend to have a work-life balance and are likely to take time to enjoy personal pursuits, family gatherings and life in general (Hofstede 2020). This explains why for almost 100 years, Canada relied on the LCME to accredit their medical schools and still until now share the same accreditation standards, procedures and formats with LCME.

For the uncertainty avoidance index, the USA society has a low score, which is 46. A low uncertainty avoidance society is comfortable with risk, uncertainty and unpredictable situations (Hofstede 2020). The accreditation system for medical education in the USA has been evolving for 150 years to reach its present level of maturity and it took almost 100 years to get established. This reflects the dynamics of reaching a consensus among stakeholders, i.e. the medical colleges, the medical professions, and the Government. The uncertainty and the unpredictable situations are reflected in the struggle and the debate among medical colleges to agree on certain specific requirements as the foundation for running a medical education programme, such as the total number of study hours (4,000 h or 3,700 h).

Canada has a score of 48 for the uncertainty avoidance index—almost similar to the US. Canadian culture is more 'uncertainty accepting'. This is indicative of the easy acceptance of new ideas, innovative products and a willingness to try something new or different, whether it pertains to ideas, technology, business practices or consumer products (Hofstede 2020). Canadians are also tolerant of ideas or opinions from anyone and allow the freedom of expression. This is demonstrated by the acceptance of the social accountability concept for the vision of the medical schools. In other countries, social accountability is still a utopia.

The LCME as an accreditation agency is recognized by the US Department of Education and initially by the Canadian Government until they decided to have their own CACMS. Medical education programmes leading to the MD degree must first have institutional accreditation to be eligible for initial full accreditation and for continuing accreditation by the LCME and CACMS. In summary, the LCME accredits educational programmes (i.e. leading to the MD degree) and regional accrediting agencies in the U.S. (e.g. the Southern Association of Colleges and Schools) accredit their sponsoring institutions (e.g. universities). LCME and CACMS accreditation are a voluntary, peer-reviewed process of quality assurance that determines whether the medical education programme meets established standards. The process also fosters institutional and programmatic improvement. This is concordant with low uncertainty avoidance characteristics where innovators are less constrained by rules. By having accreditation as a voluntary process, it is within the control of the medical school and the university to decide whether to apply for the accreditation or not. This option gives a medical school a more relaxed presentiment to pursue innovations. When they do apply for the accreditation, it is driven by their internal motivation to perceive accreditation as the vehicle for continuous improvement.

As for the long-term orientation versus short-term orientation index, the US society has a low score for long-term orientation, meaning that they tend to focus on the near future and short-term success. Similarly, Canada scores 36 in this dimension, marking it as a normative society. People in such societies have a strong concern with establishing the absolute Truth; they are normative in their thinking. They exhibit great respect for traditions, a relatively small propensity to save for the future, and a focus on achieving quick results (Hofstede 2020). Therefore, having an accreditation status is considered a short-term achievement as it gives some direct benefits, such as recognition from the Government for funding eligibility, and qualification to perform the USLME for the graduates. For the Canadian medical schools, being accredited by both LCME and CACMS means greater opportunities to work in the USA. To achieve and maintain accreditation, a medical education programme must meet the LCME accreditation standards contained in the LCME document entitled, *The Functions and Structure of a Medical School*. Programmes are required to demonstrate that their graduates exhibit general professional competences that are appropriate for entry to the next stage of their training and that serve as the foundation for life-long learning and proficient medical care. Graduates of LCME-accredited schools are eligible for residency programmes accredited by the Accreditation Council for Graduate Medical Education (ACGME). CACMS share the same 'The Functions and Structure of a Medical School'. Blouin et al. identified pragmatic and negative

attitude towards accreditation among deans and other educational leaders of Canadian medical schools (Blouin and Tekian 2018). They perceive accreditation as being costly, dragging the medical staff's time and energy which may lead to low morale, stressful and accreditation burnout. Performance on accreditation might affect the medical school's reputation, from funding to the quality of applicants. This explains that participating in accreditation is for short-term gains of not losing the medical school's reputation. As the Canadian accreditation system (CACMS) system is identical to the US system (LCME), having the same low score for long-term orientation might lead to having this attitude in the Canadian medical schools.

The US and Canadian society have a high score in the indulgent versus restraint index. This index reflects to what extent a society can control their impulses and desires. This shows that people have more extroverted personalities and higher optimism (Hofstede 2020). This is expressed in the formulation and revision of LCME Standards. The LCME regularly reviews the content of the standards and elements, and seeks feedback on their validity, importance and clarity from members of the medical education community, including its sponsoring organizations. Changes to existing standards and elements that impose new or additional compliance requirements are reviewed by LCME's stakeholders and are considered at a public hearing before being adopted. During the public hearing, stakeholders are allowed to express their disagreements, their concerns and suggest any revisions freely. The public hearing is conducted every year, therefore the LCME standards are revised every year. Once approved, new or revised standards are published in *The Functions and Structure of a Medical School* and in the relevant version of the Data Collection Instrument (DCI), which will indicate when the changes become effective. Such periodic review may result in the creation or elimination of a specific standard and/or element, or a substantial reorganization of *The Functions and Structure of a Medical School* (LCME 2020).

8.8.1 Accreditation in the Eastern and Developing Countries (Indonesia and South East Asian Countries)

Indonesia and South East Asian countries are selected to represent the group from Eastern and developing countries, because Indonesia and South East Asian countries have several unique characteristics, which include having the complexities of a diverse culture, encountering challenging problems in health professions education and have high numbers of study programmes and health professions education institutions, which according to the latest figure in July 2020, there are 3,054 study programmes in health profession in Indonesia (Chatibwarsa 2020).

Indonesia is known as the largest archipelago, situated between the Asian and Australian continents, and bordering on the Indian and Pacific oceans. Indonesia is located in an area of the world that experiences regular natural disasters, such as earthquakes, tsunamis, floods, severe droughts and volcanic eruptions. Most of the

population lives on the large island of Java. Diverse ethnicities exist, although most Indonesians are Javanese (40.1%), followed by Sundanese, Malay, Batak, Madurese, Betawi, Minangkabau and other ethnic groups which are around 1,300 according to the latest census, making Indonesia the most ethnically diverse society in the world. Furthermore, 730 languages are spoken and various religions exist, including Islam which is the religion observed by the majority of the population (80%), followed by Christianity, Buddhism, Hinduism and several others (Central Bureau Statistics of Indonesia 2016). Other South East Asian Countries also share diverse culture and natural disasters, such as in India, Sri Lanka and Bangladesh which have regular floods and typhoons.

Indonesia was a Dutch colony for 3.5 centuries and declared its independence on August 17, 1945 after being occupied by Japan for 3.5 years. The long history of colonialism influenced both the education system and also the health system in Indonesia. During the past decade, Indonesia has emerged as a relatively stable country, economically and politically (Mustika et al. 2019). In 2014, the government launched a National Health Insurance Program and a plan for universal health coverage in 2014 (Marzuki 2016). Other South East Asian countries were also under colonization of British rules (such as India, Bangladesh and Sri Lanka) and French rules (Vietnam and Cambodia).

The accreditation system in Indonesia started first in the higher education sector as part of the Higher Education Long-Term Development 1985–1995. In this period, the quality standard became one of the higher education pillars. The National Accreditation Board for Higher Education as the sole accreditation agency for all study programmes was established in 1994. Since its establishment in 1994, the National Accreditation Board for Higher Education (NABHE) has conducted accreditation for thousands of higher education institutions and programmes. In 2020, the number of higher education institutions is 4,741 of which 91.5% are private and 8.5% are public. The number of study programmes is more than 28,000. In 2016, the National Accreditation Board restructured its organization, separating the policy-making from the accreditation process. Since then, the Board of Accreditation is responsible for policy-making and the Executive Board is responsible for conducting the accreditation programmes. As a consequence of the Higher Education Law No. 12/2012, independent accreditation agencies can be established by an association of professions and associations of education institutions of a specific professional field. Effectiveness evaluation on the implementation of the accreditation system by the National Accreditation Board in 2017 generated the results showing that the emphasis was still on input and process. Several correlations between accreditation status and the results of the national exam, with levels of research productivity, have been calculated, and the results showed there is no significant relationship between accreditation status and research productivity (Moeliodihardjo et al. 2017).

As part of the World Bank-funded Health Profession Education Quality Project (HPEQ) in 2009–2014, strengthening policies and procedures for the accreditation of health professions education was the first component. The main goal of this component is to set up an independent accreditation agency for health professions education. To achieve this goal, the project team conducted benchmarking to the Liaison

Committee for Medical Education (LCME) in the USA and recruited international consultants. It took three years to discuss and debate intensively about the independent accreditation system that would be developed. Eventually, seven professional associations from seven professions (medicine, dentistry, midwifery, nurse, public health, nutrition and diploma nursing) and seven education institutions from the seven professions mentioned signed a declaration to set up an independent accreditation agency for higher education in health in 2011.

The Independence Accreditation Agency for Higher Education in Health (IAAHEH) or *Lembaga Akreditasi Mandiri Perguruan Tinggi Kesehatan* (LAM PTKes) is the first accreditation agency that was established by Non-Government organizations and associations on February 3, 2014 based on the Minister of Law and Human Rights of the Republic of Indonesia Decree No. AHU-30.AH. 01. 07. 2014. However, to have the legal standing for the results of accreditation by the IAAHEH, this agency needed to have recognition from the Indonesian Government which is stated in the Minister of Education and Culture of the Republic of Indonesia Decree No. 291/P/2014 dated on October 17, 2014, on the Recognition of the Establishment of IAAHEH. To be able to fully function, IAAHEH had to have permission from the Government through the following decree, The Minister of Research, Technology, and Higher Education of the Republic of Indonesia Decree No. 46/E.E3/KL/2015 dated on February 2, 2015, on the Operationalization of IAAHEH. To date, IAAHEH has accredited more than 3,000 study programs in health professions and it has obtained a World Federation of Medical Education (WFME) Recognition for the period of eight years (2018 to 2026) upon completion of the recommendations.

Although IAAHEH is supposed to be an autonomous accreditation body with its own legal status, IAAHEH must comply with the accreditation standards and procedures developed by the National Accreditation Board for Higher Education (NABHE). This agency also supervises the IAAHEH. This mechanism has limited the IAAHE to innovate and develop accreditation standards and procedures suitable for health professions education. Medical schools inevitably must abide by two standards, i.e. Standards of Competence and Standards of Medical Profession Education from the Indonesian Medical Council (which are derived from the World Federation for Medical Education) and Accreditation Standards from the IAAHE.

On the other hand, with its huge number of population, India has one of the largest and diverse education systems in the world. The Medical Council of India was set up in 1934 under the Indian Medical Council Act, 1933. This Act was repealed and a new Act, The Indian Medical Council Act, 1956, was enacted. This latter Act was further amended in 1964, 1993 and in 2001. The objectives of the Indian Medical Council, as per the Act, are as follows: (1) maintenance of uniform standards of medical education, both undergraduate and postgraduate; (2) recommendation for recognition/de-recognition of medical qualifications of medical institutions of India or foreign countries; (3) permanent registration/provisional registration of doctors with recognized medical qualifications; (4) reciprocity with foreign countries in the matter of mutual recognition of medical qualifications. The accreditation for medical schools involves both the Government and Non-Government agencies. The National Assessment and Accreditation Council (NAAC) was established in 1994 as

an autonomous institution of the University Grants Commission (UGC) with its headquarters in Bengaluru. NAAC also accredits medical education programmes only compulsory for those funded by the UGC and the rest are voluntary. Medical Council of India conducted the accreditation for the whole medical education programmes and was considered compulsory. The standards and guidelines were later developed by the NAAC to comply with the National Education Policy (Cueto et al. 2006).

8.9 Characteristics of the Indonesian and Indian Accreditation System

In this part, the discussion will be focused on Indonesian and Indian Accreditation System. The main feature of the Indonesian accreditation system is that it is initiated by the Government. In India, accreditation for medical colleges started far ahead of Indonesia, which was in 1934. India copied the British System of having a medical regulatory body, namely Medical Council of India which is a Government body. Both countries make use of accreditation as a policy instrument that is used by the Government to monitor and evaluate the medical education institutions and programs. Since the reform movement in 1998, Indonesia has shifted from a highly centralized Government during the New Order Era to a more decentralized public management. All the laws and regulations related to higher education after the reform are very much dominated by the central idea of giving autonomy to each university to manage their own affairs. This policy is also affected by the international trend, especially in the developed countries where university autonomy is seen as the panacea for improving the quality of higher education and to enhance the performance of the university. Until recently, higher education in India is highly centralized and institutions have very limited autonomy, regardless of their public or private status. Universities have some substantive autonomy in theory while private institutions have more leeway in terms of procedural autonomy. The concept of university autonomy has been debated almost for the past four decades.

Accreditation is compulsory and it is the Government that has the mandate to conduct accreditation on behalf of the public as stipulated in the National Education Law No.20/2003 and Higher Education Law No.12/2012. Therefore, the National Accreditation Board for Higher Education (NABHE or *Badan Akreditasi Nasional Perguruan Tinggi*/BAN PT) has been acknowledged as the single national accreditation agency that is responsible for the accreditation of all universities and all study programs all over Indonesia. BAN PT has also been given a mandate to develop a national accreditation system, accreditation standards, procedures and instruments. Since its establishment in 1995, the accreditation instruments have relied heavily on quantitative input measurements. The weighting for the completed instruments (supporting data) is 90%, leaving only 10% for the self-evaluation conducted by the study programme. This approach has pushed many universities and study programmes to focus on completing the accreditation instruments and providing

the documents and data that are required, rather than implementing the quality improvement process.

Although India has a long history of medical school accreditation which is compulsory by the Medical Council in India, when an independent accreditation agency (NAAC) was set up by the University Grants Commission (UGC) in 1994, it becomes a voluntary process and the final outcome of the process is an overall grade on a multi-point scale and a detailed assessment report, valid for a period up to five years.

Only after there was a sharp increase in the number of higher education institutions (almost 3,000) and study programmes (almost 15,000), did the Government and NABHE decide to provide opportunities for professional organizations to set up independent accreditation agencies. This change was reinforced by the outcry of the academic community who had to have a long queue to obtain accreditation or reaccreditation after passing the due date. This delay was caused by the imbalance between the capacity of NABHE and the rapid increase in the number of higher education institutions and study programmes. However, through the Decree of Ministry of Research, Technology and Higher Education No. 32/2016 on Accreditation and renewed by the Decree of Ministry of Education and Culture No 5/2020 on Accreditation, the Indonesian Government, through the Ministry of Education and Culture, still maintains the discretion to regulate any independent accreditation agency. For example, all of the standards and procedures must be approved by the NABHE. In this context, IAAHEH must abide by the policy of the national accreditation system from NABHE, including the accreditation standards, the procedures and the instruments. This recent development raises the important question: 'What exactly do we mean by an independent accreditation agency?'.

The development in India demonstrated a radical change. The Medical Council of India which was the Government agency was established in 1934. The Medical Council of India (MCI) has its written constitution to deal with medical colleges and hospitals and medical professionals in India. The amendment in the MCI act was also made subsequently in 1964, 1993 and 2001 to ensure the proper functioning of the council. However, in 2006, there was a movement to change the Medical Council Act, along with the findings that the elected members had declined, corruptions and abuse of powers, inefficiency, arbitrariness and lack of transparency (Cueto et al. 2006).

In 2016, a Standing Committee on Health and Family Welfare was set up to investigate the Medical Council of India (MCI). Their reports identified that all members of MCI were only medical doctors, no other representatives from other government and non-government organizations. The Committee observed that the present requirements for establishing a medical college are based only on physical space, infrastructure and rigid faculty requirements and MCI was the sole agency that had the mandate to give permission to set new medical colleges. The fact that MCI also conducted compulsory accreditation for all medical colleges led to a conflict of interest. The Committee observed issues related to corruption in the MCI. Further, it noted that autonomy should be balanced with accountability. As MCI is funded by the government, therefore it should enforce accountability on the MCI.

After a long debate, eventually the decision was approved by most states and after its approval by the Prime Minister, National Medical Commission (NMC) Bill was passed by parliament and approved by President on August 8, 2019. NMC is a new regulatory body to replace MCI with its main function is laying down policies for regulating medical institutions and medical professionals. The membership of NMC includes representatives from various stakeholders, namely Undergraduate Medical Education Board, Postgraduate Medical Education Board, Medical Assessment and Rating Board, Ethics and Medical Registration Board, Directorate General of Health Services, Indian Council of Medical Research, Ministry of Health and Family Welfare. In addition to this, 22 members representing experts, Medical Union and Medical Advisory Council. This new NMC is no longer involved in the accreditation of medical colleges (Doddaiah et al. 2020).

8.9.1 Analysis of the Indonesian and Indian Accreditation System Using Hofstede's Cultural Dimensions

Based on Hofstede's cultural dimension index, Indonesia scores high on the power distance dimension (score of 78) which means that the following attributes characterize the Indonesian cultural style, namely being dependent on hierarchy, unequal rights between power holders and non-power holders, power is centralized, communication is indirect and negative feedback is hidden (Hofstede 2020). It is understandable that although IAAHEH has a strong legal standing as an independent accreditation agency, it is still not as independent as it should be. In terms of accreditation standards, IAAHEH must comply with the formats from NABHE, although health professions have their own standards. An example is the medical profession. The Indonesian Medical Council legally has the authority to approve Standards of Competences and Standards of Medical Profession Education. Both Standards are formulated by a national task force whose members represent the Indonesian Medical Associations and the Association of Medical Education Institutions. The medical profession also has an international organization, namely the WFME, which is a WHO partner aimed to improve the quality of medical education. WFME also issues global standards in basic medical education, postgraduate education and continuing education which are used as references in developing national standards by many countries. Although the Indonesian Medical Council already approved the Standards of Medical Profession Education in 2006 and 2012 which referred to the WFME standards, still the accreditation standards used by IAAHEH are the ones developed by NABHE. Consequently, the accreditation instruments follow the standards that are used, and must be approved by NABHE as well.

India has a similar score of power distance which is 77. It is clear that Indians are dependent on the boss or the power holder for direction (Hofstede 2020). The dissolution of the Medical Council of India in 2019 demonstrated the high power of the

Government and the diminishing power of civil society represented by the professional organization. The Indian Medical Association (IMA) has not been directly involved in medical regulation, albeit its long-standing existence since 1928. They are also not represented in the New National Medical Commission (NMC). Other professional organizations accept the unequal rights between the power-privileged and those who are not. Real Power is centralized and lay in the Ministry of Health and Family Welfare.

From the above cases, we can observe how the power distance in Indonesia has diverted the true intention of having a quality assurance system. This follows the explanation at the beginning of this chapter that a quality assurance system is defined as 'fitness for purpose'. In the context of health professions education, the 'purpose' is to improve the health status of the community which has been mandated. Health professions education institutions—having been granted at least an academic autonomy by the Higher Education Law—are supposed to have the freedom to gear their vision and mission to meet the society's health needs, and to develop education, research and community services in accordance with their own vision and mission. Having a high score of power distance where leaders are the main directive and power is centralized, the health professions education institutions tend to obey—or even demand the ministerial decrees—to direct and to guide them in almost every aspect of academic activities. Perceiving that higher education institutions are subordinates of the Ministry of Education and Culture, they consciously choose to accept being controlled by the higher authority. Similarly, the Ministry of Education and Culture with its own bureaucratic powers tends to maintain tight controls over the academic life of higher education institutions. A number of guidelines, directives and instructions issued by the Ministry of Education and Culture reflect this relationship of superior-subordinate. In this high-power distance culture, the regulations established concerning university autonomy and academic freedom are practically ambiguous.

Since the MCI was dissolved in 2019, accreditation of medical colleges is conducted by National Assessment and Accreditation Council (NAAC) which was established in 1994 by the UGC. At the programme level, accreditation by NAAC is voluntary, including for medical education programmes; but for higher education institutions it is mandatory. The instruments used are mostly quantitative measures with a scoring system.

Such a high-power distance as shown in Indonesia and India obviously has an impact on how the accreditation system is implemented. Quality—whatever definition is used—always demands autonomy because quality needs creativity and freedom to strive for the best outcome in order to achieve the vision. A program or a higher education institution needs to have a considerable discretion to be able to fully execute the Plan-Do-Check-Act (PDCA) cycle consistently, resulting in a continuous quality improvement. In Indonesia, the high-power distance has urged the adoption of an 'obedience' mentality and the acceptance of 'centralized bureaucratic power' that controls the university. This situation is similar to India.

Although by regulation, NABHE and IAAHEH are supposed to operate independently of Government intervention, still they are obliged to comply the Ministerial Decree No.32/2016 which was renewed in the Ministerial Decree No.5/2020 on Accreditation. From the perspectives of the education institutions and the study programmes, they perceive NABHE and IAAHE are representing the Government in an effort to control them. A similar situation occurs in India where the Government established National Assessment and Accreditation Council (NAAC).

Therefore, the design of the accreditation system in Indonesia as well as in India demonstrates this 'obedience or compliance' attitude. This is reflected in the accreditation standards, procedures and instruments, where the quantitative approaches have been adopted for each sub-criteria with certain weightings. In spite of the fact that the assessors have to complete the qualitative narrative for each sub-criteria before they assign a score, but due to the limited time to verify all the sub-criteria during the site visits, in order to get enough data for narrative reports, the assessors tend to focus on giving scores for about 170 sub-criteria. The Excel application calculates automatically the total scores and concludes to which category the study program or the institutions are placed. In the old system, the category of the accreditation results was A for the score of 361–400, B for 301–360 and C for 200–300. The new system replaces A with excellence, B with very good and C with good.

The 'obedience and compliance' behavior has impacted the implementation of the internal quality assurance system within both the institutions and also the study programs, which is supposed to be the basis for an external quality assurance system through accreditation. Institutions or study programs regard the accreditation as a necessary formality, and as long as they can demonstrate compliance to the criteria and sub-criteria, they can survive the accreditation. In order to get the best status they can, manipulation of data and interpretations are commonly found. In some cases, evidence and documents are created instantly for the purpose of meeting the description of the sub-criteria.

According to Hofstede's cultural dimension index, Indonesia scores (46) and is thus considered low Masculine—although it is not too low to be considered a feminine culture. In Indonesia, status and visible symbols of success are considered to be the most important. Often it is the position that a person holds which is more important to them because of an Indonesian concept called '*gengsi*'—loosely translated to mean, 'outward appearances' or 'outward reputation'. It is important that the '*gengsi*' be strongly maintained thereby projecting a different outward appearance aimed at impressing and creating the aura of elevated status. This can be seen in the proactive behavior to obtain the 'A' accreditation status as 'a *gengsi*' of the institution, rather than the 'true achievement'. India's masculine score index is 56 which is higher than Indonesia. The fact that in MCI rampant corruptions were discovered has shown that the society values material gains as the measure for success.

Concerning the uncertainty avoidance score, Indonesia scores 48. Indonesia thus has a low preference for avoiding uncertainty. This means that there is a strong preference in Indonesia towards the Javanese culture of separation of internal self from external self. When a person is upset, it is habitual for the Indonesian not to show any negative emotion or anger externally (Hofstede 2020). They will keep

smiling and be polite, no matter how angry they are inside. This attitude also means that maintaining workplace and relationship harmony is very important in Indonesia, and no one wishes to be the transmitter of bad or negative news or feedback. This kind of behavior is contradictory to the value of quality assurance where people are expected to be honest and descriptive about their achievements and what needs to be improved. Quality is about achieving the shared vision in the future which is better than the current state. Along the way during the journey moving towards the vision, it is rational to have obstacles, problems, and difficulties. But the Indonesian culture hinders people from honestly self-evaluating their achievements and identifying the true weaknesses that need to be changed, albeit the self-evaluation is very important in quality assurance—both internally and externally. Direct communication as a method of conflict resolution is often seen to be a threatening situation and one with which most Indonesians are uncomfortable. In this cultural situation, it is difficult to take self-evaluation seriously if a program or institution intends to achieve its vision, mission and objectives, even though the results of self-evaluation are used for targeting the improvement efforts. The weighting for Self-Evaluation Report for the total score which is only 10% for study programs and 15% for institutions has forced programs and institutions to disregard conducting self-evaluation sincerely. Again, self-evaluation is treated as 'a ritual' and in some cases, a puppet charade.

India's score for uncertainty avoidance is 40. Rules are often in place just to be circumvented and one relies on innovative methods to 'bypass the system'. A word used often is 'adjust' and means a wide range of things, from turning a blind eye to rules being flouted to finding a unique and inventive solution to a seemingly insurmountable problem. It is this attitude that is both the cause of misery as well as the most empowering aspect of the country. There is a saying that 'nothing is impossible' in India, so long as one knows how to 'adjust' (Hofstede 2020). This situation could be found in MCI. Although, the Medical Council Act already provided the rules on how to run the Council, these rules were bypassed resulting in corruption and abuse of power.

8.10 Reflection of Accreditation System in Different Cultural Context

From the two case studies presented, the USA and Indonesia, we can conclude that depending on the cultural context as analyzed using Hofstede's Cultural Dimension, the implementation of quality assurance concepts, the effect on the programme and institutional changes towards quality improvement, and the impact for graduates and societies can be different; yet what matters in assessing any achievement should be evidence-based. The USA and Canada, Indonesia and India demonstrate two countries with opposing cultures that have developed different accreditation systems. A comparison is depicted in Table 8.1.

Table 8.1 Comparison between the USA and Canada versus Indonesia and India accreditation system

Characteristics of the Accreditation System	USA and Canada	Indonesia and India
Initiator	Association of American Medical Colleges (AAMC) and American Medical Association (AMA)	Government
Enactment	Agreement/Consensus among member representatives	Higher Education Law and Ministerial Decrees for Indonesia Medical Council Act for India, later changed by National Medical Commission Bill
Type of Organization	Non-government	Quasi-government for Indonesia and Government for India
Answerable to	Member representatives	Government
Feature	Volunteer	Compulsory for Indonesia and India. Starting in 2020, it is voluntary for India
Assessors	Volunteer	Paid contract
Standards	Developed by the Accreditation Agency (LCME) established by the AAMC and AMA for USA Canada apply the same standards	Developed by the Indonesian Medical Council and NABHE For India, initially by the Medical Council of India, later by the NAAC
Accreditation fee	None (funding from membership fee)	NABHE is funded by the Government, IAAHEH is funded by accreditation fee (around 7,000 USD) MCI used to be funded by the Government. NAAC is funded by the Government
Direct Government control	Almost none	Very strong
Basis	Principle-based	Rule-based
Methods	Self-regulation and Peer review	Compliance-based and control
Main document for desk evaluation	Self-evaluation Report	Completed instruments for supporting data and their attachments
Data gathering approach	Qualitative narrative using open questions, asking for input, process and output	Quantitative—focusing on inputs
Purpose	Continuous quality improvement	Compliance with criteria and sub-criteria
Accreditation status	Accredited for certain years and not accredited	A, B and C (Excellence, Very Good, Good)
Post accreditation	Monitoring	Survey

(continued)

Table 8.1 (continued)

Characteristics of the Accreditation System	USA and Canada	Indonesia and India
Use	Eligibility for Government Programs and for further study	Eligibility for Government Programmes, for job requirements and for further study

The accreditation system was initially developed in the USA before spreading to all over the world. Indonesia and other countries from different cultural and historical backgrounds should adjust their concepts and procedures before deciding to apply the accreditation system.

8.11 Summary: Culturally Sensitive Accreditation System

It is important to avoid uniformity of concepts, policies and procedures when we deal with internal and external quality assurance system. The concept of Social Accountability could be taken into consideration when designing an accreditation system for a particular country. Accreditation—as an external quality assurance—is not only meant for checking the compliance against predetermined standards, but equally, the accreditation process could be aimed at higher purposes and beyond the confines of a higher education institution.

Bearing in mind the unique characteristics of health professions education as explained in the previous sections, it is paramount to always consider that health professions education and health services are inseparable. We cannot conduct health professions education without the involvement of health services, and by the same token, we cannot deliver proper health services without the involvement of academicians and students. The recently proposed idea of redefining quality and accreditation as proposed by Boelen et al. (2019) is very relevant in this circumstance. Medical and health professions schools are the prime health stakeholders with strong potentials to mobilize resources towards improved health community. Quality in health professions education needs to be redefined as the institutional and program capacity to identify the current and future health needs of the society, to gear their vision and mission to adjust with the health needs and to monitor the effects of relevant actions towards meeting those needs (Boelen et al. 2019).

In the cultural context of Eastern developing countries, such as Indonesia and India, for the accreditation to be fully functioning as the policy instruments for quality improvement and improvement of population health, quantitative input-based approach needs to be mitigated. All supporting data for each standard does not necessarily require re-input and is to be attached in the documents. We need to build trust that institutions and study programmes have the good intention to gather and maintain their own academic data. The accreditation system should be designed in such a way

that it allows for more dialogues, communication and feedback between the accreditation agency and the institutions or the study programs. The provision of detailed and appropriate feedback will be more meaningful for the study programs in order to gradually make changes and improvement. Self-evaluation needs to be redefined and to use the commonly expressed language in a more supportive and cogent manner. Empirically, the accreditation system should rely on the Self-Evaluation Report. The institutions and the programs are convinced that Self-Evaluation is their need and should be used in accordance with their own needs. The rigid quantitative calculation for each sub-criterion must be limited, because such methods would divert the attention of the institutions and the program from the real purpose of accreditation to only just obtaining the scores and accreditation status.

Accreditation is about regulation and regulating means controlling. It is important to have a balance of power in regulation and control. Too much leaning on the government side might disempower the civil society which is needed in modern society. On the other hand, too much power in the civil society might lead to abuse of power by strong and dominating individuals in the organization.

Concludingly, the accreditation system that is developed in developing countries with high power distance and low uncertainty avoidance should make maximum use of those motivated in adapting the accreditation standards to the priority health needs of society and incite those in a power position to facilitate the implementation of proposed changes to install new 'honor system'.

There must be a global awareness that we may all be aiming at a same goal. That is why the recently established International Social Accountability and Accreditation Think Tank (ISAATT) has set as objective to

> *"Create a momentum towards a global initiative to ensure accreditation systems of medical schools are designed and used to better respond to priority health needs and challenges of societies today and in the future."*

Key Learning Points

- Medical and health professions education has social accountability to the society they have a mandate to serve.
- Definition of quality for medical and health profession education should be geared towards fulfillment their social accountability.
- Accreditation in high power distance and low uncertainty avoidance should make maximum use of benchmarking through role modeling.

References

Blouin D, Tekian A (2018) Accreditation of medical education programs: Moving from student outcomes to continuous quality improvement measures. Acad Med 93(3):377–383. https://doi.org/10.1097/ACM.0000000000001835

Boelen C, Blouin D, Gibs T et al (2019) Accrediting excellence for a medical school's impact on population health. Educ Health 32(1):41

Boelen C, Heck J (1995) Defining and measuring the social accountability of medical schools, No. WHO/HRH/95.7. Unpublished, 1st edn. World Health Organization

Boelen C, Woollard B (2009) Social accountability and accreditation: a new frontier for educational institutions. Med Educ 43(9):887–894. https://doi.org/10.1111/j.1365-2923.2009.03413.x

Brittingham B (2009) Accreditation in the United States: how did we get to where we are? N Dir High Educ 145:7–27. https://doi.org/10.1002/he.331

CACMS (2014) The role of students in the accreditation of medical education programs in Canada. https://docplayer.net/1489273-The-role-of-students-in-the-accreditation-of-medical-education-programs-in-canada.html

Cappon P, MacDonald N, McMurtry R (2001) Social accountability: a vision for Canadian Medical Schools. Institute for International Medical Education, Ottawa. http://www.iime.org/documents/hawkins.htm

Cassie JM, Armbruster JS, Bowmer MI et al (1999) Accreditation of postgraduate medical education in the United States and Canada: a comparison of two systems. Med Educ 33(7):493–498. https://doi.org/10.1046/j.1365-2923.1999.00444.x

Chatibwarsa U (2020) Social accountability and accreditation of IAAHEH (LAMPTKES) to improve access on quality of study programme in health in Indonesia. Indonesian Accreditation Agency for Higher Education in Indonesia (IAAHEH/LAM-PTKES), Jakarta

Connolly KK, Blanchette PL, Hedges JR (2017) Medical school hotline: John A. burns school of medicine receives continued full accreditation by the Liaison Committee on Medical Education (LCME) for the maximum accreditation period of eight years. Hawai'i J Med Public Health: J Asia Pac Med Public Health 76(10):287–289

Cooke M, Irby DM, Sullivan W (2006) Medical education: American medical education 100 years after the flexner report. N Engl J Med 355(13):1339–1344. https://doi.org/10.1056/NEJMra055445

Cueto J, Burch VC, Adnan NAM et al (2006) Accreditation of undergraduate medical training programs: practices in nine developing countries as compared with the United States. Educ Health: Change Learn Pract 19(2):207–222. https://doi.org/10.1080/13576280600783570

Dezee KJ, Artino AR, Elnicki DM et al (2012) Medical education in the United States of America. Med Teach 34(7):521–525. https://doi.org/10.3109/0142159X.2012.668248

Doddaiah S, Bhat D, Hathur B et al (2020) Assessment and accreditation of a medical college by national assessment and accreditation council: an overview. Int J Adv Med 7(2):354. https://doi.org/10.18203/2349-3933.ijam20200093

Eagle RH (2017) Academic quality and public accountability in academic medicine: The 75-year history of the LCME. Association of American Medical Colleges

El-Khawas E (2001) Accreditation in the USA: origins, developmentsand future prospectsitle. https://unesdoc.unesco.org/ark:/48223/pf0000129295

GCSA (2010) Global Consensus for Social Accountability of Medical Schools (GCSA). http://healthsocialaccountability.org

Hofstede G (2001) Cultural consequences: Comparing values, behaviours, institutions, and organizatis across nations, 2nd edn. Sage Publications Inc., California, USA

Hofstede G (2020) Compare countries. https://www.hofstede-insights.com/product/compare-countries/

Hofstede G, Hofstede GJ, Minkov M (2010) Culture and organization software of the mind: Intercultural cooperation and its importance for survival, 3rd edn. McGraw Hill, New York

Irby D (2011) Educating physicians for the future: Carnegie's calls for reform. Med Teach 33(7):547–550. https://doi.org/10.3109/0142159X.2011.578173
Kassebaum DG (1992) Origin of the LCME, the AAMC-AMA partnership for accreditation. Acad Med J Assoc Am Med Coll 67(2):85–87
LCME (2020) Function and structure of medical school. https://www.aamc.org
Marzuki P (2016) Case Study 24.5: Establishing a quality assurance system of medical education in Indonesia. In: Abdurahman K, Mennin S, Harden R (eds) International handbook of medical education. Routledge, London, pp 340–342
Mustika R, Nishigori H, Ronokusumo S et al (2019) The odyssey of medical education in Indonesia. The Asia Pacific Scholar 4(1):4–8. https://doi.org/10.29060/taps.2019-4-1/gp1077
Quintero GA (2014) Medical education and the healthcare system—why does the curriculum need to be reformed? BMC Med 12(1):1–4. https://doi.org/10.1186/s12916-014-0213-3
Schein EH (2016) Organizational culture and leadership, 5th edn. John Wiley and Sons, New Jersey
Schraeder M, Self D (2003) Enhancing the success of mergers and acquisitions: an organizational culture perspective. Manag Decis 41:511–512. https://doi.org/10.1108/00251740310479359
Shilliday G (1983) Accrediting Canadian medical schools. Can Med Assoc J 128(8):985–986
van Zanten M, Boulet JR, Greaves I (2012) The importance of medical education accreditation standards. Med Teach 34(2):136–145. https://doi.org/10.3109/0142159x.2012.643261
Vlasceanu L, Grunberg L, Pârlea D (2007) Quality assurance and accreditation: a glossary of basic terms and definitions. Unesco-Cepes, Bucharest, p 25
WHO (1978) Declaration of Alma Ata. https://www.who.int/publications/almaata_declaration_en.pdf

Chapter 9
Leading Health Profession Educational Programs for Better Health Care Services

Dujeepa D. Samarasekera, Jillian H. T. Yeo, and Henal Shah

Abstract As disease trends, health economics, and services are rapidly and globally changing, the training of the workforce needs to evolve to match the requirements. This change entails that besides clinical skills, health professionals require strong leadership skills to strategize and manage educational reforms. However, the roles and the context of practice can be very different when one compares educational leadership and hospital leadership in health professionals. In this chapter, readers will explore the three focus areas of leadership in medical education—policy development, academic development, and practice management. We will define the fundamental leadership theories and management styles. With the application of Hofstede's theory, investigate the influence of culture on how leadership and management are conceptualized in the local context. Finally, the chapter will propose a framework for leadership training in medical education.

The original version of this chapter was revised: The incorrect citation has been changed from "(Pihlainen et al. 2016)" to "(Middlehurst and Elton 1992)". The correction to this chapter is available at https://doi.org/10.1007/978-981-16-7232-3_14.

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9.1 Introduction

9.1.1 The Importance of Leadership in Medical Education

> *To lead people, walk beside them. As for the best leaders, the people do not notice their existence … When the best leader's work is done, the people say, 'We did it ourselves!'*
>
> —Lao Tsu, Chinese philosopher

Nurturing and developing leaders with the relevant and effective core skills are critical to maintaining a high-quality learning environment for students and residents in medical and health professions education. The focus of many educational programs globally as well as studies on effective leadership skills are becoming common due to its importance in recent times.

Strategizing and managing these educational reforms need excellent leadership capabilities. The health professional leadership is ultimately to improve and provide better care to patients and communities as stated by the World Health Organization in 2008. For this to occur, we must transform our educational and training environments to develop the next generation of practitioners who could adapt and adopt to diverse practice conditions.

Many high-performing academics, health professionals, and administrators discover during their career, the challenge of leading a strategically significant transformation program. The need becomes critical when the institution needs to move in a new direction, reform the curriculum/program accelerate management innovations with reduced costs, and improve university rankings by competitive positioning.

Leadership in academic medicine or health professions is an area of study within educational scholarship as discussed by Middlehurst and Elton (1992). They identified three main areas of focus in academic leadership. These are educational policy development, academic development, and practice management. Policy development in academic leadership is crucial for setting a good vision and a strategy for the institution or the program. The policy may also focus on international and national level learning environments. This involves a stepwise engagement and data collection such as conducting a needs analysis, identifying the key personnel in leading the different areas of the policy development, gathering information, developing the first draft, engaging with the stakeholders to get their feedback on the draft policy, finalizing and implementation as well as evaluating the implementation. The second area in leadership is the academic development. This involves developing faculty members and promoting academic collaboration in education, research, services as well as communicating clearly with the persons concerned and public on academic-related matters. The final and third area is the administrative role of an academic leader. This focuses on developing processes in the institution to establish and maintain reliable, efficient systems that would lead to increased responsibility and accountability of the individual and the collective. The administrative leadership also involves matters relating to the well-being of the persons in the institution and includes activities

Fig. 9.1 Medical education leadership focus areas

and resources that would create a safe and conducive working climate that would motivate the staff (Fig. 9.1).

One area of interest is that until recent times academic leadership in health professional education was not featured as much as the leadership in hospital and healthcare facilities management. More focus was given to the development of knowledge, skills, abilities, and attitudes necessary for managerial or leadership levels in hospitals or similar caregiving settings (Middlehurst and Elton 1992).

9.2 Leadership in Medical Education in the Twenty-First Century

Today's practitioners need the ability to think globally, be aware of trends and adapt them to their local context. It is also imperative that they are equipped to face rapid changes, diverse conditions and teams. Creating nurturing environments for students and trainees to develop skills and attributes aligned to twenty-first century needs requires our universities and healthcare institutions to transform, a collective vision and strong leadership (Soffel 2016). For these qualities to develop, one needs to provide a clear framework for leadership development based on best evidence to support the faculty. Despite the increasing emphasis in recent times on educational leadership in medical education, most of the efforts have been on the leadership development of healthcare professionals in hospital settings. The roles and the context of practice can be very different when one compares educational leadership and hospital leadership in health professionals. In a systematic review carried out by Pihlainen et al. (2016) and Berghout et al. (2017) on leadership in health services, only two articles were related to educational leadership in medical education. Another significant feature is that published literature and the frameworks used are from Western settings such as Canada, the United States of America (USA), Switzerland, Germany, and Austria. There is a need to increase the work of educational leadership in medical education (Lieff and Albert 2010; Nordquist and Grigsby 2011), especially in Asian

settings where the socio-cultural context can be very different (Groysberg et al. 2018). This can also play an important part where leadership in some settings is described as leader-centered perspectives (Citaku et al. 2012; Sanfey et al. 2011) and cultural-centered perspectives (Jippes et al. 2013; Lieff and Albert 2010). Transformational leadership and Bolman and Deal's (Bolman 1991) leadership framework are examples of leader-centered perspectives and cultural-centered perspectives, respectively. This chapter will explore the key leadership theories and management styles as well as explore how cultural influences could affect the way we conceptualize leadership and management. We will also discuss some of the core competencies required in medical education leadership as well as the approaches that could be taken to mitigate the challenges posed.

9.3 Leadership Versus Management

It is important to understand the differences between leadership and management. Leadership is the process of influencing others to attain a common goal through developing a common vision. On the other hand, management focuses on the efficiency of an organization. It is concerned with the allocation and organization of resources such as labor, time, funding, and maintaining stability within the organization (Bush and Middlewood 2005; Middlehurst and Elton 1992).

While there can be some key differences between the key attributes of good leaders and managers and their approaches to work, there are also some similarities and synergies to achieve the common goals of the institution as depicted in Fig. 9.2.

Fig. 9.2 Characteristics of the leader and manager

9.4 Leadership

As we look ahead into the twenty-first century, leaders will be those who empower others.
—Bill Gates, co-founder of Microsoft

Developing the relevant academic leadership characteristics in medical and health professional education, as shared in the introduction is the key to develop innovative learning environments to equip our students and trainees to face practice challenges of the twenty-first century. A leader in a learning institution should have the ability to influence a group of followers to achieve a common goal or vision. An effective leader shows several attributes that help to inspire and influence their followers. First, they build "Trust" among the key stakeholders. The followers are willing to take risks and engage in new strategies when they know that their leader is supportive and dependable. This is key in developing Communities of Practice (CoP) where the followers focus on achieving the leaderships vision by developing engaging, effective, and trusting networks (Tschannen-Moran 2014).

Another key academic leadership character is "Empowerment" of their followers. This is done by identifying the right persons to be in the team and delegating the tasks appropriately, focusing on their strengths and further building on these, monitoring through oversight to provide constructive feedback to the followers and teams and develop a culture of recognition and reward for achievements. Empowerment of follower teams occurs when a leader engages in these behaviors (Whitaker 2020) (Fig. 9.3).

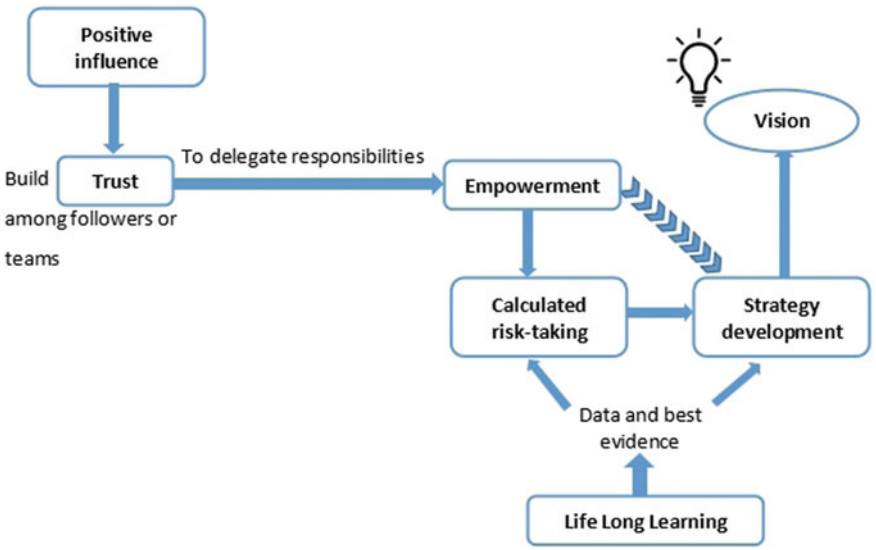

Fig. 9.3 Characteristics of a good leader

A good academic leader will also shape their vision and the strategy for the organization based on contemporary best evidence and data. For this, they are people who constantly learn and are excellent examples of lifelong learners. Furthering their knowledge and skills, being passionate about their work and engaging in lifelong learning are inherent characteristics of a good leader in academic settings (Taylor 2014).

Finally, another important characteristic is that they take calculated risks and lead by example for their followers. Setting an example is a strong motivator for the follower teams and for them to take similar approaches when they engage in tasks to achieve the final goal for the institution (Schrage 2016).

9.5 History of Leadership Theories

In order to appreciate the characteristics and the current leadership models better, we would like to discuss briefly the theories underpinning academic leadership and their gradual adaptions and evolutions to modern-day leadership models.

9.5.1 Early Leadership Theories

"Lead me, follow me, or get out of my way."
—General George Patton

9.5.2 "Great Man" Theory

The "great man" theory was popular in describing leadership in the late nineteenth and early twentieth centuries. This theory assumed that a leader possesses certain specific qualities inherent to the person, in particular, characteristics such as charisma, intelligence, and dominance. These leaders assumed to have such qualities from time of birth and developing and assuming such qualities later on in life were not possible (Gumus et al. 2016; Kirkpatick and Locke 1991; Madanchian et al. 2016).

9.5.3 Trait Theory

The trait theory evolves from the "great man theory" whereby the development of specific leadership qualities could be assumed either inherently or can be developed later on in life. This focuses on a variety of personality traits and characteristics that are linked to successful leadership in different contexts of practice (Gumus et al.

2016; Kirkpatick and Locke 1991; Yukl 1989, 2011). The trait theory has received renewed interest in recent years with the possible use of tools to identify potential leaders within the organization (Goleman 2000; Judge et al, 2002; Northouse 2019).

9.5.4 Behavioral Theory

The development of behavioral theory was due to criticism about the trait theory. The behavioral leadership theory focuses on one's ability to learn from other successful leaders and be trained to be good leaders. This is a major departure from the previous two theories where the major assumption was that good leadership is inherent to the person from birth. Behavioral theory categorizes the behavior of an effective leader into four categories: task-oriented, relational-oriented, change-oriented, and passive leadership (Derue et al. 2011).

9.5.5 Situational Leadership Theory

The situational leadership theory challenges both trait and behavioral leadership theories. It asserts that there are no ideal qualities or behaviors that would define a leader in all contexts and situations. Instead, an effective leadership practice is dependent on the current situation (Adair 1973; Hersey et al. 1982).

9.5.6 Current Leadership Models

> "Before you are a leader, success is all about growing yourself. When you become a leader, success is all about growing others."
>
> —Jack Welch, former GE chairman and CEO.

As described earlier, from the 1950s onward, there is a gradual shift of focus from theories defining inherent traits in leaders to developing their behaviors. We would be discussing a few models currently used in medical and health professional education.

9.5.7 Managerial Leadership

Managerial leadership is an interesting model that was developed in the 1970s. This requires leaders to focus on tasks and behaviors. The model describes how a manager

could fit into a leadership role without taking up a leadership position in an organization hierarchical structure. Authority is allocated among workers through formal positions in a bureaucratic hierarchy (Leithwood 1999; Watkins 2012).

9.5.8 Transactional Leadership

The transactional leadership model leans toward a more structured management model. It can be described as a model with a strong formal authority who delegates the task to their subordinates. Transactional leadership leverages the existing organizational structure and evaluates success based on the organizational matrix. Transactional leaders have formal positions and authority in an organization. Individuals operating within these organizations are motivated by the organization's systems of rewards and penalties. This model of leadership works well in large academic organizations with branches in many places with linear work processes (Avolio et al. 1999; Howell and Avolio 1993).

9.5.9 Distributed Leadership

The distributed leadership is based on the notion that no one individual is an ideal leader in all situations and contexts. As such the leadership approach is informally distributed and dispersed. This suggests a more collaborative and inclusive approach to leadership. Distributed leadership is seen in many medical education training settings during curricular or organizational reforms where experts lead the changes and reforms in the organization creating opportunities to build a strong network of community. The main focus is on working with each other's strengths and expertise to achieve the set goals rather than individual leadership roles or traditional leadership responsibilities (Hargreaves et al. 2014; Harris 2013; Leithwood et al. 2009).

9.5.10 Servant Leadership

Contrary to most leadership models, servant leadership takes a bottom-up approach. Greenleaf's theory of servant leadership follows the notion that leaders are committing to serving their followers (Greenleaf and Spears 2002). This can be via fostering, nurturing, and nourishing followers in the organization to become their best possible self. A servant–leader could be an individual or the organization itself and concentrate to develop the well-being of people and the communities to which they serve (Cerit 2009).

9.5.11 Transformational Leadership

Transformational leadership is a widely used model in recent times. It addresses how organizations are led in times of change. Transformational leadership is described as one that has clear vision and values; motivating followers to achieve long-term goals by aligning their personal values to that of the organization, which can inspire positive changes in those who follow. Some of the major attributes of a transformational leader are being active, eager, and passionate. The key of transformational leadership is that the leader actively assists their followers to develop and succeed as well. (Allen et al. 2016; Bass and Avolio 2000; Choi et al. 2016).

9.6 Types of Management Styles

"What's measured improves"
—Peter F. Drucker.

Management styles refer to the approach or behavior that one uses during their interaction with others to complete a task. The focus of management is to improve efficiency with the organization or the academic program. Good problem-solving skills, clear decision-making, and clarity in communication are important for a good manager. It is useful to note that is not one best style or way to manage people. Instead, it should adapt based on the context and situation.

9.6.1 Formal Management

The formal management model views organizations as a bureaucratic structure with many levels of hierarchies. Therefore, decision-making processes tend to concentrate on the upper management where they are expected to have greater expertise and would, therefore, hold more power (Weber et al. 2012).

9.6.2 Collegial Management

Collegial management can be described as the normative, shared power across all stakeholders of an organization. This follows the principle of collaboration, and stakeholders are expected to have common visions and values. Collegial management can be used in organizations such as tertiary institutions whereby stakeholders are well informed and professional; and would be able to contribute to the decision-making process (Hargreaves 2003).

9.6.3 Political Management

In political management, the decision-making processes are influenced by the organization's association with certain groups or alliances. Therefore, organizations may deviate from their institutions' goals and vision (Hoyle 1986).

9.6.4 Subjective Management

The subjective management model is described as one by which each individual would influence the decision-making processes in the organization. Individuals would have their own thoughts and perspectives based on their backgrounds and values. These subjective perceptions would lead to different interpretations of every aspect of the organization (e.g. structure, processes, and people) (Bush 2013).

9.6.5 Ambiguity Management

The ambiguity management model describes the decision-making process as a fluid process. This can be due to unclear goals, systems, and processes. Therefore, individuals may either be unaware of the rights they have or choose to opt-in or out of the decision-making process (Cohen et al. 1986).

9.6.6 Cultural Management

Cultural management of an organization relies on each individuals' values and norms. These values and norms are emphasized through symbols or traditions within the organization. A strong organizational culture is critical to the organization as it creates a sense of identity among the individuals within the organization (Schein 2004).

9.7 Followership

"Followers are more important to leaders than leaders are to followers."—Barbara Kellerman

The early definition of followership is the willingness to follow a leader. However, this is not a true reflection of followership in medical education. While followership may be difficult to define, it is dependent on who they follow, which would affect the engagement or influence they have. Followers are often overlooked but for

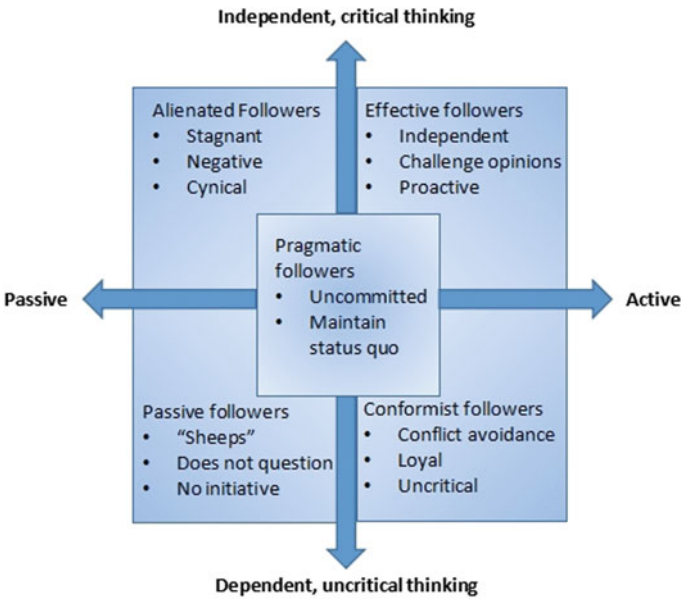

Fig. 9.4 Robert Kelley five followership model (Kelley 1988)

leaders to be successful, they would need effective followers. Kellerman, in the 2008 article, Followership: How Followers Are Creating Change and Changing Leaders, has described five types of followers based on their active or passive engagement and dependent, uncritical thinking or independent, critical thinking abilities. Figure 9.4 shows these five types below.

A leader must devote her/his efforts to develop a set of followers who are good followers with active engagement, independent and critical thinking abilities to support the leadership in achieving the vision. As discussed earlier, the key is for the leader to build trusting relationships with the followers. This can be achieved by having a regular discourse with the followers to further improve clarity of vision, encourage the followers to ask challenging questions as well as to prompt them in asking such questions, seek timely feedback as well as appreciate their contributions. Delegating responsibilities and using the followers' expertise to enhance and refine the vision will also strengthen the trust thereby the bond between the leader and follower. Having an intelligent active set of followers can enhance the leader's skills by shaping their thinking to further refine and improve the vision and strategy (Gibbons and Bryant 2012; Kellerman 2008; Kelley 1988; McKimm et al. 2017).

9.8 Culture and Context

"Culture is like the wind. It is invisible; yet its effect can be seen and felt."
—Bryan Walker

Earlier in the chapter, we have iterated the importance of leadership in medical education and described the different types of models of leadership and management. It is important to consider leadership within the context of culture, hierarchy, and collectivism of a particular country or organization when focusing on developing leadership in medical education. In an academic or practice work environment, influence of both the societal and organizational cultures on the leadership and, in turn, the leadership's engagement with the followers and faculty sets the pace for achieving the vision as well as the performance. Sometimes, in academic institutions following global trends and due to pressure to move up academic ranking, leaders tend to ignore cultural influences and incorporate foreign practices that could be alien to the faculty. This can lead to negative consequences and even be detrimental to achieving the institutions' long-term goals (Chamorro-Premuzic and Sanger 2016; Khan and Law 2018; Schneider 1989).

The Hofstede theory was developed as a framework to correlate six different dimensions of cultures across societies (Hofstede). This could be used as a framework to understand both the societal and organizational cultures when focusing on developing leadership capabilities and strategies within an institution. The six dimensions are listed below:

1. Power distance index: Determines the extent of inequality and power
2. Uncertainty avoidance: The society's tolerance for ambiguity
3. Individualism versus Collectivism: The degree by which individuals are integrated into groups
4. Masculinity versus Femininity: The distribution of masculine and feminine values as a society
5. Long term versus Short term: The society's value on the future
6. Indulgence versus Restraint: A society's desire for needs or gratifications.

The countries' scores on the dimensions are relative to each other and scores would only be meaningful when they are compared against each other.

In addition, it has also been noted that the patterns of interactions between students and teachers may be affected by other dimensions. Hence, one from an individualistic society may not display the expected patterns of behavior.

9.9 Power Distance Index

Individuals from a society with a larger power index (e.g. Malaysia—100%) would observe that individuals with less power to rely more on those with more power

for direction (Hofstede 2007). To place it in the context of medical education, in such societies, a more unidirectional transaction would take place. This is whereby a teacher would be seen as one who provides students with information or the followers expecting the leadership to craft a vision and a strategy for the institution.

This could be compared to a society with a lower power index (e.g. United States—40%). In such societies, the organizational structures are expected to be flat and non-hierarchical (Hofstede 2007). One would expect to observe a more participative style of management and a more multidirectional transaction to occur. In the context of medical education, the teacher would perhaps facilitate a discussion instead (Hofstede 1986).

Given the stark differences in environments between societies with higher or lower power distance indexes, the types of leadership models adopted by the respective societies would differ. A more transactional or managerial leadership approach may be appropriate for a society with a higher power distance index. Instead, a distributed or transformational leadership approach would be more applicable to a society with a lower power distance index (Faucheux et al. 1982; Jamieson and Thomas 1974).

9.10 Individualism Versus Collectivism

This dimension aims to measure the extent to which individuals view themselves as individuals or as a group. In societies with a low index (e.g. Singapore—20% and Malaysia—26%), individuals in such societies view themselves collectively as a group, clan, or family. Students who have originated from a society that is more collectivistic may place greater importance of the success and harmony of the team. A more collectivistic society could instill levels of hierarchy defined by age and gender, and this could perhaps influence a student's behavior in class. Students from a more collectivistic society might be more reserved and less likely to share their thoughts in a classroom setting (Hofstede 1986).

Individuals from a society with a higher index (e.g. United States—91% and United Kingdom—89%) tend to view themselves as individual units. Members of these societies tend to care for themselves or immediate family members. As such, there is less emphasis on hierarchies, and communications are expected to be loose and free-flowing. Students who have originated from these societies tend to be more forthcoming with their thoughts in a classroom setting. There is also a tendency to solve problems on their own as such societies promote independency (Garratt and Stopford 1980).

Leaders from an individualistic society would tend to take a distributive approach. Decision-making processes would be less centralized as there is less hierarchy within organizations and a more open communication between individuals. Leaders from a more collective society might take a more top-down approach whereby decision-making would be more centralized. A leader from a more collectivistic society would also tend to make decisions in the interest of the welfare of the group or clan as a whole.

9.11 Leadership Learning

"*Leadership and learning are indispensable to each other*"
(John F. Kennedy, 35th President of the United States).

One of the crucial facts about leadership in healthcare is that it can be learnt, and there exist various programs that engage in this. The focus of programs has varied from undergraduate, postgraduates to junior, and senior faculty. There are courses, workshops, and certificate degrees. The training may be curricular or co-curricular. Their orientation, philosophy, pedagogies used may vary; however, most of them have an impact albeit of varying degrees. Since leadership training is required in all health care workers, a model syllabus should aim to be interdisciplinary. The program should ensure the development of universal skills and individual growth. Many competencies have been described in literature. Ladhani et al. suggest these can be simplified as (Ladhani et al. 2015):

1. Understanding self
2. Leading and managing
3. Understanding health systems.

Research has identified factors contributing to the success of a leadership program (Sonnino 2016). They are:

1. Creating a culture of support
2. Encouraging high involvement and mentorship
3. Using a wide array of pedagogies
4. Longer learning times with continuous support
5. Inculcating personal responsibility for self-development
6. Ensuring allegiance to continuous upgrading.

Planning a curriculum for leadership requires the balanced orientation of essential components—purpose, objectives, methods of teaching/learning, and assessment strategies. The design reflects the objectives of the course and the expertise of the instructor is essential. The faculty besides being an expert in his field should also be competent in facilitating, supporting, mentoring, and challenging the learner to propel his/her growth (Shah et al. 2019).

It would be useful to consider a framework for planning leadership learning. A simple yet comprehensive framework is the one described by Guthrie and Jenkins (Guthrie and Jenkins 2018). Using a metaphor of a steering wheel, they elucidate the main components of the framework: knowledge, training, development, observation, engagement, and metacognition. Knowledge of leadership theories is the encompassing and bedrock of the structure. The key is to develop metacognition of the person through reflections on one's knowledge acquisition, skills gained in leadership by engaging the stakeholders during practice, and observations (Fig. 9.5).

Knowledge requires learning information and insights about the process of leadership. It encompasses both technical and humanistic aspects. Leadership development

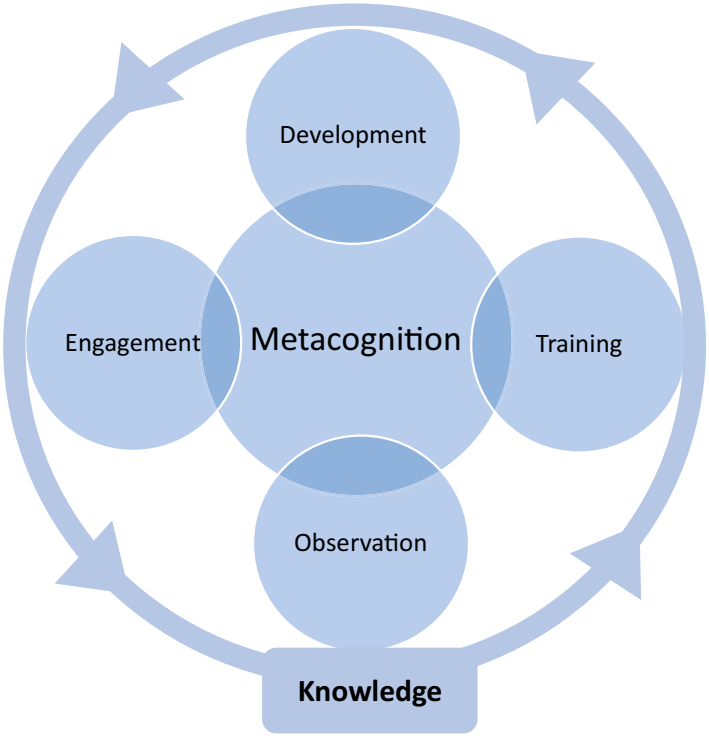

Fig. 9.5 A framework for leadership training

dwells on the intrapersonal and human qualities of leadership learning. The spotlight is on developing personal values and ethics, motivation and preparedness to lead, understanding myriad sides of self, including identity. While it includes developing a leader at the individual level, it also focuses on relationships and growth as a group/team. The leadership training ensures that competency/skills are developed. It is the demonstrable facet of the learning and, to an extent, it is the skill the leader would be able to perform at the end of the training and in the current position. Observation denotes the passive but extremely important aspect of social, cultural, and observational facet of learning. It highlights that learning is influenced by culture, and social learning is an important component of gaining wisdom. Observation is intentional and a leader develops the ability to have both deductive and inductive appraisal and reflection of the situation. Appreciating the differences and diversity of styles across cultures is a key realization. Engagement is an active constructivist process where the learner is exposed to direct personal experiences of leadership and makes sense of the incident. Interpersonal engagement has been uniformly found to be useful especially in higher education. Metacognition helps the leader to be mindful. Learning is to be reflective, using critical thinking and deciding when, where, and why a specific strategy or approach would be useful to resolve issues.

While many pedagogies have been described in the literature, it was Allen and Hartman who identified specific pedagogies, which would serve the learning of leadership. Jenkins recognized two dozen specific T/L methods, which were implemented in undergraduate and online leadership training (Shah et al. 2019). The most common method is class discussion (offline or online). Others are group and individual projects and presentations, self-assessments, and reflective journaling. Using the above framework of Guthrie et al., we can describe methods of teaching and assessing the leadership learning (Table 9.1). Culture affects learning and being culturally competent is a requirement in today's global world. The leadership training should aim for culturally competent leaders.

In conclusion, leadership training is definitely effective and causes an improvement in the reaction of participants, learning, transfer, and positive outcomes. The efficacy differs depending on design, delivery, and implementation qualities. For improved outcomes, use of need analysis, feedback, varied pedagogies, phases of spaced training, qualities of teacher, and acceptance of diversity and respect are required (Lacerenza et al. 2017; Shah et al. 2019).

9.12 Future of Leadership Development in Medical and Health Profession Education

"Leaders instil in their people a hope for success and a belief in themselves. Positive leaders empower people to accomplish their goals." Unknown

The core mission of medical and health professional education is to develop graduates who can provide safe and effective healthcare to their patients and communities (Samarasekera et al. 2018; Sandhu 2019). Our academic and clinical training institutions are facing many challenges. Providing quality training to develop safe, efficient, and effective future practitioners under limited resources, higher cost of training and also while mitigating many clinical situations such as pandemics requires strong leadership capabilities. A systematic programmatic approach is needed to effectively incorporate leadership training into our programs from student level to practicing professionals. This would enable the academic faculty and clinical practitioners to work together not only in transforming healthcare practice but also to see the relevance of their labor in a particular context or a situation. Providing those relevant training in a graduated and timely fashion will lead to developing situational leaders who have the required skill sets, roles, and responsibilities tend to emerge in different contexts and situations. The suggestion that leadership can be included in competency frameworks is based on several assumptions. The notion is that leadership is no longer an inherent trait but a learnable set of practices. Second, leadership can be observed at all levels of medical practice. It would be possible to include leadership as an intended and defined learning outcome. Therefore, it is important to start equipping all medical professionals from entry to basic training and regardless of

Table 9.1 Examples of teaching and assessment strategies

	Knowledge	Development	Observation	Engagement	Training	Metacognition
Teaching strategies	• Lectures • Case studies • Flipped classroom	• Personal statements • Storytelling • Videos	• Shadowing • Service learning • Movies	• Action learning • Games • Problem-based learning	• Simulation • Role play • Skill-based instruments	• Reflective essays • Field work • Reflective practice
Assessment methods	• Quiz • Written assignment • Discussions	• Reflection • Role plays • Self-assessment instruments	• Reflective journals • Individual discussions • Rubrics	• Presentation • Discussion • Feedback	• Checklists • Rubrics • Mentorship	• Reflective essays/ blogs/ journals • Poster • Synthesis paper

their level of seniority, with the necessary leadership skills (Han et al. 2019; Hayden 2017; Dujeepa et al. 2021).

9.13 Leading Teams to Work with Technology

As medical education continues to evolve and progress with time, the gradual incorporation of technology, digitalization, and artificial intelligence into the field of medical education is inevitable. These technologies aim to facilitate the dissemination of knowledge, enhance coordination skills, enhance teamwork among the many other goals (Guze 2015). The leadership role is more important than ever as a leader would aim to harness the true value from the adoption of technology and digitalization. There needs to be strong leadership to train and equip the current pool of healthcare professionals in order to embrace new technology; as well as to identify and retain talent in this field.

With the increased use of technology, business and organizations have also reported a disruption to traditional hierarchies in the organizational structure (Bartol and Liu 2002). For example, the adoption of data processing technology by a hospital in Michigan had led to many changes, which included improvements in decision-making processes and greater transparency on the performances of the healthcare professionals (Weiner et al. 2015). The channels of communication today are also affecting how leaders are able to communicate and work with their followers (Hambley et al. 2007; Horner-Long and Schoenberg 2002). Therefore, in order to use technology to achieve the goals of developing safe and effective healthcare practitioners, leaders of today have to adapt and adjust their leadership styles in order to engage and motivate their followers.

9.14 Summary

Leadership development in academic medicine and health professions education is an important feature. However, the choice of leadership styles is dependent on the particular context and situation. It is, therefore, of utmost importance to equip practitioners with the necessary skillsets starting from their formative years of training and to provide them a safe conducive environment with opportunities to experiment and apply these skillsets throughout their studies and careers. Investing adequate resources into training our healthcare professionals is important as these will develop leaders with good capabilities and would enable workplaces, hospitals and training institutions to retain talent, reduce burnout, and promote innovation. With this, both the academic faculty and practitioners of healthcare professions will be able to adapt to a dynamic and rapidly changing practice environment.

Key Learning Points

- Training in leadership for health professions education should be introduced at an early stage in one's training or career
- Effective leaders have good followers, and being an exemplary follower shapes one's future leadership skills
- Cultural influences play a pivotal role in one's ability to lead or manage an educational practice environment.

References

Adair JE (1973) Action-centred leadership. McGraw-Hill, London; New York

Allen GP, Moore WM, Moser LR, Neill KK, Sambamoorthi U, Bell HS (2016) The role of servant leadership and transformational leadership in academic pharmacy. Am J Pharm Educ 80(7):113. https://doi.org/10.5688/ajpe807113

Avolio BJ, Bass BM, Jung DI (1999) Re-examining the components of transformational and transactional leadership using the Multifactor Leadership Questionnaire. J Occup Organ Psychol 72(4):441–462. https://doi.org/10.1348/096317999166789

Bartol K, Liu W (2002) Information technology and human resources management: harnessing the power and potential of net centricity. Res Pers Hum Resour Manag 21:215–242. https://doi.org/10.1016/S0742-7301(02)21005-1

Bass BM, Avolio BJ (2000) Improving organizational effectiveness: through transformational leadership. Sage, Thousand Oaks, Calif

Berghout MA, Fabbricotti IN, Buljac-Samardžić M, Hilders C (2017) Medical leaders or masters? A systematic review of medical leadership in hospital settings. PLoS One 12(9):e0184522. https://doi.org/10.1371/journal.pone.0184522

Bolman LGD, Terence E (1991) Reframing organizations. Wiley Online Library

Bush T (2013) Theories of educational leadership and management. SAGE, London; Los Angeles

Bush T, Middlewood D (2005). Leading and managing people in education. https://doi.org/10.4135/9781446215753

Cerit Y (2009) The effects of servant leadership behaviours of school principals on teachers' job satisfaction. Educ Manag Adm Leadersh 37(5):600–623. https://doi.org/10.1177/1741143209339650

Chamorro-Premuzic T, Sanger M (2016) What leadership looks like in different cultures. Retrieved from https://hbr.org/2016/05/what-leadership-looks-like-in-different-cultures

Choi SL, Goh CF, Adam MBH, Tan OK (2016) Transformational leadership, empowerment, and job satisfaction: the mediating role of employee empowerment. Hum Resour Health 14(1):73. https://doi.org/10.1186/s12960-016-0171-2

Citaku F, Violato C, Beran T, Donnon T, Hecker K, Cawthorpe D (2012) Leadership competencies for medical education and healthcare professions: population-based study. BMJ Open 2(2):e000812. https://doi.org/10.1136/bmjopen-2012-000812

Cohen MD, March JG, Commission C, on Higher E. (1986) Leadership and ambiguity: the American college president. Harvard Business School Press, Boston, MA

Derue DS, Nahrgang JD, Wellman NED, Humphrey SE (2011) Trait and behavioral theories of leadership: an integration and meta-analytic test of their relative validity. Pers Psychol 64(1):7–52. https://doi.org/10.1111/j.1744-6570.2010.01201.x

Faucheux C, Amado G, Laurent A (1982) Organizational development and change. Annu Rev Psychol 33:343–370. https://doi.org/10.1146/annurev.ps.33.020182.002015
Garratt B, Stopford JM (1980) Breaking down barriers: practice and priorities for international management education
Gibbons A, Bryant D (2012) Followership: the forgotten part of doctors' leadership. BMJ 345:e6715. https://doi.org/10.1136/bmj.e6715
Goleman D (2000) Leadership that gets results. Harv Bus Rev 78(2):78–90. Retrieved from https://hbr.org/2000/03/leadership-that-gets-results
Greenleaf RK, Spears LC (2002) Servant leadership: a journey into the nature of legitimate power and greatness. Paulist Press, New York
Groysberg B, Lee J, Price J, Cheng JYJ (2018) The leader's guide to corporate culture. Retrieved from https://hbr.org/2018/01/the-leaders-guide-to-corporate-culture
Gumus S, Bellibas MS, Esen M, Gumus E (2016) A systematic review of studies on leadership models in educational research from 1980 to 2014. Educ Manag Adm Leadersh 46(1):25–48. https://doi.org/10.1177/1741143216659296
Guthrie KL, Jenkins DM (2018) The role of leadership educators transforming learning. Information Age, Charlotte, NC
Guze PA (2015) Using technology to meet the challenges of medical education. Trans Am Clin Climatol Assoc 126:260–270. Retrieved from https://pubmed.ncbi.nlm.nih.gov/26330687
Hambley LA, O'Neill TA, Kline TJB (2007) Virtual team leadership: the effects of leadership style and communication medium on team interaction styles and outcomes. Organ Behav Hum Decis Process 103(1):1–20. https://doi.org/10.1016/j.obhdp.2006.09.004
Han ER, Yeo S, Kim MJ, Lee YH, Park KH, Roh H (2019) Medical education trends for future physicians in the era of advanced technology and artificial intelligence: an integrative review. BMC Med Educ 19(1):460. https://doi.org/10.1186/s12909-019-1891-5
Hargreaves A (2003) Changing teachers, changing times teachers' work and culture in the postmodern age. Teachers College Press, New York, NY
Hargreaves A, Boyle A, Harris A (2014) Uplifting leadership: how organizations, teams, and communities raise performance. Jossey-Bass
Harris A (2013) Distributed leadership matters. Corwin Press
Hayden J (2017) Tomorrow's leaders—the role of leadership in medical education and training. Future Hosp J 4(1):49–50. https://doi.org/10.7861/futurehosp.4-1-49
Hersey P, Angelini AL, Carakushansky S (1982) The impact of situational leadership and classroom structure on learning effectiveness. Group Organ Stud 7(2):216–224. https://doi.org/10.1177/105960118200700209
Hofstede G. 6 dimensions of organizational culture developed by Geert Hofstede. Retrieved from https://geerthofstede.com/culture-geert-hofstede-gert-jan-hofstede/6-dimensions-organizational-culture/
Hofstede G (1986) Cultural differences in teaching and learning. Int J Intercult Relat 10(3):301–320. https://doi.org/10.1016/0147-1767(86)90015-5
Hofstede G (2007) Dimensionalizing cultures: the Hofstede model in context. Int J Behav Med 2. https://doi.org/10.9707/2307-0919.1014
Horner-Long P, Schoenberg R (2002) Does e-business require different leadership characteristics?: an empirical investigation. Eur Manag J 20(6):611–619. https://doi.org/10.1016/S0263-2373(02)00112-3
Howell JM, Avolio BJ (1993) Transformational leadership, transactional leadership, locus of control, and support for innovation: key predictors of consolidated-business-unit performance. J Appl Psychol 78(6):891–902. https://doi.org/10.1037/0021-9010.78.6.891
Hoyle E (1986) The politics of school management. Hodder and Stoughton, London
Jamieson DW, Thomas KW (1974) Power and conflict in the student-teacher relationship. J Appl Behav Sci 10(3):321–336. https://doi.org/10.1177/002188637401000304

Jippes M, Driessen EW, Majoor GD, Gijselaers WH, Muijtjens AM, van der Vleuten CP (2013) Impact of national context and culture on curriculum change: a case study. Med Teach 35(8):661–670. https://doi.org/10.3109/0142159x.2013.785629

Judge TA, Bono JE, Ilies R, Gerhardt MW (2002) Personality and leadership: a qualitative and quantitative review. J Appl Psychol 87(4):765–780. https://doi.org/10.1037/0021-9010.87.4.765

Kellerman B (2008) Followership: how followers are creating change and changing leaders. Harvard Business School Press. Retrieved from https://www.hks.harvard.edu/publications/followership-how-followers-are-creating-change-and-changing-leaders

Kelley RE (1988) In praise of followers. Harv Bus Rev 66(6):142–148

Khan MA, Law LS (2018) The role of national cultures in shaping the corporate management cultures: a three-country theoretical analysis. Org Culture. https://doi.org/10.5772/intechopen.78051

Kirkpatick SA, Locke EA (1991) Leadership: do traits matter? Acad Manag. https://doi.org/10.5465/ame.1991.4274679

Lacerenza C, Reyes D, Marlow S, Joseph D, Salas E (2017) Leadership training design, delivery, and implementation: a meta-analysis. J Appl Psychol 102. https://doi.org/10.1037/apl0000241

Ladhani Z, Shah H, Wells R et al (2015) Global leadership model for health professions education—a case study of the FAIMER program. J Leadersh Educ 14:67–91. https://doi.org/10.12806/V14/I4/R1

Leithwood K, Blair M, Strauss T (2009) Distributed leadership according to the evidence. Routledge Taylor & Francis Group

Leithwood KJD, Steinbach R (1999) Changing leadership for changing times. Open University Press, Buckingham

Lieff SJ, Albert M (2010) The mindsets of medical education leaders: how do they conceive of their work? Acad Med 85(1):57–62. https://doi.org/10.1097/ACM.0b013e3181c46e47

Madanchian M, Hussein N, Noordin F, Taherdoost H (2016) Leadership theories; an overview of early stages

McKimm J, Vogan C, Mannion H (2017) Implicit leadership theories and followership informs understanding of doctors' professional identity formation: a new model—The Asia Pacific Scholar. Asia Pac Sch 2(2):18–23. https://doi.org/10.29060/TAPS.2017-2-2/OA1022

Middlehurst R, Elton L (1992) Leadership and management in higher education. Stud High Educ 17(3):251–264. https://doi.org/10.1080/03075079212331382527

Nordquist J, Grigsby RK (2011) Medical schools viewed from a political perspective: how political skills can improve education leadership. Med Educ 45(12):1174–1180. https://doi.org/10.1111/j.1365-2923.2011.04085.x

Northouse PG (2019) Trait approach. In: Leadership: theory and practice, 8th edn

Pihlainen V, Kivinen T, Lammintakanen J (2016) Management and leadership competence in hospitals: a systematic literature review. Leadersh Health Serv (Bradf Engl) 29(1):95–110. https://doi.org/10.1108/lhs-11-2014-0072

Samarasekera DD, Goh PS, Lee SS, Gwee MCE (2018) The clarion call for a third wave in medical education to optimise healthcare in the twenty-first century. Med Teach 40(10):982–985. https://doi.org/10.1080/0142159x.2018.1500973

Samarasekera DD, Gwee MCE (2021) Adapting to change during challenging times. Asia Pac Sch 6(1):1–2. https://doi.org/10.29060/TAPS.2021-6-1/EV6N1

Sandhu D (2019) Healthcare educational leadership in the twenty-first century. Med Teach 41(6):614–618. https://doi.org/10.1080/0142159x.2019.1595555

Sanfey H, Harris I, Pollart S, Schwartz A (2011) Evaluation of the University of Virginia leadership in academic medicine program. Teach Learn Med 23(4):347–358. https://doi.org/10.1080/10401334.2011.611773

Schein EH (2004) Organizational culture and leadership. Recording for the Blind & Dyslexic, Princeton, N.J.

Schneider SC (1989) Strategy formulation: the impact of national culture. Organ Stud 10(2):149–168. https://doi.org/10.1177/017084068901000202

Schrage M (2016) Like it or not, you are always leading by example. Retrieved from https://hbr.org/2016/10/like-it-or-not-you-are-always-leading-by-example

Shah H, Ladhani Z, Morahan P, Wells R (2019) Global leadership model for health professions education part 2: teaching/learning methods. J Leadersh Educ 18. https://doi.org/10.12806/V18/I2/A2

Soffel J (2016) What are the 21st-century skills every student needs? Retrieved from https://www.weforum.org/agenda/2016/03/21st-century-skills-future-jobs-students/

Sonnino RE (2016) Health care leadership development and training: progress and pitfalls. J Healthc Leadersh 8:19–29. https://doi.org/10.2147/jhl.S68068

Taylor B (2014) The best leaders are insatiable learners. Retrieved from https://hbr.org/2014/09/the-best-leaders-are-insatiable-learners

Tschannen-Moran M (2014) Trust matters: leadership for successful schools, 2nd edn

Watkins MD (2012) How managers become leaders. Harvard Business Review. Retrieved from https://hbr.org/2012/06/how-managers-become-leaders

Weber M, Henderson AM, Parsons T (2012) Max Weber: the theory of social and economic organization. Martino Publishing, Mansfield Centre, CT

Weiner J, Balijepally V, Tanniru M (2015) Integrating strategic and operational decision making using data-driven dashboards: the case of St. Joseph Mercy Oakland Hospital. J Healthc Manag/am College Healthc Exec 60:319–330. https://doi.org/10.1097/00115514-201509000-00005

Whitaker T (2020) What great principals do differently: twenty things that matter most. Taylor & Francis Ltd

Yukl G (1989) Leadership in organizations, 8th edn. Pearson

Yukl G (2011) Contingency theories of effective leadership. In: Bryman A, Collinson D, Grint K, Jackson B, Uhl-Bien M (eds) The SAGE handbook of leadership. SAGE Publications

Chapter 10
Nurturing Personal and Professional Development of Health Professionals in the Hierarchical and Collectivism Context

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Abstract The ever-changing and fast-developing medical knowledge and skills are a fact accepted by the medical community of practice. Therefore the notion of lifelong learning is not new for this community. The same also applies to other communities of practice in healthcare services. However, the remaining question is whether medical and health professions education has equipped the graduates to conduct lifelong learning and embark on personal and professional development (PPD). The concept of deliberate practice is the backbone of PPD. This concept highlights the need for practitioners, either as medical teachers or medical doctors, to embark on continuous learning and improvement processes to maintain their expertise. This chapter will elaborate on the importance of continuous personal and professional development to maintain professional expertise. Two main concepts, deliberate practice, and reflective practice, will be discussed in this chapter. The discourse will include the interplay between practitioners' awareness to continuously improve their expertise, their ability to engage in deliberate and reflective practice, the organizational and workplace culture and environment, and society's needs. Specific cultural dimensions from Hofstede et al. (2010) in the Eastern context will be explored, specifically on how they affect the practice of PPD. This chapter will shed light on the possible effective PPD practices of healthcare practitioners and educators, such as needs-based PPD, portfolio development, and workplace learning, in the culture of collectivism

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and high power distance. At the same time, leadership from the top management is also pivotal in encouraging practitioners to conduct a systematic and comprehensive PPD.

10.1 Introduction

10.1.1 Personal and Professional Development

Personal and professional development (PPD) is a process whereby professionals continuously improve and maintain their professional expertise and personal well-being. The term PPD encompasses every field of work. However, in medicine, PPD is more commonly known as continuing medical education and continuing professional development. Continuing medical education (CME) is a term that was used earlier and relates to the continuous improvement of knowledge and skills required for medical practice. Nowadays the term CME has been replaced by continuing professional development (CPD), which covers a wider area of medical doctors' professionalism, not only knowledge and skills, but also attitude and personal well-being (WFME 2015). As comprehensively defined by the WFME (2015), CPD is the "continuing development of the multi-faceted nature of medical practice, covering—in addition to knowledge and skills of medical practice—the wider domains of professionalism (e.g. medical, managerial, social and personal subjects) needed for high quality professional performance".

The period of PPD is lifelong from the completion of education/training until the end of a professional career. Some even view that PPD has started from the first year of undergraduate medical education (WFME 2015). CPD/CME is different from basic (undergraduate) and postgraduate medical education in which the latter two are organized according to a set of governance. CPD is more self-directed and loose, although WFME suggests that feedback and supervision are important to improve the quality of CPD (WFME 2015).

As highlighted in the first paragraph, PPD applies to every field of work. Therefore, medical teachers are also expected to conduct PPD to maintain their competencies as professional medical teachers. As suggested by Steinert (2013a), albeit the meaning of the word 'doctor' as in *doceo* ('I teach'), many doctors are not trained in how to teach. The same situation occurs in doctors who are faculty members of a certain educational institution. They may be experts in their own field of expertise, but they are not adequately prepared as teachers. There is a need then to acknowledge the role of doctors to teach and thus, strengthen their teaching capacities. If we adapt the definition of CPD provided by WFME, then the CPD activities for medical teachers encompass all domains of teacher professionalism, i.e. content (subject expertise), teaching skills, managerial, communication and interpersonal skills, and also personal subjects, for example, managing stress and burnout. Jaafar (2006) provided a comprehensive definition of CPD for medical teachers which

is "a systematic process of lifelong learning and professional development aimed at assisting the medical educator to maintain and enhance his/her knowledge, skills and competence as a teacher, researcher and clinician through emphasis on the process of education, translation of learning in the workplace and to professional development."

This chapter will touch not only on the PPD required by medical doctors but also that on medical teachers (faculty members). The foundation between PPD program for medical doctors and medical teachers is basically the same, with some specific attributes pertaining to each program and some influences from the workplace context. They differ in terms of the scope of the programs since the two programs deal with different fields of work.

10.1.2 Purpose of the Personal and Professional Development Program

The fundamental purpose of PPD is to maintain the quality of healthcare services by ensuring the doctors providing the services remain knowledgeable, skillful and fit for practice. Campbell et al. (2010) formulated the goal of CPD as "to ensure that physicians possess the required knowledge, skills, attitudes, and abilities to maintain and enhance competence and improve performance within their professional roles." According to WFME (2015), there are three main drivers for CPD, which are to deliver optimum healthcare services for patients; as an accountability of the profession to the society; and to prevent burnout and maintain satisfaction upon the work. The commitment to lifelong learning is also one of the drivers for CPD (Campbell et al. 2010).

The effectiveness of CPD is difficult to measure since there are too many variables influencing the quality of services delivered by doctors (WFME 2015). However, Schostak et al. (2010) in their study concluded, based on the perceptions of doctors, that CPD programs have impacted the knowledge, skills and behavior of doctors and their daily practice. Notwithstanding the difficulty to prove the direct impacts of CPD on patient care, participation in the CPD program is important to demonstrate the accountability of the profession to the society.

As for the PPD of medical teachers, what is known is the fact that most medical teachers do not have formal training in teaching or educational pedagogies. Most of them were 'thrown' into the roles of teaching, thus as mentioned in the first part of this chapter, have no adequate skills to teach. Therefore, most of the CPD programs for medical teachers take forms in the faculty development program. The faculty development program is aimed at providing teachers with knowledge and skills in teaching, research and administration and supporting teachers in their roles (Steinert 2013a). Based on a systematic review to examine the effectiveness of faculty development program (Steinert et al. 2006), there are a number of CPD outcomes identified which were systematized by the authors according to Kirkpatrick's level of evaluation, as follows:

1. Positive perceptions of faculty members on the faculty development program.
2. More positive attitudes and appreciation towards the importance of teaching and self-improvement as teachers.
3. Increased knowledge related to pedagogical principles and also improved teaching skills.
4. Changes in teaching behavior and performance.
5. Changes in organizational practice and student learning, for example, changes in the way students approach patients and also the ability to develop more networks among medical teachers.

10.1.3 Basic Approaches to Conduct PPD Program

Given the importance of PPD for the maintenance of individual competences and also the professions' accountability, medical doctors and medical teachers need to acquire certain skills in order to conduct PPD. According to WFME (2015), effective PPD is indicated by the following steps. The CPD activity starts by identifying the learning gaps/learning issues (what the doctors need to know or acquire), then the learning activities are conducted based on the identified needs. The learning process is aimed at closing the gaps. Afterward, further activities can be identified and conducted to reinforce learning. For example, in the light of re-emerging disease such as polio, a doctor needs to refresh the knowledge and skills related to polio, since there may be not enough learning about polio during formal education. This needs-based PPD program is likely to produce relevant outcomes and is expected to have an impact on practice. The same applies to the PPD of medical teachers, a faculty development program will only be effective if it is based on the needs that are identified by the teachers.

As Chipchase et al. (2012, p. 91) said that "professional growth and learning requires continued practice and self-reflection," therefore, in this section, the two important approaches, deliberate practice and reflective practice, will be discussed in this chapter. These two approaches are required for a needs-based PPD.

10.1.3.1 Deliberate Practice

The definition of deliberate, based on Merriam Webster dictionary, is "to think about or discuss issues and decisions carefully." Ericsson (2004) in his seminal paper described how deliberate practice is relevant to the acquisition and maintenance of expert performance in medicine. Ericsson, a prominent psychologist, has developed this theory quite a long time before in other domains such as music and sports (Ericsson et al. 1993), however, this theory can also explain the acquisition of expert performance in medicine.

Deliberate practice is defined as "prolonged engagement in practice that is specifically designed and intended to improve individual performance" (Bronkhorst et al.

2011, p. 1122). There are notable differences between experts and novices, such as the ability to recognize patterns and solve problems. Experience was said to be one aspect that differentiated experts and novices, however, studies showed the contrary. The experience itself is not adequate; expert performance is a result of persistent activities designed to purposefully improve performance (Dunn and Schriner 1999). Some individuals may stop learning and practicing when they have reached a certain level of competence and obtained vast experiences, however with time they will reach a plateau in their performance, perform in automation and even experience a decline to a point where they no longer be called 'professionals' (Ericsson 2004). Daily activities in the workplace may present ample learning opportunities and one may feel that he or she has gone through many work experiences, but this is not sufficient for an individual to maintain the performance and expertise. A mindful, repeated and purposeful effort and practice to learn is required. According to Ericsson et al. (1993), more practices are related to a higher quality of performance.

The kinds of practices appropriate for performance improvement in medicine based on Ericsson's (2004) review are specialized training and immediate constructive feedback. Moreover, involvement in teaching and research, and discussion with knowledgeable colleagues are also considered to be appropriate activities. Based on several studies regarding deliberate practice in the workplace, van de Wiel et al. (2011) summarized some additional activities that are considered as deliberate practice, such as preparation, mental simulation, feedback seeking, evaluation and reflection. Whereas there are four characteristics of deliberate practice, i.e. repeated practice, immediate feedback, proper motivation and also relevant activities (Ericsson 1998). All of these principles of deliberate practice are in line with lifelong learning competency domains, including self-regulated learning and self-reflection.

The same concept also applies to teachers' continuing professional development. Dunn and Schriner (1999) defined deliberate practice for teachers as "approaching the normal activities of teaching in a deliberate way" (p. 647). Deliberate practice for teachers involves being mindful and effortful, thinking about what went well, what went wrong, what needs to be changed in relation to the teaching practice. In other words, deliberate practice means moving away from "doing business as usual"; it involves planning, monitoring and evaluating in order to obtain improvement over time. Several factors influence deliberate practice such as motivation, willingness to learn, availability of feedback, and also supportive environment including the existence of mentors or coaches.

10.1.3.2 Reflective Practice

Since the medical profession is a self-regulating profession, the ability to self-assess is one of the competencies that needs to be acquired by doctors (Duffy and Holmboe 2006; Mann et al. 2009; Silver et al. 2008). Three activities in the scope of self-assessment are described by Boud and Brew (1995) which include:

1. Self-testing means checking own knowledge or performance against a validated test.
2. Self-rating is where doctors/learners rate their current knowledge or performance based on a validated scale.
3. The use of reflective questions is an activity whereby doctors/learners ask questions to themselves in order to assess their knowledge or performance.

Despite the importance of self-assessment, individuals are found to be poor assessors (Kruger and Dunning 1999). It is the incompetent individual who is lacking the ability to self-assess because there is a lack of metacognitive skills. Therefore, using reflective questions is a more preferred way to conduct self-assessment. In addition to that, since individuals are poor assessors, then self-assessment cannot be conducted in isolation. Individuals required the support of external resources, one of which is feedback, either from supervisors, peers or even patients.

Sargeant et al. (2010, p. 1212) formulated from their study the "processes and dimensions of informed self-assessment," which give rise to a newer understanding of self-assessment as an "externally informed reflective assessment". The processes and dimensions include sources of information (internal and external data), interpretation of information (analysis and synthesis of data), response to information (using the data to self-assess), external and internal condition or influences (experiences, motivation, emotional state), and lastly weighing and balancing of internal and external data and conditions. This concept further confirms that self-assessment involves generating internal feedback, obtaining external sources such as feedback from other people and reflecting on all the acquired information. Therefore, this process of informed self-assessment involves feedback-seeking behavior and is also influenced by internal factors such as motivation and emotional state.

In reference to the above explanation, it is appropriate to view self-assessment as a reflection process since self-testing and self-rating are not adequate for self-assessment. Reflection is part of the experiential learning cycle in which new knowledge is created from experiences (Kolb 1984). There are two familiar terminologies regarding reflection, one is reflective learning and the other is reflective practice. Reflective practice is more relevant to our discussion in this chapter since it is a reflection activity in the professional practice context (Sandars 2009). Whereas reflective learning is linked to the learning process of students. The two terminologies share similar principles and concepts of reflection and experiential learning.

When doctors become expert professionals, most of the time they can manage or treat a patient without thinking about it. It is based on similarity-based reasoning where reasoning or thinking process is based on recognizing a similar pattern that has previously been encountered (Norman 2005). Schon (1991) named this situation as knowing-in-action. If somehow the situation that a doctor face is different than it usually is, then this can stimulate a reflection. Based on when the reflection is conducted, Schon (1991) divided reflection into reflection-in-action and reflection-on-action. Reflection-in-action is when the reflection happens during the experience, for example, while treating or interviewing a patient. While reflection-on-action occurs after the experiences have finished. The results of reflection-in-action can

be directly applied to modify the situation that is currently encountered. Whereas reflection-on-action results in lessons learned that can be applied in the next, different situation.

10.1.3.3 Portfolio Development

Based on the main features of the portfolio as described in Chap. 6, the role of portfolio in CPD is clear. Portfolio enables the documentation of individuals' reflection which leads to a needs-based CPD. It also contains evidence of CPD activities, both formal and informal, which can be a trigger for further reflection. Several studies have demonstrated the use of portfolio to support doctors' CPD programs. One study from Dornan et al. (2002) showed the utilization of an electronic portfolio (e-portfolio) for endocrinology and diabetes mellitus physicians in the Royal College of Physicians and Surgeons of Canada. The e-portfolio is called 'PC Diary'. It serves as a learning planer for each physician where reflection upon an activity is conducted. The e-portfolio is also useful to review the learning progress.

As for teaching portfolio, it is defined as "a document, a collection meant to convey the quality and quantity of a faculty's teaching effort, effectiveness and achievements" (Lamki and Marchand 2006, p. 8). Lewis and Baker (2007, pp. 144–145) divided the content of the teaching portfolio into several areas: introduction/overview, teaching philosophy, teaching activities, educational initiatives, teaching competencies, assessment of learning performance, monitoring and advising, administrative services, academic productivity, professional growth, professional attributes, professional and career goals and personal attributes. The portfolio of course contains a reflection on their practices and learning to demonstrate personal and professional attributes and growth.

10.1.4 A View of PPD in Eastern Medical Education Context Through the Lens of Cultural Dimensions

What we have discussed above is based on the Western medical education context. To the best of the authors' knowledge, there are scarce literature regarding PPD in the Eastern medical education context. However, there is a growing number of publications in the past several years related to various aspects of medical education from this part of the world. Most of the papers looked at how certain educational approaches can be adopted in Eastern educational settings to fit the learning culture. In this chapter, we will specifically discuss PPD in the Eastern medical context. Based on our elaboration in the first part of this chapter, it is agreed that to conduct needs-based PPD, there are some skills or approaches required. We will reflect on those skills or approaches; how they can be used in the Eastern medical education context, what are the specific challenges, would there be anything that needs to be

adjusted so that optimum results can still be achieved in the end. These are just some of the emerging questions.

In the earlier section of this chapter, it is clear that the basic approach to conduct a fruitful PPD is to embark on a needs-based PPD. A needs-based PPD can only be obtained if there is a reflective practice. The concept of reflective practice is closely related to deliberate practice and self-regulation of learning. Underlying those concepts are the skills of being mindful, self-aware, analyzing previous experiences, identifying learning needs and formulating and executing action plans to fulfill the learning needs. However, those skills cannot be conducted in isolation. Individuals are most likely poor assessors of themselves, therefore there is a need to continuously look for feedback and respond properly to it. All of these are under the notion of lifelong learning, where learning does not stop at the end of formal education, but continues throughout the life of a professional. During formal education, the curriculum is outlined for the learners and all learners have to do is follow the curriculum and complete all the tasks. Whereas after formal education, professionals are basically 'on their own', they need to identify what they need to learn and how to go about learning to maintain professionalism.

Looking back at the skills and approaches required for PPD, the question is how are those skills and approaches could be applied in an educational context that is different from the one where all the skills have been proven to be applicable. The last section of this chapter will try to understand the application of the skills and approaches, such as lifelong learning, self-reflection, self-awareness, feedback-seeking behavior, peer mentoring and peer review, in a hierarchical and collectivist culture, and whether there are any other alternatives that could be offered.

Life-long learning in various Eastern cultures has a different meaning. For example, Confucius, a philosopher from China, a country with a strong hierarchy and communality, emphasized that learning for an individual is the purpose to perfect the self and to cultivate oneself as an all-round person with both knowledge and virtues. Balance of life is important and can be pursued by continuous education and learning as a lifelong process. Confucius places the individual learner at the center of learning, which consciously and constantly transforms the learners, serves, and connects them to the self, family, society and universe without losing sight of the importance of wholeness and the imperative of flourishing together (Sun 2008). Another example is in Minangkabau culture, a subculture in West Sumatera in Indonesia that is very strongly collectivistic and hierarchical, there is a proverb: nature is our teacher (*Alam Takambang Jadi Guru*). This proverb also showed that the culture of learning is an important part of Minangkabau social life (Peggy Reeves Sanday 2002.).

Those examples imply that life-long learning is an important part of the culture. Virtues such as disciplines, diligence, balanced and wisdom are important. However, in the health care, the application can vary and influenced by many factors.

10.1.5 CPD for Practicing Physicians in a Hierarchical and Collectivist Culture

To highlight the importance of CPD, we present below an illustration that showed the clear need for life-long learning for health professionals (Box 10.1).

Box 10.1: Can we maintain our professional competence?

During the first month of my obligatory service as an anesthesiology in a district hospital, I got an emergency call from the ICU. A lady was referred by a smaller hospital with a severe post-partum bleeding. She underwent hysterectomy and experienced a cardiac arrest. Her heart was beating again after resuscitation. The obstetrician referred the lady for an ICU care in the district hospital.

I asked the nurses to prepare the place while I rushed from home to the hospital. An obstetrician and two nurses came with the patient. As soon as the ECG monitor was attached to patient, I saw that the heart beat was getting lower and lower. Her pulse was very weak and blood pressure was undetected. Patient was still bleeding. She was intubated and there was one intravenous access with a blood transfusion.

"Get a second iv access, give her fluid, and call extra help, prepare for CPR," I shouted. Just as I guessed, patient fell again into the cardiac arrest, and we started the Cardiopulmonary Resuscitation.

"Give her 1 mg epinephrine every 3-5 minutes, continue CPR, we start the cardiac arrest algorithm. We need to talk to patient's family. Can someone prepare the DC shock please?"

While I continued my commands, I realized that my nurses starred at me with a confused face with those multiple order.

"Doc, we need to prescribe the epinephrine, they are not available in the emergency cart."

I was surprised that we need to wait for epinephrine, the main drug in CPR algorithm.

"Are you familiar with his algorithm, aren't you?"

"We learned it but we did not use it for long, we forget"

I sighed. I changed my order to be more specific for each member of the team. It was challenging to work with people who did not share the same understanding about the algorithm.

As we continued the resuscitation, the obstetrician checked the bleeding and acknowledged that there was nothing more he could do. Patient had lost too much blood, including her coagulation factors. The transfusion did not seem very helpful. We talked to the family about the bad news. We kept trying to give her blood, fluid, drug, and continue the CPR, but finally we lost the patient.

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I understood that this patient came in a severe condition and had a bad prognosis. Anyhow, I realized that we were lack of preparedness to handle the case. The next morning, I discussed with the head of ICU nurse on how to improve the preparedness of our team in the management of cardiac arrest. We needed to check the emergency cart, ensure that all emergency equipment and drug had to be readily available. The most important thing, we need to refresh our knowledge and skills.

Few days afterward, some nurses and doctors sit together to discuss the algorithm of cardiac arrest. We checked the DC shock, learned every button on the machine. We used the case of the bleeding lady as a starting point of discussion and tried to reflect what happened, and what we could have done better. I was surprised to find out that most of them was not familiar with the cardiac arrest algorithm, but at the same time I admired their ability to reflect on their performance and their willingness to learn.

During my one-year obligatory service in that district hospital, the ICU team conducted monthly discussion to refresh different topics, such as pain management or ventilator management. We related our discussion with our ICU cases. Although the discussions were conducted in the morning, ICU staff who worked the night before were willing to prolong their stay to learn. These fellows were eager to learn.

When we signed in to be a health professional, we signed in for life-long learning. We need to keep learning if we would like to keep our patients safe. The life-long learning skills are in of the core competence in various health professionals (Campbell et al. 2010; Satu et al. 2013). The above case is a reflection of a real practice condition that showed that maintaining competence to a specific standard could be challenging in this cultural context. The question is, does culture matter?

A survey by Mizuno-Lewis et al. (2014) on around 700 occupational health nurses in Japan indicated that nurses are aware of the importance of CPD. However, some challenges for attendance, such as time and financial constraints, exist. The CPD time competed with work and personal commitments. It is not always easy to take leave to join CPD and CPD are not always financially supported by their organizations. Nurses, especially the young ones, are not assertive to advocate their companies or superiors of the needs of CPD. This reticence is also influenced by the strong hierarchical culture of Japan. It is socially accepted that seniority depends largely on the years one has been employed at a company and promotion is not so much performance-based nor does it occur from recognized talent (Mizuno-Lewis et al. 2014).

A survey of around 400 physicians in Jordan showed some similar barriers in CPD. Time constraints were related to the difficulty to obtain work leaves, staff shortages and family responsibilities. Financial challenges were also reported in the survey. Nevertheless, this survey also showed that personal motivation to improve is a strong factor for Jordan physicians to engage in CPD. Additionally, the influence

of colleagues was mentioned as a factor to engage in CPDs. Lack of encouragement from a colleague can serve as barrier for CPD (Younes et al. 2019). This is interesting and might be related to the culture as Jordan is a collectivistic country (Hofstede et al. 2010). A similar survey for a physician in India, also a collectivistic and hierarchical country (Hofstede et al. 2010) reported similar results. Related to the hierarchical culture, the status of the presenter is an important motivation for the participation in CPD. Co-participant or peer groups were also mentioned as an influencing factor (Shah et al. 2017). Those systems are external factors for learning. How the healthcare systems are structured will influence the way people learn. In the hierarchical and collectivistic culture, these phenomena are more obvious.

Nevertheless, those surveys explore CPD as formal measures. We found limited evidence from countries with hierarchical and collectivistic cultures regarding informal CPD. For example, a systematic review of Community of Practice (CoP) in health care, only included studies from Western culture (Ranmuthugala et al. 2011). CoP might be appropriate as a CPD approach in the collectivistic culture because it emphasizes the process to learn from each other within a group of profession. In the informal sector, the hierarchical culture can be a barrier for role modeling. For example, senior doctors who show the persistence of hierarchy and exclusivity or senior staff members criticizing others in their institution can influence or adversely affects professional behavior (Passi et al. 2013).

The implementation of CPD in each country is different, not only between Western and Asian countries, but also among countries that have a strongly hierarchical culture. CPD systems in terms of goals, responsible organizations, credit requirements, need assessments and activities, for instance in China, India and Indonesia, have many differences (see Table 10.1). The differences of the systems happen because of the differences in cultural, social, ethical and economic situations of each country. These factors may limit opportunities for the developing countries to develop their CPD systems. Consequently, there is no CPD system that has achieved perfection particularly in the widespread improvement in healthcare outcomes (Miller et al. 2015).

However, in many aspects, their CPD systems have a similar format, particularly in CPD activities, program planning, providers and evaluation. Main CPD activities in those countries are in the traditional formats, such as lectures and one-two training or workshops, except in Indonesia which includes the CPD programs with a variety of personal activities (i.e. reading journal, presentation, etc.); the planning programs and the providers are still controlled by the authority bodies such as the professional association and the government, except in Indonesia which physicians have opportunities to develop personal plans (PB IDI 2018; Miller et al. 2015); and the evaluation of CPD achievements still focuses on achieving credit for (re) licensing rather than evaluation on the pre-post test and even the outcome of physician performances, patient and population health improvement (Miller et al. 2015).

The culture has a contribution to influence the CPD systems of the countries. In the strong hierarchical culture, most educational systems are still in traditional methods, and teachers and senior colleagues should be respected and listened because they are perceived to have more experiences and more knowledge and skills, and

Table 10.1 The implementation of CPD in three big countries (Miller et al. 2015; PB IDI 2018)

No.	The components	China	India	Indonesia
1	CPD goals	To improve the practice skills and the professional morals of the physicians, the quality of healthcare services and the developments of public health and disease management	To update the competence and knowledge of the physicians based on the latest development of medical science	To maintain and promote the professionalism and ethics of physicians, and the quality of medical services
2	Responsible organizations	The CME commission in the national and each province level	The state medical councils in the nine states	The Indonesian Medical Association (IMA) and its district agencies
3	CPD providers	Medical associations/societies, hospitals and other CME agencies approved by the National Health and Family Planning Commission	All recognized medical colleges, Indian Medical Association, National Academy of Medical Sciences, medical specialty associations, all recognized postgraduate medical institutions, government hospitals and training centers, international conferences of professional bodies	Indonesian Medical Association (IMA), The Association of Specialist Doctors, The Association of Primary Services of Medical Doctors, other organizations accredited by IMA, including Ministry of Health and its directorate of specialist medical services, academic institutions, including faculties of medicine, hospitals and other service providers, CPD organizers and insurance companies
4	Credit requirements	25 credits per year. One credit is equivalent to 2–3 h of learning course	30 h of CME every 5 years	250 credits every 5 years and must pass a competency test. One credit is equivalent to 1 h of learning course
5	Program planning	Providers select the topics and develop the courses	Professional societies plan and develop live CME	Personal, coordination with fellow workers in an institution, and other group outside of their workplace

(continued)

Table 10.1 (continued)

No.	The components	China	India	Indonesia
6	CPD activities	Large lectures, small training classes, print and CD materials, and online courses	Most common method is a lecture	Personal activities (e.g. reading a journal), professional activities (e.g. handling of patients, presentation of paper), community-centered activities (e.g. offering health care information, sitting as a member in a professional organization), publication activities (e.g. publishing a paper, writing a book), scientific and education activities (e.g. conducting research, teaching)

know everything, so the learners cannot argue, think critically, and even find more information from books and other resources (Hofstede 2011; Khoo 2003).

10.1.5.1 The Re-licensing System

One of the principles of adult learning is that learners are self-directed. They learn what they need to learn, usually based on what they need to apply in their daily professional life. These are the internal factors for CPD that vary individually.

Additionally, in health care, there are systems that support us to keep learning. For example, at the organizational level, the accreditation system requires that hospitals provided training for their staff in a certain field (Hospital Accreditation Committee et al. 2018). At the individual level, to maintain the professional license, health professionals should be periodically re-registered and this process requires submission of a portfolio as a proof of competence. The licensing system has been one of the cornerstones to maintaining professional competence, and it was usually based on the clinical activities and continuing professional development that they have followed (Pickles 2018).

Lack of mandatory laws served as a barrier for CPD. A law of re-licensure has pushed all health professionals to accumulate credits hours of CPD to be able to renew their license every five years. This law serves as an external motivator for CPD. Before, most physicians in Jordan do not need to show evidence of the fitness of their medical practice to the general public (Younes et al. 2019). A review of CPD for pharmacists showed that from 66 countries that were investigated in 2014, only 33 had CE (Continuing Education)/CPD requirements in place in order to maintain registration, showing CE and CPD are used but not widespread. Of those countries

where CE/CPD is present, 76% used a 'credit system' with 33.3% using a portfolio system (Micallef and Kayyali 2019).

Challenges occur when professionals do not feel the need to learn certain issues, but they need to do it because they need to maintain their professional license. As they do not want to invest too much money and time for learning, they will find ways out as the illustration presented below.

Box 10.2: How do you know that they have learned?

I was in the middle of a chit chat during lunch time with a fellow physician. She suddenly took a pause and said, "Excuse me for a minute". She took her phone and clicked on a webinar. "Okay, good. I have started the webinar, I'll just leave it open in a silent mode. Now, we can continue our chit chat." She said that when the webinar finished, she will get a credit point for a Continuing Professional Education.

A nurse registered to a seminar that she could not attend. She asked her fellow to get the certificate for her. "Did you feel sorry that you miss the session?" I asked her. "Well, it is not easy to go out of town. I have small kids at home." She told me that if they can show the certificate for participation, it will be enough for the requirement for re-licensing.

How do you know that they have learned? As long as they can show certificate for participation and fulfill the requirement for re-licensing, it is enough for them. However, we are not sure if they are really learning.

The most challenging problem for participants after traditional CPD programs is how to apply the knowledge and skills they have learned into their daily work and maintain them. The new knowledge and skills might slowly be lost and there is a gap of the knowledge and skills with those of other colleagues and other health workers when they go back to work. So what the participants have learnt cannot be implemented well (see the case in Box 10.1). Several types of research stated that only about 10% of what is obtained from one-two workshop programs are actually implemented in the work, and only 62%, 44% and 34% of participants apply what they have learned from the programs on the job immediately, six months, and one year after training respectively (Saks and Belcourt 2006). Combining the traditional formats with longitudinal learning might increase the retention of knowledge and skills for the clinical practice because the participants are able to directly implement the knowledge and skills in the authentic environment and nurture social networks and a sense of community (Steinert 2013b). In the longitudinal learning, the participants continue to implement what they have learned while improving their educational knowledge and skills (O'Sullivan and Irby 2011; Steinert and Mann 2006).

The low attention of participants to the CPD programs as the case mentioned in Box 10.2 is another problem in CPD. As stated previously, CPD providers determine most of the CPD programs. As a result, many topics of seminars and workshops do

not meet the needs of participants, but many physicians have to sit in the program because they want to obtain the CPD credits as a license requirement. In addition, most of the seminars in the classrooms do not actively involve participants. Activities are often carried out in large classes so there are no opportunities for all participants to be involved actively during the programs. Consequently, there is no obligation from every participant to actively participate from the beginning to the end of the programs except for getting the certificate after the programs.

In addition, the evaluations before, during or after the program is rarely done, or even not done, as occur in China, India and Indonesia. In Indonesia, the evaluations of the pre-post tests are sometimes carried out, but none of these countries evaluate the programs from the perspectives of physicians' performance in the workplace, patient outcomes and public health services (Miller et al. 2015). Although China and Indonesia have the CPD goals to improve the professionalism and ethics of physicians, and the quality of healthcare services, the measurement of the competency achievement of the participants is still limited to the evaluation of Kirkpatrick level 1 and 2 (satisfaction of the program and learning results from the program), instead of 3 and 4 (outcome in the workplace and the impact on the society) (Miller et al. 2015; Steinert et al. 2016).

Therefore, it is necessary to design a sustainable program, which involves the participants to plan the CPD programs, and meets the goals of the CPD rather than obtains only the credits for re-licensing requirements (Miller et al. 2015; Steinert et al. 2016). A combination of traditional format (i.e. workshop and seminar series) and continuous learning (i.e. work-based learning), informal (i.e. role modeling) and formal learning (coaching and mentoring), is worthwhile to be adopted by adjusting to the hierarchical culture (Steinert et al. 2016).

10.1.5.2 Workplace Learning

Since workplace learning is particularly important for a needs-based CPD, we dedicate a specific section discussing this particular type of learning. Many kinds of literature recommended moving the traditional format of CPD to workplace learning to maintain and promote the quality of physicians, patient care and community health services (Steinert et al. 2016; Steinert and Mann 2006; O'Sullivan and Irby 2011). The processes of learning are moved from lectures or workshops in the classroom to complex activities with opportunities to have interaction with other colleagues and seniors as 'local experts' who act as role models, coaches and mentors of learning, while engaging in the clinical practice. This learning promotes the strengthening of knowledge and skills, which impacts on patient outcomes and public health services (Steinert 2013b).

Workplace learning is an activity where the learners can learn from work, at work and for work. Learning from work means that the learners can learn from an authentic environment where the real patients and problems, real culture, real setting and real colleagues are available for learning. Learning at work means the learners have opportunities to learn through hands-on while still working. This situation enforces

the learners to learn in real situation, to build relationships and collaboration, and aware of their abilities, emotions and well-being. Learning for work means that what they have learned from observation, guidance from colleagues and seniors (e.g. peer coaching and mentoring) and reflection are useful for them to work, not only for increasing their clinical skills and knowledge, but also for increasing the recovery rate of patients and the quality of public health services (Steinert 2013b; Boillat and Elizov 2013; Miller et al. 2015).

The key features of workplace learning are role modeling, coaching and mentoring, self-reflection, and longitudinal learning that help participants to take advantage of the situation that occurs naturally. In a strong hierarchical culture, respect and fear for the elders or seniors and the need to maintain harmony are some of the main factors that drive learning. Role modeling, coaching and mentoring involve senior colleagues who are considered to have more experience and knowledge and skills. In addition, the learning processes continually happen in the workplace, so the cooperation and the harmonization with the environment and other colleagues are sustained (Steinert 2013b; Hofstede 2011).

Role modeling is one of the important components of workplace learning but is often ignored. Unconsciously, the participants sometimes put attention on the seniors' behavior, opinion, and the way they solve the problem in a particular situation, and then memorize and incorporate what they have observed into their work. This unconscious learning often motivates them to reproduce or to adopt it as their professional competencies, beliefs, identity and behavior (Steinert 2013b; Korthagen and Vasalos 2005). It would be worthwhile if the CPD providers help the participants to realize this learning process and provide them with a clear guidance and encourage them to reflect on the learning and to recognize the limitation of role modeling. It is important to make participants aware of this unconscious process, and make this learning process to be more. For instance, a mentor can facilitate learners to discuss and have a dialogue with their colleagues in the reflection process in order to draw meaning from what they have observed (Steinert 2013b).

Reflection provides an estimate of the individual's current status by looking back at their action, assessing their strengths and weaknesses. Reflection helps participants to realize their limitations and to develop belief, behavior and competencies. In the hierarchical culture, a mentor can help a participant to do reflection, and guide them to find the needs to change. So, the power of change will come from their own rather than from their environment (Korthagen and Vasalos 2005). Additionally, self-assessment in the reflection process can be used by the physicians to plan their next personal CPD programs as recommended by the Indonesian Medical Association (PB IDI 2018).

Coaching and mentorship are another key features of workplace learning. Coaching is related to skills training based and can be done by senior colleagues and peer colleagues, but mentoring is related to counseling and professional relationship (Kennedy 2014). Mentorship is a relationship between two people (i.e. a learner as a mentee and a senior as a mentor) or it can be between a group of people and a single mentor (Boillat and Elizov 2013). In the traditional method, mentorship is more hierarchical, where the mentor is a more senior and more experienced person.

With their experiences, the mentor guide discussions with the learner(s), and help the learners enhance self-awareness and productivity by reflecting upon current practices and sharing ideas and problem-solving within the workplace (Boillat and Elizov 2013; Kennedy 2014). Being aware is not only for personal interest regarding their learning goals, but also being aware of organizational elements, such as the hospital and the community. So the mentors support the participants on the personal growth, collaborative work, and networking opportunities (Steinert et al. 2016; Boillat and Elizov 2013). Coaching and mentorship are an assessment-driven learning (Kennedy 2014). Because of the close relationship with the coach and mentor, the progress of learners can be evaluated, not only for personal professionalism growth, but also the interpersonal relationship, physician performances and even patient and public health improvement (Steinert et al. 2016; Miller et al. 2015). The reflection guided by a mentor is a self-assessment that enforces the participant to realize their strength and weaknesses during the learning process (Steinert et al. 2016).

10.2 Online CPD

In opposite with the illustration in Box 10.2, during the COVID-19 pandemic, when a lot of people have to work from home, we notice a different phenomenon. A lot of webinars on COVID-19 related topics are openly available via different platforms. Although not all of them offer credit points or certificates, some online sessions can attract hundreds of participants, showing the enthusiasm of health professionals for acquiring new knowledge. They need to keep updated with the latest information as the COVID-19 pandemic impacted them in different ways. Continuing professional development activities naturally occurred as health professionals feel the need to learn.

Some massive open online courses or MOOCs, the Khan Academy or other virtual approaches are now playing important roles in health professions education including the CPDs. If designed well, those online educational materials provided learning opportunities that are in line with how adults learn. Health professionals can choose to focus on concepts they need to explore, manage their self-paced learning and test themselves with self-assessment tools which are also frequently provided by the course developer (Woolliscroft 2020).

E-learning CPD is an alternative approach to the face-to-face seminars and workshops. The online systems have never been thought of previously as an effective CPD format, especially in Indonesia, which has many islands with various degrees of development, and uneven distribution of physicians and medical schools. On one side, the physicians have the obligation to maintain and to increase their competencies, but on other hand, they have limited access to the information and transportations, time and finance to participate in a CPD program. E-learning CPD is one of the strategic educational methods in order to increase opportunities (access), to obtain educational services (equities) and to improve the quality of physicians so they can keep up with the socio-economic-cultural, science and technology development in

the field of medicine (link and match). Technology to some extent has flattened the social distance between people in hierarchical culture.

10.3 CPD for Medical Teachers (Faculty Development Program) in a Hierarchical and Collectivist Culture

A medical teacher is an essential component of medical education (Whitcomb 2003; Steinert et al. 2016). The roles that medical teachers play in teaching and facilitating learning determine the output of the medical education process. Moreover, the interaction between medical teacher and other stakeholders, especially with students, influence the climate of the learning environment and shaping how the curriculum is implemented. In addition to that, the development of medical education as a discipline required medical teachers to become a professional who needs to be socially responsible and accountable. Medical teachers all around the world, including in Asia, understood the need for the faculty development program to equip them with skills and professional attitudes for teaching (Amin et al. 2009; Kim et al. 2015).

The faculty development program for medical teachers has gone through several changes following the trend in medical education (McLean et al. 2008). In 1970, faculty development was aimed for developing the attribute and competencies to deliver knowledge with various teaching aids and excellent communication ability. In 1980–1990, in line with the changing paradigm of medical education from teacher-centered into more student-centered and self-directed learning, faculty development was aimed to provide the teacher with the ability to facilitate knowledge and some other skills to perform various roles of a medical teacher (Harden et al. 1999; McLean et al. 2008).

Paradigm change in medical education also took place in developing countries with a hierarchical and collectivist culture. From a traditional lecture approach, the medical teacher needs to adapt to a more student-centered approach. In the hierarchical culture, teachers are perceived to have more power, and become the source of information; they tend to deliver information to students. Therefore, the faculty development program is needed not just to train medical teachers the skills to facilitate learning but also to more or less change the medical teachers' teaching mindset. The medical teacher needs to refrain from giving information all the time and lessen the power distance between them and the students.

In developing countries, the faculty development movement was initiated by the World Health Organization (WHO) in 1965 (Hegde 2013). WHO established two centers for medical education development in the US that trained educational specialists and leaders from six Southeast Asian regions. Those trainers, later on, established a national teacher training center in their countries to train teachers from the medical institution who will develop a medical education unit in their institution.

In the past decades, medical education in developing countries has faced tremendous growth in the number of medical institutions (Amin et al. 2009; Mustika et al.

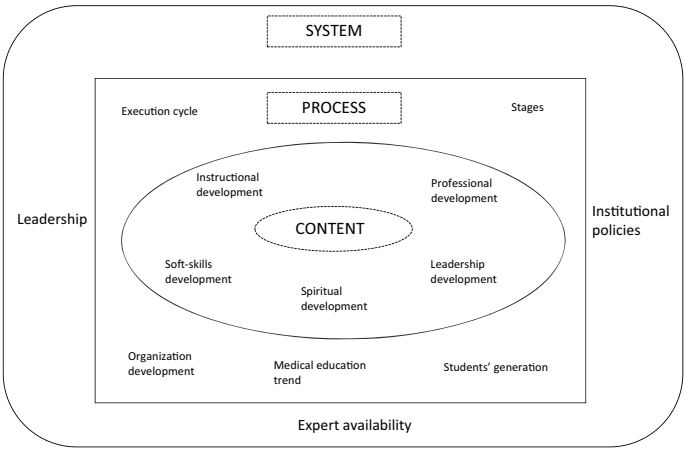

Fig. 10.1 Faculty development model of Eastern region (Adapted from Ambarsarie et al. (2019), p. 96)

2019). In India, the number of medical institutions doubled in 20 years. The growing number of medical institutions and student-centered learning approaches that was utilized these days lead to staffing issues in terms of quantity and quality. Hence, medical education leaders tend to prioritize recruitment of the faculties and set aside the funding for faculty development.

Ambarsarie et al. (2019) developed a faculty development model in the Eastern context. The faculty development model could assist medical institution leaders to decide on providing faculty development programs suitable for their institutions. Figure 10.1 shows the faculty development model.

There are three main components of this model which are content, process and system. The institution leader should evaluate the system to decide a suitable faculty development program. The human resource unit or medical education unit should take part in examining the process necessary to plan the program. Finally, to decide the content, a need assessment should be conducted. In terms of content, this model revealed the importance of spiritual development in the faculty development program, which is not found in the Western model. The spiritual growth related in this context is activities that were routinely planned to enhance the spirituality of faculties. This model also shows that in an Eastern background, personal development plays a vital role in faculty development. Conforming one of the notions of the hierarchical culture that teacher needs to be in a higher position compare with the student, medical teachers need to develop a set of positive attributes and a respectful personality. Hence, the faculty development program should move beyond merely skill training. More informal approaches are deemed to be useful to nurture positive behavior, such as learning through reflecting from experience, peer coaching and mentoring, intensive longitudinal program and online learning.

Positive attributes are emitted from medical teachers' well-being. Medical teachers are required to perform a certain amount of teaching, researching and doing public service. At a particular stage of their working period, the medical teacher will also need to take leadership and managerial responsibilities. Those multiple roles could cause role conflict, ambiguity and sometimes overload that will lead to stress and burnout. Study of burnout in higher education teachers revealed that even though teachers are generally vulnerable to develop burnout, the burnout level of teachers who spend more time in managerial tasks was highest compared to teachers with dominant research or teaching tasks (Vera et al. 2010). The faculty development program should improve not only instructional skills in teaching, research and public service, but also personal growth, work-life balance and career development (Steinert et al. 2016). Currently, several medical institutions in the US conducting a workshop on mindfulness and humanism to maintain medical teachers' well-being and this workshop shows a promising result (Branch et al. 2014; Wald et al. 2016). However, there is no report on the same attempt from the medical institution in developing countries.

In the past decades, almost all medical institutions established a medical education unit to assist the curriculum development and faculty development program (Samarasekera et al. 2020). Most faculty development programs were conducted using a formal approach and the certificates obtained from the activities are essential for countries with hierarchical culture. Training, workshop, seminar and conferences were popular activities of a faculty development program. Assessment was mostly done by pre-post test and writing self-reflection. Participants tend to be more active in the small group format with their peer group. However, the participants also enjoy a large group lecture or seminar and to learn passively. In-house training with limited participants is the ideal form of faculty development in the collectivist culture. Blending formal and informal approach should also be considered to optimize the program. The informal mentoring and role modelling could be inserted as an assignment during a one-week workshop, as well as giving a reward for teaching excellence during the period of a longitudinal faculty development program. Online learning is considered as an alternative activity for the faculty development program. Nevertheless, in developing countries with varied technological capacities, blended learning would be a preferred option. During this pandemic era, most medical institutions implement work from home policy, therefore teaching–learning and meetings were conducted through an online platform. The faculty development program organizer begins to utilize this platform for faculty development purpose as there are more and more workshop, webinar and conferences online. The effectiveness of this approach still needs to be evaluated.

Ideally, medical institution formulates a longitudinal program, oversee the career development of the medical teacher from the beginning until retirement. For the newly recruited medical teacher, faculty development program aims to introduce the vision and mission of the medical institution and train them the necessary skills needed to become a medical teacher. Activities could range from a seminar, workshop and mentoring. During this period, the medical teacher is encouraged to develop reflective practice skills and the ability to receive feedback from senior or expert.

Table 10.2 Faculty development program for clinical teacher of Academic Health System Universitas Indonesia

Level of clinical teacher	Roles	Working period (year)	Training
Junior level clinical teacher	Supervisor, mentor, work-based assessor	Less than 3	Basic clinical teacher training
Mid-level clinical teacher	Information provider, student assessor, course organizer, leadership	3–8	Intermediate clinical teacher training
Senior level clinical teacher	Curriculum planner, curriculum evaluator, final comprehensive examiner	8 and more	Advanced clinical teacher training

This essential training will certify medical teacher to be assigned for a particular primary role as a facilitator of learning, tutor of procedural skills, mentor and probably student assessor. The medical institution should then decide a certain period of time for the intermediate training; this training would certify the medical teacher for performing more specific roles as an information provider, course developer, researcher, curriculum planner and evaluator. In order to equip the medical teacher for a particular managerial position, an advance course on leadership and management should also be provided. The longitudinal plan would ensure the continuity of faculty development and more likely to achieve an optimum result. Table 10.2 shows an example of a longitudinal faculty development program for clinical teachers of the Academic Health System Universitas Indonesia.

Evaluation of the effectiveness of faculty development program in the developing countries show the same result with the ones in developed countries, most participants are satisfied with the activities and felt that they gain skills and knowledge to support their teaching tasks (Kim et al. 2015). The impact of faculty development program has not been studied yet. It is assumed that faculty development indirectly enhances the quality of patient care (Steinert et al. 2016).

The faculty development program in developing countries is a necessity to overcome the lack of faculties and create a leader in medical education (Amin et al. 2009). As the countries with hierarchical culture, the pressure from accreditation body and government regulation succeeded in making the medical institutions provide a faculty development program. The challenge is in the quality and efficacy of the faculty development program in supporting medical teacher performing their roles. An environmental scan of faculty development program from four Asia Pacific countries revealed that medical education unit from medical institutions conducted a needs assessment before planning faculty development programs (Samarasekera et al. 2020). A need assessment should inform the faculty development organizer to prepare a suitable program to fulfil the needs of medical teachers and resources needed.

The faculty development programs offer several advantages for medical teachers, including providing advice and mentoring from senior faculties and other experts, set aside time and working together as a group in faculty development session, acquiring new skills and knowledge, increasing publication, providing networking and influencing policy and indirectly improving health care. However, medical teachers perceived that joining faculty development means loosing clinical and research revenue and there is no immediate income from the activity. Evidence shows that there are some challenges and obstacles of faculty development program which are balancing individual and organization needs and resources, dealing with the inadequacy of organizational support, resistance to change, and lack of follow up activities.

The hierarchical nature of the countries implies that regulation in the higher level, in the government or regional or international level is necessary to emphasize the importance of and coerce medical institutions to conduct proper faculty development program. The regulation also ensures the funding and recognition of the program. Nevertheless, the regulations should equally reward teaching with similar academic credits compared to those of research, clinical service and managerial tasks. Role model is also crucial in the hierarchical culture; involving seniors and certified expert in faculty development program will be essential. In countries with collectivist culture, medical teachers will value collaboration and communication between medical teachers and institution, therefore faculty development program should enable sharing and working together as a group. International cooperation and support will also be beneficial for developing countries. The supporting factors for the faculty development program in the hierarchical and collectivist culture countries is shown in Fig. 10.2.

Conducting reflective practice and giving or receiving feedback is not common in the hierarchical and collectivist culture. Rather than being reflective, a medical teacher in hierarchical culture tends to depend on their more powerful figure to instruct how to do the thing and judge their performance. Feedback was rarely given and if it is given, it tends to be perceived as an attack to personality since most of it in the form of criticism from senior or higher power person. The program developer should arrange for the activities that could encourage self-reflective skills. Guided reflective writing would be an excellent alternative to familiarize medical teachers to the habit of reflective practice. Creating a safe environment during faculty development activities were essential to ensure participant practising self-reflection and feedback. Selection of trainer and also a group of participants are important. A senior trainer who can play a role as a role model or a renowned expert would be an ideal trainer for the program. A homogenous group of participants will also increase the success of the program. In line with adult learning theory, to gain optimum results medical teachers who participate in the faculty development program should feel the need to master the skills to support their work, not just being instructed by the institution or leader to join. Hence, participant buy-in is the current key priority.

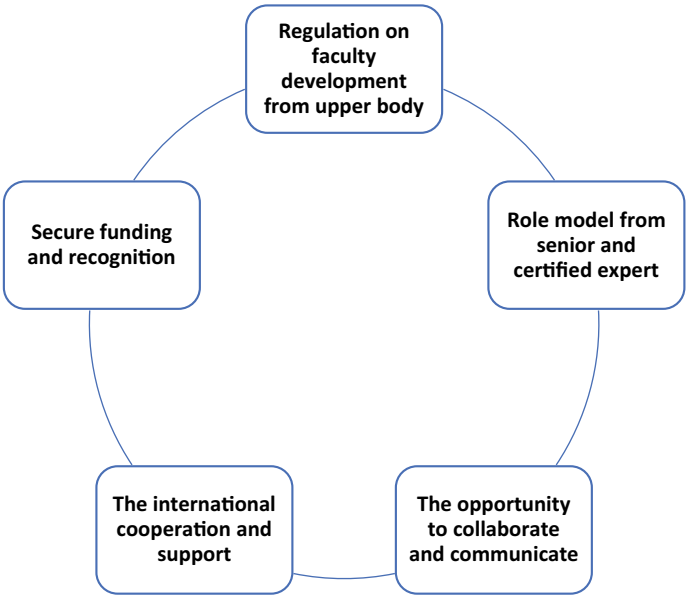

Fig. 10.2 The supporting factors of faculty development in hierarchical and collectivist countries

10.4 Summary

Countries worldwide have already implemented PPD for physicians and medical teachers. Most countries have an independent body that regulates the PPD and put pressure by entailing PPD as the requirement for re-licensing and job promotion. In the hierarchical culture, learning is for the young ones, therefore instilling the idea of learning for adults is also one of the challenges. PPD aims to maintain lifelong learning capacities of physicians and medical teachers and to achieve that purpose the culture of deliberate practice, reflective practice and feedback process should be encouraged. The comprehensive plan of a needs-based PPD, including the incorporation of portfolio development, workplace learning, will likely enhance the PPD effectiveness. Involving seniors or experts as role models and mentors is also important in the hierarchical culture, while conducting a CPD program in a collaborative manner is one of the highlights of PPD in the collectivist culture. However, more importantly, the medical institutions need to create a climate of learning in the institutions and address well-being as an important part of a PPD.

Key Learning Points

- A needs-based personal and professional development/ PPD will likely produce relevant outcomes and more impact on the practice.

- Two essential approaches, i.e. deliberate practice and reflective practice, are required to conduct a needs-based PPD.
- Collaborative PPD program and involvement of seniors or role models are the highlights of PPD in the high power distance and collectivistic culture.

References

Ambarsarie R, Mustika R, Soemantri D (2019) Formulating a need-based faculty development model for medical schools in Indonesia. Malays J Med Sci 26(6):90

Amin Z, Khoo HE, Chong YS et al (2009) A multi-institutional survey on faculty development needs, priorities and preferences in medical education in an Asian medical school. Med Educ 14(1):4509

Boillat M, Elizov M (2013) Peer coaching and mentorship. In: Steinert Y (ed) Faculty development in the health professions: a focuson research and practice, innovation and change in professional education. Springer, London, pp 159–179. https://doi.org/10.1007/978-94-007-7612-8_12

Boud D & Brew A (1995) Developing a typology for learner self assessment practices. In:Higher education: blending tradition and technology: Proceedings of the 1995 Annual Conference of the Higher Education Research and Development Society of Australasia (HERDSA). Central Queensland University, for HERDSA, Rockhampton

Branch WT, Chou CL, Farber NJ et al (2014) Faculty development to enhance humanistic teaching and role modeling: a collaborative study at eight institutions. J Gen Intern Med 29(9):1250–1255

Bronkhorst LH, Meijer PC, Koster B et al (2011) Fostering meaning-oriented learning and deliberate practice in teacher education. Teach Teach Educ 27:1120–1130

Campbell C, Silver I, Sherbino J et al., for the International CBME Collaborators (2010) Competency-based continuing professional development. Medical Teacher 32:657–662

Chipchase LS, Johnston V, Long PD (2012) Continuing professional development: the missing link. Man Ther 17:89–91

Dornan T, Carroll C, Parboosingh J (2002) An electronic learning portfolio for reflective continuing professional development. Med Educ 36:767–769

Duffy FD, Holmboe ES (2006) Self-assessment in lifelong learning and improving performance in practice: Physician know thyself. JAMA 296(9):1137–1139

Dunn TG, Schriner C (1999) Deliberate practice in teaching: what teachers do for self-improvement. Teach Teach Educ 15:631–651

Ericsson KA (1998) Basic capacities can be modified or circumvented by deliberate practice: a rejection of talent accounts of expert performance. Behav Brain Sci 21:413–414

Ericsson KA (2004) Deliberate practice and the acquisition and maintenance of expert performance in medicine and related domains. Acad Med 79(10suppl):S70–S81

Ericsson KA, Krampe RT, Tesch-Romer C (1993) The role of deliberate practice in the acquisition of expert performance. Psychol Rev 100(3):363–406

Harden RM, JR Crosby, MH Davis et al. (1999) AMEE Guide No. 14: Outcome-based education: Part 5-From competency to meta-competency: a model for the specification of learning outcomes. Med Teach 21(6):546–52

Hegde P (2013) Faculty development trends in medical education: a review. South-East Asian J Med Educ 7(2):11–16

Hofstede G (2011) Dimensionalizing cultures: the Hofstede model in context. Online Read Psychol Cult 2(1):2307–919. https://doi.org/10.9707/2307-0919.1014

Hofstede G, Hofstede GJ, Minkov M (2010) Culture and organizations: Software of the mind, intercultural cooperation and its importance for survival, 3rd edn. McGraw Hill, New York
Hospital Accreditation Committee, Ministry of Health, Rep Indonesia (2018) National Standard Survey Instrument for Hospital Accreditation Edition I. Ministry of Health, Rep Indonesia
Jaafar R (2006) Continuing professional development: Roles of the individual lecturer and the institution. Malays J Med Sci 13(1):1–3
Kennedy A (2014) Models of continuing professional development: A framework for analysis. Prof Dev Educ 40(3):336–351. https://doi.org/10.1080/19415257.2014.929293
Khoo HE (2003) Implementation of problem-based learning in Asian medical schools and students' perceptions of their experience. Med Educ 37:401–409
Kim DH, Yoon HB, Sung M et al (2015) Evaluation of an international faculty development program for developing countries in Asia: The Seoul Intensive Course for Medical Educators. BMC Med Educ 15(1):1–12
Kolb DA (1984) Experiential learning: experience as the source of learning and development. Prentice-Hall, New Jersey
Korthagen F, Vasalos A (2005) Levels in reflection: core reflection as a means to enhance professional growth. Teach Teach 11(1):47–71
Kruger J, Dunning D (1999) Unskilled and unaware of it: how difficulties in recognizing one's own incompetence lead to inflated self-assessments. J Pers Soc Psychol 77(6):1121–1134
Lamki N, Marchand M (2006) The medical educator teaching portfolio: Its compilation and potential utility. Sultan Qaboos Univ Med J 6(1):7–12
Lewis KO, Baker RC (2007) The development of an electronic educational portfolio: An outline for medical education professionals. Teach Learn Med 19(2):139–147
Mann K, Gordon J, MacLeod A (2009) Reflection and reflective practice in health professions education: A systematic review. Adv Health Sci Educ Theory Pract 14(4):595–621
McLean M, Cilliers F, Van Wyk JM (2008) Faculty development: Yesterday, today and tomorrow. Med Teach 30(6):555–584
Micallef and Kayyali (2019) A systematic review of models used and preferences for continuing education and continuing professional development of pharmacists.Pharmacy 7(4):154.https://doi.org/10.3390/pharmacy7040154
Miller LA, Chen X, Srivastava V et al (2015) CME credit systems in three developing countries: China, India and Indonesia. J Eur CME 4(1):27411. https://doi.org/10.3402/jecme.v4.27411
Mizuno-Lewis S, Kono K, Lewis DR et al (2014) Barriers to continuing education and continuing professional development among occupational health nurses in Japan. Workplace Health Saf 62:198–205. https://doi.org/10.3928/21650799-20140422-03
Mustika R, Nishigori H, Ronokusmono S et al (2019) The odyssey of medical education in Indonesia. TAPS 4(1):4–8
Norman GR (2005) Research in clinical reasoning: Past history and current trends. Med Educ 39:418–427
O'Sullivan P, Irby D (2011) Reframing research on faculty development. Acad Med 86(4):421–428
Passi V, Johnson S, Peile E et al. (2013) Doctor role modelling in medical education: BEME Guide No. 27. Med Teach 35(9):e1422–e1436. doi:https://doi.org/10.3109/0142159X.2013.806982
Peggy Reeves Sanday (2002) Women at the center: Life in a modern matriarchy. Cornell University Press, New York
Executive Board of the Indonesian Doctors Association (PB IDI) (2018) Technical Guidelines for Continuing Professional Development (P2KB). PB IDI, Jakarta
Pickles R (2018) Revalidation or recertification: What does it all mean? Arch Med Health Sci 6:12. https://doi.org/10.4103/amhs.amhs_132_17
Ranmuthugala G, Plumb JJ, Cunningham FC et al (2011) How and why are communities of practice established in the healthcare sector? A systematic review of the literature. BMC Health Serv Res 11:273. https://doi.org/10.1186/1472-6963-11-273
Saks AM, Belcoourt M (2006) An investigation of training activities and transfer of training in organization. Hum Resour Manage 45(4):619–648

Samarasekera DD, Lee SS, Findyartini A et al (2020) Faculty development in medical education: An environmental scan in countries within the Asia Pacific region. KJME 32(2):119–130
Sandars J (2009) The use of reflection in medical education: AMEE Guide No. 44. Med Teach 31(8):685–695
Sargeant J, Armson H, Chesluk B et al (2010) The processes and dimensions of informed self assessment: A conceptual model. Acad Med 85(7):1212–1220
Satu KU, Leena S, Mikko S et al (2013) Competence areas of nursing students in Europe. Nurse Educ Today 33:625–632. https://doi.org/10.1016/j.nedt.2013.01.017
Schon DA (1991) The reflective practitioner: How professionals think in action, 1st edn. Arena, Hants
Schostak J, Brown T, Davis M et al (2010) "Effectiveness of continuing professional development" project: a summary of findings. Med Teach 32(7):586–592
Shah MD, Goyal V, Singh V et al (2017) Preferences and attitudes of physicians in India towards continuing medical education. Journal of European CME 6:1332940. https://doi.org/10.1080/21614083.2017.1332940
Silver I, Campbell C, Marlow B et al (2008) Self-assessment and continuing professional development: The Canadian perspective. J Contin Educ Heal Prof 28(1):25–31
Steinert Y, Mann K (2006) Faculty development: Principles and practices. J Vet Med Educ 33(3):317–324
Steinert Y, Mann K, Centeno A et al (2006) A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME guide No. 8. Med Teach 28:497–526
Steinert Y (2013) Developing medical educators: A journey, not a destination. In: Swanwick T (ed) Understanding medical education: Evidence, theory and practice, 2nd edn. Wiley-Blackwell, Oxford, pp 455–471
Steinert Y (2013b) Learning from experience: From workplace learning to communities of practice. In: Steinert Y (ed) Faculty development in the health professions: a focuson research and practice, innovation and change in professional education. Springer, London, pp 141–158. https://doi.org/10.1007/978-94-007-7612-8_12
Steinert Y, Mann K, Anderson B et al., (2016) A systematic review of faculty development initiatives designed to enhance teaching effectiveness: A 10-year update: BEME Guide No. 40. Med Teach 38(8):769–786
Sun Q (2008) Confucian educational philosophy and its implication for lifelong learning and lifelong education. Int J Lifelong Educ 27:559–578. https://doi.org/10.1080/01411920802343269
van de Wiel MWJ, Van den Bossche P, Janssen S et al (2011) Exploring deliberate practice in medicine: how do physicians learn in the workplace? Adv Health Sci Educ 16:81–95
Vera M, Salanova M, Martín B (2010) University faculty and work-related well-being: The importance of the triple work profile. Electron J Res Educ Psychol 8(2):581–602
Wald HS, Haramati A, Bachner YG et al (2016) Promoting resiliency for interprofessional faculty and senior medical students: Outcomes of a workshop using mind-body medicine and interactive reflective writing. Med Teach 38(5):525–528
WFME (2015) Continuing professional development of medical doctors. WFME Office, University of Copenhagen, Denmark, WFME Global Standards for Quality Improvement
Whitcomb ME (2003) The medical school's faculty is its most important asset. Acad Med 78(2):117–118
Woolliscroft JO (2020) Innovation in response to the Covid-19 pandemic crisis. Acad Med 95(8):1140–1142. https://doi.org/10.1097/ACM.0000000000003402
Younes NA, AbuAlRub R, Alshraideh H et al (2019) Engagement of Jordanian physicians in continuous professional development: Current practices, motivation, and barriers. Int J Gen Med 12:475–483. https://doi.org/10.2147/IJGM.S232248

Chapter 11
Interprofessional Collaboration and Education in the Hierarchical and Collectivistic Culture

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Abstract The socio-hierarchical gaps were also prominent in communication and collaboration among health professionals in the hierarchical and collectivistic culture. As a result, it is highly challenging to initiate two-way dialogues between health professionals. Health professionals are not always ready to assume their advocacy roles in collaboration to guard the safety of the patients. This chapter will discuss the importance of interprofessional collaboration to promote patient safety, the influence of hierarchical and collectivistic context, and the root of stereotyping. We will also discuss that the history of each profession also played a role in shaping the stereotypes. At the end of this chapter, we provide some educational models from the hierarchical and communal context to improve interprofessional collaboration. The examples are from different education contexts (e.g., PBL, skills training, community-based education) to help readers grasp principles on designing interprofessional education in a hierarchical and communal context.

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11.1 Introduction

11.1.1 Toward Patient Safety

Society consists of individuals with diverse characteristics. Individuals who have similarities, for example, the same profession, will form social groups (Brewer 1991). This group has unconsciously created a distance and boundary for other groups that are not the same. The dominant character of a social group is usually associated with a relevant adjective, like intelligent, clever, graceful, or rude. Instinctively, humans are used to making comparisons between traits, such as better, higher, or more intelligent. People perceived social status from the differentiation of the traits that characterize each group. Comparisons between statuses in society ultimately contribute to the social hierarchy (Vignoles et al. 2000).

Social hierarchies also exist in the health care environment. Some professions or sub-professions are considered to be in a higher position compared to others. This phenomenon can be related to various factors, one of which is the historical development of the health service environment (Susilo 2013). Historically, health services functioned as a center for healing diseases. Doctors are the only health workers who have the medical competence to treat diseases. In carrying out their work, doctors are assisted by nurses (Emilia et al. 2017). Previous studies on communication between health care providers and their patients and among health professionals reported the influence of hierarchical and communal culture on health-related communication. It is highly challenging to initiate two-way dialogues between health professionals and prioritize patient safety on top of the interpersonal relationships in this cultural context (Claramita and Susilo 2014).

This chapter will discuss the importance of interprofessional collaboration in promoting patient safety, the influence of hierarchical and collectivistic context, and the root of stereotyping. Additionally, we will provide examples of educational approaches from the hierarchical and communal context to improve interprofessional collaboration at the end of the chapter.

11.1.2 Why is Interprofessional Collaboration Essential to Promote Patient Safety?

Collaborative practice in health care is the collaboration of multiple health professionals from different backgrounds to provide comprehensive and coordinated care to patients, their families and carers, and the communities to achieve the highest quality of care in hospitals and communities, given available resources (Supper et al. 2015). Although some reviews suggested the need to strengthen the evidence, interprofessional collaboration can potentially impact health care outcomes, reduce cost, and increase patient satisfaction (Lutfiyya et al. 2019; Reeves et al. 2017).

Since the release of To Err is Human: Building a Safer Health System, interprofessional collaboration has been an essential element to improve patient safety. This classical document pointed out the importance of reporting errors as a first step to learn from mistakes and improve the health care system. Lack of communication and collaboration of health care teams contributed to the threat to patient safety (Institute of Medicine 2000). Although evidence is limited, some studies indicated that interventions to improve collaboration have also resulted in better health outcomes (Hughes et al. 2016; Reeves et al. 2016). WHO has underlined the urgency to improve interprofessional collaboration, as well as interprofessional education. The patient safety curriculum guide published by WHO aimed at different health professionals and emphasized the importance of collaboration (WHO 2011).

The desired model in interprofessional collaborative practice is a complementary model in which no single profession is more dominant than other professions. The complementary model is a collaborative model in which the various professions share power and perspectives and have complementary roles and responsibilities in patient management. Nevertheless, such models are often challenging to implement. In Indonesia, for example, the dominant model is the hierarchical or traditional model in which the final decision is mainly in the hand of physicians (Yusra et al. 2019).

Boxes 11.1 and 11.2 provide two illustrations that reflect some mismatches in the collaborative practice. The first showed a lack of continuity of care across different levels of health care service, while the second showed a communication challenge in a maternal care team. Both cases are from interviews of people involved in real-life situations, but we keep the identity and setting anonymous for confidentiality.

Box 11.1 Where is the missing link?—a reflection of an anesthesiologist

I met a 20 years old girl with Tetralogy of Fallot (TOF), a complex congenital heart disease. She had pain in the right lower abdominal area which the surgeon suspected as appendicitis.

Since she was a little kid, she turned blue when she cried. Her parents did not have a clue until a physician in a community health center told them that she had a heart disorder. It was when she was in the third year of primary school. She dropped out of school ever since because she frequently missed class. It was not clear how she got the treatment afterward.

Only at the age of 16, she went to a referral hospital with a cardiac surgical facility. She underwent several examinations, including echocardiography and cardiac catheterization. Doctors said that she needed corrective heart surgery. Nevertheless, she had to queue for the procedure. Her parents said that the staff in the hospital informed them that they would get a call for an appointment. She got medicine to take home for a few months.

Years have gone by, but they did not get any call. Finally, this girl ran out of medicine, and the parents were still waiting for the call. I could not imagine how is the current condition of her heart without any medication or surgical intervention. A heart with TOF has to work very hard to supply blood to the body. Without any intervention, it is a failing heart.

I asked them a few questions, "Do you get a letter from the hospital that you should give to the physician in the community health center close to your place? Why don't you come to the district hospital? We have a cardiologist here, at least while waiting, you can get medication and routine examination for the heart?""We are people from a village; we don't understand. We think that we have to wait for the call," said her parents.Their answers broke my heart.

After an ultrasound exam, it turned out that the girl did not need surgery. She got medication and could go home. I discussed this case with our cardiologist the next day. She said, "I'm sure that the referral hospital has given a letter to refer her back to the district hospital or the physician in the community health center. It is a standard operational procedure. Perhaps the patients and the parents didn't understand."

Nevertheless, the girl continued her treatment. She finally visited our cardiologist for routine examination before moving to the planned intervention in the referral hospital. Then, at least, there is a physician taking care of her. A question left unanswered: how can be a missing link in this chain of continuity of care?

Box 11.2 When lacking communication cost life—a reflection of a hospital midwife

A 40 weeks pregnant woman, in her first pregnancy, came to an independent midwife practice with a complaint of contractions. The examination showed a high blood pressure of 170/100 mmHg, and the protein in the urine was positive. This lady had preeclampsia. There was no opening of the cervix. The midwife referred her to the hospital with the hope that she would get immediate treatment.

I was one of the midwives on duty in the hospital that night. I started the $MgSO_4$; a regimen used to prevent seizures in preeclampsia. Then, I called the obstetrician to discuss further treatment. I was unsure why, but I understood that the obstetrician instructed me to wait until the next day. I was confused, but as a young midwife, I felt reluctant to question this order. We stopped the $MgSO_4$.

What happened on the next day? The woman had eclampsia. Both the mother and baby died because they waited too long to get appropriate treatment. It was also unfortunate that we did not have a further discussion about what happened that night.

This late treatment was due to a lack of clear communication between the doctor and the midwives and a hesitance related to the perceived hierarchical interprofessional relation. This unclear communication resulted in a fatal consequence for the lives of both the mother and the baby.

In professional practice, I have observed similar cases, with different severity, often occur during the handling of pregnancy and delivery cases. As a midwife, I do understand the Three Delay Models that contributed to maternal mortality. The first delay was the delay in deciding on the level of the patient and family level. The second was the delay in accessing care, perhaps due to the distance between the patient's home to the healthcare center. While the last one is the delay in getting help in the health care center. The mother had struggled to overcome the first and the second delay. It was so unfortunate that health professionals could not help her overcome the third one. By developing better communication in collaborative practice, we should have prevented such mortality.

11.1.3 What are the Factors Influencing Interprofessional Collaboration?

Studies around the world showed various factors influencing professional collaboration. A systematic review of interprofessional collaboration in a primary care setting extensively described barriers and facilitators. Examples of facilitating factors are common interests to improve the patients' quality of life and develop their professional competence. In addition, the support system from the organization is helpful, for instance, if there is a straightforward procedure for the collaborative practice, tools for communication among professionals, or appropriate financial incentives for collaboration (Supper et al. 2015).

Other studies reported that factors influencing the collaboration are different perceptions of the needs of patients among professionals, unequal participation in decision making, lack of face-to-face interaction, and overlapping of roles and responsibilities. Those factors served as barriers to collaboration (Lestari et al. 2018). Age and working years can also influence. The longer both are, the more possibility it will be toward collaboration. This phenomenon can be explained by the more opportunity for face-to-face interaction to build a trustworthy relation (Yusra et al.

2019). These findings are reported in a study from Palestine (Elsous et al. 2017) and Indonesia (Yusra et al. 2019).

Additionally, there are some challenges related to the health care system, especially in countries facing shortages and uneven distribution of health professionals, such as ones in Asia (Kanchanachitra et al. 2011; Shields and Hartati 2003). Whether the competence of health professionals across countries has been standardized is an issue. For example, Indonesia has been struggling to improve the quality and standardization of more than 80 medical schools and 600 nursing schools (Kanchanachitra et al. 2011; Shields and Hartati 2003). The financing system of health care is also influential. Universal health care coverage has been applied in various countries, while others are struggling in the implementation phases (Tangcharoensathien et al. 2011).

Setiadi et al. (2017a, b) mapped these factors more systematically using the ecological models, showing that barriers exist at the system, organizational, and personnel levels. Examples of barriers at the system level are government policy; at the organizational level is the organizational culture and the coordination and communication mechanism; while one at the personnel level is role understanding (Setiadi et al. 2017a).

11.1.4 The Influence of Hierarchical and Communal Culture on the Interprofessional Collaboration

In this chapter, the work of Hofstede, a researcher from the Netherlands, is used to illuminate the influence of culture on interprofessional collaboration. Hofstede defined culture as the collective programming of the mind that distinguishes one group or category of people from others. Hofstede identified six cultural domains that can be measured using indexes as listed in Box 11.3. As this chapter does not elaborate on each area, readers can refer to further references (Hofstede et al. 2010).

Box 11.3 The cultural domains of Hofstede

Small versus large power distance

Individualism versus collectivism

Masculinity versus feminity

Weak versus strong uncertainty avoidance

Long-term versus short-term orientation

Indulgence versus restraint

Each domain is continuity. Using indexes, we can understand where a particular nation sits on a specific point at this continuity (Hofstede et al. 2010). Strong hierarchy and collectivism are prominent characteristics in many countries in Asia, Africa, and Latin America. Although the cultural and social atmosphere is diverse across countries, there are some similarities (Acuin et al. 2011; Chongsuvivatwong et al. 2011). In general, those countries have a wide power distance index (hierarchical) and strong collectivism (communal) (Hofstede et al. 2010).

The strong hierarchical culture is reflected in the broad power distance among people, for example, between parents and children, or teachers and students, or among senior or junior co-workers. Respect and obedience from ones from the lower social hierarchy to ones from the higher social hierarchy are prominent. Vice versa, ones from the higher social hierarchy should protect their subordinates (Hofstede et al. 2010).

The strong collectivistic culture referred to the dominant influence of the community, or group, upon an individual. The community opinion may influence the individual, and it is often a struggle to stay against the mainstream. A strong collectivistic culture also has distinctive characteristics concerning the group dynamic. The concept of ingroup and outgroup is strong. When one belongs to a particular group, he or she should be loyal to the group. In return, the group will support the interest of the person. These characteristics influence different aspects of human life, including the daily practice in health care (Hofstede et al. 2010).

As an example from a health care setting, Nishigori et al. applied the Bushido principles, the virtues of Japanese samurai, to elaborate on the concept of medical professionalism in Japan. One of them, *chu-gi*, which means loyalty, is very strongly influenced by communal culture. Nishigori underlined that doctors in Japan have a very strong ingroup bounding. They place the group's needs above their own needs and interest (Nishigori et al. 2014).

Another feature of communal culture is the high value of harmony. Confrontation is considered impolite and thus frequently avoided. The communication is usually high context and indirect. In the health care setting, this feature is a dominant feature in the doctor-patient relationship (Susilo et al. 2019).

In the collaborative practice in the setting of health professionals, perceived hierarchy is an essential barrier (Setiadi et al. 2017a). In a hierarchical and communal culture, these barriers can be more prominent. As with patients to their physicians (Claramita and Susilo 2014), health professionals also hesitate to convey their concern or disagreement with other health professionals when they perceive that they are sitting in a lower social hierarchy (Susilo 2013).

An example of this phenomenon in practice is reflected in how nurses practice their roles as the patient's advocate (Susilo et al. 2013a, b). The advocacy role is one of the central roles of nursing (Vaartio and Leino-Kilpi 2005). For instance, a nurse can help bridge the gap between doctor and patient by exploring patients' unspoken concerns, help patients to formulate appropriate questions, and convey these questions to their doctors. By doing this, a nurse can help ensure patient autonomy and safety (Susilo et al. 2013a, b).

Nevertheless, there is a challenge to assume advocacy roles when the hierarchical culture influences interprofessional relations. A nurse, for example, may choose not to speak up for their patient when they also perceive that their fellow doctors sit in the higher level of the social hierarchy (Susilo et al. 2013a, b). The choice of being an advocate is also a reflection of professionalism. When a health professional witnesses a threat in patient autonomy, they have choices of responses. One may take the role of advocate and support the patient, while the other may choose to continue their life and ignore the patient's interest. The hierarchical culture influenced such choice by the hierarchical culture (Susilo 2013; Vaartio and Leino-Kilpi 2005). The illustration in Box 11.2 is an example of a situation that endangered patient safety.

11.1.5 The History of the Professions: The Root of Stereotyping?

Another frequently mentioned barrier is stereotype or stigma on a profession, related to the role understanding (Cook and Stoecker 2014; Setiadi et al. 2017a). For example, the stigma of medical professions is challenging to work with and arrogant. Lestari et al. (2016) found that students reported this notion based on their previous experience or others. Studies also show that many health care professions see doctors lacking interprofessional skills and not being good team players. However, the views only occur before interprofessional education or training. The perceptions generally improve after they immerse together. Thus, the negative traits of doctors might be due to stereotypes instead of reality (Ateah et al. 2011; Hean et al. 2006).

Vice versa, Lestari et al. (2016) found that the stigma can be the other way around, that nursing students were less prepared to collaborate with medical students. Some nursing students reported that they did not communicate with medical students. Nursing students felt that medical students did not ask them about patients' progress, although they cared for them the whole day.

Although prominent in a hierarchical culture, stereotypes were also reported in different countries regardless of the power distance (Supper et al. 2015). Therefore, the stereotypes can be related not only to the culture but also to the profession's history (Ramvi 2015; Susilo 2013). We provide examples from the professions of medicine, nursing, and pharmacy, to illustrate how history can influence the stereotyping or stigma of professions.

11.1.5.1 The Medical Professions

School tot Opleiding van Indische Artsen (STOVIA) and Nederlandsch Indische Artsen School (NIAS) were the first medical schools in Indonesia, established during the colonial era in the nineteenth century. Back then, Indonesia was a vast territory comprised of many regional monarchies. The monarchy system created a strong sense

of hierarchy. Society respected the royals and aristocrats. The colonialists also appreciated them for political sake. Such circumstances provided them the opportunity to get a better education.

A higher level of education was only available as a privilege for the elites. One must come from an elite family to receive exclusive training and become a doctor. The indigenous graduates were then recruited in hospitals to assist the colonialist medical doctor. Through time, their responsibility expanded. They could provide direct care and consultation to the patients, although the scope was limited. During the Indonesian war of independence, doctors assumed the leading position in health care teams (Emilia et al. 2017).

Indonesia is one of the Southeast Asian countries with high power distance and collectivist culture (Hofstede et al. 2010). The stratification in society influenced the opportunity for each group to develop themselves. This illustration of how health care professions grew in Indonesia might show that the first group who could establish themselves and earned respect from the society became superior. Learning from how the medical profession developed in Indonesia, we understand that promoting professional competencies might enhance leadership.

11.1.5.2 The Nursing Professions

The nursing profession has struggled for the recognition of the profession (Susilo 2013). The history of the subordination of the nursing profession is related to their struggle to establish and maintain its professionalism for centuries (Allen 2004; Dingwall et al. 2002; Field and Annandale 2008; Kuhse 1997; Sciortino 1995). In the second half of the nineteenth century, nurses were untrained, and people entering the nursing profession mostly came from lower socioeconomic classes. Nursing roles were considered mothers who took care of a sick family member at home (Kuhse 1997; Sciortino 1995). Florence Nightingale struggled to establish a more socially respectable nursing profession by bridging the vocational and professional educational nursing. She believed that nurses should be well-trained to perform complex patient care activities. At the turn of the twentieth century, university nursing programs start mushrooming, and more advanced academic education for nurses also increased worldwide (Kuhse 1997; Nightingale 1860; Sciortino 1995).

Interestingly, Nightingale preserved the spirit of obedience of nurses to the physicians' order (Kuhse 1997; Sciortino 1995). This spirit was in line with the International Code of Nursing Ethics in 1967, which pointed out that the nurse is obligated to carry out the physician's order intelligently and loyally (Kuhse 1997). It was only in 1973 that the International Council of Nurses' Code of Ethics for Nurses emphasized that nurse's primary responsibility is to support the patients and no longer to assist the physician (Kuhse 1997).

The evolution of the nursing profession in countries with strong hierarchical and collectivistic cultures shares similar lines. While there are improvements in relationships with their fellows in medical professions, subordination of nursing persisted in some countries (Birks et al. 2009).

In Indonesia, the history of nursing is closely related to the Dutch colonial period. The first nurses coming to Indonesia were male task forces serving domestic tasks in a male hospital. Some nurses worked with the early missionary hospital brought by the Dutch church that promoted strong religious obedience and devotional value. Indonesian history also recorded that nurses were called doctors' assistants. Such a profession did not require a high level of education. Commoners who graduated from elementary school-level could take one-year training to become doctors' assistants. During the war, they were the team members whose duty was to follow commands in care provision (Sciortino 1995).

11.1.5.3 The Pharmacy Profession

An extensive sociology study conducted in the UK reported that the pharmacy professions were considered "the hidden" health care professions. The pharmacist had primarily been known for their drug dispensing roles. In the past, public related pharmacists' roles not as health professionals but more as the person around the drug store. In the eyes of their fellow professionals, pharmacists were also stereotyped as the "police of medicine" as they hold the surveillance role for medication safety (Altman 2017).

With the growing needs in health care, there was a call for more involvement of pharmacists in patient care. As pharmacy professions were underutilized, they should move out from behind the counter and provide a more integrative service in the health care system (Altman 2017). The role of pharmacists has extended along the medication chain, which consequently requires more collaboration and interaction with patients and fellow professionals. Unfortunately, other professions often do not recognize this role. This lack of role understanding can stimulate misperception, especially when pharmacists step out from the pharmacy wall and extend their service to patient care. For example, Setiadi et al. reported that pharmacists and pharmacy students were ready for collaboration, while physicians were not ready to collaborate with pharmacists as they sometimes did not notice the crucial roles of pharmacists (Setiadi et al. 2017b).

Another type of stereotyping that is rooted in history is related to the role conflict phenomenon. For example, Lestari et al. (2016) reported that one of the barriers to interprofessional education is that medical students are reluctant to share knowledge with nursing and midwifery students. They are worried that their fellows will know more about medical science and treatment of patients and thus will take over the doctor's role in providing medical services that should be a duty doctor.

Such perceptions have emerged from the role conflict phenomenon among some health professions within health services in Indonesia. An anthropological study in Central Java provided a comprehensive portrait of the conflicting role of nurses in community health centers: to care or to cure. Nurses are considered the most accessible health professions by the community. In the shortage or even absence of a physician, nurses often serve the community's health care needs. It is not uncommon that

this service extended into biomedical treatments: the practice of the cure (Sciortino 1995).

When one comes into a team with stereotyping in mind, which is frequently unavoidable and unrealized, it is sometimes challenging to develop collaboration. Stereotypes can be more vigorous in the collectivistic culture, where the community's influence and the group are substantial. As the social study suggests, group identities are more prominent than individual qualities in a collectivist culture. Therefore, how certain groups in society are seen and given attributes by the other groups in society determines that particular group's identity, even if it is based on the assumption (Vignoles et al. 2000).

There should be no doubt about the steps toward equal participation in collaborative practice. A sound understanding of own professional identity is a must, accompanied by solid confidence in self-competence. Before coming into a collaboration, a particular professional should hold a view on what he or she can contribute to the team. Understanding what others can contribute and having an open attitude to collaborate is essential to developing strong teamwork (Claramita et al. 2019). Box 11.4 showed how a ritual in the nursing profession could help form this professional identity.

Box 11.4 Capping day—a formation of professional identity

Around 50 nursing students were sitting in the school auditorium. They were young and fresh, expressing hope and a little bit of anxiety. A piece of beautiful music accompanied a girl walking in slowly into the room. She stepped elegantly, like a bride, who walked down a wedding aisle. However, this is a school, not a wedding aisle. This girl was one of the students, chosen to wear an old fashion costume and hold a lamp. She dressed as Florence Nightingale, the lady with the lamp. Florence Nightingale is the mother of professional nursing. She established the basics of nursing science and fought for a better education for her fellows. At her time of life, she showed a fundamental contribution of nurses: taking care of the wounded soldiers during wartime.

After this procession, there was a capping ceremony. Each student received a nurse cap from the senior nurses as a symbol of initiation of the next step of the professional career. This ritual usually occurs when the students enter their clinical phase of education and are ready to meet the patients in the ward. Of course, each school may have slightly different rituals. Nevertheless, the main message is clear; a sign of warm welcome to the nursing profession, a caring profession that brings enlightenment to the patients.

This ceremony is called the capping day, an important day where students can say to themselves or their friends and family: I am proud to be a nurse!

11.1.6 Interprofessional Education in the Context of Strong Hierarchical and Collectivistic Cultural Context: How to Prepare the Future Health Professionals

Studies showed that interprofessional education could prepare health professionals for collaborative practice. Education is essential to prepare health professionals facing cultural and social challenges in daily clinical practice. Interprofessional education should be trained longitudinally along the education years and integrated with learning clinical cases and introducing ethical and legal aspects (Lestari et al. 2016). Interprofessional education can also serve as a tool to nurture the professionalism of students. Reflection and feedback should be the cornerstone of this learning process (Claramita et al. 2019; Susilo et al. 2013).

Interprofessional Education Collaborative (2016) developed four core competencies for interprofessional education. The competencies are: (1) Values/Ethics for Interprofessional Practice, which emphasized the work with individuals of other professions to maintain a climate of mutual respect and shared values; (2) Role and responsibilities, which focus the use the knowledge of one's role and those of other professions to manage patient care and promote populations' health; (3) Interprofessional communication, which highlights the importance of communication with patients, families, communities, and other health professionals to promote health and support disease prevention and treatment; and (4) Teams and Teamwork, which refer to the relationship-building values and the principles of team dynamics to perform effectively in health care. The core competencies follow the principles of patient and family-centered, community and population-oriented, relationship-focused, and process-oriented. In addition, those competencies are linked to learning activities, educational strategies, and behavioral assessments, integrated across the learning continuum, applicable across various settings and meaningful for different professions (Interprofessional Education Collaborative 2016).

We provided several examples of interprofessional educational approaches piloted in different settings in Indonesia, a country with a strongly hierarchical and collectivistic culture. These examples come from various contexts along the spectrum of health professions education. As some of the models are copyrighted, we only presented the summary of each IPE model. Further explanations about each model are available in the source of references.

11.1.7 Interprofessional Education in Problem-Based Learning Tutorial

Lestari et al. (2019) conducted interprofessional education in Problem-Based Learning (PBL) tutorial session. The PBL adopted the seven steps used in Maastricht University the Netherlands, in which the tutorial consists of two face-to-face

meeting opportunities of 100 min each. The seven steps, which are collaborative and constructive, are presented in Box 11.5 (Lestari et al. 2019; Wood 2003).

Box 11.5 The seven steps of PBL

During the first meeting, students perform steps 1 to 5

Step 1. Identification of unfamiliar terms in the scenario

Step 2. Formulation of the problems

Step 3. Discussion of the problems, brainstorming of possible explanations; students share what they have known (prior knowledge) and identify incomplete information

Step 4. Reviewing and restructuring the result of the brainstorming and organizing existing explanations in a more systematic fashion

Step 5. Developing consensus on learning objectives

Then, students conduct step 6 independently

Step 6. Self-study: Finding resources to answer the learning objectives

During the second meeting, students meet again to conduct step 7

Step 7. Report and discussion of the results of the self-study; students revisit their interpretation of the problems based on the new information

The Interprofessional PBL tutorial group consisted of 8–10 students from the final year midwifery, nursing, and medical schools. This program lasted for four weeks. Every week, they had different topics: tuberculosis in pregnancy, vaginal bleeding, hyperemesis gravidarum, and normal labor. Box 11. 6 shows an example of a set of learning outcomes (modified from Lestari et al. 2019).

Box 11.6 Example of learning outcomes for Interprofessional PBL in Tuberculosis in Pregnancy

Students can explain the symptoms and signs of TB in pregnancy

Students can explain the diagnostic procedure for TB and develop the diagnosis of TB in pregnancy

Students can explain the management of TB in pregnancy, as well as to explain the pharmacodynamics and pharmacokinetics of TB drugs and the precaution of the use of TB drugs in patients with pregnancy

Students can explain how each member of the health care team contribute their role and responsibility in the management of pregnant women with TB in a community setting

These topics are highly relevant for countries with a high maternal mortality rate, as reflected in daily practice. In such countries, a solid collaboration of midwives, nurses, and physicians to promote patient safety is a must, for example, in the community health center (Emilia and Susilo 2016).

The evaluation of the program showed that students could share knowledge and understanding of the topics from different professionals' perspectives. Additionally, they can discuss their specific professional roles in those particular clinical situations as this is very important to create understanding among students on each other roles (Lestari et al. 2019).

Nevertheless, the hierarchical and collectivistic cultures influenced discussions. For example, there was a perception that medical students sit in a higher hierarchy. This perception hindered students from other professions from speaking out their opinion, especially if they felt that the opinion is not in line with the ones from the medical students. Furthermore, students from the same professional background also tend to sit clustering with each other (Lestari et al. 2019), reflecting the ingroup-outgroup phenomenon of the collectivistic culture (Hofstede et al. 2010; Nishigori et al. 2014). In such a situation, the role of the tutors, which came from different professions, was critical to probe students' knowledge and encourage equal participation of each student in the discussions (Lestari et al. 2019).

11.1.7.1 Interprofessional Education in a Communication Skills Training

Claramita et al. (2019) piloted an interprofessional communication skills training using a Tri-O Guide for medical, nursing, and nutrition students. Tri-O Guide was developed in an iterative validation process, including Focus Group Discussions and Nominal Group Technique of experts from various professional backgrounds. Tri-O Guide consisted of three integrative components: Open attitude for collaboration, Open for information, and Open for discussion (more explanation in Box 11.7).

Box 11.7 The TRI-O Guide for interprofessional communication

The TRI-O guide for interprofessional communication reflects three stages to minimize social hierarchy that may hinder interprofessional collaboration. This guide should apply in the verbal, non-verbal, and written communication of health professionals in the process of collaboration.

The first 'O' is an Open attitude for collaboration.

In the initial stage of collaboration, health professionals should show the attitude to minimize social hierarchy and allow the collaborative practice. The desired attitude includes respect, trust, and willingness to start a mutual relationship. This open attitude is a basis for establishing a good foundation for interprofessional collaboration.

The second 'O' is Open for information.

Health professionals should show an assertive and ethical manner in communication with other professionals. The assertiveness should apply in either dyadic or group communication. For example, by sharing information the piece of information that they have, the whole team could develop a more comprehensive picture of the patient's problem and the management plan.

The third 'O' is Open for discussion.

Health professionals should show the willingness to discuss and make a decision through assertive communication. When there are disagreements, the healthcare team should exercise conflict management based on an open attitude to listen and engage.

TRI-O Guide was used as a framework for reflection following an interprofessional communication role-play. First-year students were given a simple case of a fainted student during a ceremony, and they had to role-play how they helped the student. This case did not highlight the distinctive roles of each profession and the clinical knowledge. The fourth-year students obtained a clinical case. Students from different professions are requested to conduct an encounter with a simulated patient. They had to integrate clinical knowledge with their communication skills with patients and among professions. After each role-play, students and facilitators conducted debriefing using the TRI-O Guide as the framework (Claramita et al. 2019).

For example, when discussing the Open Attitude for Collaboration, students were encouraged to reflect on their behavior during their simulation. Were they aware of the roles, tasks, and functions of other professions? Did they show respect to each other? Have they tried to build trust and equal relationships with their fellows and start a mutual relationship between health professions? Such reflections help students realize their unconscious behavior and develop a more collaborative attitude (Claramita et al. 2019).

11.1.7.2 Community-Based Interprofessional-Education

Community service learning (CSL) is an option for community-based interprofessional education. This approach can bring lots of benefits for the community as well

as for the learner. It also serves to provide the social accountability of education. Community-wise, interprofessional education help improve community resilience and empower its capitals' capacity in rural and urban areas (Slack and Mcewen 2013). Education-wise, delivering interprofessional education in the community is a way to evaluate the social responsivity of the curriculum (Holmqvist et al. 2012).

Community-based interprofessional education is typical in countries with collectivistic cultures. In the Philippines, students from nine different professions are divided into groups to serve in family units of the partnering community. The program focuses on improving the capacity of community partners and facilitating students to learn about interprofessional communication and decision-making. Students perceive the program to help provide experiences such as learning about collaboration and appreciating other professions' roles. Furthermore, by learning through serving the community, students learn about the concept of holistic care and community service.

Nevertheless, some challenges might significantly influence the learning experience in the community setting. Some of them are geographical barriers, unexpected events within the community, or community disengagement. Therefore, educational institutes should thoroughly consider the available resources and solutions if such problems occur (Opina-Tan 2013).

11.1.8 Interprofessional Education for Health Professionals: How to Promote Patient Safety

The ultimate goal of teaching interprofessional education, especially for undergraduate students, is enhancing interprofessional collaborative competencies. In other words, it aims to improve their readiness for interprofessional collaboration. Improved readiness of collaboration will promote health care outcomes and patient safety as depicted in Fig. 11.1.

Continuing Interprofessional Education (CIPE) aims to ensure the sustainability of interprofessional collaborative behavior in practice. It is commonly delivered through short-term mini-courses, such as seminars and workshops. People interested in CIPE are practitioners who want to improve collaboration and quality of care (Reeves 2009). The CIPE can use a wide range of workplace settings, such as hospitals or primary care settings. Here we provide an example of CIPE in a primary care setting.

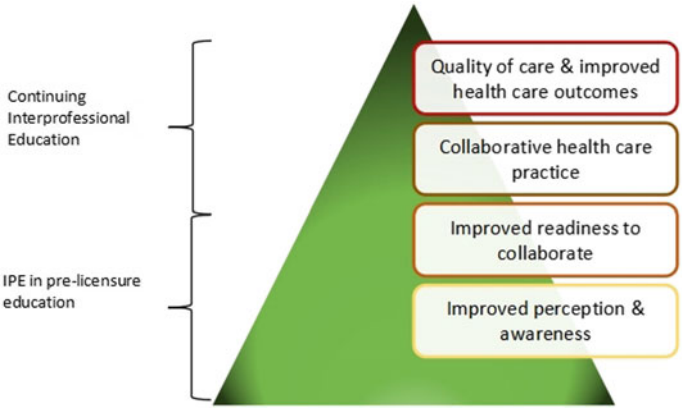

Fig. 11.1 The scope of IPE and the desired outcomes according to Kirkpatrick 4-level evaluation model (Reeves 2009; Thistlethwaite 2016; Thistlethwaite et al. 2012)

11.1.9 Continuing Interprofessional Education in a Primary Care Setting

Non-communicable diseases (NCDs) are a significant burden in Indonesia. They negatively influence the quality of life. Hypertension and poor diet, along with tobacco use and air pollution, become the major risk factors. The Indonesian government thus develops strategies to improve community health (Mboi et al. 2018).

The establishment of Universal Coverage, the so-called Jaminan Kesehatan Nasional (JKN) in Indonesia, aims to ensure equity and improve health care outcomes. Key challenges were addressed upon its implementation, including threats from the availability of health care facilities and human resources. Strengthening primary health care means advocating and promoting community health (Mboi 2015). Therefore, improving the capabilities and distribution of health care workers is necessary, especially for those who work in front-line health care facilities.

The Faculty of Medicine, Public Health, and Nursing Universitas Gadjah Mada and the local government of Gunung Kidul district in Yogyakarta, Indonesia, developed an educational program to promote interprofessional collaborative practice in primary care. Thirty-three primary care facilities joined this program. The program consisted of three phases. First, several representatives from the primary care facilities in each area joined a two-days Training of Tutor (ToT) about the foundation of interprofessional collaborative practice and the basis of teaching skills. They worked in groups to develop IPCP guides in four cases: anemia management, hypertension treatment, antenatal care (ANC), and medication error prevention. Seven multidisciplinary faculties from Universitas Gadjah Mada and Universitas Muhammadiyah Yogyakarta served as the training facilitators. They had different professional backgrounds (family medicine, nutrition, maternal health, nursing, and medical education). Second, the ToT participants trained the remaining health care providers from

all primary care in Gunung Kidul about IPCP and introduced the guide. Third, the guide was implemented in daily practice and evaluated.

The training process showed some essential lessons. During the first phase, misconceptions in regards to IPCP were identified and discussed. This reflection process helped participants be aware of their limitations in collaborative practice and create some improvement measures toward better health outcomes and patient safety. This awareness supported participants in training their fellows in the second phase of the program. Furthermore, the responsibilities of the trainers did not end in the second phase. They were also responsible for the monitoring and evaluation of the IPCP implementation.

11.2 Summary

Interprofessional collaboration and education are essential elements to improve patient safety. As culture influences, health professionals should be aware of the influence and consider it in clinical practice. In addition, education has an essential role in preparing health professionals; hence should be systematically managed in the curricula and continued along the professional path.

Key Learning Points

- The hierarchical and communal culture strongly influences interprofessional collaborative practice and education.
- The lack of role understanding, aggravated by personal bias and negative perspective-taking, shaped the stereotyping culture among health care professions.
- To address those cultural challenges, interprofessional education should be developed tailored to the evidence and managed longitudinally along the continuum of health professions education.

References

Acuin J, Firestone R, Htay TT et al (2011) Southeast Asia: an emerging focus for global health. Lancet 377:534–535. https://doi.org/10.1016/S0140-6736(10)61426-2

Allen D (2004) Re-reading nursing and re-writing practice: towards an empirically based reformulation of the nursing mandate. Nurs Inq 11:271–283

Altman IL (2017) Pharmacists' perceptions of the nature of the pharmacy practice. Dissertation, University of Brighton

Ateah CA, Snow W, Wener P et al (2011) Stereotyping as a barrier to collaboration: does interprofessional education make a difference? Nurse Educ Today 31:208–213
Birks MJ, Chapman Y, Francis K (2009) Women and nursing in Malaysia unspoken status. J Transcult Nurs 20:116–123
Brewer MB (1991) The social self: on being the same and different at the same time. Pers Soc Psychol Bull 17:475–482. https://doi.org/10.1177/0146167291175001
Chongsuvivatwong V, Phua KH, Yap MT et al (2011) Health and healthcare systems in southeast Asia: diversity and transitions. Lancet 377:429–437. https://doi.org/10.1016/S0140-6736(10)61507-3
Claramita M, Susilo AP (2014) Improving communication skills in the Southeast Asian health care context. Perspect Med Educ 3:474–479. https://doi.org/10.1007/s40037-014-0121-4
Claramita M, Riskiyana R, Susilo AP et al (2019) Interprofessional communication in a sociohierarchical culture: development of the TRI-O guide. JMDH 12:191–204. https://doi.org/10.2147/JMDH.S196873
Cook K, Stoecker J (2014) Healthcare student stereotypes: a systematic review with implications for interprofessional collaboration. J Res Interprofessional Pract Educ 4(2). https://doi.org/10.22230/jripe.2014v4n2a151
Dingwall R, Rafferty M, Webster C (2002) An introduction to the social history of nursing. Taylor and Francis e-Library, London
Elsous A, Radwan M, Mohsen S (2017) Nurses and physicians attitudes toward nurse-physician collaboration: a survey from Gaza Strip, Palestine. Nurs Res Pract 2017:1–7. https://doi.org/10.1155/2017/7406278
Emilia O, Harsono H et al (2017) The history of Faculty of Medicine Universitas Gadjah Mada 1946–2016: development in the times of struggle and difficulties. Universitas Gadjah Mada, Yogyakarta
Emilia O, Susilo AP (2016) A communication approach with couples in obstetric and gynecological encounters in Indonesian changing society. In: Communication of health care professionals and patients in the context of Southeast Asian Culture. EGC, Jakarta, Indonesia
Field D, Annandale E (2008) Nurses and nursing. In: Taylor S, Field D (eds) Sociology of health and health care. Blackwell Publishing, Singapore, pp 249–269
Hean S, Clark JM, Adams K, Humphris D (2006) Will opposites attract? Similarities and differences in students' perceptions of the stereotype profiles of other health and social care professional groups. J Interprofessional Care 20:162–181. https://doi.org/10.1080/13561820600646546
Hofstede G, Hofstede GJ, Minkov M (2010) Cultures and organizations: software of the mind: intercultural cooperation and its importance for survival. McGraw Hill, New York
Holmqvist C, Meili D, Dick A (2012) Student-run clinics: opportunities for interprofessional education and increasing social accountability. J Res Interprofessional Pract Educ 2(3):14
Hughes AM, Gregory ME, Joseph DL (2016) Saving lives: a meta-analysis of team training in healthcare. J Appl Psychol 101:1266–1304. https://doi.org/10.1037/apl0000120
Institute of Medicine (2000) To err is human: building a safer health system. National Academies Press (US), Washington, DC
Interprofessional Education Collaborative (2016) Core competencies for interprofessional collaborative practice: 2016 update. Interprofessional Education Collaborative, Washington, DC
Kanchanachitra C, Lindelow M, Johnston T (2011) Human resources for health in southeast Asia: shortages, distributional challenges, and international trade in health services. Lancet 377:769–781. https://doi.org/10.1016/S0140-6736(10)62035-1
Kuhse H (1997) Caring: nurses, women, and ethics. Blackwell Publishing, Cornwall
Lestari E, Stalmeijer RE, Widyandana D et al (2016) Understanding students' readiness for interprofessional learning in an Asian context: a mixed-methods study. BMC Med Educ 16:179. https://doi.org/10.1186/s12909-016-0704-3
Lestari E, Stalmeijer RE, Widyandana D et al (2018) Understanding attitude of health care professional teachers toward interprofessional health care collaboration and education in a Southeast Asian country. JMDH 11:557–571. https://doi.org/10.2147/JMDH.S178566

Lestari E, Stalmeijer RE, Widyandana D et al (2019) Does PBL deliver constructive collaboration for students in interprofessional tutorial groups? BMC Med Educ 19:360. https://doi.org/10.1186/s12909-019-1802-9

Lutfiyya MN, Chang LF, McGrath C et al (2019) The state of the science of interprofessional collaborative practice: a scoping review of the patient health-related outcomes based literature published between 2010 and 2018. PloS One 14:e0218578. https://doi.org/10.1371/journal.pone.0218578

Mboi N (2015) Indonesia: on the way to universal health care. Health Syst Reform 1:91–97. https://doi.org/10.1080/23288604.2015.1020642

Mboi N, Murty Surbakti I, Trihandini I et al (2018) On the road to universal health care in Indonesia, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet 392:581–591. https://doi.org/10.1016/S0140-6736(18)30595-6

Nightingale F (1860) Notes on nursing: what it is and what it is not. D. Appleton and Company, New York

Nishigori H, Harrison R, Busari J et al (2014) Bushido and medical professionalism in Japan. Acad Med 89:560–563. https://doi.org/10.1097/ACM.0000000000000176

Opina-Tan L (2013) A pilot implementation of interprofessional education in a community-academe partnership in the Philippines. Educ Health 26:164. https://doi.org/10.4103/1357-6283.125992

Ramvi E (2015) I am only a nurse: a biographical narrative study of a nurse's self-understanding and its implication for practice. BMC Nurs 14:23. https://doi.org/10.1186/s12912-015-0073-y

Reeves S (2009) An overview of continuing interprofessional education. J Contin Educ Health Prof 29:142–146. https://doi.org/10.1002/chp.20026

Reeves S, Fletcher S, Barr H et al (2016) A BEME systematic review of the effects of interprofessional education: BEME guide no. 39. Med Teach 38:656–668. https://doi.org/10.3109/0142159X.2016.1173663

Reeves S, Pelone F, Harrison R et al (2017) Interprofessional collaboration to improve professional practice and healthcare outcomes. Cochrane Database Syst Rev (6). https://doi.org/10.1002/14651858.CD000072.pub3

Sciortino R (1995) Care-takers of cure. An anthropological study of health centre nurses in rural Central Java. Gajah Mada University Press, Yogyakarta

Setiadi AP, Wibowo Y, Irawati S et al (2017) Indonesian pharmacists' and pharmacy students' attitudes towards collaboration with physicians. Pharm Pract (Granada) 15:1052–1052. https://doi.org/10.18549/PharmPract.2017.04.1052

Setiadi AP, Wibowo Y, Herawati F et al (2017) Factors contributing to interprofessional collaboration in Indonesian health centres: a focus group study. J Interprofessional Educ Pract 8:69–74. https://doi.org/10.1016/j.xjep.2017.06.002

Shields L, Hartati LE (2003) Nursing and health care in Indonesia. J Adv Nurs 44:209–216

Silverman J, Kurtz SM, Draper J (2005) Skills for communicating with patients. Radcliffe Pub, Oxford, UK

Slack MK, Mcewen MM (2013) Perceived impact of an interprofessional education program on community resilience: an exploratory study. J Interprofessional Care 27:408–412. https://doi.org/10.3109/13561820.2013.785501

Supper I, Catala O, Lustman M et al (2015) Interprofessional collaboration in primary health care: a review of facilitators and barriers perceived by involved actors. J Public Health 37(4):716–727. https://doi.org/10.1093/pubmed/fdu102

Susilo A, Dalen JV, Scherpbier A et al (2013) Nurses' roles in informed consent in a hierarchical and communal context. Nurs Ethics 20:413–425. https://doi.org/10.1177/0969733012468467

Susilo AP, van Merriënboer J, van Dalen J et al (2013) From lecture to learning tasks: use of the 4C/ID model in a communication skills course in a continuing professional education context. J Contin Educ Nurs 44(6):278–284

Susilo AP, Marjadi B, van Dalen J et al (2019) Patients' decision-making in the informed consent process in a hierarchical and communal culture. TAPS 4:57–66. https://doi.org/10.29060/TAPS.2019-4-3/OA2085

Susilo A (2013) Learning to be the patient advocate: the development of a communication skills course to enhance nurses' contribution to the informed consent process. Dissertation, Maastricht University

Tangcharoensathien V, Patcharanarumol W, Ir P et al (2011) Health-financing reforms in southeast Asia: challenges in achieving universal coverage. Lancet 377:863–873. https://doi.org/10.1016/S0140-6736(10)61890-9

Thistlethwaite J (2016) Interprofessional education: 50 years and counting. Med Educ 50:1082–1086. https://doi.org/10.1111/medu.12959

Thistlethwaite JE, Davies D, Ekeocha S et al (2012) The effectiveness of case-based learning in health professional education. A BEME systematic review: BEME guide no. 23. Med Teach 34:e421–e444

Vaartio H, Leino-Kilpi H (2005) Nursing advocacy—a review of the empirical research 1990–2003. Int J Nurs Stud 42:705–714

Vignoles VL, Chryssochoou X, Breakwell GM (2000) The distinctiveness principle: identity, meaning, and the bounds of cultural relativity. Pers Soc Psychol Rev 4:337–354. https://doi.org/10.1207/S15327957PSPR0404_4

WHO (2011) WHO multi-professional patient safety curriculum guide. WHO, Switzerland

Wood DF (2003) Problem based learning. BMJ 326:328–330

Yusra RY, Findyartini A, Soemantri D (2019) Healthcare professionals' perceptions regarding interprofessional collaborative practice in Indonesia. J Interprofessional Educ Pract 15:24–29. https://doi.org/10.1016/j.xjep.2019.01.005

Chapter 12
Strengthening Resilience in Medical and Health Professions Education: The Dynamic Interaction of Culture, Humanistic Environment, and Positive Role Modelling

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Abstract Medical and health professions education should give attention to faculty and student wellbeing and create a supportive curriculum and teaching–learning process to assure the achievement of competency and readiness of graduates. This chapter highlights that the students, faculty, patients, and other human enterprises are the center of the process. Relevant theories and practices on resilience, burnout, and wellbeing will be discussed comprehensively in the medical and health professions education context in general and in a hierarchical-collectivist cultural context. Resilience or perseverance is the ability of an individual to respond to stress healthily and adaptively so that people may 'bounce back' from challenging circumstances and even become more robust in the process. On the other hand, the failed adaptation will result in burnout. The balance between resilience support and burnout prevention is believed to promote wellbeing. The concept is highly relevant to the vision of creating future medical and health professionals and in any efforts involving current students and faculty. In addition to individual processes and development, resilience is influenced by the learning environment. The socialization process within

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the education milieu allows students and faculties to stay motivated in achieving their goals, prevent burnout and keep developing their personal and professional identity. Studies show that interventions on the individual without paying attention to the learning environment are not adequate. The keys to nurturing and humanistic learning environment which supports resilience are at the individual, interpersonal, and organization/system levels in which culture is embedded. This chapter will also describe that positive role-modeling and mentoring can create the expected learning environment in hierarchical and collectivist cultural context.

12.1 Introduction

12.2 Humanistic Professions

The role of students in the competency-based medical curriculum has been highlighted by the concept of student-centred learning and self-regulated learning. Student-centred learning approach empowers students to actively engage in the learning process, construct their own understanding through experience, and have their autonomy in learning and scaffolding their knowledge (Lee and Hannafin 2016). Student-centred learning approaches such as problem-based learning, case-based collaborative learning, team-based learning, technology-enhanced learning, etc., are shown to be effective in different learning environments and seem to cultivate positive learning experiences both for students and faculty (Wilson et al. 2018). Furthermore, student self-regulated learning is also as crucial to support the implementation of student-centred learning. Effective implementation of self-regulated learning enables students to be adaptive in various learning environments by realizing and revisiting their learning goals, implementing effective learning strategies, reflecting on their experiences, seeking feedback, and creating future improvements longitudinally (van Houten-Schat et al. 2018; Brydges et al. 2015).

In the current era, medical teachers are required to have mastery of technical abilities, appropriate approaches to teaching, demonstration of professionalism relating to teaching, mastery of the content, understanding of the medical curriculum, and understanding of the different roles of a teacher (Harden and Lilley 2018). Medical teachers are expected to support personalized learning and enable students to transform their knowledge and skills in the fast-growing and ever-changing world (Quirk and Chumley 2018) as well as to become positive role models in the socialization process of students' learning in becoming future professionals (Cruess et al. 2015; Jarvis-Selinger et al. 2019). Teachers are expected to foster good mentoring and coaching relationship through effective dialogue with students. Good interactions between teachers and students are essential to provide constructive feedback and nurture reflective skills in students (Stenfors-Hayes 2011).

With the growing numbers of competencies required, a rising concern on the humanity aspect of medical profession emerges. Doctors are expected to utilize their

knowledge and skills to make accurate diagnosis and provide effective treatment as time-efficient as possible. If all these competencies mapped and translated into curriculum, it can be predicted how packed and rigid the education process that our medical students experience. Research in North America showed high prevalence of mental health problems and burnout in medical students; which might indicate that the journey to become medical doctors is not an easy one. On the other hand, our future doctors are also expected to show professionalism by providing humanistic and compassionate care for their patients. Therefore, medical education should not merely provide learning opportunities for students to understand the scientific basis of diseases and the up-to-date medical technology available, but also the way to care and appreciate the person in humanly approach possible (Horton 2019).

The notion of human institution emphasizes the important role of human relationship within the process occurring in the institution. With the trends towards fast-changing world with its rapid advancement of technology and machine-assisted procedures, this brings back the 'human' aspect as the heart of the profession. Humanity in medical education is needed for two important reasons; to help doctors understand their patient as a person and therefore able to treat them better as clinicians; and for the doctors themselves, humanities can help maintain resilience and life balance. It provides them with an ability to restore themselves so they can remain balanced, and sensitive to their own, as well as other people's needs (Horton 2019). Supportive relationship between teachers and students, or among peers; is also recognized as a very crucial factor in maintaining well-being. Consensus on medical students' well-being in Australia placed peer supports, teaching adaptive strategies to deal with stress, mentoring, and reflective practice as essential points to address in order to assist students throughout their medical education journey (Kemp 2019).

We aim to elaborate the cultural implications of well-being, resilience, and burnout by exploring the role of positive learning environment and role modelling in the Asian context. We will first discuss the underpinning theories around the concepts before exploring the cultural implications and relevant recommendations. In medical profession, doctors are exposed to adversities in their practice. This could lead to the risk of 'moral injury' which was defined as psychological damage due to witnessing or participating in acts that contravene ordinary moral expectation. Adversities in their practice could be in the form of having to make difficult decision, witnessing patients' suffering, handling shortage of resources and excessive bureaucracy; while pursuing their effort to deliver the best care for their patients (Litz 2009). Medical students gradually experience and face similar challenges during their clinical education as they develop their professional identity. Studies showed that medical students' mental health worsen throughout the course of their education, showing higher prevalence of stress and burnout compared to their non-medical peers. Therefore resilience should be supported for medical students to cope with everyday situations they faced in their study (Dunn 2008).

12.3 Well-Being, Resilience, and Burnout

A conceptual model for students' well-being was developed by Dunn (2008) showing the interplay of various factors in helping individuals cope with challenges they experienced which would later determine whether they would become burnout or develop resilience (Fig. 12.1). The coping reserve that each individual possessed is mainly based on their personality and temperament, and is affected by the positive input from the environment (psychosocial support, healthy activities, mentorship, and intellectual stimulation) as well as negative ones (stress, internal conflict, and time/energy demands). Positive input would support students in implementing positive coping mechanism which would later lead to resilience; while the negative input might deplete the coping reserve and increase the risk of burnout (Dunn 2008). Other studies have identified protective factors for resilience, which consists of 3 layers of functioning: individual (psychological, neurobiological), social (such as family cohesion and parental support), and community/society (support systems generated through social, institutional, political, and economic factors) (Windle 2010). Ledesma (2014) distinguished variables related to resilience as internal variable (personality) and external variable (relationship with others).

According to general dictionary definitions, resilience refers to the ability of an object to recoil or spring back into shape after bending, which describes the similar ability in a person to recover quickly from difficult situations or adversities (Windle 2010). Resilience is described as individual variations in response to risk (Ledesma 2014). Resilient individuals manage their stress effectively and stay well by utilizing positive coping mechanism. These individuals learn and find meaning in their experiences, instead of perceiving it as a psychological burden or threats (Howe 2012). A challenge approach to resilience even views that adversities or negative experience, given that it is not too extreme, can actually enhance a person's ability to adapt.

Fig. 12.1 The 'coping reserve'—conceptual model for students' well-being (modified from Dunn 2008)

Breda (2018) distinguished resilience as a process and an outcome by using the term 'resilience' as the mediating process that occur in individuals after or during experiencing difficult situations (adversities); and 'resilient' as the positive outcome. Breda defined resilience as the multilevel processes that systems engage into better-than-expected outcomes in the face or wake of adversity. 'Multilevel' means that resilience involves multiple domains and layers of social ecology, placing environment as an important factor in promoting resilience (Breda 2018). Sociological approach to resilience also underlines the role of the environment in supporting or hindering resilience; and therefore modification of the social environment could potentially help developing resilience.

Resilience has been linked to several constructs, such as hardiness, self-efficacy, and, more recently, grit (Breda 2018). Grit is defined as perseverance and passion for long-term goals. Gritty individuals are portrayed as marathon runners; they have the stamina to stay on the course and keep on going despite the obstacles or distractions they might experience along the way. It is now believed that inborn intellectual or physical ability alone cannot determine long terms success, individuals must engage in deliberate practice and be able to sustain high levels of practice for a long period of time (Duckworth 2007). Given the high amount of effort needed for completing medical schools, medical students tend to have high scores on grit. Study on medical students also showed that student with high score on grit was associated with good academic performance (Miller-Matero 2018).

Factors influencing student and faculty well-being can be explored using Ryff's criteria of well-being (Ryff 1989) and Keyes's 13 dimensions reflecting mental health as flourishing (Keyes 2007). Ryff (1989) illustrated six dimensions/components of well-being which consist of self-acceptance, positive relations with others, autonomy, environmental mastery, purpose in life, and personal growth. Although this theory is postulated for successful ageing, it emphasises wellness, developmental, and growth-oriented within oneself from one stage to the other which is originated from the general study of well-being. Other than perspectives from one-self, Keyes takes into account life domains and social functioning as described in Table 12.1.

The two frameworks might provide us general dimensions that will affect one's well-being. However, health professionals work in a complex and stressful environment and dealing with many intense issues at the same time. A systematic review conducted by (Huey and Palaganas 2020) recently indicates 4 main themes pertaining to factors that affect resilience in healthcare professionals. Of all the 4 main themes below, the first 3 are described in the framework: (a) The influence of individual factors (i.e. having a higher purpose, being capable of self-care, self-determined with positivity), (b) The influence of environmental and organizational factors (i.e. workplace culture, attention-identification-measurement-assessment), (c) Approaches that an individual takes when interacting with her/his professional circumstances (i.e., workload management, work-life balance, social support, meta-cognitive processes of coping and reframing), and d) Effective educational interventions (i.e. type of intervention, length and duration, required resources).

On the other hand, the concept of burnout highlights the loss of capacities of a person to engage and maintain intense involvement that has meaningful impact

Table 12.1 Factors and 13 Dimensions Reflecting Mental Health as Flourishing (adapted from Keyes 2007)

Dimension	Definition
Positive affect Avowed quality of life	**Positive emotions (i.e. emotional well-being)** Regularly cheerful, interested in life, in good spirits, happy, calm and peaceful, full of life Mostly or highly satisfied with life overall or in domains of life[a]
Self-acceptance Personal growth Purpose in life Environmental mastery Autonomy Positive relations with others	**Positive psychological functioning (i.e. psychological well-being)** Holds positive attitudes towards self, acknowledges, and likes most parts of self, personality Seeks challenge, has insight into own potential, feels a sense of continued development Finds own life has a direction and meaning Exercises ability to select, manage, and mold personal environs to suit needs Is guided by own, socially accepted, internal standards and values Has, or can form, warm, trusting personal relationships
Social acceptance Social actualization Social contribution Social coherence Social integration	**Positive social functioning (i.e. social well-being)** Holds positive attitudes toward, acknowledges, and is accepting of human differences Believes people, groups, and society have potential and can evolve or grow positively Sees own daily activities as useful to and valued by society and others Interested in society and social life and finds them meaningful and somewhat intelligible A sense of belonging to, and comfort and support from, a community

[a]Life domains may include employment and marriage or close interpersonal relationship (e.g., parenting)

at work (Schaufeli et al. 2008). Burnout syndrome is demonstrated by gradual emotional exhaustion which reflects decreased motivation and commitment, personal detachment or depersonalization, and perceptions of decreased personal accomplishment (Maslach et al. 1996). First dimension of burnout, *emotional exhaustion*, is the physical and emotional response of stress and it often takes place as the first sign of burnout. People who are experiencing emotional exhaustion feel drained hence lowering their capacity to allocate adequate energy for their work and job demands. Second dimension of burnout, *cynicism*, refers to excessively negative or detached response to various aspects of the job. This dimension moves from personal aspect (i.e. emotional exhaustion) towards a more interpersonal context. Following emotional exhaustion, when people think and feel that they work too much, they will begin to detach themselves from what they are doing to protect themselves. This includes reducing their work and starting to develop negative reaction towards the work and the people. Third or last dimension of burnout, *personal accomplishment*,

is characterized by feeling of incompetence and a lack of achievement. Such feeling leads to great dissatisfaction of a person who tends to blame him/herself for choosing the wrong career path. The occurrence of inefficiency feeling may further lead to loss of confidence and depression (Maslach et al. 1996).

Burnout is also linked with work engagement concept which can be further explained with Job Demands-Resources (JDR) model (van den Berg et al. 2017). Work engagement is a positive well-being outcome which is at the opposite site with burnout and it is characterized by high levels of vigour, dedication, and absorption of ones towards their work. The JDR model explains the relations between work characteristics, work outcomes (such as health, well-being, performance, burnout), and personal characteristics. All physical, psychological, social, and organizational aspects of the job which require sustained efforts hence can be influential to psychological and physical conditions is the 'job resources'. Whereas job resources concerns all of those aspects which can reduce job demands and the impacts, are functional to achieve job goals, and stimulate personal growth, learning, and development (Schaufeli and Bakker 2004).

The JDR concept can be applied in medical and health professional education context and is very relevant to the role of medical and health professions teachers, students, residents, and health practitioners (van den Berg et al. 2017). Those with good engagement show motivational outcomes such as proactiveness, cooperation, being helpful to the team and ability to strive for quality, hence they tend to be healthier, have better well-being, and have capacity to prevent burnout. Such level of engagement is necessary to strive in demanding and long journey of medical and health professions education and healthcare. Different roles of faculty in teaching, doing research, providing patient care requires various level of engagement which leads to different job crafting. In other words, faculties who are excel in patient care do not necessarily perform well in teaching or research (van den Berg et al. 2017, 2018). Therefore, active processes in job crafting: seeking of social resources, challenging demands, structural resources, and avoiding of hindering demands, should be considered contextually for each role and this should become the note for faculty development and attempts to provide organizational support (van den Berg et al. 2018).

Studies show that medical students and residents often experience burnout (IsHak et al. 2013; Dyrbye et al. 2014). Burnout in this population should raise serious concerns given the impact on personal and professional development as well as future patient care (Dyrbye and Shanafelt 2016). The root cause of burnout among medical students and residents is believed to be in the learning and work environment, instead of personal characteristics and attributes (Williams et al. 2002). The JDR as described above also highlights the role of learning and work environment which can be both considered as 'demands' or 'resources' (van den Berg et al. 2017). Students' satisfaction on their learning environment especially in regards to level of support, faculty's high priority in education, collaborative environment, low number of cynical residents and interns, organized rotations, supervision from faculty and residents, constructive feedback, variety of medical problems, weakness identification, clinical

rotation, and workload, seem to be attributable towards prevention or occurrence of burnout (Dyrbye et al. 2009).

Based on the JDR theory understanding and the importance of individual resources in managing burnout, it is also important to discuss the role of motivation in preventing burnout. Based on Self-Determination Theory, motivation has been understood as a spectrum ranging from the self-determined end also known as intrinsic motivation, extrinsic motivation, to amotivation at the other end (Kusurkar et al. 2011). Intrinsic motivation comes from within the students and is supported by students' sense of autonomy, feeling of competence, and relatedness to the environment. Extrinsic motivation, on the other hand, relies more on external factors as the reward for learning. Studies showed that intrinsically motivated students employ deep learning approach and it correlates with better academic performance. These students also show higher intention to continue their medical studies and become lifelong learners (Kusurkar et al. 2011, 2013).

Students' feeling of competence and relatedness to the environment might be related to burnout. In burnout, the emotional exhaustion experienced by students left them feeling helpless. They distance themselves from their learning and can sometimes become resentful and cynical towards it. As burnout progressed, students' sense of personal accomplishment also decline. They stopped seeing themselves as capable of doing their tasks and unable to see the importance of what they are trying to accomplish (Felaza et al. 2020). Studies in an undergraduate medical education setting in Indonesia highlights that when motivation is more externally controlled, the higher the tendency towards burnout, especially in regards to decreased perceptions on personal accomplishment (Felaza et al. 2020). In the similar setting, a study also shows that during transition from preclinical to clinical training, students with high interest motivation show low tendency towards depersonalization and high perceptions on personal accomplishment (Dianti and Findyartini 2019). Amotivation is related with high burnout and low quality of life among undergraduate medical students (Lyndon et al. 2017).

Different from studies concerning burnout among medical and health professions students and residents, studies exploring burnout among faculty or academic staff are quite rare. A scoping review on the studies on burnout of university lecturers reveals that high number of students strongly predict the experience of the teachers' burnout. Male teachers tend to be at risk of depersonalization while female teachers are more at risk towards emotional exhaustion. Younger teachers are also more vulnerable to emotional exhaustion (Watts and Robertson 2011). A study in Indonesia setting aiming at exploring the use of Maslach Burnout Inventory—Educator Survey (MBI-ES) in medical education highlights that for medical teachers, the possible source of burnout comes from the roles in school administration and management and research and publication demands. Dealing with students and residents seems to be the resources that can have positive influence in preventing burnout (Marlina and Findyartini 2020). Using JDR concept, van der Berg et al. (2018) also suggests that clinical teachers experience different level of work engagement when teaching and providing patient care. Institutions are suggested to provide adequate support for

faculty to perform well in different roles. In addition, acknowledging that being clinical teacher is an integral part of a physician's daily work is expected to support the adaptation of the teachers in engaging in patient care and teaching roles equally (van der Berg et al. 2018).

12.4 Learning Environment and Role Modelling

Following elaboration on well-being, resilience, and burnout, the following section will discuss about key concepts on humanistic learning environment and role modelling. Learning environment is one of the key components which can determine the effectiveness of a competency-based medical curriculum (Schönrock-Adema et al. 2012). It is a system that consists of students (including external relations and other factors affecting the student), the individual who interacts with the student, the circumstances, and objectives of the interaction, and the formal and informal policies that govern the interaction. Theoretically, learning environment is constructed by a goal of learning, relationship between people in the learning environment and organization, including culture, rules, and system (Schönrock-Adema et al. 2012).

Studies exploring learning environment in preclinical and clinical stages of undergraduate medical program, as well as those in postgraduate medical program have been conducted for the past 20 years (e.g. Soemantri et al. 2010; Strand et al. 2013; Findyartini and Utami 2018). Academic learning environment measure such as Dundee Readiness Environment Measure (DREEM) (Soemantri et al. 2010) reflects learning environment based on perceptions of learning, perceptions of teachers, academic self-perceptions, perceptions of the environment, and social self-perceptions. In undergraduate clinical learning environment, there are more variations of the subscales and include perceptions towards learning opportunities and engagement, interactions with patients, communications and interactions with colleagues and supervisors, facility and individual treatment, supervision process, and self-confidence and awareness (Findyartini and Utami 2018). In the clinical learning environment, the physical space, artefact, and rhythm will also influence the learning climate (Sheehan et al. 2017). Nordquist and colleagues (2019) suggest that clinical learning environment is very critical in medical education and it should consider the quality of and interactions among several factors: educational, psychological, socio-cultural, architectural, digital and diversity, and inclusion aspects.

In regards to postgraduate setting, learning environment refers to social, cultural, and material contexts (Isba et al. 2011). Supportive learning environment should allow residents to have supervised patient care activities, coaching, assessment and feedback, deliberate practice which lead to gradual development of competence and professional identity (Boor et al. 2011). Given challenges in creating supportive learning environment for postgraduate training, a national consensus in UK has been discussed and suggests a comprehensive approach and improvement in various areas systematically (Kilty et al. 2017).

Professional physicians are defined by their ability to fulfil their contract with society. In the 4.0 industrial revolution era, public demand a physician who can collaborate with them to manage their health problems. An ideal future physician needs to have ability to build rapport with the patient, win their trust and empower them to solve their problems (Wartman 2018). They need to have all of humanistic values which are integrity, honesty, altruism, compassion, empathy, and respect. The humanistic values need to be grown inside every physician to make them professional (Pellegrino 2006). Humanistic learning environment therefore is required to assure that those humanistic values can be internalized and practiced. This can be nurtured by first recognizing the humanistic values as part of learning outcomes and inseparable component in human interaction in the learning environment, and supportive organization and policy towards humanistic values development in medical and health professions education (Schönrock-Adema 2012).

Finally, role modelling has been highlighted as an essential component of clinical teaching in medicine. It has been defined as the "process in which faculty members demonstrate clinical skills, model and articulate thought processes and manifest positive professional characteristics" (Irby 1986). Many have been published on the influence of role modelling, be it positive and negative, to the students in health professionals. It is known that role models are essential to facilitate student learning and assist in the development of professional identity (Haider et al. 2016; Passi and Johnson 2016a), assist in the development of professionalism and career choice (Passi and Johnson 2016a) and development of students' character (Jochemsen-van der Leeuw et al. 2013). However, the impact of role modelling in student well-being is rarely discussed but should not be neglected.

According to Bandura (Bandura 1989), trainees learn essential professional competencies by observing a role model. Observing alone is insufficient, it also involves a four-step process whereby the learner pay attention to what is being modelled, create a mental representation of what was modelled, providing feedback to the learner on his or her attempts to reproduce what has been modelled, and motivating the learner to continue to practice the modelled behaviours. These processes are influenced by environment, behaviour, and personal factors. Learning through observation is an important feature in Bandura's theory. A positive role model could provide learners/trainees alternatives in looking at the issues differently through observation (Passi and Johnson 2016a). By using these interventions observed, individual could create a mental representative on how to develop, implement, and cope with the situations better and eventually motivate the individual to move forward or becoming more resilient.

Passi and Johnson (2016b) also proposed a hidden process of positive doctor role modelling. In the exposure phase, trainees/learners are exposed to different aspects such as clinical expertise, relationship with patients, relationship with colleagues, and relationship with students, personality, and inspirational characteristics. The students will emulate a doctor who they perceive is similar to them and who they feel that they 'could be like him/her' in future. In the next phase, the evolution phase, students/trainees will start with observing the role model's behaviour in the clinical setting and make a judgement on whether to carry out the observed behaviour of the

role model. Although negative experience stays longer than the positive experience, students did highlight that negative modelling also helped them to make a judgement on what not to behave. Following the judgement phase, the students are involved in a cyclical action which is known as 'Model-Trialling Cycle' which involves assembly, imitation, experimentation, adaptation, and assimilation. These processes are important as the students/trainees start 'picking up' behaviour and experiment the desired behaviour. Resilient behaviour can be learned and the strategies should be easily accessible and open to everyone and this could be fostered through modelling.

12.5 Well-Being from Cultural Lens

12.5.1 Cultural Perspectives on Well-Being and Resilience

Resilience has been defined in many ways across the literature. Resilience derives from the Latin verb 'resilire', meaning to leap or spring back; to rebound, recoil (Theron et al. 2015). Howe et al. (2012) described resilience as a dynamic capability which allows people to thrive on challenges given appropriate social and personal context. Ungar (2006) pointed out that large empirical investigations on resilience focus on: (1) western context with an emphasis on individual and relational factors; and (2) lacking sensitivity to community and cultural factors. As a result, there have been little findings associated with resilience in non-western culture and context. Hence, many research on resilience has called to consider larger, contextual factors which include cultural influence in developing resilience (Clauss-Ehlers et al. 2006).

A growing body of literature delineates how culture may influence the development of resilience in youth from diverse racial and ethnic background (Clauss-Ehlers 2008). A study by Tse and Liew (2004) found that extended-family structures and community-centred ideologies are two major characteristics of most Asian cultures. Harmonious relationship among parents, children, and elderly provides the necessary physical and emotional support to members during time of stress. The strong culture of connectedness that influences the development of resilience is prominent in Asian culture. Academically, Caleon et al. (2017) also found that the notion of autonomous learning strategies (such as asking questions, verbalizing ideas during class) appears to be less compatible with the collectivistic and authority-centric culture orientation of Asian societies. Relatedness was found more important for optimal functioning in a collectivist context as compared to autonomy and competence. However, this aspect is often understudied in health professions education. While connectedness and collectivism can be supporters for resilience in non-western context, large power distance and competitiveness may hinder it given limited dialogue and less positive environment, especially when people attempt to express their vulnerability and failure.

Cultural resilience is a term presented by (Clauss-Ehlers 2006) to illustrate the degree to which the strengths of one's culture promote the development of coping.

This type of resilience has a number of aspects including a developmental trajectory within a cultural matrix composed of norms, family structure, and peer relationships. Human capacity in adapting towards challenges is distributed across interacting systems which include system within the individual and his/her relationship with other system such as family, community, and culture (Wright and Masten 2015; Gunnestad 2006).

Although resilience has been increasingly sensitive to the role of culture, it is often dynamic and every new generation interprets culture differently due to the societal norm that they live in. Therefore, carrying out research to assess resilience among different cultural groups is challenging. Ungar (2015) in his article illustrated 3 assumptions related to culture for future research on resilience and interventions.

Three assumptions to be aware of in conducting culture-related research on resilience:

(a) The influence of the dominant culture. There is a tendency that one cultural group influences one another in one context through socialization. For example, the study of Asian American will be different from the study of Asian itself as they have been acculturated in the context they are living in.
(b) Within group resistance to subgroup norms. Even within one cultural group, there are often individual who resist conforming to group norms. Their own experience and socio-economy status might influence how they view resilience and the type of support they received.
(c) Cultural difference in discursive power. In discussing cultural differences in resilience, sometimes one culture tends to be given more authority (more discursive power) than the others due to its social characteristics or influence. However, we have to be cognizant that "the more marginalised the cultural group, the less likely they are to have the power to influence others and convince them that their pathways to resilience make sense" Their voice should also be heard (Fig. 12.2).

12.5.2 Cultural Perspectives on Burnout

Burnout concept can be understood differently in different settings (Schaufeli et al. 2008). Some countries such as Netherlands and Sweden consider burnout as a medical diagnosis under stress-related disorders comprising distress, nervous breakdown, and burnout as the end stage of the diagnosis. Most countries consider burnout as a psychological phenomenon related to stress and workplace. Historically, burnout concept becomes a social phenomenon following sociocultural conditions in the United States in the final decades of twenty-first century. The conditions encompass professionalization of human services, more demanding public towards professions related to human service and lack of reciprocal recognition of the professions and increased 'narcissistic culture' that produce individuals with need of immediate gratification (Schaufeli et al. 2017).

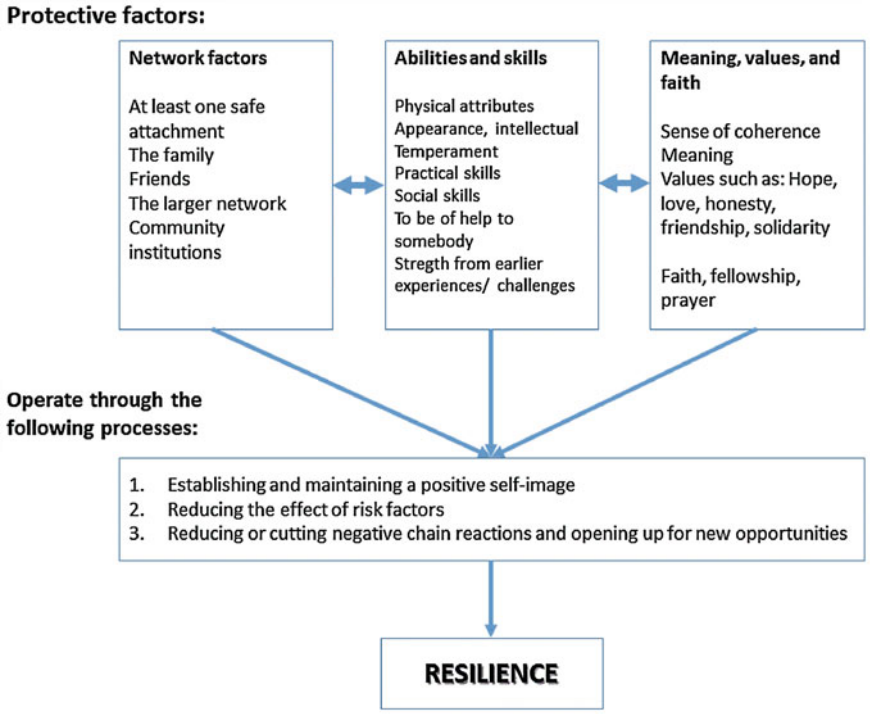

Fig. 12.2 Model of development of resilience

Globalization, privatization, and liberalization are believed to change modern life which requires rapid adaptation of new skills, higher productivity, increased time pressures, etc., which may lead to burnout. While emotional exhaustion is conceptualized rather similarly in global context, the last two burnout dimensions: depersonalization and decreased personal accomplishment, are thought to be more culturally bound in Western context. Depersonalization and decreased personal accomplishment concepts are centralized in 'self' or 'individual achievement' which is rooted in individualist rather than collectivist culture which recognizes team or group achievement rather than individual achievement (Schaufeli 2017).

In accordance with Hofstede's cultural framework (Hofstede 2001), it is postulated that higher levels of uncertainty avoidance and career success orientation (i.e. higher masculinity) lead to higher burnout level. Individual difference from cultural norms in low individualistic and high power distance, as in many culture in Asia, may also lead to higher prevalence of burnout among professionals (Savicki 2003). A systematic review conducted in China to explore burnout among medical doctors suggests that despite similar results on burnout profiles compared to the studies conducted in Western context, burnout in this setting should be understood comprehensively according to the local culture and change of public expectation. Burnout seems to be more prevalent in young doctors who probably hold dilemma between perceptions

of good, high moral duty and respected doctors who should not easily show any signs of burnout according to Confucian culture, and pressures from patients who mistrust the doctors especially those working in small-scale community hospitals (Lo et al. 2018). The results further emphasize the implication of culture in burnout. High uncertainty avoidance culture in which society is more assured by more specialized healthcare services, and individual differences in high power distance society faced by the young doctors, contribute to the burnout prevalence (Savicki 2003; Hofstede 2001).

Collectivism culture highlights social support for medical and health professions education and teacher has given sense of relatedness and recognition of competence especially from the community of practice (van den Berg et al. 2017), hence clear support from the environment is necessary to alleviate or prevent burnout. Studies in non-western setting show that safe clinical learning environment and teacher–student interaction is one of the important factors that can prevent burnout. In this regard, factors which may hinder supportive interactions such as in feedback dialogue, should be anticipated. Factors in learning environment which influence burnout occurrence are actually modifiable (Dyrbye et al. 2009); therefore, management of burnout in medical and health professions education should pay attention to cultural aspects influencing components within clinical learning environment. This includes well-arranged workload schedule and clearly defined role expectations (Nishimura et al. 2019). Simply arranging schedule and limiting work hour to prevent burnout among residents however is not always the best way since it potentially introduces conflict within the residents who would like to exercise and develop their professional autonomy by having more clinical experiences (Nishimura et al. 2019).

A meta-analysis of studies using JDR theory and Hofstede's cultural framework in different regions of the world show that job demands are positively correlated with burnout ($r = 0.32$, $p < 0.001$) and negatively correlated with engagement ($r = -0.06$, $p < 0.001$). On the other hand, job resources are negatively correlated with burnout ($r = -0.25$, $p < 0.001$) and positively correlated with engagement ($r = 0.34$, $p < 0.001$) (Rattrie et al. 2020). Further analyses discussing the moderating effect of cultural values based on Hofstede's framework are presented below (Rattrie et al. 2020): (a) Culture with strong masculinity will intensify the harm of job demands regarding burnout and engagement. In other words, in culture with high preference towards achievement, heroism, assertiveness and material rewards for success, high competitiveness in workplace may lead to burnout and high job demands may have larger influence towards burnout compared to countries with strong femininity culture which more emphasizes on social values and cooperation. (b) Culture with high power distance can undermine the potential influence of resources to prevent burnout or to increase engagement. Attention towards resources including social and peer support therefore is important to prevent burnout in culture with high power distance. (c) Culture with strong long-term orientation in which pragmatic and education encouragement for the future is high, also tends to reduce positive influence of resources. Internal motivation tends to be 'muted' in such cultural setting hence its protective effect towards burnout or strengthening effect towards engagement is

lessen. (e) Individualism significantly strengthens the positive effect of resources towards engagement and intensifies negative effect of resources on burnout. This could be due to more focus on personal interest which may enable individuals to optimize resources to strengthen their motivation or well-being, whereas in a more collectivist culture, individuals tend to be preoccupied with group goals which may distract him/her from their own motivation or well-being. This study is by far the first meta-analysis aggregating empirical studies using JDR theory. In regards to cultural framework, it is interesting that moderating effect of each cultural dimension is strongly related to either the consequences of demands on burnout/engagement or on the effects of resources on burnout/engagement, and did not affect both. In addition, it should be noted that the influence of cultural dimensions is not independent to each other (Rattrie et al. 2020).

12.5.3 Cultural Perspectives on Learning Environment

Creating nurturing and humanistic learning environment is critical for the well-being of students and faculty in medical and health professions education (Dyrbye et al. 2009; van Vendeloo et al. 2018). Various interventions to create a more positive learning environment involve multiple components, including regulations, curricular interventions, faculty or staff development, grading practices, instructional interventions, and physical and virtual spaces (Gruppen et al. 2018). The unnecessary ignorance of the role of culture in various interactions of the learning environment components may lead to development of hidden curriculum which may further increase the negative impact towards competence achievement of the students and well-being of the students and faculty. Therefore, this section will elaborate further challenges in learning environment and the hidden curriculum in particular.

Hidden curriculum refers to those practices in students' behaviour, teachers' behaviour, student–teacher interaction, teaching–learning processes, assessment, and so on which actually are not formally planned and documented by the institution (Hafferty 1998). Hidden curriculum can be seen from different perspectives (Lawrence 2017): *From organization and institution concepts*: Hidden curriculum is factors which influence the curriculum at the level of organization and culture, physical resources and infrastructure of the organization, and structures and organizational culture which influence the learning process. *From interpersonal-social concept*: Hidden curriculum and formal curriculum are socialization processes which involves complex interactions between doctor and patients, other professions and community. It highlights interpersonal processes both structured and unstructured which further impact students' learning through interaction. Consequently, students learn professional behaviours from their interaction with teachers, residents/trainees, other health professionals, and patients in clinical learning environment. The role modelling process therefore becomes the key. *From context and culture concepts*: Hidden curriculum is all informal aspects beyond formal curriculum which describes wider cultural atmosphere within an institution and most of the time are beyond control

of the leadership or organizer. *From motivation and psychology concepts*: Hidden curriculum concerns on informal teaching–learning process which happen through dialogue and informal interaction. This involves subconscious beliefs, values, and implicit attitude which further influence students' motivation and learning behaviour and teachers' teaching belief and attitude.

Those happen in hidden curriculum are not always supportive towards students' academic development nor humanistic learning environment (Ofri 2017). Discrepancies in formal and hidden curriculum would give mixed message to the students and teachers, and may bring helplessness feelings and internal conflicts which hamper humanistic values and professional development (Hopkins et al. 2016). A survey in the US reports that 45% internal medicine residents feel that their learning environment is not humanistic and this leads to burnout (Billings 2011); for example, observation of uncomfortable communications being done by senior clinicians or conduct of unprofessional behaviours by fellow residents. These phenomena underline the negativity bias theory which state that negative aspects in learning environment can be very influential for the students and faculty (Haizlip 2012).

Given the importance of workplace-based learning and dynamic interactions in medical and health professions education, hidden curriculum should be managed and recognized: those with positive impacts should be strengthened and those with negative impacts should be mitigated (Aultman 2005). Studies on hidden curriculum focus more on the negative impact such as emotional neutralization, ethical and integrity erosion, hierarchical acceptance, and false confidence of actual learning to become medical doctors, which are all the anti-thesis for humanism (Martimianakis and Hafferty 2016). Therefore, internalization of humanistic values and personal and professional development of trainees can be assured through positive and humanistic learning environment. Positive and humanistic learning environment can be encouraged through role modelling of good doctor-patient interaction and development of safe environment to discuss feedback. Faculty development hence becomes more important to support the teachers' role in becoming role model and in creating humanistic learning environment (Branch et al. 2015).

12.5.4 Cultural Perspectives on Role Modelling

Given collectivist and high power distance culture in South East Asia/Asia setting, positive role modelling can be a strong approach to create supportive learning environment which also considers student well-being. Medical and health professions teachers are also encouraged to be aware of their teaching beliefs and concepts which most of the time are tied closely with the organizational culture. Studies which compared postgraduate medical education in Thailand and Canada (Wong 2011), clinical reasoning teaching in undergraduate medical educations in Australia and Indonesia (Findyartini et al. 2016) and feedback practices in undergraduate medical education in the Netherlands and Indonesia (Suhoyo et al. 2017) provide

further insights on the importance of recognizing cultural dimensions and values in the learning environment.

Asian students really value the teaching process, feedback, and modelling provided by experts (Findyartini et al. 2016; Suhoyo et al. 2017). Wong AK (2011) notes that teachers in Thailand consider the faculty-resident/student relationship as family and teachers should actively seek alternatives to enhance student active learning and provide them with corrective feedback. In Canadian setting, on the contrary, teachers consider the relationship as collegial and their efforts more concentrate on providing safe learning environment which promotes learning and makes feedback with care more available to students/residents. Findyartini et al. (2016) and Suhoyo et al. (2017) also recognize the high power distance dimension in Indonesia setting which influence how teachers position themselves as resource person and role model and in providing feedback. Teachers may attempt to provide examples on how to reflect on their performance and seek feedback from their peers and students which are then utilized to improve their future performance.

12.6 Way Forward to Assure Student and Faculty Well-Being Considering Cultural Perspectives

Well-being is influenced by culture and values since it is constructed by individual-related factors, environmental and organizational factors, approaches that an individual takes when interacting with her/his professional circumstances, and effective educational interventions. Therefore, any attempts at preserving well-being which includes encouragement of resilience and prevention of burnout among students and faculty in medical and health professions education should consider the individual, interpersonal, and organizational/system factors.

As well-being is culturally related, the concept of culture has to be emphasized that it is beyond symbols (i.e. languages, pictures, dresses) or rituals (i.e. gestures to show respect, religious ceremonies, and daily interactions). The core of culture is valued, which mainly shows one's preference among feelings that is dynamically acquired during a person's lifetime (i.e.: good vs. bad, permitted vs. forbidden, clean vs. dirty) as shown in five cultural dimensions: power distance, masculinity vs. femininity, collectivism vs. individualism, uncertainty avoidance, long-term orientation vs. short-term orientation, and indulgence vs. restraint. These cultural dimensions provide ways to embrace the richness of culture and values in each medical and health professions' education settings.

Given the aforementioned factors related to well-being in this chapter (i.e. distress level and burnout, level of resilience, and learning environment), it is important to explore interventions to ensure student and faculty well-being, including psychological safety, both at individual level and at system level. The interventions should consider the cultural dimensions in Asia, which predominantly have higher power

distance and higher collectivism. We recommend the following approaches to be conducted to help assuring students and faculty well-being in the Asian setting:

1. ***Identify struggling students and faculty members in academic/ career and personal issues through observations, dialogues, and discussions*** *(*Wright, et al. 2017; Vogan, et al. 2014*)*

   What?

   Dialogue helps to explore the root cause of problems, thus making it possible to screen for any risks of burnouts and distress among students or faculty members. Identifying students and faculties with potential problems in their well-being is necessary.

   How?

   Conducting regular inquiry process and two-way dialogue is important to be conducted on daily basis, making use of interactions within or outside classrooms, during informal periods such as lunch time, as it facilitates teachers in developing self-awareness, and promote self-management process. Prompt and just-in-time responses are also critical following the diagnosis of struggling students and faculty members.

   Possible challenge and how to overcome the challenge in higher power distance and collectivist culture?

   Students might be more reluctant to open up with faculty members about their concerns and problems. Hence, involvement of peers in identifying possible root cause is deemed important. Therefore, beside faculty development for teachers, training for students as peers on identifying symptoms of burnouts, risks of distress among students, and providing appropriate supports for other students at risk are also necessary.

2. ***Sufficient student support from faculty members or community of practice through coaching and mentoring (White* et al.** 2014***, Sambunjak et al.*** 2010***; Tan et al.*** 2018***; Pinalla et al.*** 2015***; Greviana et al.*** 2020***; Pacifico et al.*** 2018*)*

   What?

   Coaching and mentoring can be conducted among students, for students and faculty members, or among junior and senior faculty members. In coaching mentoring process, mentors and mentees are engaged in a two-way non-judgemental relationship and dialogue aiming to provide supports for mentees learning and development. Mentoring program is slightly different from coaching in terms of mentors' role as advisor and expert, therefore it is possible to include a teaching sessions during the mentoring program. Coaching and mentoring program is usually concluded with agreed plan to overcome the problem, in which mentor also agree on at the end of the session. Coaching and mentoring program can be conducted individually on one-on-one session, or group mentoring with the ideal number of 5–8 students in each group.

   How?

   Informal interactions: discussions about difficult topics; such as difficult, death, and dying patients; mistakes; workloads; inadequate resources; or other dilemmas; informal chatting, group trips or capacity building with games as a wellness program, or group discussions.

   Formal/ teaching sessions: lectures, small group discussions, literature reading, role play, and reflective writing exercise; courses in wellness and resilience, such as stressors in medical education, concept of resilience and its training

   Possible challenge and how to overcome the challenge in higher power distance and collectivist culture?

   Common problem in coaching mentoring is that mentee does not appear to listen or act on the feedback or the agreed plan. This may be due to the misaligned expectations of

both mentors and mentees. Therefore, it is important to start each mentoring session by discussing mentees' needs so that mentors could select appropriate guidance approach. Some mentees may need directions and direct advice to follow, while some others need help in identifying strategies that students can comfortably engage with. Group mentoring would be more favourable in higher collectivist culture, however, it is important for mentors to pay attention to individual needs and expectations. Interactive reflective writing following the group mentoring session using electronic platform (i.e.: private chat, reflective e-portfolio) that enable follow-up written private communication between mentors and each mentees may be used to further discuss and provide safer environment for each individual to reflect. Electronic platform is preferred to be used, compare to conventional written reflection using pen and pencil, due to the characteristics of students nowadays, the Generation-Z, who are digital natives and technological savvy. Furthermore, electronic platform could be modified with some hidden reflective writing features which may also be used for practice during early stage of implementation to provide safe learning environment, as some students might feel uncomfortable to share their reflections.

3. ***Workshop and training on well-being and mindfulness (Scheepers RA* et al. 2020*; Kushner et al.* 2011*; Wald et al.* 2016*)***

What?

Attempts to enhance well-being of students and faculty has to be conducted with attempt to increase the knowledge of stakeholders with the basic concept of well-being itself and why it is important for health professionals (i.e. health professionals with burnout are at risk in exhibiting low professionalism and providing suboptimal health care to patients). This relevance is required in order for stakeholders to pay greater attention to their own and others' well-being around them. Besides, it is also known that ones with knowledge of wellness strategies are at lower risk to suffer severe burnout than those who know less about it

How?

Workshops, trainings, and addition about the well-being concept in the curriculum is potential aim to prevent burnout, strengthen resilience, and manage multifactorial attributes influencing overall well-being. Some options of wellness strategies and coping strategies followed could be taught during the workshops and reflected by participants including to spend more time with their loved ones, create feasible timetable according to priority scales, explore meaning and values of their study, practice their religion, encourage positive attitude and point of view, and practice self-care.

Possible challenge and how to overcome the challenge in higher power distance and collectivist culture?

As workshops are conducted usually in larger groups, the challenge would be the low participation of students or faculty members. This low participation might be caused by the low knowledge about its importance. Therefore, to increase its relevance, the concept of well-being itself should be made explicit in the curriculum, making it a shared vision and values in the institution, not only personal or individual goals. In higher power distance culture, workshops that are made mandatory would also result in more attention paid by stakeholders about its importance. Sustainability about the workshop results also has to be considered. Follow-up coaching and mentoring processes and reflections should also be conducted as means to ensure the sustainability of well-being practice among stakeholders.

4. ***Role modelling (Dunn et al.* 2008*; Armyanti et al.* 2020*)***

What?

Maintaining of well-being is an important part of maintaining one's professional behaviour as it is known that some unprofessional behaviours of health professionals are associated with

well-being. Medical school leaders, administrators, teachers, and peers have opportunity to personally role model well-being and healthy behaviours in order to promote a supportive learning environment and a culture of well-being. Role modelling is also an important aspect in creating effective learning environment in medical education.

How?

Everyone can be a role model through personally practicing and maintaining well-being, which can be achieved through good time-management and health (i.e.: exercise, sleep, nutrition, hydration, stress management), modelling reflective habit of well-being practice. Medical school administrators and teachers become role model in well-being practice through proactively checking in students' workloads and offer supports when necessary, encourage and invite feedback. Leaders may show regular consideration of their leadership style and approach which may impact others' well-being.

Possible challenge and how to overcome the challenge in higher power distance and collectivist culture?

Some negative role models might be found in the workplace. A study in Asian country setting showed negative role modelling by medical teachers due to poor time management and heavy workloads, which somehow related to well-being concept. Negative role modelling was also known to be easier to memorise than the positive ones, hence, it became one of a challenge of role modelling well-being, as students in higher power distance society tend to feel discouraged to discuss and speak up against negative role models. Therefore, opportunities to conduct self-reflection, both for the role models and for the students are important to corporate role modelling process of maintaining ones' well-being.

5. ***Peer Assisted Learning (Ross and Cumming*** 2013***)***

What?

As most strugglers in medical education showed academic challenges, supports from peers become important. Peer-assisted learning (PAL) is defined as teaching–learning interactions conducted by people from similar social groupings, and not by professional teachers. Both tutors, tutees, and institutions advantage through peer-assisted learning, of which created psychological safety for students, thus benefit for well-being maintenance of students.

How?

In planning and conducting PAL, it is important to understand the situations and aims of PAL. Explicitly mentioning criteria of tutors and tutees will also be necessary as well as the interaction and its evaluation. PAL can be conducted formally or informally.

Possible challenge in higher power distance and collectivist culture?

PAL approach is beneficial especially for students from higher collectivist culture. However, students in higher power distance society may question the tutors' experience and knowledge and skills thus further reduce tutees' confidence and decrease participation. Therefore, it may be beneficial if PAL in this society is accompanied with prior tutor training by faculty members.

12.7 Summary

In regards to Hofstede's cultural framework, there are not many studies using the framework to explore and discuss the concepts in this chapter. However, given understanding on the cultural dimensions and factors which influence conceptualization of well-being, burnout, and resilience as well as learning environment, we advocate the

importance of providing the medical students and residents tools or venues to voice their concerns in regards to these issues. In addition, it is important to encourage feeling of acceptance in the workplace-based settings by the community of practice and this can be done by delegating clinical entrustment to the students appropriately with adequate supervision, and putting efforts to enhance non-blaming culture and respectful interactions within interprofessional teams. The efforts to bridge the distance between students/residents with the community of practice and with the system are important. Finally, it becomes prominent that these issues should be understood and addressed properly by the teachers, the curriculum, and the overall system in order to foster future resilient and adaptive medical and health professionals.

Key Learning Points

- Resilience is a significant capacity of students and teachers to overcome dynamic challenges in medical and health professions education.
- Resilience, burnout, and well-being are culture-sensitive i.e., they can be conceptualized and practiced differently in different cultures, including between individualistic and collectivistic cultures or between those with high and low power distance.
- Strategies to strengthen resilience in medical and health professions education require an understanding of nurturing learning environment, positive role-modeling, and embedded cultural context.
- Students and teachers in medical and health professions education should be made aware of the importance of fostering resilience, preventing burnout, and promoting well-being in order to engage actively in the dynamic processes at the individual, interpersonal and system levels.

References

Aultman JM (2005) Uncovering the hidden medical curriculum through a pedagogy of discomfort. Advan Health Educ Theory Pract 10:263–273

Armyanti I, Mustika R, Soemantri D (2020) Dealing with negative role modelling in shaping profssional physician: an exploratory study. J Pakistan Med Educ 70(9):1527–1532

Bandura A (1989) Social cognitive theory. In: VASTA R (ed) Annals of child development, vol 6. Six theories of child development. JAI Press, Greenwich CT

Billings ME, Lazarus ME, Wenrich M et al (2011) The effect of hidden curriculum on resident burnout and cynicsm. J Grad Med Educ 3(4):503–510

Boor K, Van Der Vleuten C, Teunissen P et al (2011) Development and analysis of D-RECT, an instrument measuring residents' learning climate. Med Teach 33:820–827

Branch WT (2015) Teaching professional and humanistic values: Suggestion for a practical and theoretical model. Patient Educ Couns. 98:162–7

Breda AD (2018) A critical review of resilience theory and its relevance for social work. Soc Work 54:1–17
Brydges R, Manzone J, Shanks D (2015) Self-regulated learning in simulation-based training: a systematic review and meta-analysis. Med Educ 49:368–378
Caleon IS, Wui MGL, Chiam CL (2017) Personal strengths and perceived teacher support as predictors of Singapore students' academic risk status. Educ Psychol 37:983–1000
Clauss-ehlers CS (2008) Sociocultural factors, resilience, and coping: support for a culturally sensitive measure of resilience. J Appl Dev Psychol 29:197–212
Clauss-ehlers CS, Yang YTT, Chen WCJ (2006) Resilience from childhood stressors: the role of cultural resilience, ethnic identity, and gender identity. J Infant, Child Adolesc Psychoth 5:124–138
Cruess RL, Cruess SR, Boudreau D et al (2015) A schematic representation of the professional identity formation and socialization of medical students and residents: a guide for medical educators. Acad Med 90(6):718–725
Dianti NA, Findyartini A (2019) The relationship between type of motivation and burnout in medical student during transition from preclinical to clinical stages in Universitas Indonesia 2018. E-J Kedokteran Indonesia 7(2):115–121
Duckworth AL, Peterson C, Matthews MD et al (2016) Grit: perseverance and passion for long-term goals. J Pers Soc Psychol 92:1087–1101
Dunn LB, Iglewicz A, Moutier C (2008) A conceptual model of medical students' well-being: promoting resilience and preventing burnout. Acad Psychiatry 32(1):44–53
Dyrbye LN, Thomas MR, Harper W et al (2009) The learning environment and medical student burnout: a multicentre study. Med Educ 43:274–282
Dyrbye LN, West CP, Satele D et al (2014) Burnout among U.S. medical students, residents, and early career physicians relative to the general U.S. population. Acad Med 89:443–451
Dyrbye LN, Shanafelt T (2016) A narrative review on burnout experience by medical students and residents. Med Educ 50:132–149
Felaza E, Findyartini A, Mustika R et al (2020) How motivation correlates with academic burnout: study conducted in undergraduate medical students. Educ Med J 12(1):43–52
Findyartini A, Hawthorne L, McColl G, a., (2016) How clinical reasoning is taught and learned: cultural perspectives from the University of Melbourne and Universitas Indonesia. BMC Med Educ 16:185
Findyartini A, Utami DB (2018) Development of clinical learning environment measure in the undergraduate medical program. Adv Sci Lett 24:6097–6108
Greviana N, Mustika R, Soemantri D (2020) e-Portfolio system development for undergraduate clinical dentistry: an action research study. Padjadjaran J Dent 32(2):91–100
Gruppen L, Irby D, Durning S et al. (2018) Interventions designed to improve the learning environment in the health professions: a scoping review. MedEdPublish 7(3). doi:https://doi.org/10.15694/mep.2018.0000211.1
Gunnestad A (2006) Resilience in a cross-cultural perspective: how resilience is generated in different cultures. https://www.immi.se/intercultural/nr11/gunnestad.htm. Accessed 12 Feb 2020
Hafferty FW (1998) Beyond curriculum reform: confronting medicine's hidden curriculum. Acad Med 73:403–407
Haider SI, Snead DRJ, Bari MF (2016) Medical students' perceptions of clinical teachers as role model. PLoS ONE 11:e0150478–e0150478
Haizlip J, May N, Schorling J et al (2012) Perspective: the negativity bias, medical education, and the culture of academic medicine: why culture change is hard. Acad Med 87:1205–1209
Harden RM, Lilley P (2018) The eight roles of the medical teacher: the purpose and function of a teacher in the healthcare professions. Elsevier Health Sciences
Hochberg MS, Berman RS, Kalet AL et al (2013) The stress of residency: recognizing the signs of depression and suicide in you and your fellow residents. Am J Surg 205(2):141–146
Hofstede G (2001) Culture's consequences: Comparing values, behaviours, institutions, and organisations across nations. 2nd edition. Thousand Oaks, CA: Sage

Hopkins L, Saciragic L, Kim J et al. (2016) The hidden curriculum: Exposing the unintended lessons of medical education. Cureus 8(10):e845
Horton ME (2019) The orphan child: humanities in modern medical education. Philos Ethics Humanit Med 14:1–6
Howe A, Smajdor A, Stockl (2012) A towards an understanding of resilience and its relevance to medical training. Med Educ 46:349−356
Huey CWT, Palaganas JC (2020) What are the factors affecting resilience in health professionals? A synthesis of systematic reviews. Med Teach 42(5):550–560
Irby DM (1986) Clinical teaching and the clinical teacher. J Med Educ 61:35–45
Isba R, Boor K (2011) Creating a learning environment. In: Dornan T, Mann KV, Scherpbier A, Spencer J (eds) Medical education: theory and practice. Churchill Livingstone, London, pp 99–114
Ishak W, Nikravesh R, Lederer S et al (2013) Burnout in medical students: a systematic review. Clin Teac 10:242–245
Jarvis-Selinger S, MacNeil KA, Costello GRL et al (2019) Understanding professional identity formation in early clerkship: a novel framework. Acad Med 94(10):1574–1580
Jochemsen-van der Leeuw HGAR, van Dijk N, van Etten-Jamaludin FS et al (2013) The attributes of the clinical trainer as a role model: a systematic review. Acad Med 88:26–34
Kemp S, Hu W, Bishop J et al (2019) Medical students well-being: a consensus statement from Australia and New Zealand. BMC Med Educ 19:1–8
Keyes CL (2007) Promoting and protecting mental health as flourishing: a complementary strategy for improving national mental health. Am Psychol 62:95
Kilty C, Wiese A, Bergin C et al (2017) A national stakeholder consensus study of challenges and priorities for clinical learning environments in postgraduate medical education. BMC Med Educ 17:226
Kushner RF, Kessler S, McGaghie WC (2011) Using behavior change plans to improve medical student self-care. Acad Med 86(7):901–906
Kusurkar RA, Ten Cate TJ, Van Asperen M et al (2011) Motivation as an independent and dependent variable in medical education: a review of the literature. Med Teach 33(5):e242-262
Kusurkar RA, Croiset G, Galindo-Garré et al. (2013) Motivational profiles of medical students: association with study effort, academic performance, and exhaustion. BMC Med Educ 13:1−8
Lawrence C, Mhlaba T, Stewart K, Molestsane R (2017) The hidden curricula of medical education: a scoping review. Acad Med 93(4):1
Ledesma J (2014) Conceptual frameworks and research models on resilience in leadership. SAGE Open 4(3):2158244014545464
Lee E, Hannafin MJ (2016) A design framework for enhancing engagement in student-centered learning: own it, learn it, and share it. Educ Tech Res Dev 64:707–734
Lo D, Wu F, Chan M et al (2018) A systematic review of burnout among doctors in China: a cultural perspective. Asia Pac Fam Med 17:3
Lyndon MP, Henning MA, Alyami H et al (2017) Burnout, quality of life, motivation, and academic achievement among medical students: a person-oriented approach. Perspec Med Educ 6:108–114
Marlina M, Findyartini A (2020) Content validity of burnout measurement of medical teacher in Indonesia. E-J Kedokteran Indonesia 8(1):23–30
Martimianakis MA, Hafferty FW (2016) Exploring the interstitial space between the ideal and the practised: humanism and the hidden curriculum of system reform. Med Educ 50:278–280
Maslach C, Jackson SE, Leiter MP (1996) MBI: The Maslach Burnout Inventory: Manual. Consulting Psychologists Press, Palo Alto, CA
Miller-Matero LR, Martinez S, Maclean L et al (2018) Grit: a predictor of medical students performance. Education for Health 31:109–113
Nishimura Y, Miyoshi T, Obika M et al (2019) Factors related to burnout in resident physicians in Japan. Int J Med Educ 10:129–135
Nordquist J, Hall J, Caverzagie K et al (2019) The clinical learning environment. Med Teach 41(4):366–372. https://doi.org/10.1080/0142159X.2019.1566601

Ofri D (2017) Medical humanities: the Rx for uncertainty? Acad Med 92:1657–1658
Pacifico JL, van der Vleuten CPM, Muijtjens AMM et al (2018) Cross-validation of a learning climate instrument in a non-western postgraduate clinical environment. BMC Med Educ 18:22
Passi V, Johnson N (2016) The impact of positive doctor role modeling. Med Teach 38:1139–1145
Passi V, Johnson N (2016) The hidden process of positive doctor role modelling. Med Teach 38:700–707
Pellegrino ED (2006) Toward a reconstruction of medical morality. Am J Bioeth 6(2):65–71
Pinalla S, Pander T, von der Borch P et al. (2015) 5 years of experience with a large-scale mentoring program for medical students. GMS J Med Educ 32(1):Doc5
Quirk M, Chumley H (2018) The adaptive medical curriculum: a model for continuous improvement. Med Teach 40(8):786–790
Rattrie LTB, Kittler MG, Paul KI (2020) Culture, burnout and engagement: a meta-analysis on national cultural values as moderators in JD-R theory. Appl Pscyhol Int Rev 69(1):176–220
Ross MT, Cumming DA (2013) Peer assisted learning. Dent JA. Elsevier, Harden RM. Practical guide for medical teachers. Churchil Livingstone, pp 134–141
Ryff CD (1989) Beyond ponce de leon and life satisfaction: new directions in quest of successful ageing. Int J Behav Dev 12:35–55
Sambunjak D, Straus SE, Marusic A (2010) A systematic review of qualitative research on the meaning and characteristics of mentoring in academic medicine. J Gen Intern Med 25(1):72–78
Savicki V (2003) A cross-cultural study of burnout and job roles. Soc Work Europe 10(1):41–48
Schönrock-Adema J, Bouwkamp-Timmer T, Hell EAV et al (2012) Key elements in assessing the educational environment: where is the theory? Adv Health Sci Educ Theo Pract 17:727–742
Schaufeli WB, Leiter MP, Maslach C (2008) Burnout: 35 years of research and practice. Career Dev Int 14(3):204–220
Schaufeli WB, Bakker AB (2004) Job demands, job resources, and their relationship with burnout and engagement: a multi-sample study. J Organiz Beh 25:293–315
Schaufeli WB (2017) Burnout: a short socio-cultural history. In: Neckel S, Schaffner AK, Wagner G (eds) Burnout, fatigue, exhaustion: an interdisciplinary perspective of a modern affliction. Springer Nature, Switzerland
Scheepers RA, Emke H, Epstein RM et al (2020) The impact of mindfulness-based interventions on doctors' well-being and performance: a systematic review. Med Educ 54:138–149
Sheehan D, Jowsey T, Parwaiz M et al (2017) Clinical learning environments: place, artefacts and rhythm. Med Educ 51(10):1049–1060
Soemantri D, Herrera C, Riquelme A (2010) Measuring the educational environment in health professions studies: a systematic review. Med Teach 32(12):947–952
Stenfors-Hayes T, Hult H, Dahlgren LO (2011) What does it mean to be a good teacher and clinical supervisor in medical education? Adv Health Sci Educ Theory Pract 16(2):197–210
Strand P, Sjöborg K, Stalmeijer R et al (2013) Development and psychometric evaluation of the Undergraduate Clinical Education Environment Measure (UCEEM). Med Teach 35(12):1014–1026
Suhoyo Y, Van Hell EA, Kerdijk W et al (2017) Influence of feedback characteristics on perceived learning value of feedback in clerkships: does culture matter? BMC Med Educ 17:69
Tan YS, Teo SWA, Pei Y et al (2018) A framework for mentoring of medical students: thematic analysis of mentoring programmes between 2000 and 2015. Adv Health Sci Edu Theory Pract 23(4):671–697
Theron LC, Liebenberg L, Ungar M (2015) Youth resilience and culture: commonalities and complexities. Springer, Netherlands, Dordrecht
Tse S, Liew T (2004) New Zealand experiences: How is community resilience manifested in Asian communities? E-comm Int J Mental Health Add 2:1–8
Ungar M (2006) Resilience across cultures. Brit J Soc Work 38:218–235
Ungar M (2015) Resilience and culture: the diversity of protective processes and positive adaptation. In: Theron lC, Liebenberg l, Ungar M (eds) Youth resilience and culture: Commonalities and complexities. Springer Netherlands, Dordrecht

van den Berg JW, Mastenbroek NJJM, Scheepers RA et al (2017) Work engagement in health professions education. Med Teach 39(11):1110–1118
van den Berg JW, Verberg CPM, Scherpbier AJ et al (2018) Faculty's work engagement in patient care: Impact on job crafting of the teacher. BMC Med Educ 18:312
van Houten-Schat MA, Berkhout JJ, van Dijk N (2018) Self-regulated learning in the clinical context: a systematic review. Med Educ 52(10):1008–1015
van Vendeloo SN, Godderis D, Brand PLP (2018) Resident burnout: Evaluating the role of the learning environment. BMC Med Educ 18:54
Vogan CL, McKimm J, Da Silva AL et al (2014) Twelve tips for providing effective student support in undergraduate medical education. Med Teach 36(6):480–485
Wald HS, Haramati A, Bachner YG et al (2016) Promoting resiliency for interprofessional faculty and senior medical students: outcomes of a workshop using mind-body medicine and interactive reflective writing. Med Teach 38(5):525–528
Wartman SA, Combs CD (2018) Medical education must move from the information age to the age of artificial intelligence. Acad Med 93(8):1107–1109
Watts J, Robertson N (2011) Burnout in university teaching staff: a systematic literature review. Educ Res 53(1):33–50
White MK, Barnett P (2014) A five step model of appreciative coaching: a positive process for remediation. In: Kalet A, Chou CL Remediation in medical education: a Mid- Course Correction. Springer Science and Business Media, New York
Williams ES, Konrad TR, Linzer M et al (2002) Physician, practice, and patient characteristics related to primary care physician physical and mental health: Results from the physician work life study. Health Serv Res 37:119–141
Wilson AB, Brown KM, Misch J et al (2018) Breaking with tradition: a scoping meta-analysis analyzing the effects of student-centered learning and computer-aided instruction on student performance in anatomy. Anat Sci Educ 12(1):61–73
Windle G (2011) What is resilience? A review and concept analysis. Rev Clin Gerontol 21(2):152
Wong AK (2011) Culture in medical education: Comparing a Thai and a Canadian residency programme. Med Educ 45:1209–2119
Wright EM, Matthai MT, Warren N (2017) Methods for alleviating stress and increasing resilience in the midwifery community: a scoping review of the literature. J Mid Women's Health 62(6)
Wright MOD, Masten AS (2015) Pathways to resilience in context. In: Theron IC, Liebenberg l, Ungar M (eds) Youth resilience and culture. Cross-cultural advancements in positive psychology. Springer, Dordrecht

Chapter 13
The Way Forward: A Multi-Directional Global Conversation on Culture and Learning

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Abstract This chapter especially invites the readers to think critically and deeper on how to prepare future health professionals in the context of cross-cultural perspectives in health care and health professions education. This chapter discusses four themes, including recognizing the influence and context of cultural characteristics in learning medicine, applying the local cultural elements into better medical education for the practitioner and the community being served, bringing in the local wisdom to enrich and enhance the delivery of medical education, and moving towards embracing multidirectional and global perspectives on culture and practice of medical education. While the first three points will touch on the critical curricular approaches, outcomes, delivery, and assessment, they will offer broader examples of application across the globe and bring to attention the reluctance to discuss, recognize and confront issues related to culture. The final learning point focuses on moving forward as a

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global community of medical educators by accepting and embracing multidirectional perspectives in the practice and scholarship in medical education.

13.1 Introduction

13.1.1 Beyond the Culture

> Culture makes people understand each other better. And if they understand each other better in their soul, it is easier to overcome the economic and political barriers. But first they have to understand that their neighbour is, in the end, just like them, with the same problems, the same questions.—Paulo Coelho

Three words ring significantly in the first chapter of this book. Culture, Values and Norm, words that have distinct meaning and interpretation in the English language but yet triggers much debate when it is used in varying context. What's more if we try to translate these three words into the different languages used across the globe, will we get the same meaning or definition from the layperson's or an academic's perspective? It will be a resounding no, as we are now increasingly aware of the phrase 'lost in translation' whereby the diverse interpretations and practices of culture, values and norms offer the distinct insight to the unique richness of human civilization. Remembering that learning from others, especially those from different cultures is a gift and opportunity that should be built on and celebrated. This is why the first chapter of this book is crucial as it defines the context, need and passion behind this edited volume.

Using the cultural dimensions of Hofstede, and focusing on high power distance and collectivistic societies, the purpose of the edited volume is laid out with the 5Ps. Firstly Problems faced in healthcare and health professions education, followed by the need of getting the right People to solve the problem, identifying the key locally sourced strategies needed to Pivot the problem, having Persistence needed to keep working at it and finally the Passion to do what is right by all stakeholders (Crilly 2018). Although not mentioned by the previous authors, there is likeness of the strategies they describe with a concept is borrowed from the pivot strategy which is 'a structured course correction designed to test a new fundamental hypothesis' (Ries 2011), clarifying that 'we keep one foot rooted in what we've learned so far, while making a fundamental change in strategy in order to seek greater validated learning' (p. 154) (Ries 2011). The concept is used increasingly by entrepreneurs, and maybe recognized as organizational change by academics. In reality, it is about moving forward with a change in direction giving up some of the ideas they have been working (fixed on) on to explore new opportunities (Ries, 2011). The resistance to change is described in chapters as challenges which can be likened to design fixation, whereby boundaries are set to counter or stop change. If the first chapter makes the case for change and is further strengthened by the rest of chapters that describe where and how change can be made, what is then expected of the final chapter?

As the final chapter of an edited volume that is calling for change and setting the discourse of cross-cultural perspectives in health care and health professions education, the question will then be what is the way forward? There is excitement of what can we do next to address the issues and solutions raised. Reflections include further interest on how do we evaluate the cross-cultural perspectives in our own context? For clarity, we ask whether the concepts, practices and solutions offered be applied across the various clinical settings. There is good reason why educators, health professions practitioners, administrators and leaders will strike a chord with the aforementioned issues, this is because culture is personal, and it is felt and experienced. Cross-cultural perspectives broaden the personal experience to a wider community around us. For the most part, it's a joyous and enriching experience with much positive outcomes, however there are increasing signs in the healthcare and health professions settings that cross-cultural perspectives are being neglected. This neglect manifests itself through failings in patient safety and patient-centred care, disparities in healthcare and health professions education access and the lack of policies or systems to address diversity and inclusivity. The most trying aspect is the reluctance to discuss, recognise and confront issues related to cultural diversity. The comfort that status quo offers and the prestige/ immunity conferred to healthcare and health professionals may blindside both the industry and profession that they are above the rest or that these issues do not exist in their own context. Hence the delicate balance of keeping what works and moving forward with pivots towards evidence-based solutions in the training of healthcare professionals.

Importantly the issues raised on the neglect of cross-cultural perspectives or diversity are global. It is not confined to a specific country or community, so addressing these issues with solutions that can be implemented locally will be beneficial to all. The authors of the previous chapters do exactly this via three themes, firstly they were able to describe how cultural characteristics influence learning in medicine, then they offered solutions to address the challenges based on local wisdom and cultural characteristics, while addressing key enablers for change including leadership, quality assurance, personal and professional development. To address the question of the way forward, a quick recap of the themes will be useful.

13.1.2 Context of Cultural Characteristics Influences Learning in Medicine

As repeatedly highlighted in Chaps. 1, 2, 4, 6 and 8, the context of hierarchical and collectivism challenged the implementation of student-centred learning strategies. This phenomena manifests in the form of less dialogue between students and teachers. As a consequence, there is lesser meaningful feedback and opportunities for deep reflection which will drive self-directed learning and life-long learning. Inevitably this cycle is reiterated with the next cohort of students, creating an awareness and realization that the changes that are expected from educational strategies are taking

longer than expected. On top of this, the increasing demands and dichotomy of public and private healthcare systems are having an impact on medical education. For example, some health care systems still allow medical doctors to practice in different clinical settings (for example, medical school, private or public healthcare services), so limited time and overloaded patients can be an excuse of the medical teachers to not prioritise medical students training or have sufficient communication time with the students.

Institutional culture also drives cultural characteristics in medical education, for example, academic excellence is associated with medical school entry. This concept is evidenced by the authors with assessments during medical school. Assessments outcomes are still viewed as to provide an exact number or grade to the students instead of providing narrative feedback and assist the students to continuously improve during training. The 'big-bang' assessment at the end of medical education had driven a more teacher-centred learning process. This means the cultural characteristics of the institution may dampen the role of assessments as learning for both faculty and students. Another example relates to the quality assurance process, which is often regarded as quantity of document or checklist instead a continuous reflective process on the self, programme or institutional evaluation and planning for both short and long term strategies in education.

The dilemma and challenges of assessment are further exacerbated with the resource gap and cultural diversity between communities within a country. Most highly developed countries which are also on the opposite side of the cultural dimensions of hierarchy and collectivism, have egalitarian policies and governance that result in better wealth and infrastructure development across the country. This includes a more equitable access to healthcare, universal coverage, patient awareness and autonomy. Countries that are focused on in this edited volume for example Indonesia, Malaysia, Sri Lanka, or India face the challenges of urban–rural divide, in which the healthcare facilities and patient's economic and socio-cultural demographics will considerably differ in the cities compared to rural areas (Goel et al. 2019; Budhathoki et al. 2017). Medical and other health professions schools are usually planned and located across the country to serve the surrounding communities, similarly health professionals upon graduation can be posted to anywhere within the country. This means the graduates need both training and assessments opportunities in diverse settings as to be better prepared for the workplace. A variety of work-based learning sites with the relevant assessment equivalency needs to be paid additional attention too, as there maybe risks that students may miss or opt-out of learning and being assessed in unfamiliar surroundings. This means they prefer to learn, perform and be assessed within their comfort zone and will not opt for electives or postings in environment that are less comfortable (Goel et al. 2019; Budhathoki et al. 2017).

To further address cultural context in learning, evidence of strategies towards self-regulated learning (SRL) may offer some fresh perspectives. SRL is described as reiterative Meta-cognitive process composed of three phases (Sandars and Cleary 2011). The cycle of forethought, performance and self-reflection phases help learners to set, monitor and achieve their learning goals that best suits their needs and context.

SRL is intertwined with student-centred learning strategies, as it increases ownership and direction of learning to the student. Research published on SRL by Japanese medical educators, suggest that the move from teacher centred cultures to the context of student centred learning helps promote SRL and increase preparedness for both healthcare practice and postgraduate education (Sandars and Cleary 2011). While Japan's society, based on Hofstede' cultural dimensions can be described as borderline hierarchal and mild collectivistic, the high scores for long-term orientation suggest a society that values traditions of the past that are virtuous with good practical examples to take forward (Hofstede Insight 2021). This includes East Asian education culture also described as Confucian-heritage education where virtue is achieved primarily respecting and learning from teachers and emulating their way of thinking. Matsuyama et al. (2019) addresses this intersection of culture and the changing landscape in healthcare and medical education, by suggesting that changes towards student-centred learning strategies should have recognized opportunities for learner autonomy via planning their own curriculum and learning outcomes and there should be clear opportunities within the curriculum to do so independently (Matsuyama et al. 2019).

The other barrier towards student-centered learning is the continued focus on academic achievement as the key indicator of success in both in medical school and later in healthcare settings. Students will continue to be academic focused as they perceive assessment content is primary and maybe less focused on non-cognitive attributes that are usually assessed via formatives, not grade-driven and seen as easy skills to pass. In other words, assessment drives learning and in spite of the calls to move towards more holistic assessments that weigh in professional behaviour in various contextual scenarios, educators are mostly reliant on knowledge-based assessments for progression decisions (Patterson et al. 2018). There are two serious problems with the above-mentioned scenarios, the first issue relates to student's readiness for the workplace and the second issue brings attention to the current ways of selecting both students and faculty for health professions training. Are these selection methods still relevant or need changing?

To address the issue of students' readiness for the workplace, perhaps the case study of the Situational Judgment Test which is used to determine placement for students seeking a foundation placement (house officer training position) will be useful to learn from. For foundation placements, UK medical students will be judged both on their educational (academic) performance measure (EPM), i.e. class ranking and SJT test performance (Patterson et al. 2018; Cousans et al. 2017). The main component for assessment is the class ranking and SJT scores. Students who score high in both these components will probably get the placement that top in their choice, students who score lower in both face the risk of getting the bottom choices or be relegated to the second round of foundation placements. Given that UK may seem more egalitarian and individualistic, there has been continuing debate on the use of SJTs for foundation placements. Supporters of the SJT advance that it is valid and reliable to assess students' readiness for the workplace as it includes affective skills and domains that relate to empathy, ethics, professional behaviour and collaboration. Detractors feel that this tool may not necessarily correlate with academic

performance in university and has socio-cultural nuances that may disadvantage students, especially international medical graduates (Webster et al. 2020; Ismail and Patel 2019).

The SJT experience is a valuable experience and lesson for both teachers and students, it repeatedly shows that academic grades and readiness does not necessarily translate to job readiness and confirms the findings of the landmark paper by Papadakis et al. (2005) that professional lapses are often neglected during training due to the hesitancy to address or delay progress a student who poorly behaves because the student is good academically (Sawdon and McLachlan 2020). Importantly it teaches us that the preference for academic grades as the sole determinant of academic progression and merit is not confined to only colleagues in Eastern and developing countries. Colleagues in the West are also struggling to convince their peers of the benefits of looking beyond academic grades. Hence it makes more sense that more multi-directional conversations are made around this important topic in order to benefit from each other's context and ensure the global movement of health professions are subject to similar standards of cognitive and non-cognitive attributes.

The next way forward is the issue of student and faculty selection. We have always assumed that 'virtue is directly related to intelligence', however in reality scenarios that play out with patient negligence, cover-ups and lapse of judgments indicate the need to better select both coming into training and those who are going to teach them as role models. The multiple mini interviews (MMIs) is an example of an student selection tool, similar to the SJT, the MMI allows for an evaluation of a candidates non-cognitive attributes (Patterson et al. 2018; Callwood et al. 2018). A recent review of student selection methods of schools across the Asian region suggests that MMI is not widely used for student selection. However moving forward, there is an opportunity to use MMI to inform faculty and curriculum developers on the strengths and areas of concern with regards to students' attributes. This means the MMI is not used for student selection but is conducted formatively to identify strengths and areas to improve on within cohorts of trainees. This strategy also allows for educators to examine the personal domains that are being designed and contextualize such domains in alignment to the ever-changing socio-cultural and healthcare settings (Callwood et al. 2018). A formative approach will probably put both students and faculty at ease as it is non-threatening. Although resource-intensive, the added value for a formative approach is students may perform more authentically and the buy-in to the process of enhancing and valuing non-cognitive attributes maybe easier.

The other question to address is faculty selection? How are faculty selected into their current roles given the diversity of their backgrounds and professional expertise? What are the similarities and differences in faculty selection across countries with varying cultural dimensions? What is the journey for the clinician or biomedical scientist that transforms them into a health professions educator? Literature related to identity formation for clinical educators in developing countries is scarce (Khan et al. 2021; Chia et al. 2020). Studies that have been shared suggest that there are barriers to rewarding careers in the educator track at both the individual and systemic level. An explorative study from Pakistan suggests that at the individual level problems arise

from conflicting priorities, lack of autonomy and language barriers. Systemic issues stem from the gap that exists between educationists who are advocating change and with teachers who are practicing with limitation on the ground (Chia et al. 2020). The absence of incentives and lack of institutional support towards scholarship and promotion related to medical education are also systemic barriers (Khan et al. 2021).

13.1.3 Context of Local Wisdom to Enrich and Enhance Medical Education

Chapters 3, 5, 7 and 9, explore and explain the strength of the local culture and context in enriching the student learning experience and providing them with skills to better serve the community in future. Termed positively as local wisdom, this is a fresh perspective of recognizing that in the cultural context of hierarchical and collectivism, there are opportunities and experiences we can learn from. At the same time, the local wisdom allows us to strengthen the approach to both student-centered and experiential learning that is recommended by literature in medical education. There are many reasons to laud the perspective of the local wisdom, as for over 100 years, since the Flexner report urged medical schools to focus on basic sciences, medical schools have focused and designed curricular with 2 distinct phases, basic medical sciences and clinical science (with increasing vertical and horizontal integration, better known as the spiral curriculum) (Weatherall 2011; Finnerty et al. 2010). Competencies and learning outcomes of medical graduates were delivered and assessed based on curricula that used learning resources and materials that were scientifically evidenced (Kuper et al. 2017). This approach is crucial and continues to be the foundation of medical training. In some instances, it may have lessened the emphasis on humanities or cultural context or reduced the possibility of learning in and with the community and instead focused on hospital-based training and clinical disciplines (Kuper et al. 2017). Medical practice in the East prior to the arrival of western and allopathic medicine has always been influenced by socio-cultural practices of traditional medicine, which emphasises mindfulness and well-being. In some countries like India and China, this has led to some successful examples of integrated training and practice of both traditional and allopathic medicine.

The management of the recent Covid-19 pandemic was a reflective process of the importance of working with the community and highlighted calls of bringing public health to the forefront of the undergraduate curricula (Kok et al. 2020). The local wisdom additionally will also be useful when engaging communities when addressing emerging public health concerns possibility due to climate change, man-made or natural disasters and environmental pollution (Maxwell and Blashki 2016). Health professionals have a role beyond advocating social changes, they are part of the mitigation and adaptation process too, hence ability to work with local communities and other professionals to harness a collective and mutually beneficial action plan is important too. The authors of the previous chapters highlight successful practices

of using the local wisdom. The first one is about bring about the community context earlier to the students, since the beginning of medical education. The strength of this community attachment is in line with the collectivism culture and will stimulate communication skills, teamwork, primary care cases, preventions, interprofessional collaboration and other soft skills that are strongly recommended in medical education. For the countries in which has wide gap of power distance and collectivism in decision making, by learning directly from the community with proper learning strategies and feedback, students can gain meaningful learning of both medicine and social-humaniora context. There is increasing evidence that the community too wants to work collaboratively with health professionals and be part of undergraduate training (Severinsen et al. 2021; Tan et al. 2017). An example outside of South East Asia, is the pro-active stance taken by the Maori community to ensure health promotion activities are centred around autonomy and community leadership. The concept of 'Te Mana Whakahaere' is seen as a community action approach, founded in community ownership and control of health promotion initiatives means health professions educators and students are led by the local wisdom instead of public health traditions that are Eurocentric (Severinsen et al. 2021). Another example, is related to Home visits, a feature in community health curriculum especially in developing countries. These visits require members of the community to open up their homes, socio-cultural context and health problems to medical students and their preceptors, in spite of privacy and security concerns, patients are willing to open their doors 'strangers' (Tan et al. 2017). While this reflects the trust that collectivistic and hierarchical societies have for authorities, a study by researchers in Malaysia suggests that patients' willingness or motivation in longitudinal home visits also includes being part of the training future professions, gratitude to healthcare providers or having a relative in the healthcare profession (Liew et al. 2015).

The second one, relates to the use of learning resources. Given that countries or societies in the hierarchical, high-power distance and collectivistic dimensions would include developing countries that may have resource limitations ranging from shortage of expertise in some fields in academic medicine to lacking physical and cyberinfrastructure, it is even more crucial that learning resources are not cut and paste solutions from the West. Learning resources planning requires needs analysis and implementation strategies which translates into workable and sustainable solutions that are fit for purpose. The authors of Chap. 3 address this as learning resources will be emphasized into: (a) the use of technology, especially during pandemic era, when physical distance is crucial to maintain social relationship and business matters, (b) to facilitate the students to maintain patient safety with humanist approach, (c) to endorse the low-cost learning materials especially compatible with community-based education and empowering the community and (d) to consider diverse learning resources from the most simple to advance one and the augmented reality for medical education.

The four key points on learning resources highlight the need for a mindset change when developing and selecting learning resources. Traditionally learning resources have been selected and developed by the teachers who are either faculty members or health care professionals. The perspective offered by teachers will be based on their

subject matter expertise, alignment with the curriculum and experience in teaching, learning and assessments. However, one key point remains which is the teacher's perspective. Building on from Chap. 3, it's time to shift the focus from mainly teachers or subject matter experts but to include more students, patient and community voices as learning resources or to include them in the development, selection and review of learning resources. For students to act as and contribute to learning resources, there are several roles that they can play. This can range from students be involved in curriculum delivery as peer tutors to students co-creating learning resources for the curricula (Liew et al. 2015; IMU News 2020; Consultoid 2018).

These models of peer support and development of learning resources have been evidenced in health professions education across countries the global and in countries with varying cultural dimensions. One example that is worth mentioning is from dental education, and it was initiated by students in the Dental School at Dundee University since 2016. This project called the Dundee Dental Wikipedia Project aims to enhance the quality of dental-related articles on Wikipedia by using the highest quality evidence from literature and practice. The project was based on the premise that resources and materials related to dentistry in Wikipedia were poorly edited and not as regularly updated. This resource may also serve as an unreliable source of information for the public or other dental students. The crucial aspect of this project is that it is student-led project which now includes dental students from 5 institutions, i.e. Scotland, Ireland and Malaysia (IMU News 2020). Importantly it is a sustainable initiative with annual conferences related to the project and is supported by Cochrane Oral Health (https://blog.dundee.ac.uk/one-dundee/dundee-dental-wiki-edit/).

Another notable student lead project, initiated by students at the International Medical University (IMU) in Malaysia but now used widely across institutions within and outside Malaysia, is the CONSULTOID project. Consultoid serves as a voluntary, dedicated, peer-to-peer learning platform for medical students. The student founders co-create learning materials around various clinical disciplines and offers students the opportunity to role-play and develop clinical acumen by either being the 'consultant' or the junior 'house officer'. The Malaysian students involved in both the above-mentioned projects have recently won awards related to their contribution in this student-driven international project further confirming that students from hierarchical and collectivistic societies are able to participate and lead independently when given the opportunity (IMU News 2020; Consultoid 2018).

The third aspect of using the local wisdom to enhance and enrich medical education relates to one being in harmony and is able to delve deeper into culture, spiritual/religious belief, organization and artefacts to influence how professionalism can be expressed and practiced with relevance to context. The authors of Chap. 7, use the Conceptual and Relational Model between Spirituality/Religiosity, Compassion, Patient Outcome and Professionalism to perfectly outlay the case for cultivating and nurturing professionalism in varying context and evolving societies. The phenomena of globalizing professionalism gives credence to working with and for the community that healthcare serves but is also in keeping with the principles of bioethics of 'do no harm', autonomy and justice. The issues of cultural dilemmas are realities for doctors across the globe. Treating and caring for patients from multi faiths and socio-cultural

background, are posing critical challenges especially for those who have been trained based on western principles of secularism (Klitzman 2021). Although religion and spirituality have been interlinked with the practice of medicine for centuries, the shift that started in the US in the early twentieth century towards a scientific and discipline-based curriculum made a clear demarcation of both. Healthcare practice in the East or developing countries, although having embraced a scientific-based curriculum for the training of health professionals has always maintained the delicate balance of meeting the community needs for spirituality and religion, with the aim of improving patient engagement and reducing social conflicts.

13.2 Applying The Local Cultural Characteristics Into Better Medical Education

Chapters 10, 11 and 12 have one major theme in common as it is focused on people development. These 3 chapters reiterate that contextualised, continuous and sustainable initiatives will allow for faculty development programs and CPDs plus ensure students' well-being, resilience and interprofessional collaboration can continue to flourish irrespective of the cultural dimensions. In fact, the authors proposed that if strategies are applied correctly, the cultural characteristics of hierarchical and collectivism societies can be turned into local wisdom to benefit the training of future healthcare professionals.

With regards to faculty development, the authors in Chap. 10 summarise that PPD aims to uphold lifelong learning abilities of both teachers and their students. We are reminded that a student today is a colleague tomorrow, hence the approaches used for faculty and student development should be synergistic. To achieve this synergy, the authors suggest that the culture of deliberate practice, reflective practice and feedback process should be encouraged (Chia et al. 2020). The hierarchical culture opens the door for role modelling and mentoring by the faculty, while the collectivist cultures value teamwork and collaboration. Role modelling shared goals and teamwork are also at the core of interprofessional collaborative practice. Nevertheless, there is a risk that hierarchical cultural dimension could veer doctors to the centre of the circle of care as opposed to the patients. Hence any initiative towards introducing interprofessional collaborative practice in both health professions training or healthcare practice needs continuous attention by implementers. It can be likened to the ostrich, beaver and peacock analogy given by Harden (2007) for outcomes-based education and for any educational endeavour, whereby interprofessional outcomes will not be achieved when initiatives are in the 'peacock' phase, appearing only on paper but not in practice.

When addressing student well-being, authors of Chap. 12 identified a few factors that can impact students these include distress level, burnout, level of resilience and learning environment. The authors suggest several approaches to ensure student well-being that can be contextualized to fit the cultural context. From group mentoring to

peer support, the authors build on the cultural characteristic of collectivism, which is interdependence within the community for well-being. There is an African (also strong on the collectivism dimension) proverb, that is borrowed across many cultures, which is 'it takes a village to raise a child'. This concept is not limited to having extended family and members within the community to help raise a child but can often be seen in the school or workplace where there is support from more senior members towards more junior colleagues. While strategies that promote student well-being should be given more attention and resources, equal attention should be given to confronting and dealing with persons or discriminative policies that result in stress, burn out or any negative effect on student well-being. The bane of hierarchical and high-power distance societies, is the incidence of bullying and harassment that continue to occur during training or at the workplace and take form in ways that are different to western countries (Kwan et al. 2020). For example, group bullying is more prevalent in some eastern cultures, and students may not be aware of the stress or ill effect it is causing on others. It is then very important to use the right tools to regularly monitor bullying and harassment, create awareness of it and ensure that the perpetrators are dealt with accordingly.

13.3 Moving Towards Embracing Multidirectional and Global Perspectives on Culture

What colonialism does is cause an identity crisis about one's own culture—Lupita Nyong'o

The reflexivity offered in the penultimate segment of the final chapter, is by the first author that was not born into colonialism but was born, brought up, educated and is working in a country that was colonized. The lens offered then for this segment will be a combination of both literature and interpretations of personal experiences. The more pertinent question perhaps is why the historical perspective of colonization is crucial for the current discourse on cultural dimensions and health professions training. One compelling reason is that a large number of the countries in the hierarchical and collectivistic dimension were colonized by major foreign powers between the eighteenth and nineteenth centuries. In South East Asia for example, all countries except for Thailand were colonized. The presence of former colonial powers was not limited to one country, instead European historical events led to the presence of the British, Dutch, French, Spanish and Americans in the region. Colonialism also meant that post-independence healthcare and education system in these countries were more similar to the colonial powers rather than to each other as neighbors (Stein and de Andreotti 2016; Bleakley et al. 2008).

While the era of colonialism has ended for a few decades now, the effects of it is still felt (Stein and de Andreotti 2016; Bleakley et al. 2008). One impact is the veneration of all practices that are western and the other is possibly a rejection of local culture and practices in preference of the west. This could not be more apparent in healthcare whereby colonization caused a conflict between eastern and western philosophies of

health. Anshu (2016), describes the 'clash of cultures' where Western knowledge was viewed as more powerful than the East. Medicine as practiced in the East was largely diverse with an acceptance of complementary and alternative medicine. Well-being was not only a biological event instead interwoven with socio-cultural and religious practices. However Western medicine was accorded a higher status and recognized as mainstream route, which also meant doctors, nurses and other healthcare professionals for both under and postgraduate programmes were trained based on curricula structure and received qualifications similar to the colonial powers that ruled them. In some instances the colonial history allowed for postgraduate scholarships and migration of professionals, including healthcare professionals from the low- and middle-income countries to the highly developed countries for socio-economic reasons. The author of this chapter was a beneficiary, after completing the undergraduate degree in Malaysia in the mid-1990s (nearly 37 years post-independence), applied for and received the competitive Chevening and Cambridge Commonwealth Scholarship to complete a postgraduate degree in United Kingdom.

The influence and training received in Western-based education systems and philosophies continue to be strong amongst health professions educators and leaders in the Asian region. In fact, much credit needs to be given to the pioneers mainly from the West, that brought about scholarship to health professions education, which eventually led to the recognition of Health Professions Education (or specifically medical, dental, etc., education) as a discipline, a department, with opportunities for postgraduate qualifications, and led to the birth many excellent and high impact journals. The downside perhaps the strongest justification for this book was the early scholarly narratives coming from health professions educators from the East, were trying to adapt and contextualise to concepts, frameworks and learning methods from the western scholarly narrative. Sometimes known as neo-colonization in medical education, it addresses the issue of influence and needs to conform to educational tools and strategies that are promoted by the West (Bleakley et al. 2008). If we are not careful with neo-colonization, instead of increasing representation through diversity of scholarly work across the globe, we risk re-presenting work that is similar to what has been published. This concept adds to the hesitancy to bring concepts related to local culture, philosophy or religion into the global scholarship discourse. While there could be some rejection towards this 'non-western' context either in the form of bias or self-imposed beliefs, more recent publications in HPE literature and that too in high impact and indexed HPE journals are bringing greater diversity and acceptance into the discourse. Each chapter previous to this is evidence of the widening access and diversity seen in HPE scholarship.

However as recently raised in a few publications, the scholarly literature for HPE is still lopsided to highly developed and western countries (Doja et al. 2014). The absence of representation should be addressed by the global community of HP educators. Why this is so as some may ask? One compelling reason is unlike other fields of scholarship, there is a medical or health professions school present in nearly all countries (Rigby and Gururaja 2017). This distribution cannot be expected for other disciplines for example in biomedical or physical sciences research whereby resource availability, priorities and infrastructure may limit an even distribution of

these research laboratories across the globe. In spite of the global presence, the lack of representation can be related to the lack of recognition of HPE as an academic discipline or department, the lack of expertise in HPE as subject, the lack of opportunities to publish their research work or the lack of interest in HPE from other countries or cultures (Nadarajah 2021). All these reasons and many more are plausible, but unless efforts are made to start exploring more multidirectional and global perspectives instead of unidirectional ones, they remain as guesses.

13.4 Summary

13.4.1 Moving Beyond Culture And Progressing As A Global Community

As a community of health professions educators, there are also other pressing issues that will impact the future of health professions. While overcoming cross-cultural barriers is crucial, the recent Covid-19 crisis, illustrated the importance of working and learning together as a global community of scholars and health professionals. It is the continuing collaborative efforts and progress of science that fast-tracked the development and deployment of vaccines. Similarly, it was the coordinated global network of public health and infectious diseases specialists that informed and supported each other on what works and what doesn't. Some had to stand up to ridicule by those in political power to ensure that it was evidence-based medicine, social and humanistic needs be prioritized. So what are the areas that we as health professions educators should stand together for? This question is to invite more discourse and efforts around making health professions' training relevant to healthcare and social needs. However, here are some suggested areas that need dire attention across the globe.

One issue to address is the diversity, inclusivity and equity agenda both in health professions education and in healthcare settings. We need to listen to evidence that is coming up from both educators, students, health professionals and patients that all is not well in the learning and workplace environment. It is not acceptable to hear about bias from health professionals towards minorities, and neither it is acceptable for co-workers to allow bullying and harassment of their colleagues from other colleagues or patients. Organizations and individuals that say we don't face such issues, need to be aware that issues like this are inherent in all communities and need continuous working on. This is why it's so important to bring this issues up into the training environment and get everyone ready on how to deal with it. The second issue is the issue of climate change and its impact on healthcare and the way health professionals are trained. Currently addressed as electives or embedded in the realm of public health,

medical teacher and practitioners are not seeing the relevance of climate change as much as their students. However as previously mentioned, the curriculum should not only focus on one-off experiences or biosocial consequences (Maxwell and Blashki 2016) of climate change but move towards showing future health professionals on learning how to work collaboratively with communities and professionals outside the realm of health care and health professions. Most importantly climate change is a global issue, no country, population or healthcare system will be immune from it. This means the missteps of past in addressing climate change should not be repeated. These include the pattern of the West telling the East or the North telling the South, what is the best solution for the other. The issues of DIE and climate changes are shared challenges for all health professionals but creates wonderful learning opportunities whereby solutions can be shared and discussed across the globe, moving beyond cultural differences.

In summary, the skills of the new health professional will be now definitely beyond the realm of clinical knowledge and skills. To be an influencer and advocate better health for their lifetime, health professionals need to embrace new models of healthcare, adapt to the changes in the community that surround them with a global mindset. As educators, we need to ask ourselves how can we best facilitate this or accept the risk being irrelevant. Indeed as shown in the quote below, we cannot become irrelevant, we should build on the gift that has been given to us.

When you learn something from people, or from a culture, you accept it as a gift, and it is your lifelong commitment to preserve it and build on it—Yo-Yo Ma

Key Learning Points

- Health professions educators should engage globally and critically on the ways to prepare future health professionals in the context of cross-cultural perspectives in health care and education.
- In recognizing the influence and context of cultural characteristics in learning medicine we should be able to train future doctors to better address the diversity, inclusivity and equity gaps in healthcare.
- Applying the local cultural characteristics into better medical education for the practitioner and the community being served should enhance the relevance healthcare services to community needs.
- By bringing in the local wisdom to enrich and enhance the delivery of medical education we should be able to create equitable and long term partnerships with diverse communities crucial for medical training.
- Moving towards embracing multidirectional and global perspectives on culture and practice of medical education should foster contextually relevant solutions with opportunities to learn from one another.

References

AS Anshu 2016 Evolution of medical education in India: the impact of colonialism J Postgrad Med 62 4 255 259 https://doi.org/10.4103/0022-3859.191011

A Bleakley J Brice J Bligh 2008 Thinking the post-colonial in medical education Med Educ 42 3 266 270 https://doi.org/10.1111/j.1365-2923.2007.02991.x

SS Budhathoki PA Zwanikken PK Pokharel 2017 Factors influencing medical students' motivation to practise in rural areas in low-income and middle-income countries: a systematic review BMJ Open 7 2 e013501 https://doi.org/10.1136/bmjopen-2016-013501

A Callwood K Jeevaratnam G Kotronoulas 2018 Personal domains assessed in multiple mini interviews (MMIs) for healthcare student selection: a narrative synthesis systematic review Nurse Educ Today 64 56 64 https://doi.org/10.1016/j.nedt.2018.01.016

Chia CF, Nadarajah VD, Lim V et al (2020) Transfer of knowledge, skills and confidence from a faculty development programme for health professions educators into practice. Med Teach 1–7. https://doi.org/10.1080/0142159X.2020.1776239

Consultoid (2018) IMU consultoid. https://consultoidimu.wordpress.com/

F Cousans F Patterson H Edwards 2017 Evaluating the complementary roles of an SJT and academic assessment for entry into clinical practice Adv Health Sci Educ 22 401 413 https://doi.org/10.1007/s10459-017-9755-4

N Crilly 2018 'Fixation' and 'the pivot': balancing persistence with flexibility in design and entrepreneurship Int J Des Creat Innov 6 1–2 52 65 https://doi.org/10.1080/21650349.2017.1362359

A Doja T Horsley M Sampson 2014 Productivity in medical education research: an examination of countries of origin BMC Med Educ 14 1 1 9

EP Finnerty S Chauvin G Bonaminio 2010 Flexner revisited: the role and value of the basic sciences in medical education Acad Med 85 2 349 355 https://doi.org/10.1097/ACM.0b013e3181c88b09

S Goel F Angeli N Dhirar 2019 Factors affecting medical students' interests in working in rural areas in North India—a qualitative inquiry PLoS ONE 14 1 e0210251 https://doi.org/10.1371/journal.pone.0210251

RM Harden 2007 Outcome-based education–the ostrich, the peacock and the beaver Med Teach 29 7 666 671 https://doi.org/10.1080/01421590701729948

Hofstede Insight (2021) Country comparison, China, Japan and South Korea, Hofstede insight. https://www.hofstede-insights.com/country-comparison/china,japan,south-korea/

IMU News (2020) IMU dental students win the prestigious award at dental Wikipedia conference. https://imunews.imu.edu.my/people/imu-dental-students-win-the-prestigious-award-at-dental-wikipedia-conference/

J Ismail AB Patel 2019 Is the situational judgment test a fair way of assessing candidates applying to the United Kingdom Foundation Programme? Adv Med Educ Pract 10 413 414 https://doi.org/10.2147/AMEP.S186536

Khan RQ, Khan HT, Iqbal M (2021) Teaching the teacher: assessing barriers to identity formation of clinical teachers in a developing country. Teach Learn Med 1–7. https://doi.org/10.1080/10401334.2021.1906255

R Klitzman 2021 Doctor, will you pray for me? Responding to patients' religious and spiritual concerns Acad Med 96 3 349 354 https://doi.org/10.1097/ACM.0000000000003765

KYY Kok FI Idris DSQ Koh 2020 Covid-19: a reminder for medical curriculum review Adv Med Educ Pract 11 615 618 https://doi.org/10.2147/AMEP.S267633

A Kuper P Veinot J Leavitt 2017 Epistemology, culture, justice and power: non-bioscientific knowledge for medical training Med Educ 51 158 173 https://doi.org/10.1111/medu.13115

SSM Kwan MR Tuckey MF Dollard 2020 The Malaysian Workplace Bullying Index (MWBI): a new measure of workplace bullying in Eastern countries PLoS ONE 15 1 e0223235 https://doi.org/10.1371/journal.pone.0223235

SC Liew CF Sow J Sidhu 2015 The near-peer tutoring programme: embracing the 'doctors-to-teach' philosophy—a comparison of the effects of participation between the senior and junior near-peer tutors Med Educ Online 20 1 27959 https://doi.org/10.3402/meo.v20.27959

Y Matsuyama M Nakaya H Okazaki 2019 Does changing from a teacher-centered to a learner-centered context promote self-regulated learning: a qualitative study in a Japanese undergraduate setting BMC Med Educ 19 152 https://doi.org/10.1186/s12909-019-1550-x

J Maxwell G Blashki 2016 Teaching about climate change in medical education: an opportunity J Public Health Res 5 1 673 https://doi.org/10.4081/jphr.2016.673

VD Nadarajah 2021 Gender and medical education authorship: moving forward comfortably with necessary conversations Med Educ 00 1 3 https://doi.org/10.1111/medu.14478

MA Papadakis A Teherani MA Banach 2005 Disciplinary action by medical boards and prior behavior in medical school N Engl J Med 353 2673 2682 https://doi.org/10.1056/NEJMsa052596

F Patterson C Roberts MD Hanson 2018 2018 Ottawa consensus statement: selection and recruitment to the healthcare professions Med Teach 40 11 1091 1101 https://doi.org/10.1080/0142159X.2018.1498589

Ries E (2011) The lean startup: how constant innovation creates radically successful businesses. Penguin UK, New York, NY

PG Rigby RP Gururaja 2017 World medical schools: the sum also rises JRSM Open 8 6 2054270417698631 https://doi.org/10.1177/2054270417698631

J Sandars TJ Cleary 2011 Self-regulation theory: application to medical education: AMEE guide no 58 Med Teach 33 875 886

Sawdon M, McLachlan J (2020) '10% of your medical students will cause 90% of your problems': a prospective correlational study. BMJ Open 10:e038472. https://doi.org/10.1136/bmjopen-2020-038472

C Severinsen F Ware H Came 2021 Covid-19 and indigenous knowledge and leadership: (re)centring public health curricula to address inequities Aust N Z J Public Health 45 1 6 8

Stein S, de Andreotti VO (2016) Decolonization and higher education. In: Peters M (eds) Encyclopedia of educational philosophy and theory. Springer, Singapore. https://doi.org/10.1007/978-981-287-532-7_479-1

CE Tan A Jaffar N Tohit 2017 Exploring patients' reasons for participation in a medical education home visit program: a qualitative study in Malaysia Perspect Med Educ 6 182 188 https://doi.org/10.1007/s40037-017-0353-1

D Weatherall 2011 Science and medical education: is it time to revisit Flexner? Med Educ 45 44 50 https://doi.org/10.1111/j.1365-2923.2010.03761.x

ES Webster LW Paton PES Crampton 2020 Situational judgement test validity for selection: a systematic review and meta-analysis Med Educ 54 888 902 https://doi.org/10.1111/medu.14201

Correction to: Challenges and Opportunities in Health Professions Education

Mora Claramita, Ardi Findyartini, Dujeepa D. Samarasekera, and Hiroshi Nishigori

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The original version of the book was inadvertently published with incorrect affiliation for Professor "Indri Kurniasih" and an incorrect citation in Chapters 6 and 9, respectively, which have now been corrected. The book and the chapters have been updated with the changes.

The updated versions of these chapters can be found at
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