



# Advanced Practice Nursing: A Justified Need

# 1

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## Abstract

In this introductory chapter, a brief description of advanced practice nursing on an international level and the background to and motivation for why advanced practice nursing provides an opportunity whereby healthcare services can be improved and developed are presented. First, advanced practice nursing is briefly introduced as an international phenomenon, including common positive effects of advanced practice nursing as demonstrated in earlier research and international experience. Then four clear reasons for why it is worthwhile to invest in the development of advanced practice nursing are presented. This includes the current need to improve access to nursing, care, and treatment; more effective use of available resources to meet increased demand for healthcare services; how advanced practice nursing supports the recruitment of future nurses through clinical career paths; and how advanced practice nursing can contribute to the sustainable development of healthcare services.

## Keywords

Advanced practice nursing · Motivations for advanced practice nursing · Effects  
Sustainable development

Born two centuries ago, Florence Nightingale is today considered a leading figure in nursing. She had the foresight to realize that nurses can play an important role in healthcare and highlighted the importance of collecting and systematizing data on patients' health status. She also advocated for a healthcare environment, including fresh air, nutritious and good food, and beauty in care. She was furthermore a fiery debater, who among other things fought for reasonable salaries for nurses. In modern terms one could perhaps summarize her endeavors using the term "sustainability." Nursing has changed immensely over the past two centuries—as has society in general. Especially since the end of the Second World War in 1945, all aspects of society have undergone palpable development. From the perspective of the twenty-first century, it is possible to look back and conclude that nurses in many countries currently work on an advanced clinical level and that nursing as a whole is in a phase of development. This has been fueled by a clear desire to implement advanced-level nursing that includes expanded rights, e.g., the right to prescribe treatment or medication, refer patients to other professionals, or admit patients to the hospital. Nurses in many countries have taken courageous steps forward and "challenged" existing traditional, hierarchal power structures, with the clear intent to improve the quality of care and treatment and, above all, patients' access to care and treatment. Nevertheless, in many countries where the concept of advanced practice nursing is new or unexplored, even more marketing and knowledge of what advanced practice nursing entails is needed: among nurses themselves, other healthcare professionals, leaders, politicians, and the general public. It is still necessary to spread information on why the development of advanced practice nursing is motivated and develop sustainable and consistent advanced practice nursing educational and research programs.

This book is built on the central premise that advanced practice nursing can contribute to making healthcare systems more effective and person-centered and can contribute to the sustainable development of healthcare. Advanced practice nursing significantly contributes to the overall competency of a healthcare team, and nursing competence can be more efficiently used if nurses are allowed to professionally develop and progress to the advanced level. With its starting point in the individual patient's unique health needs, advanced practice nursing can contribute to new innovations in the development of healthcare and thereby contribute to improved quality, care, and patient health. Accordingly, one can maintain that advanced practice nursing contributes to the sustainable development of healthcare.

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## **1.1 Advanced Practice Nursing as an International Phenomenon**

Advanced practice nursing is the common theme running through this book. In international literature and research today, the concept "advanced practice nursing" is used in various ways, and clear consensus on how the concept should be defined does not currently exist (Delamairé and Lafortune 2010). The North American model is commonly used, which includes four professional titles/roles: clinical

nurse specialist, certified nurse anesthetist, certified midwife, and nurse practitioner (Schober and Affara 2006; Hamric 2009; Hamric and Tracy 2019). The “clinical nurse specialist” title/role should not be confused with “specialist nurse.” While in many countries, specialist nurses have a postgraduate education and a specialization in a specific area, they do not have the advanced competence in clinical assessment of patients’ health problems that is obtained from a master’s-level advanced practice nursing education (International Council of Nurses 2020).

The expansion of nursing’s traditional professional boundaries can be described using the international concept “advanced practice nursing,” which is a collective term for nursing on the advanced level. In many countries, the development of nursing has occurred through nursing on the specialist level, from a system where nurses have specialist education to advanced practice nurses who bear a clear, independent responsibility and have a clear, autonomous, professional role with a defined place in the healthcare organization and in relation to other professions. The term advanced practice nurse is used in this book as a concept for both “nurse practitioner” and “clinical nurse specialist.” These titles are considered to be the most frequently used and are in accordance with the new International Council of Nurses’ guidelines (2020). As early as 1997, research on the nurse practitioner function in England was published. In studies from that time, researchers found that nurse practitioner-led actions worked well as an initial point of contact for patients with acute medical problems (Myers et al. 1997; Sakr et al. 1999).

The development of advanced practice nursing can lead to tension between nurses with specialist educations and clinical nurse specialists, who have competence in a narrower and more closely defined area, or nurse practitioners, who usually have expanded rights: prescribing rights, the right to order laboratory tests, radiography, and referrals. The health situation of each country and the career opportunities available to nurses in the national context are relevant to the form that a country’s healthcare system takes. Still, an important starting point for the development of care and nursing is that healthcare systems need nurses with varying skills and varying levels of competence: bachelor’s, master’s, and doctoral levels. Each nurse should determine, based on his/her life situation and interests, which level feels most meaningful and relevant to him/her. Such a person-centered perspective is even needed regarding career development. Nurses should ask themselves: “Who am I as a person and what constitutes a meaningful contribution to patient care for me?” More detailed reflection on this topic and a description of the similarities and dissimilarities between the various nursing levels are seen in Chap. 2.

Professional demarcations between nursing functions have noticeably emerged in many countries during the past 10–25 years, among others, in Australia, England, Ireland, Scotland, New Zealand, Singapore, and the Netherlands (Schober and Affara 2006; Schober 2016; International Council of Nurses 2020). Even in certain parts of continental Europe, e.g., France, Spain, and Lithuania, one sees a growing interest in advanced practice nursing, not only in education and research but also clinical practice: seen as new advanced practice nurse or nurse specialist roles (Hassmiller and Pulcini 2020; Debout 2020).

The development of a more independent clinical nursing role started in the United States of America more than 50 years ago (Ford and Silver 1967). Already in the 1940s, the development of medical specialties and technologies in the United States of America lead to the emergence of nurses practicing at a higher degree of specialization, in turn evolving into the clinical nurse specialist role (International Council of Nurses 2020). Today there are approximately 72,000 clinical nurse specialists in the United States of America, and the demand for both advanced practice nurses and clinical nurse specialists is expected to grow 31% between 2012 and 2022.

This can be compared to Canada, where the development of the clinical nurse specialist role began in the 1970s. While in many countries the clinical nurse specialist role was first implemented in a hospital setting (Delamaire and Lafortune 2010), the role has since evolved to include the provision of specialized care for patients with complex health needs in outpatient, emergency department, home care, community, and long-term care settings (Bryant-Lukosius and Wong 2019). As seen in a 2010 survey by the National Association of Clinical Nurse Specialists, most clinical nurse specialists work in inpatient hospital settings. However, as noted previously, clinical nurse specialists today work in settings across the span of healthcare delivery systems, including hospitals, clinics, private practice, schools, nursing homes, corporations, and prisons (<https://explorehealthcareers.org/career/nursing/clinical-nurse-specialist/>).

Many countries are facing healthcare provider shortages and imbalances, especially in primary care, and the shortage of healthcare professionals is expected to increase immensely in the future (WHO 2018). The rise in chronic diseases and multimorbidity all over the world has been defined as the main impetus behind the introduction of new advanced practice nursing roles. Around the world, the advanced practice nurse role continues to evolve, but education, credentials, and scope of practice vary between countries (Maier et al. 2016). Advanced practice nurses have a varied scope of practice, which can include the right to prescribe treatment or medication, e.g., for patients with acute infectious diseases, refer patients to other professionals, or admit patients to hospital. Looking at data between 2005 and 2015, Maier et al. (2016) analyzed the size, annual growth, and extent of nurse practitioner's advanced practice in six Organisation for Economic Co-operation and Development (OECD) countries. As can be expected, the United States of America showed the highest absolute number and rate of nurse practitioners per population (40.5 per 100,000 population), followed by the Netherlands (12.6), Canada (9.8), Australia (4.4), and Ireland and New Zealand (3.1, respectively). The annual growth rates were high in all countries and between three and nine times higher compared with physician growth rates. As part of this same study, in the empirical studies from their literature scoping review, Maier et al. (2016) even saw that nurse practitioners provide between 67% and 93% of all primary care services, though this conclusion was considered to be based on limited evidence. They concluded that nurse practitioners "are a rapidly growing workforce with high levels of advanced practice potential in primary care."

In addition to North America, Australia, and parts of Europe, advanced practice nursing has “spread” to other continents. For example, advanced practice nursing is on the rise in Singapore, Taiwan, and China (Hu et al. 2018). In a new overview of the development of advanced practice nursing in China, the clear development of nursing from the diploma (generalist) level and up to the master’s (advanced) level was revealed, especially evident from 2005 forward (Wong 2018). From studies set in Africa, one sees that new nursing models that incorporate advanced practice nursing are being developed, with the objectives to improve access to care and treatment and enable qualitative and cost-effective care (Mboineki and Zhang 2018; Christmals and Armstrong 2019).

In the Nordic countries, while the nurse specialist role has been developed, the clear independence and formalization/standardization of the advanced practice nursing role have not yet been fully developed. In both Finland and Sweden, advanced practice nursing educational programs on the master’s level were introduced more than a decade ago, but enrolment and matriculation are still slight (Hallman and Gillsjö 2005; Fagerström 2009; Jangland et al. 2014; Ljungbeck and Sjögren 2017). In Norway, the first master’s-level advanced practice nursing educational program in advanced geriatric nursing was started in 2011 (Hauge et al. 2011), and interest in master’s-level advanced practice nursing educational programs has increased, with several such programs currently being offered. In 2019, the Norwegian Directorate of Health and Social Affairs instituted new regulations concerning the authorization, licensing, and specialist approval for nurses (*Forskrift om spesialistgodkjenning for sykepleiere*), in which it was delineated that nurses holding a master’s degree in advanced practice nursing are allowed to seek recognition as specialists (<https://lovdata.no/dokument/SF/forskrift/2019-11-19-2206>). In Norway, an advanced practice nurse (*avansert klinisk allmennsykepleiere*) is defined as having advanced clinical competence with a specific focus on community healthcare. During preparation of the Norwegian regulations, it was emphasized that any master’s-level advanced practice nursing educational programs must also include an adequate foundation in the medical, humanistic, and social sciences. Furthermore, such programs must include a thorough introduction to the advanced practice nursing role and the skills and competencies necessary for the systematic clinical assessment of patients’ health status; the aim is that nurses should be capable of identifying and differentiating between various types of health issues/problems, formulating suggestions and creating plans for measures to be taken, implementing measures to manage complex patient conditions, as well all as making ethically justified decisions.

The expanded right to perform tasks, e.g., prescriptive authority, has not spread as much in the Nordic countries. Yet of the Nordic countries, Finland is the country where expanded rights have most been implemented (Fagerström 2016, 2019). A new law was introduced in Finland in 2011, in which it was delineated that registered nurses who have completed 45 ECTS credits as part of a standard postgraduate educational program would be allowed limited prescriptive authority in primary care. Since 2019, the list of medications certain nurses can prescribe has been expanded, and prescriptive authority extended to not only include registered nurses

in primary care clinics but also registered nurses working in primary outpatient care, joint acute/emergency departments, private medical clinics, and hospital outpatient clinics (Social- och hälsovårdsministeriets förordning 922/2019). In Sweden, an investigation into specialist nursing education has been started, including an analysis of access to and the need for nurse specialists. The goal is to create a new post-graduate advanced practice nursing educational program and implement a new nurse practitioner role including expanded rights and prescriptive authority (SOU 2018).

While the overall competence of healthcare staff has perhaps never been higher than what it is today, nurses in many countries nevertheless engage in work steered by “old,” set traditions and rigid hierarchies and structures, which hinder nurses from taking greater responsibility for patients’ care and treatment. As nurses we can ask ourselves whether we wish to take on greater responsibility and/or have the energy and strength to transcend the professional patterns hereto determined by tradition.

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## 1.2 Advanced Practice Nursing Yields Positive Effects

Advanced practice nurses’ work is characterized as evidence-based practice, and their care should lead to positive patient outcomes. The result of several years’ experience with implementation of the nurse practitioner role in New Zealand has led to the following conclusions:

A nurse practitioner combines the best of nursing with some skills from medicine. Nurse practitioners can deliver a large proportion of the services the average person needs in terms of minor, acute illness and long-term conditions such as asthma and diabetes. Through nurse practitioners, we are able to offer the public a whole new access arrangement into healthcare. (Ministry of Health 2009)

Several years’ worth of extensive international research indicates that advanced practice nursing models lead to positive patient outcomes and contribute to the development and improvement of healthcare services, especially access to nursing, care, and treatment.

In many countries, there have been good outcomes associated with the introduction of advanced practice nursing roles in emergency care, e.g., significantly shorter wait times, shorter hospital stays, improved quality of treatment, and patient satisfaction (Boman et al. 2020, 2021). Still, researchers have not been able to draw definite conclusions with regard to the impact on costs (Jennings et al. 2008, 2015). Nevertheless, the results are still positive for the nursing profession. Advanced practice nurses have more autonomy and a significantly expanded role experience that both colleagues and physicians show them greater trust and respect. They also simultaneously report that they have become prouder of their own skills and knowledge (Kleinpell 2005; Wisur-Hokkanen et al. 2015).

Interest in advanced practice nursing in community healthcare is on the rise in many countries. Nursing-led treatment has been shown to have a clearly positive

effect on patient satisfaction, length of hospital stay, and mortality (Maier et al. 2016; Maier et al. 2017). Ambulatory advanced practice nursing teams are also seen to yield good treatment outcomes and have even in new research been linked to promising cost-effectiveness outcomes (Martin-Misener et al. 2015). For example, healthcare models that include advanced practice nurses caring for women with incontinence have been shown to reduce patients' symptoms and improve patients' life quality (Teunissen et al. 2015).

In many countries, advanced practice nurses have been given a strong and central role in community healthcare and care for the elderly. Advanced practice nurses can take responsibility for both acute health assessments and the follow-up of patients with chronic health conditions. Researchers have found advanced practice nurses' holistic approach to patients and patients' families to be very valuable (Fahey-Walsh 2004). For example, in a study from Canada in which the nurse practitioner's role in long-term care was examined, researchers found that advanced practice nurses contribute to the effectiveness and development of clinical activities and that there is high satisfaction with the role (Stolee et al. 2006).

Researchers have shown in many studies that there are lower rates of depression, urinary incontinence, pressure sores, and aggressive behavior and that fewer physical restraint measures are needed on units where advanced practice nurses work in long-term care (Donald et al. 2013). Patients on such units report improvement of own goals, while patients' families are more satisfied with the medical treatment being provided. Another example is advanced practice nurse in-home health consultation programs, which have been shown to reduce negative health consequences with regard to, e.g., acute events, falls, and hospitalizations (Imhof et al. 2012). In that study, the in-home program was provided by advanced practice nurses and guided by the principles of health promotion, empowerment, partnership, and family-centeredness. Advanced practice nursing models have even been shown to improve access to treatment for harder-to-serve populations and reduce the use of acute services (Roots and MacDonald 2014). Researchers in that study sought to identify the impact of nurse practitioner role implementation and found that the implementation of the role resulted in changes in other practitioners' provision of care, among others, increased job satisfaction, and that physician colleagues sought to remain in their current work environment. The researchers also found that a group style of practice, in which practitioners work side by side rather than together and there is a collaborative advanced practice nurse-physician relationship, was central and determinative to good patient outcomes.

The effectiveness and quality of advanced practice nursing-led treatment are often assessed and compared to physician-led treatment. In a 2-year follow-up phase of a randomized study comparing outcomes of patients assigned to either a nurse practitioner or physician primary care practice, with follow-up at 6 months and 2 years, researchers found no differences between patients' health status, disease-specific physiological measures, satisfaction, and use of specialist, emergency room, or inpatient services (Lenz et al. 2004). In a systematic review of 69 studies published from 1990 to 2008 encompassing 27,993 patients, researchers found that advanced practice nurse outcomes were similar to and in some ways



better than physician-led care regarding several central variables (Newhouse et al. 2011). For those 37 studies in which nurse practitioner care groups and physicians/teams with nurse practitioners were compared, the researchers found high levels of evidence for equivalent rates of patient satisfaction, self-reported perceived health, functional status, glucose control, blood pressure, emergency department visits, hospitalization and mortality, and better serum lipid control. In other studies, researchers have found positive treatment outcomes for similar result variables (Horrocks et al. 2002; Laurant et al. 2005). Still, in many studies where advanced practice nursing-led and physician-led care are compared, researchers have not seen significant differences. Nevertheless, there is more than enough evidence that advanced practice nurses can contribute to the development of new, innovative methods whereby patients' health is promoted and patients' capacity for self-care is supported.

To date, health economic analyses (cost studies) have not yielded definitive answers to whether advanced practice nurse-led or physician-led care practice is better. Researchers in several studies have concluded that nursing and treatment provided by nurses increase the quality, cost efficiency, and person-centeredness of care (Horrocks et al. 2002; Lenz et al. 2004). Even though advanced practice nurses receive a lower salary than physicians, they have been found to engage in significantly longer consultations, perform and order more tests, and more often schedule patients for follow-up appointments than physicians (Hollinghurst et al. 2006). Yet some researchers have found that advanced practice nurse care practices are not cost-efficient, primarily because the time spent per patient consultation is too lengthy (Marsden and Street 2004). Still other researchers have seen that the introduction of an advanced practice nursing care practice in a hospital setting was clearly linked to a reduction in wait times and shorter consultations (Jennings et al. 2008). One can conclude by stating that longitudinal health economic analyses are lacking but needed to fully assess advanced practice nursing and the care, treatment, and follow-up of patients with chronic disease that advanced practice nurses provide. It is only through a future perspective that eventual cost efficiency will be fully revealed.

An interesting question regarding health economic analyses and the comparison of advanced practice nursing-led versus physician-led care practice is whether the time spent on patient consultation is a significant variable. Efficiency and outcome-based thinking in healthcare have its origins in the philosophy surrounding industrial manufacturing (see Chap. 7). While it is true that the care and treatment of certain health issues can be standardized and realized in a production line-like manner, in many instances a "patient-tailored" solution is needed, and such requires time for both the investigation of the reasons underlying the health issue and guidance in self-care. Giving patients the time to speak to, e.g., an advanced practice nurse, can be considered a good investment. The traditional view is that professionals should "solve" patients' health problems. Yet today a clearer focus on what the patient him/herself can do for own health is needed and preferably at as early a stage in care as possible. It is each individual him/herself that holds the ultimate responsibility for his/her own health, not professionals. It



is important that advanced practice nurses increase patients' awareness of the significance of self-care and the health promotive and disease preventive measures they can engage in (see Chaps. 7, 8, and 9).

Those who work with advanced practice nurses are generally positive to the implementation of advanced practice nursing, even if some general practitioners in some studies are seen to be less positive than other nurses and hospital-setting physicians. Researchers have found that the primary reason some general practitioners are critical of advanced practice nursing is that they themselves experience a decrease in the number of patients they treat. Another reason healthcare staff can be ambivalent to the implementation of advanced practice nursing is uncertainties about the role in the organization (Long et al. 2004; Marsden and Street 2004; Griffin and Melby 2006; Altersved et al. 2011; Boman et al. 2019a, b).

Patient satisfaction with the nursing, care, and treatment that advanced practice nurses provide is usually very high. Researchers in several studies have found that patients who consult an advanced practice nurse are more satisfied with their treatment than those who consult a general practitioner, and this is especially true for children, who highly appreciate receiving treatment from advanced practice nurses (Venning et al. 2000; Horrocks et al. 2002). For example, patients are seen to perceive that they receive more information about their conditions when they consult an advanced practice nurse versus a physician (Kinnersley et al. 2000).

From many countries' experiences, it is possible to see that advanced practice nurses work in a patient-centered manner and employ a holistic approach in which dialogue with patients and patient's families is emphasized. This combined with advanced practice nurses' broad knowledge base and good clinical skills contributes to good patient outcomes. Emanating from research findings, one can conclude that the nursing, care, and treatment that advanced practice nurses provide are often of high quality and often increase patient satisfaction and patient safety.

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### **1.3 Access to Nursing, Care, and Treatment Must Be Improved**

According to the World Health Organization (2018), the proportion of the world's population aged 60 years and older will nearly double from 12% to 22% between 2015 and 2050. In 2020, the number of people aged 60 years and older is estimated to outnumber children aged 5 years or younger, and in 2050 about 80% of older people will be living in low- and middle-income countries. By 2050, the world's population aged 60 years and older is expected to total 2 billion up from 900 million in 2015. In 2018, about 125 million people were aged 80 years or older; by 2050 there will be about 434 million people in this age group worldwide, and 80% of all older people will live in low- and middle-income countries. Due to aging populations, all countries face major challenges to ensure that their healthcare and social systems can manage such an expected demographic shift.

The average age of the old also is increasing, and the over-85 age group, “the oldest olds,” is the fastest-growing segment of the older population. At least 80% of those over 65 years of age have been diagnosed with one or more chronic illnesses, partly because people now survive conditions that previously led to early death. Even today this prevalence of multiple chronic illnesses challenges healthcare professional’ knowledge and abilities. Terms such as “elder boom” and “elder tsunami” are often used in societal debates and in the media to describe and imply an impending explosion in the need for healthcare services. Still, it must be emphasized that many of those aged 65 or older are healthy and often in good physical shape. It is believed that the big challenge that healthcare systems will face is the increase in the over-85 age group, which is expected to significantly increase in the years to come. The majority of these “oldest olds” have several chronic diseases and require follow-up, health guidance, and nursing, care, and treatment over the course of many years (Nygren 2006; Kazer and Grossman 2011). Access to highly competent healthcare professionals and good interprofessional collaboration is a condition for quality of life and good health during the final stages of life.

Psychosomatic and mental health problems are also areas where demand is increasing (Delaney and Vanderhoef 2019). One interesting patient group is those with undiagnosed medical illnesses. This group includes patients who from a medical perspective have received good treatment but who nonetheless maintain that they are “still” ill and who have symptoms and complaints that traditional medicine cannot solve. This patient group is challenging for traditional healthcare systems. In traditional systems, if a medical diagnosis cannot be applied to a patient’s symptoms, then that patient is at risk of not receiving treatment. Many such patients find that they themselves must learn to master and live with their conditions and seek quality of life and well-being: despite their chronic symptoms and need for professional help.

For many patient groups (the vulnerable, the underprioritized, the undiagnosed, those with psychosomatic or mental health problems), the wait for a health assessment and/or treatment is much too long. Today the need for healthcare services is greater than the availability of such services, and this disparity will continue to dramatically increase. This fact must be addressed, and this places new demands on the division of labor and how healthcare services are organized, including a redistribution of tasks and responsibilities among healthcare professionals (Finnbakk et al. 2010). Access to care and treatment should be offered quickly and should occur as close to the patient as possible. This has been recognized, for example, in Norway in parliamentary reports on The Coordination Reform (St.meld. nr. 47 2008–2009) and the primary health care and services of tomorrow (St.meld. nr. 26 2014–2015). In these reports, it is emphasized that nursing, care, and treatment in Norway must be transferred from hospital to community healthcare contexts.

Citizens in the Western world are constantly bombarded with information about the latest medical advances but also made aware of the shortcomings and problems that exist in our healthcare systems. One understands that patient safety is not given and that mistakes occur in complex patient pathways all the time. An older patient

with poor health and impaired memory who experiences acute health problems, e.g., because of possible infection, may have to wait a long time for a comprehensive examination and health assessment. Those who seek help for diffuse symptoms may not be able to access the help, support, and care they need. Being put on a waiting list for nursing, care, and/or treatment by a physician is in many countries the norm rather than the exception. Even though the cost of care has increased significantly in recent decades, more and more people are reporting that access to care and treatment is not meeting current demands (Kittelsen et al. 2007). The need to travel great physical distances to access a physician or hospital is a challenge that many patients in many countries must overcome.

Improved access to nursing, care, and treatment is often mentioned as the most important impetus for introducing new advanced practice nursing models (Dawson et al. 2015). In a Nordic study including healthcare leaders, physicians, nurses, politicians, and older people, researchers found that advanced practice nursing functions can improve access to health services for older people (Boman et al. 2019a, b; Christiansen and Fagerström 2016; Smailhodzic and Fagerström 2016). New healthcare models that incorporate advanced practice nursing functions are also being developed in Africa, with the aim to improve access to care and treatment by offering good and cost-effective care (Mboineki and Zhang 2018; Christmals and Armstrong 2019). For example, in Tanzania a shortage of physicians and a lack of interest in working in rural areas have been seen to underlie insufficient access to care and treatment.

It is primarily advanced practice nurses' skills in being able to perform thorough and systematic clinical health assessments of patients' undiagnosed health needs as well as their skills in following up the treatment of patients with chronic disease that comprise the extra resource that advanced practice nurses have and which improves access to care.

Health technology and the development of e-health services can improve access to healthcare services. In a comprehensive, randomized study in England, researchers found that nurse-led computer-supported telephone triage could improve the management of same-day consultation requests. Nurse-led telephone triage was seen to be safe, and no differences in patients' health status were seen when compared to physician-led telephone triage (Campbell et al. 2015). In England and Australia, there are many nurse-led "walk-in" centers, where computer technology is used to support the clinical decisions being made (Parker et al. 2012).

In many countries, advanced practice nursing has developed to respond to the fact that vulnerable and underprivileged patient groups have not been able to access the nursing, care, and treatment that they need. Vulnerable and underprivileged patient groups exist in all countries. Furthermore, ever-increasing movement between countries has led to an increased need for healthcare services, and this in turn has placed new demands on all countries' healthcare sectors. Advanced practice nursing is not only a resource for all patient groups but also especially for those who have traditionally been underprioritized.

## 1.4 Available Resources Must Be More Effectively Used to Meet the Increased Demand for Healthcare Services

The need for healthcare services is increasing dramatically throughout the world, and to increase access to care, how various professional groups' competence is used should be reconsidered. All healthcare professional roles are undergoing major changes, including the nursing role. The combined skills of the entire healthcare team must be used efficiently. Is the diversity of skills and knowledge that various healthcare professionals possess being captured in the correct way today and being steered toward the right patient at the right time? In many reports and studies, researchers find that professionals, politicians, and decision-makers neither have the capacity nor the flexibility to meet the challenges that the future will bring. Conservative mindsets, power, and privilege within the medical profession, bureaucracy, and inertia are major problems in the traditional (medical model) professions. Healthcare services in many countries are characterized by a hierarchy that stealthily inhibits innovation and the development of new treatments and service forms (Vallimies-Patomäki et al. 2003). Task-sharing/task-shifting among healthcare staff is an international phenomenon increasing in countries that do not have clearly defined advanced practice nursing models (Maier et al. 2016). Task-shifting has been tested as a method of shortening waiting times for treatment (Helsedirektoratet 2014).

The need for home healthcare services is increasing, regarding both quantity and complexity, and this places greater demands on home healthcare nurses' clinical competence and autonomy (Vaartio-Rajalin and Fagerström 2019). In the future, well-functioning home care services will require that greater attention be placed on nurses' competence and will require sufficient competence from the entire healthcare team as a whole (Johansen and Fagerström 2010; Bing-Jonsson et al. 2016; Vaartio-Rajalin et al. 2019; Holm Hansen et al. 2020). Inadequate access to physicians and/or clinically competent nurses in home healthcare services results in unnecessary hospital admissions. One supposition is that advanced practice nurses could reduce the need for and/or refocus the activities of general practitioners in home care services. Advanced practice nurses can act as a link between the different care levels needed and seen in home healthcare. Advanced practice nurses can take on the case manager role, to provide care and treatment and plan, coordinate, and ensure that patients receive the care they need (see Chap. 7, "Case Management").

Health promotive and disease preventative work should be supported throughout the healthcare sector. The need to follow-up patients with complex and chronic diseases is increasing, especially for those with mental health problems, addiction, dementia, or lifestyle diseases. Emergency clinics and general practitioners seldom have the possibility to meet all these needs. Advanced practice nurses can greatly contribute and are capable of bearing great responsibility in these areas. The competence that advanced practice nurses have is well-suited to safeguarding that the needs of many of these patient groups are met: through expanded medical skills (systematic physical examination, health assessment, clinical decision-making), a patient-centered approach based on a holistic view of the human being and his/her life situation, and a clear emphasis on health and health promotion.

## 1.5 Clinical Career Paths Support the Recruitment of Future Nurses

Nurses and midwives make up approximately 50% of the total number of healthcare staff in the world and subsequently comprise the largest single group of nurses. In the coming years, the current shortage of nurses is expected to increase significantly and lead to significant problems (World Health Organization 2016). Future nurse recruitment can be improved through new advanced practice nursing roles and models (Delamaire and Lafortune 2010).

Many nurses today are considering switching activities/profession (Jokiniemi 2014). It is therefore imperative that further education in nursing leads to new clinical work duties and is not merely designed to prepare for educator/faculty researcher or development duties. Higher education that includes the development of clinical competence leads to good opportunities for clinical career paths. The model of advanced practice nursing realized as clinical leaders who are close to colleagues, patients, and patients' families must be brought forth. As role models, advanced practice nurses can motivate young nurses to continuously develop their competence. Nordic research on advanced practice nursing roles has already revealed that advanced practice nurses perceive a high degree of work satisfaction (Glasberg et al. 2009; Lindblad et al. 2010). If nurses feel satisfied with their work, profession, and career choice, young people will be more motivated to apply to work in the healthcare sector. Advanced practice nursing is a demanding job, and advanced practice nurses need clear support from their leaders and good work conditions. For example, a nurse practitioner working in a nurse-led clinic with a high degree of independency can experience loneliness.

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## 1.6 Advanced Practice Nursing Contributes to the Sustainable Development of Healthcare

In 1987, a special United Nations commission called the World Commission on Environment and Development published a report entitled "Our common future," also known as the Brundtland Report, in which guiding principles for sustainable development as generally understood today were included. In the report, sustainable development is defined as, "...development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (United Nations 1987).

The concept "sustainable development" is used to refer to the conditions for good social living, where the following three dimensions for sustainability are considered essential: ecological, social, and economic sustainability. Sustainable development requires a long-term and holistic approach as well as a global perspective.

Education, research, and development should contribute to the sustainable development of all societal activities, of which healthcare accounts for a significant proportion of costs. Awareness of ecological and climate aspects should be strengthened in all nursing education and even in healthcare organizations.

The pluralism and complexity inherent in both today's and tomorrow's society allows us as human beings to live in a variety of different ways. There are different lifestyles, different cultures, and different perceptions of what "good" care and treatment entail. Nursing staff are already experiencing increased expectations related to individual and person-centered care and treatment. Today's young adult generation, who in 20–30 years will have a greater need for healthcare services, are perceived as being dissatisfied with "routine" healthcare services. Those using healthcare services today are more aware of their rights and more demanding than two decades ago. Seen from a nursing perspective, social sustainability entails that the individual's background and preferences are truly taken into account when healthcare solutions are given. A healthcare system where the individual does not understand the solutions that the service gives for his/her health problems cannot be considered a socially sustainable solution.

Technological developments have facilitated immediate access to information and knowledge in parts of the world, but this leads to a question: how should one interpret what is correct and what is incorrect? Welfare technology is developing rapidly and is already being used today to improve access to healthcare services for certain patient groups through, e.g., PC, tablet, or mobile chat functions, whereby, for example, patients can receive postoperative self-care instructions (Eide and Eide 2020). When developing various technological solutions for healthcare, both healthcare staff's and patients' views and experiences should be taken into consideration. An assumption is that advanced practice nurses will also start to use digital e-health solutions for healthcare services even more than today. However, experience has shown that new welfare technological solutions must truly meet both healthcare staff's and patients' needs; otherwise users of such technology have little or no use for the solutions being offered. The development of welfare technology without a clear client and person-centered perspective is neither socially nor economically sustainable.

Several examples of the usefulness of advanced practice nursing functions and models, such as nurse-led clinics, have been described above in this chapter, and further examples will be presented later throughout this book. One should note that regarding advanced practice nursing functions and models, in both nursing literature and research, the economic aspect of such solutions is often mentioned as being "the weakest link." Can advanced practice nursing truly contribute to more economically sustainable healthcare systems? Today, whether the medical model of solving patients' health problems is sufficiently effective is often called into question, because patient satisfaction is now considered one of the most important performance objectives. The medical model is based on the core concepts of etiology, pathology, and symptoms and solutions and has hitherto characterized clinical work. Yet today one understands that a short consultation, where, for example, a patient is merely given a new medication, is no longer sustainable. The health problems that patients experience are much more complex than the aforementioned "solution" allows for. Some promote the biopsychosocial model, where the patient's functioning is the focus of healthcare, as an alternative to the traditional and medical

model (Roodbol 2016). In the biopsychosocial model, health is described as the ability to adapt and self-manage in the face of social, physical, and emotional challenges (activities and participation). Others promote holistic healthcare, which emanates from a “one size does not fit all” perspective. Still others promote the chronic care model, in which treatment goals are shifted from cure to care and monitoring: to improve functional status, help patients cope with psychosocial distresses caused by pain or disability, avoid complications, and improve the quality of life (Bodenheimer et al. 2002).

One sees that there is a clear and evident need to apply a more holistic perspective in the development of nursing, care, and treatment, through which the patient’s distinct, individual needs are taken into consideration and through which the patient and his/her family are given choices and the possibility to engage in user involvement. Prosser and Olson (2009) maintain that the structural change of healthcare services is no longer sufficient. All healthcare professionals must find new and more holistic perspectives through which to steer their work. Healthcare staff’s values and care philosophies have an impact on concrete patient care. Research on the philosophy of person-centered care indicates that person-centered care has a discernible effect on care and treatment outcomes (Talerico et al. 2003; McCormack 2004). Economic analyses in which physician-led and nurse-led care are compared have often been based on a focus on short-term performance objectives. The effect of health promotive and supportive interventions through which patients’ self-care is emphasized are conspicuous in their absence. There is subsequently a clear need to develop healthcare services so that the patient’s background and personal preferences are taken into consideration to a greater degree. This also includes the need to offer solutions that are, seen from the patient’s perspective, “actual solutions” and which support the patient’s capacity for self-care. It is first after such occurs that one can maintain that socially and economically sustainable care and treatment are being offered. Another common thread running through this book is that caritative caring and person-centered advanced practice nursing contribute to the development of sustainable healthcare.

The World Health Organization has developed The Global Strategy on Human Resources for Health: Workforce 2030. Primarily aimed at planners and policy-makers, the overall vision underlying the initiative is to hasten advancement toward universal health coverage and the United Nation’s Sustainable Development Goals. One of the four objectives delineated in the strategy is related to the best possible use of resources. To expand access to primary care, the World Health Organization recommends increasing the number and contribution of mid-level providers, including nurse practitioners and other professions, and reducing what they consider to be “excessive reliance” on physician specialists and tertiary care. The World Health Organization furthermore delineates strategic directions through which nursing and midwifery in the European region can be strengthened to improve primary care and population health (World Health Organization 2016).

In an International Council of Nurses policy brief, Bryant-Lukosius and Martin-Misener (2017) outline important implications for integrating advanced



practice nursing roles by summarizing evidence on facilitators and strategies for effective advanced practice nursing role implementation, the contribution of advanced practice nursing roles in improving health and health system outcomes, and the alignment of advanced practice nursing roles with the World Health Organization's Global Strategy on Human Resources for Health and the United Nation's Sustainable Development Goals. In their report, Bryant-Lukosius and Martin-Misener (2017) find that advanced practice nurses can contribute to the sustainable development of healthcare, noting the following Sustainable Development Goals (SDG):

SDG 1—*No poverty*: Advanced practice nurses improve access to healthcare for at-risk hard-to-reach populations such as those who live in inner cities as well as those who live in rural and remote communities. Access to health promotion and preventive health services as well as treatment of illness and injury enables people to participate in opportunities for self- and paid employment.

SDG 3—*Good health and well-being*: Advanced practice nurses improve access to healthcare for at-risk, hard-to-reach populations such as those who live in inner cities as well as those who live in rural and remote communities. Access to health promotion and preventive health services as well as treatment of illness and injury enables people to gain or regain their health. In turn, this enables opportunities for their participation in social and economic systems.

SDG 4—*Quality education*: The opportunity to participate in graduate education is especially important for women who, in many countries, have not had access to higher-level education. Advanced practice nurses contribute to the education of other nurses as clinical faculty and preceptors for Schools of Nursing and through education, coaching, and mentorship provided to nurses at the point of care.

SDG 5—*Gender equality*: Advanced practice nursing education and employment opportunities empower women with the knowledge, skills, confidence, and capabilities to assume clinical leadership positions within a country's healthcare system. These opportunities enable social and economic security and well-being for women, thereby reducing gender inequalities.

SDG 8—*Decent work and economic growth*: Advanced practice nursing is a satisfying and fulfilling career opportunity for women. It builds on their knowledge and skills as nurses to enable them to apply their advanced knowledge and skills in new and challenging healthcare settings. Advanced practice nurses, in turn, are of benefit to the country's people and communities. Achieving a healthier population is important for economic growth.

SDG 10—*Reduce inequalities*: Developing advanced practice nursing roles in a country reduces inequalities by improving the social and economic well-being and status of women and by improving access to healthcare and the potential for a healthier life to some of the most vulnerable populations within countries.

SDG 17—*Partnerships for the goals*: Advanced practice nursing roles are being implemented in low-, middle-, and high-income countries around the world to address country-specific health needs and goals. Within countries, advanced practice nurses are well positioned to develop inter-sectoral partnerships to achieve health, education, and economic goals.

## 1.7 Key Messages to Policy-Makers

As noted in the International Council of Nurses' "Nursing Now" campaign, "Nurses are at the heart of most health teams, playing a crucial role in health promotion, disease prevention and treatment. As the health professionals who are closest to the community, they have a particular role in developing new models of community-based care and support local efforts to promote health and prevent disease" (<https://www.icn.ch/what-we-do/campaigns/nursing-now>). Bryant-Lukosius and Martin-Misener (2017) determined that advanced practice nursing is an essential component of human healthcare resources on the country level. They even noted that advanced practice nurses constitute a powerful instrument whereby healthcare can be innovated and reformed. The policy priorities advanced practice nurses can help with are formulated in the following key messages to policy-makers:

- Improving health outcomes for disadvantaged, complex, and hard-to-reach patient populations (e.g., indigenous people, homeless, immigrants, elderly, mentally disabled, at-risk children and youth, and those living in rural, northern, and remote communities) by increasing access to specialized, acute, and general primary healthcare services.
- Reducing the burden of chronic illness by achieving a better balance in the delivery of health promotion and chronic disease prevention services.
- Achieving efficiencies through the appropriate mix of providers, reduced complications, decreased acute care service use, and the more appropriate use of community and homecare services that best meet patient needs.
- Improving the quality of healthcare services through the development and uptake of best practices by patients and providers.
- Improving patient healthcare experiences and satisfaction with care through enhanced healthcare team functioning, continuity of care, care coordination, and system navigation.
- Strengthening the nursing profession through increased access to graduate education, leadership, and career laddering opportunities.
- Improving the recruitment and retention of nurses through education, coaching, and mentorship at the point of care.

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