Depression, Burnout and Suicide in Physicians

Insights from Oncology and Other Medical Professions

Luigi Grassi
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Foreword

This important volume edited by Michelle Riba, Luigi Grassi, and Daniel McFarland focuses on burnout, depression, and suicide among medical and oncology professionals. By addressing a gap in identifying mental health problems among physicians, this book also sheds a light on suicide in the medical profession. Importantly, this book is a call to action of the professional and administrative organizations to work on improving mental health of physicians. Anxiety and depression affect not only the individual doctor but also patient care.

Suicide, with approximately 800,000 deaths per year in the world, constitutes a great public health problem. Suicide rates among physicians are higher than suicide rates in the general population. Surprisingly, physicians do not receive adequate treatment, care, and support from the workplace despite the presence of the competence and proximity to colleagues specialized in early recognition and treatment of mental health problems and mental disorders.

One of the first articles that reported higher mortality, for all causes of deaths, among doctors was published in the 1880s in England and Wales. Much has changed since then. Doctors today have lower mortality for somatic diseases in comparison with the general population. But not for suicide. Since the 1960s, many studies have shown the high suicide frequency among doctors in comparison with the general population, and highest for female doctors. Female doctors generally experience more challenges with balance between work and family life than their male colleagues, despite growing numbers of males who are nowadays more involved in family responsibilities in comparison with previous generations.

Doctors have suicidal thoughts; they attempt suicide and commit suicide at least twice that of the general population. Depressive symptoms are a risk factor for suicidality, also in the cases when clinical criteria for depression are not present. For physicians who have chosen the profession to contribute to health and to save lives, the confrontation with oncological patients, who despite a great progress in diagnostics and treatment still have low survival chances, can be emotionally burdensome. Responsibility for care of terminally ill patients often lead to compassion fatigue and moral distress. Lack of communication skills about difficult diagnosis and prognosis are burdensome for doctors.

Many factors in the workplace can cause burnout due to increasing burden of clinical workload and occupational demands contra limited decision making, too many bureaucratic tasks, and computerization. A feeling of being an unimportant

and maybe not enough appreciated part in the chain of health producing system correlates with burnout. Among different psychosocial risk factors, problems in the workplace significantly contribute to suicide among doctors.

Families of doctors are frustrated, as well as social life can be truncated. Poor healthy lifestyle choices like lack of daily exercise, insufficient sleep, too few cultural and social activities on top of the frustrated family life can easily be replaced with binge eating, smoking, use of prescription drugs to calm down, drinking alcohol, or smoking marijuana.

Most physicians, especially males, do not seek help. There are several reasons for that. The fear of losing the medical license and psychologically to be ashamed about not being able to take care of oneself are prominent. Female doctors are more prone than male doctors to admit to psychological problems and seek help. If they seek help, they do not dare to seek public help services. In many countries, mental disease is an obstacle to work as physician, like it is for one with alcohol or drug dependency. A doctor doesn't want to challenge serious repercussions on one's career.

It is still uncustomary to speak about mental health problems among physicians at the workplace and within professional organizations. Employers should develop attractive prevention programs which are adjusted to the needs of the doctors to meet the worries about disclosure, lack of anonymity, and improving work conditions. Having a natural meeting place for colleagues to speak about not only difficult cases but also about emotional and practical difficulties when coping with everyday life of being a doctor is important.

Awareness and appropriate mental health promoting and suicide preventive programs decrease the stress and increase positive coping strategies. Education about these problems should be given at all medical faculties, to educate future physicians how to preserve and improve their own mental health. A similar education is necessary for administrators and people responsible for healthcare and public mental healthcare systems for a future of better public mental health among professionals and better care for patients.

Burnout, depression, and suicide are major health issues among physicians around the world. This book, through an international perspective from renowned psychiatrists and medical oncologists, will significantly increase the awareness and contribute to understanding of the necessity of preventive measures on individual, family, and care givers levels. I highly recommend this excellent book to all physicians and as a training literature in medical schools and schools for healthcare organization and administration.

Danuta Wasserman

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Preface

It is a privilege in medicine that we enter the private space where patients are at their most vulnerable and personal. In only recent history have social concerns and mores evolved to such an extent that we can now ask the right questions about how physicians experience work stresses and how these situations not only effect our work but may be improved. Despite our passion for healing and understanding the human condition, hardly a year goes by without news of yet another self-inflicted, physician tragedy. Many of us know and have known suffering at various times during our careers. For many, it strikes during training or as an early career physician, which may be particularly heartbreaking.

Thankfully, attention to this topic is increasing. Our hope is that sustainable systemic solutions are on the horizon. Inspiration for this book emerged alongside a symposium we were honored to deliver at the 2019 Annual Meeting for the American Society of Clinical Oncology, entitled "The Elephant in the Room: Addressing Depression and Suicide Among Oncology Providers." Our thoughts on the topic solidified into the chapters of this book, which were meant to provide a reference and contextual basis for each one of these interrelated topics. We believe that there is something invaluable to be gained for all physicians, in all areas of medicine, by taking a hard look inward and asking the difficult questions about how we do what we do and if we are honoring ourselves, our families, and our patients in the process.

At this point, too much is known to disavowal the inner life of the clinician from the practice of medicine. A modern-day Francis Peabody may have been tempted to proclaim an additional important truth, "for the secret of the care of the patient is in caring for the patient," and also "the secret is in caring for the clinician." This book is dedicated to those whose lives are touched by clinicians and physicians we hold dear. We are indebted to our chapter authors and all physicians who accompany us on this journey.

New York, NY, USA — Daniel McFarland
Ferrara, Italy — Luigi Grassi
Ann Arbor, MI, USA — Michelle B. Riba

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The Problem of Burnout, Depression, and Suicide in Physicians: A General Overview

1

Luigi Grassi, Daniel McFarland, and Michelle B. Riba

Introduction

The need to understand the psychological burden to be a physician is extremely important despite the fact that daily interactions with practice administrators, patients, and even physicians themselves may not consider the psychological burden of being a physician to be a problem. The general preconception that Physicians should be at lesser risk for suffering or can "heal themselves" is antiquated and harmful. They are not invincible and, as all human beings, have limits that should be always properly addressed [1].

It is unfortunate that the medical profession is considered cold, "clinical," and impersonal by many in society. An overreliance on technology regardless of its benefits may be at fault to a large extent. The good news is that it is not the whole story. The "Promethean Gap," which was first espoused by Gunther Anders as a theory to understand the innate fear of technology, explains the easily construed fallacy to overly value the "created," that is, medical technology, over the "creator," the humanity for which the technology is used to assist in providing medical care [2]. Medicine is not alone in the feeling that technology has created a more impersonal world. At its core, however, it is exactly the opposite. Essentially, medicine is based on relationships with patients in which Physicians, as human beings, unavoidably

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bring their personal history, their life events, and their inner emotional world. And, as Zinn underscores [3], it is impossible that the medical encounter, like all human interactions, cannot be emotion laden. When dealing with the problematic life situations of their patients, especially, but not only, serious illness, a number of affective responses emerge. Part of them are related to the role strain or the sense of failure and frustration, part to the not infrequent feelings of powerlessness against the clinical situation of their patients and its associated losses, the grief, part to the fear of becoming ill oneself or a desire to separate from and avoid patients to escape these feelings [4]. If these emotional responses are accompanied by an exaggerated sense of duty and obligation in attending to the demands of the patients and their families, the denial of one's own dependency needs and gratification, or the attempt to increase work efficiency within a magical thinking of one's own immunity to one's own suffering, the situation can be only complicated. Also, the significant change in the organization of the healthcare systems, mainly the corporation and bureaucratization of the medical profession, associated with administrative burden, inefficient workflow patterns, and increasing patient load expectation has only increased the risk for physicians to develop emotional disorders.

General Issues About Burnout, Depression, and Suicide Among Physicians

Attention to this area has increased over the last 40 years with a series of data accumulating on the problems of emotional exhaustion and use of detaching defensive mechanisms leading to poor and cold interaction with the patients, personal sense of failure, and demoralization. These dimensions, conceptualized as burnout, have become popular since the first studies carried out in the 1970s and the increasing use of one of the first specific scales, the Maslach Burnout Inventory, that was developed in those years. Burnout was in fact described as a "psychosomatic" clinical condition typical of healthcare professionals in which they lose their state of well-being. It is a syndrome characterized, as abovementioned, by emotional exhaustion, tendency to be detached toward their patients, and poorly perceiving a sense of self-fulfillment and meaning in their own profession which can lead to specific psychological disorders, including depression and substance abuse, and the risk for suicide [5, 6].

The literature regarding burnout among physicians is nowadays somewhat cumbersome, with data showing that at least one-third or more of physicians have developed the core symptoms of this work-related condition. Burnout as work-workplace mismatch has highlighted many of the issues working in modern healthcare arena that can rob the clinician of the meaningful and purposefulness with which they had originally set out in their medical career trajectory. All specialties are affected by this negative emotional and behavioral state, with a very high number of studies available especially, but not exclusively, in oncology, palliative care, emergency medicine, psychiatry, and anesthesiology [7].

The risk factors for burnout, the consequences of burnout on the patients as well as on physicians, the preventive measures of this condition, and the possible main intervention have been described in detail by hundreds of studies. Most authors underline the fact that burnout is the unintended net result of multiple, highly disruptive changes in society at large, the medical profession, and the healthcare system. Both individual and organizational strategies have been only partially successful in mitigating burnout and in developing resiliency and well-being among physicians [8].

A travesty in its own right, common mental health issues have also garnered increased attention alongside the increasingly evident problem of burnout. As said above, full-blown psychiatric conditions including depression and substance abuse and the risk for suicide in the medical profession have been known since the times of Hippocrates and are more recently investigated with some rigor. Today we know that the consequences of depression and untreated depression among physicians are extremely negative. General physical health of physicians is put at risk by both burnout and depression [9]; physicians not only showing burnout symptoms but resulting positive to screening for depressive symptoms are at higher risk for medical errors, with obvious negative consequences on patient satisfaction and care [10, 11]; and physicians' depression is related to the problems at work and risk of patient complaints and dissatisfaction [12]. Depression, but other psychiatric disorders as well, is notoriously related to suicide ideation and suicide. Data have also accumulated regarding physician depression and suicide. The latest investigations confirm the following: (1) suicide is higher among physicians than the general population; (2) in contrast with general epidemiological data indicating that males are at higher risk for suicide, among physicians it is the opposite, with more females than males committing suicide; and (3) some specialties, such as psychiatry, anesthesiology, and surgery, are at highest risk. This has been confirmed by reviews and meta-analysis that indicate that females, in terms of gender, and anesthesiologists, psychiatrists, general practitioners, and general surgeons, in terms of specialty, are at higher risk [13, 14] (Table 1.1).

The rate of suicide in physicians seem to be a little different between the USA and Europe. Studies carried out in the USA report 1.4–2.3 times the rate achieved in the general population (28–40 per 100,000 vs 12.3 per 100,000 in general population), with higher rate among female physicians (2.5–4 times) [13, 16]. For that reason, suicide of physicians has been underlined by media as a silent epidemics to which attention should be paid urgently. In Europe there are contrasting data, some showing that suicide among physicians has decreased over the last 20 years (with rate similar to the general population) [12], while in other countries, including the UK, Norway, Denmark, and others, the suicide rate is higher among physicians, with rates of about two times that of the general population [17–20]. Similar patterns were found among Australian physicians [21, 22].

Although untreated (or under-treated) depression, bipolar disorder, or substance misuse is, as said, considered the most important factor for suicide in physicians, as it is for the general population [23], the suicide risk factors for doctors, as Gerada

Table 1.1 Ten facts about physicians' suicide and mental health (from the American Foundation for Suicide prevention – mod) [15]

1.	Suicide generally is caused by the convergence of multiple risk factors — the most common being untreated or inadequately managed mental health conditions
2.	An estimated 3–400 physicians die by suicide in the USA per year *(comparable data in European countries are less available)*
3.	Physicians who took their lives were less likely to be receiving mental health treatment compared with nonphysicians who took their lives even though depression was found to be a significant risk factor at approximately the same rate in both groups
4.	The suicide rate among male physicians is 1.41 times higher than the general male population. And among female physicians, the relative risk is even more pronounced – 2.27 times greater than the general female population
5.	Suicide is the second-leading cause of death in the 24–34 age range (accidents are the first)
6.	Twenty-eight percent of residents experience a major depressive episode during training versus 7–8% of similarly aged individuals in the US general population
7.	Among physicians, risk for suicide increases when mental health conditions go unaddressed, and self-medication occurs as a way to address anxiety, insomnia, or other distressing symptoms. Although self-medicating, mainly with prescription medications, may reduce some symptoms, the underlying health problem is not effectively treated. This can lead to a tragic outcome
8.	In one study, 23% of interns had suicidal thoughts. However, among those interns who completed four sessions of web-based cognitive behavior therapy, suicidal ideation decreased by nearly 50%
9.	Drivers of burnout include workload, work inefficiency, lack of autonomy and meaning in work, and work-home conflict
10.	Unaddressed mental health conditions, in the long run, are more likely to have a negative impact on a physician's professional reputation and practice than reaching out for help early

correctly underlines [24], go beyond mental illness. These factors should be examined with careful attention since they regard not only the physician as an individual but the context in which physicians work including the constant contact with the suffering and death of other human beings, as well as the series of organizational work-related stressors [25].

Oncology as a medical subspecialty is at a unique apex of this crisis. While the same pressures in medicine certainly apply to oncologists, such as increasing administrative burden, oncology is a changing field with diverse patient and societal expectations for outcomes. That is, oncologists still treat many patients who will ultimately succumb to their cancer diagnoses and experience the inherent stress repeatedly from those encounters, but they are also confronted with an onslaught of new medical information and a landscape that is changing at a breakneck pace. These two factors, (1) managing terminally ill patients and (2) becoming outstripped of imperative medical knowledge, provide unprecedented demands for this field. Rates of burnout among oncologists are essentially in the middle of medical subspecialties, with studies suggesting a prevalence of 35% among medical oncologists,

38% among radiation oncologists, and 28–36% among surgical oncologists [26]. However their rates of depression are higher among oncologists than other internist, and this is coupled with higher risk for suicidal ideation and suicide [27]. Therefore, understanding the interplay of common mental health workplace issues (depression, burnout) and the workplace demands as related to suicide should be specifically addressed not only among oncologist [28, 29] but in the medical field in general [30].

The worldwide emergency of SARS CoV2 pandemic and the role of physicians in the front line dealing with the devastating complication of COVID-19 are very recent examples of how all physicians in all specialties are involved in the risk of emotional suffering and should be protected in all the possible ways to warrant good clinical care for their patients [31–33].

A serious problem brought to the attention of psychiatry is that burnout, depression, and the risk for suicide not only affect senior physicians but younger doctors as well as residents and students entering the field and the profession of medicine. Their risk for psychological disorders and suicide in medical students and trainees has not examined deeply, although new data are accumulating [34–36]. Many authors underline the fact that this problem is not recognized enough or not reported because of lack of transparency, by the academic or related institutions [37, 38]. In effect, about 10% of medical students report suicidal ideation, and suicide is the second leading cause of death among resident trainees in the USA (4.1 per 100,000). Recently Blacker et al. [39] called on the national organizing bodies of medical education to mandate reporting of deaths by suicide and to create and maintain a database for tracking and studying these events, given the fact that the phenomenon is under-reported and under-examined.

All these issues indicate the urgent need to sensitize the political and administrative system of hospital and community services to address this problem and to put it among priorities in their agenda. In the USA, the American Medical Association (AMA) has long advocated for improving our knowledge about better caring for physician populations [40–42]. Hospital organizations should increasingly recognize physician wellness as a key factor for success in this competitive healthcare market in the USA and across the world [43]. Limited resources means optimizing the invaluable resources (physicians and other clinicians) that are available.

The literature is rife with calls for increasing awareness, understanding, and interventions, although the science behind addressing this complicated psychosocial issue is not straightforward [44]. Empiric science can only tell us so much about what should be done because types of intervention vary widely as do specific practice settings. There are however many good examples of a priori-derived interventions that provide proof of concept and beyond. Recent review and meta-analyses show that various types of interventions (alone or in group, online or face to face, using cognitive behavioral therapies (CBT) or mindfulness and other kinds of intervention) have been shown to be beneficial, reducing rates of burnout, depression, and suicide [45, 46]. Physicians who present with symptoms of burnout or depression should be part of special programs both in terms of prevention and treatment at

the workplace, in order to reduce the risk of suicidal ideation and suicide [47]. Psychiatry has a prominent role in this and should demonstrate strong and effective alliances with other healthcare system specialties. In addition, psychiatry can be invaluable for physicians needing help since other physicians are needed to demonstrate an understanding of their medicalized worlds and its effect on wellness and happiness [48, 49]. It has to be emphasized, however, that structural or organizational intervention (e.g., workload or schedule rotation, stress management training program, teamwork/transitions) is imperative [50, 51]. Physician mental health problems are often the result of organizational dysfunction and stressors and affect the entire healthcare organization rather than single physician individuals and their families [52]. Incorporating interventions into real life with the help of health policy makers, administrators, healthcare organizations, and clinical managers to design simple and feasible strategies may be complicated but is certainly mandatory in order to improve physicians' well-being via modification of the work environment.

Mental Healthcare of Physicians as an Ethical Duty

With this background in mind, we have considered that time has come to summarize the story of mental health issues among medical clinicians, the unique issues of some specialties in this respect, particularly but not only oncology, and a greater understanding of how burnout and other emotional problems work, highlighting available data-driven knowledge with expert opinion about best practices for physicians and organizations alike moving forward.

This book coalesces several important physician mental health issues (i.e., depression, burnout, and suicide) and discusses each separately but often refers to them collectively throughout the book. Our aim is to present these interrelated issues as their implications (i.e., for patients, physicians, and society) are similar and their treatments also overlap. We are fully convinced that the paradigm of dignity should be applied to physicians and that dignity-in-care, in its wider sense, within the dyadic doctor-patient relationship, means to recuperate the personhood of the physician as a human being (Chap. 2). In addition to thoughtful introductions and discussions of physician burnout (Chap. 3), depression (Chap. 4), suicide (Chap. 5), and embitterment (as a dysfunctional, behavioral, and emotional response to health work-related burdens and interactional stressors) (Chap. 10), we also introduce practical topics on screening and assessing these dimensions and clinical conditions in physicians (Chap. 6), its prevention in institution/work environments (Chap. 11), and interventions (Chap. 12). This book also explores the psychological impact of euthanasia and medical assisting in dying on physicians (Chap. 8) and moral distress (Chap. 9) as challenges that physicians face. The ethical implications (Chap. 7) of these issues are relevant for all physicians and for society. Attention to this area has created an opportunity for reflection and improvement so that the practice of medicine is sustainable for all physicians who experience adversity or feel misplaced in their work environment.

Conclusions

On these bases, our hope is to stimulate awareness and advocate for physician mental health to collectively enhance physician and patient well-being along with improved healthcare quality through medical disciplines. In many ways, this is a nascent field with very old roots that is beginning to see a time of renewed interest and hope for a mentally healthier healthcare workforce. Some of the problems are new while many are quite perennial. Exploration of the topic is far from over, however, and much improvement remains to be seen. Our hope is to bring together the interrelationship of these topics and the need for information from a more humanized and person-centered approach [53] that we consider the essence of medicine, not only for the patients but also for the healthcare professionals as part of the system of care.

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Medical Professionalism and Physician Dignity: Are We at Risk of Losing It?

2

Luigi Grassi, Daniel McFarland, and Michelle B. Riba

Introduction

To be a physician means to be a professional who practices the "art and science" of medicine, which means promoting, maintaining, or restoring health through the study, diagnosis, prognosis, and treatment of disease, injury, and other physical and mental impairments. For centuries, the Hippocratic Oath has been used by physicians to express these meanings where the dedication of oneself to a sustained sense of humanity expressed through the spirit of medicine is part of the person (the doctor) who has decided to cure and take care of another person who is sick (the patient) [1].

As a modern successor to the Hippocratic Oath for physicians, the Declaration of Geneva, adopted by the second General Assembly of the World Medical Association (WMA) (Geneva, Switzerland, September 1948) and more recently amended at the 68th WMA General Assembly (Chicago, USA, October 2017) [2], has been made more modern according to the new characteristics medicine has developed, especially in the last 100 years (Table 2.1). Some of these changes from the Hippocratic

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Table 2.1 The Hippocratic Oath [3] and 68th WMA General Assembly Declaration of Geneva

Hippocratic Oath	WMA General Assembly Declaration of Geneva
I swear by Apollo Physician and Asclepius and Hygieia and Panaceia and all the gods and goddesses, making them my witnesses, that I will fulfill according to my ability and judgment this oath and this covenant: To hold him who has taught me this art as equal to my parents and to live my life in partnership with him, and if he is in need of money to give him a share of mine, and to regard his offspring as equal to my brothers in male lineage and to teach them this art—if they desire to learn it—without fee and covenant; to give a share of precepts and oral instruction and all the other learning to my sons and to the sons of him who has instructed me and to pupils who have signed the covenant and have taken an oath according to the medical law, but no one else I will apply dietetic measures for the benefit of the sick according to my ability and judgment; I will keep them from harm and injustice I will neither give a deadly drug to anybody who asked for it, nor will I make a suggestion to this effect. Similarly, I will not give to a woman an abortive remedy. In purity and holiness, I will guard my life and my art I will not use the knife, not even on sufferers from stone, but will withdraw in favor of such men as are engaged in this work Whatever houses I may visit, I will come for the benefit of the sick, remaining free of all intentional injustice, of all mischief and in particular of sexual relations with both female and male persons, be they free or slaves What I may see or hear in the course of the treatment or even outside of the treatment in regard to the life of men, which on no account one must spread abroad, I will keep to myself, holding such things shameful to be spoken about If I fulfill this oath and do not violate it, may it be granted to me to enjoy life and art, being honored with fame among all men for all time to come; if I transgress it and swear falsely, may the opposite of all this be my lot	As a member of the medical profession: I solemnly pledge to dedicate my life to the service of humanity The health and well-being of my patient will be my first consideration I will respect the autonomy and dignity of my patient I will maintain the utmost respect for human life I will not permit considerations of age, disease or disability, creed, ethnic origin, gender, nationality, political affiliation, race, sexual orientation, social standing or any other factor to intervene between my duty and my patient I will respect the secrets that are confided in me, even after the patient has died I will practice my profession with conscience and dignity and in accordance with good medical practice I will foster the honour and noble traditions of the medical profession I will give to my teachers, colleagues, and students the respect and gratitude that is their due I will share my medical knowledge for the benefit of the patient and the advancement of healthcare I will attend to my own health, well-being, and abilities in order to provide care of the highest standard I will not use my medical knowledge to violate human rights and civil liberties, even under threat I make these promises solemnly, freely and upon my honour

Oath to this Declaration are related to the art of medicine becoming less predominant, while the science has increased its influence in the new global worldview (*Weltanschauung*). As a point, although it is possibly true that the duality, art and science in medicine, may be an artifact [4], there is the risk, as Van Der Weyden notes [5], that the art of medicine (as the capacity to listen to patients, to see them in all the dimensions, as persons first, then as a disease) can lose its relevance in the new millennium, due to both the increased level of technology and "cold" science in medicine and the bureaucratic modifications of the healthcare system. Certainly, there are many other reasons regarding these changes, including the requests to the health system based on the WHO "right to health" which contrasts with the costs of it in a constantly fluctuating economy and the inequalities between countries; the need for medicine and doctors to care more about the person and not only the disease; the predominance of the evidence-based paradigms (e.g., rigid clinical methods with only objective perspectives and quantitative measurement searching for one absolute quantifiable objective "truth") in opposition to a rising person-oriented value-based medicine (including narrative-based medicine) (e.g., with flexible methods and subjective perspectives gained through qualitative approaches and awareness of the relativity of "truths") [6–10].

Many scholars of the medicine of the last century, such as Francis Peabody [11] or Paul Tournier [12], and of the psychosomatic, consultation-liaison psychiatry and psychological medicine areas, such as Franz Alexander [13], Michael Balint [14], Zbigniew J. Lipowski [15], or George L. Engel [16], supported the view of medicine's integrity as a humanistic, altruistic, and compassionate discipline. Following their legacy, we firmly consider that, more now than ever, it is important to recognize the science of medicine as a territory of the encounter between human beings and the need to "re-humanize" medicine, underscoring the centrality of humans and the human experience in health and illness [17, 18].

Therefore, it is necessary to restate the value of the physician as a human being, before being a professional (in its several meanings, such as a scientist, a "technician," a healer, a miracle-maker, and so on, determined by different cultures) [19–21]. It is a fact that, as indicated in the WMA documents, the revised Declaration mentioned above refocuses the text to reflect the changes in medicine over the decades, including the transformation of the relationship between physicians and their patients and between physicians themselves. Also, among the several new obligations on physicians, a requirement for physicians has been added, that is, to attend to their own health, well-being, and abilities in order to provide care of the highest standard.

If it is true that the individual who develops a disease is a person (patient), the individual who acts by applying medical "techniques" (physician) is a person, too. In this chapter we will discuss the sense of being a physician and the sense of dignity that according to a person-centered approach in medicine should, by definition, regard the interaction between human beings, as persons [22, 23].

Doctor-Patient Dyad and Physician's Personal Dignity

Dignity is a concept that permeates medicine and that has become part of the vast literature that underscores the extremely important need to relate to patients as persons, by showing empathy, respect, and compassion, as indicated in the Hippocratic Oath and in its new modern version [24–26].

Dignity derives from the Latin nouns *decus* (ornament, distinction, honor, glory, but also worthiness of honor and esteem) and *dignitas*, which is "an individual or group's sense of self-respect and self-worth, physical and psychological integrity and empowerment" [27, 28]. In this sense, dignity relates to both the individual and the interpersonal dimensions of the human being: individual, as the inherent and inalienable value that belongs to every human being simply by virtue of being human (*dignity-of-self*, the dignity we attach to ourselves as integrated and autonomous persons), and interpersonal, as the worthiness of respect that demands affirmation and calls for action, approval, and support (*dignity-in-relation*, the dignity that the individual perceives or does not perceive in the eyes of others within interpersonal relationships) [29, 30]. According to Sulmasy [31] these concepts can be expressed in terms of *intrinsic dignity*, which refers to worth, stature, or value that human beings have simply because they are human, and *attributed dignity*, which refers to worth, stature, or value that human beings confer upon others by acts of affirmation.

We refer the reader elsewhere for the vast literature relative to the paradigm of dignity in medicine and the movement of dignity-in-care, as the mandatory obligation of patients to be respected as persons and the medical system to relate with patients in a holistic way, meaning in all the dimensions (biological, psychological, social, and spiritual) characterizing the human being [32–34]. It is a fact that, in line with person-centered medicine, the promotion of a medicine *of* the person (of the totality of the person's health, including its ill and positive aspects), *for* the person (promoting the fulfillment of the person's life project), *by* the person (with clinicians extending themselves as full human beings with high ethical aspirations), and *with* the person (working respectfully, in collaboration and in an empowering manner) *is* the paradigm of medicine [35].

Here, by understanding the fact that we are speaking of a dyad of human beings and of an "interpersonal" relationship, we would like to underscore the sense of dignity regarding the doctor, by considering the emotional implications of being a physician, as a person first, and the problem of compassion fatigue and burnout, as significant events related to the medical profession, on which the literature has concentrated attention over the last decades.

We summarize herein just a few issues that are in our opinion relevant in modern medicine and that can be a threat to the dignity of physicians: the commercial interpretation of the healthcare system and its transformation over time, the changes in the doctor-patient relationship (with the risk of losing the sense of a person-person relationship), and the problem of not considering the personhood of the physician as a human being.

The Change in the Healthcare System

The place where doctors and patients meet has profoundly changed over time. Almost 70 years ago, the psychiatrist and philosopher Karl Jaspers [36] warned about the problem of an increasingly "technically enhanced" medicine where the risks for physicians would have been to have their patients reduced to objects without its specific individuality, but also, and at the same time, physicians would be victims of technological instruments and losing their own identity. The only way for Jaspers to counteract the regressive aspects of this situation and to avoid the risk that physicians could be progressively deprived of ethical values and weakened in their meeting, listening, and cooperating for the good of their patients is to reinstate the ancient model of the physician-philosopher, according to the Hippocratic medicine. Of course, Jaspers' conviction was that the philosophy of medicine (or philosophy as a guiding framework for a humanized approach to human beings) could help in giving back the voice to the "art" with respect to the "science."

Years later, Pellegrino [37] also recommended how to prevent indignity in medicine and in healthcare systems, which, as he stated, has been transformed in "bureaucratic, commercialized, and impersonal places that hospitals have, all too often, become. […]." However, if it is true, as Pellegrino says that "[…] a more collective sense of shared responsibility for the 'dehumanization,' the 'depersonalization,' or the 'alienation' that the sick feel in today's health and medical care institutions […] in today's mechanized experience of illness" (page 532), it is also true that the changes in the healthcare system are not determined by the physicians, who are in turn victims of the same problem. Today, as some scholars suggest [38] "Hippocratic medicine" has been replaced by a "Bionic Hippocratism," where the distinction between man and machine, natural and artificial, makes the physician become a Hippocratic technological hybrid. Unwittingly, a paradox emerges. While technology is meant to be an auxiliary service to physicians, the physician is more and more of service to technology and a peripheral foot piece to it. The relationship between *subjects* (doctor-patient, as a person to person approach) can be replaced by a relationship between *objects* (machine-disease, as a robot-broken apparatus approach).

Starting in the 1980s, patient safety, cost containment, and quality outcomes for patients became increasingly recognized as laudable goals for hospitals and administrative entities to undertake. Many of these outcomes have improved with consistent measurement and attention, but the highly bureaucratic nature of healthcare as a business subject to an increasing array of metrics and financial bottom line pressures has caused significant damage to the age-old covenant of the doctor-patient relationship and the health of the physician. In this sense what is defined the "Triple Aim" (i.e., improving patient experiences, reducing costs, and improving population health), as adopted by policy makers, has in fact directly or indirectly transformed and, for some scholars [39], changed for the worse the atmosphere of the hospital and community health work environments. The high bureaucratization of contemporary medical practice and health care have clearly created a paradox, since

bureaucracies are inherently impersonal, in contrast with the doctor-patient relationship (and person-centered care) which is an inherently interpersonal endeavor [40]. The increase of work load with large patient volumes, insufficient resources, the pervasive feeling of being poorly staffed and managed by "anonymous" systems, the lack of control over one's work environment, and having a lot of time at work spent on tasks (e.g., administrative and bureaucratic work) are further issues to be considered [41]. In effect, the more budget issues (including the downsize of human resource to save money) and high-technological systems take over in a service/productive-laden medicine, the more there is the risk of impacting the humanity at the basis of medicine, including, as far as physicians are concerned, the onset of psychological strain and distress, emotional conflicts, and consequences on one's own health [42], as we will discuss in the next paragraphs.

In this situation, it is indicated that workplaces can become a possible threat to healthcare professionals' dignity, where the lack of respect, as an essential component of an organization, undermines the intrinsic characteristics of a healthy environment in which patients feel cared for as individuals and members of healthcare teams are engaged, collaborative, and committed to service, as persons too. In this view, the need to "re-humanize" or "re-personalize" medicine is based not only on working on the dyadic (doctor-patient) relationship but on the health system as well [43].

The Change in Doctor-Patient Relationship

Patient-centered medicine has become a common theme in the literature [44–47], but this concept seems to forget a significant point, that is, that we are speaking of a "two-person medicine," where the doctor is an integral part. For this reason, different scholars, including ourselves, use the concept of person-centered medicine [23, 48–50] which recuperates the original work done by Tournier [12] and Balint [14], in his specific attention to the biunivocal doctor-patient relationship. Later Enid Eichholz Balint [51] in fact clarifies that the "doctor and patient are influencing each other all the time and cannot be considered separately" (p. 13) [52]. The doctor's subjectivity is therefore regarded inherent in the doctor-patient relationship, with an influence of the patient toward the physician and vice versa, where sensitivity and insight into the reactions of both parties can be used for *diagnostic* (in terms of knowledge) and *therapeutic* (in terms of cure and care) purposes. The medical encounter, like all human interaction, is in fact unavoidably emotion laden, with the need for emotional responses of the physician to be analyzed for information about certainly the patient but, as said, also the physician [53].

It is true that in recent years what has been described as possible kinds of doctor-patient relationships has notably changed. If we refer to what Szazs and Hollender [54] wrote 50 years ago, the relationship between a doctor and a patient was reflected along three possible pathways based on an autonomy-dependency axis: (1) an activity-passivity model (parent-infant model), with an active role of the physician toward a passive recipient patient that places the physician in absolute control of the

situation, gratifies needs for mastery, and contributes to feelings of superiority for the physician; (2) a guidance-cooperation model (parent-child/adolescent model) with a conductive physician toward an obedient patient which provides an opportunity to recreate and to gratify the "Pygmalion Complex" (the physician can mold others into his own image, as God is said to have created man or he may mold them into his own image of what they should be like); and (3) a mutual participation model (adult-adult model) with a helping physician toward a participant patient highlighting the notion of friendship and partnership and the imparting of expert advice and in which the physician's gratification cannot stem from power or from the control over someone else but derives from more abstract kinds of mastery, which were at that time as yet poorly understood.

Likewise, Pierre-Bernard Schneider [55] described several kinds of relationships, each with its own peculiarities, based on a subject-object (person-thing) axis. In the objectifying state, it is possible to consider the "scientific-informative" relation (based on a scientific objective approach); the "repairing" relation (based on a mechanical attitude in which the physician is requested by a patient to be fixed); the "service-maintenance" relation (based on a chronic state of monitoring the persistent problems of the patient, typical of chronic conditions); and the "consultant" relation (where the doctor is called on the spot for one consultation and then disappears). In the more subjective state, the relation is more interpersonal, such as in the "interpersonal-subjective" relation (based on a sincere and authentic meeting between two human beings) or the "supportive" relation where the physician extends himself/herself to support and help the patient.

Later, Emanuel and Emanuel [56] described four models of the doctor-patient relationship, namely, a paternalistic (physician as a guardian of the patient), informative (physician as a competent technical expert), interpretive (physician as counselor or adviser), and deliberative (physician as friend or teacher). The authors suggested the need for a passage from a paternalistic model, which is justified during emergencies when the time taken to obtain informed consent might irreversibly harm the patient, to an autonomy process. The debate regarding the need to abandon a paternalistic approach and to have patients completely informed about their clinical situation and to help them decide about what to do, in a shared decision-making process [57, 58], has enormously increased in the last years, toward a patient-centered medicine [59, 60].

It is clear that the balance between a technically skillful, rational, and emotionally detached doctor (selling the "product" requested by the system) and a more emotionally and authentically engaged physician with his/her own feelings (which is the basis for empathy and compassion) is not easy, with a quite evident prevalence in modern medicine of the first over the second. However, both intrinsic and attributed dignity, as defined above, should regard physicians (and healthcare professionals in general), too, as persons participating to a human interpersonal relationship, even if in a professional context, with their patients. In this sense, compassion, empathy, and sympathy could be considered variables in a transaction optimizing the care provided to patients while, at the same time, protecting and respecting healthcare providers in the process [61].

The Personhood Behind the Medical Profession

Professionalism and humanistic health care is contingent on not only respect for patients (i.e., patient-centered care) but also on systems that allow physicians to practice with dignity. In all likelihood, this can only be accomplished by understanding and respecting the needs of physicians as persons interacting with their environments and its inherent stressors.

In the last decades, the vulnerability of physicians as persons has in fact become the focus of attention with studies not only recommending specific training in communication skills and in receiving emotional support [62, 63] but also the urgent need to improve the working conditions for the healthcare workforce (the so-called Quadruple Aim instead of the reductivist Triple Aim) [64, 65], where the constant confrontation with suffering, death and dying, and emergencies in a cold, detached, mechanical bureaucratic place can be taken into extreme consideration [66].

Data regarding the risk of emotional suffering up to psychological disturbances in physicians has been pointed out for years. The role strain, leading to excessive drug use in an attempt to increase work efficiency, the denial of the physician's own dependency needs and gratification, and the problems of identity related to the exaggerated sense of duty and obligation the physician feels in attending to the demands of the patients and their families have been noted since the 1970s [67–71]. Of course, the causes of emotional problems in physicians are multiple, including, as for all individuals, childhood problems, life stressful events, or personality characteristics [72]. However, the changes in the health systems and the transformation of medicine and the technological and market forces, without citing the violent acts to which physicians and health care professionals are exposed in the workplace [73], cannot be ignored. Today the concepts of burnout, work stress, and compassion fatigue, as psychological conditions typical of the helping professions, which can lead to more defined psychological disorders, are important aspects to be carefully taken into consideration.

Burnout

Freudenberger [74] and Maslach [75] described burnout as an experience of physical, emotional, and mental exhaustion in healthcare professionals caused by long-term involvement in situations that are emotionally demanding (emotional exhaustion). As reported, when emotional resources are depleted, it is common for physicians to feel they are no longer able to give of themselves at a psychological level, with the onset of negative, cynical attitudes and feelings about their patients (depersonalization). As a further consequence, professionals start to evaluate themselves negatively and to feel unhappy and dissatisfied with their accomplishments on the job (reduced professional and personal accomplishment) with easy deterioration in the quality of care or service, job turnover, absenteeism, and low morale. The evaluation of burnout and the dimensions that characterize this condition, as formulated by Maslach and Jackson [76], has become extremely important in the several medical specialties [77, 78]. In a recent review of 182 studies involving 109,628 physicians in 45 countries, burnout among physicians affected 67.0% of them, with

Table 2.2 Interrelated concepts of burnout, moral distress, compassion fatigue, vicarious traumatization

Burnout: a syndrome classically characterized by three dimensions: (1) feelings of energy depletion or exhaustion; (2) increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; (3) reduced professional efficacy and poor realization of oneself
Moral distress: feeling of personal conflict, dissonance and ethical dilemma, and job dissatisfaction in healthcare professionals related to institutional constraints, healthcare systems pressure as regards institutional regulations, budget requirements, and relationship conflict with patient family members or others
Compassion fatigue: a progressive and cumulative outcome of prolonged, continuous, and intense contact with patients, self-utilization, and exposure to multidimensional stress leading to a compassion discomfort exceeding the endurance levels of healthcare professionals
Vicarious traumatization (secondary traumatic stress): negative changes in the clinician's view of self, others, and the world resulting in healthcare professionals dealing with patients' trauma-related thoughts, memories, and emotions, but more generally for the repeated empathic engagement with ill patients

72.0% reporting emotional exhaustion, 68.1% depersonalization and detachment in their relationship with their patients, and 63.2% low personal accomplishment and job satisfaction [79].

Recently burnout has been described not just as a "normal" consequence of working in the healthcare field. The new 11th edition of the International Classification of Diseases (ICD) of the World Health Organization (WHO) lists burnout as an occupational syndrome (with the code QD85) within chapter 24 "Factors influencing health status or contact with health services" [80]. In the ICD-11, burnout is described as a condition "resulting from chronic workplace stress that has not been successfully managed […] which refers specifically to phenomena in the occupational context and should not be applied to describe experiences in other areas of life" (Table 2.2).

Compassion Fatigue and Moral Distress

Within this framework, compassion fatigue, as a psychological and physical stress condition determined in physicians and healthcare professionals by a prolonged contact with patients' suffering, has also been examined in the medical literature [81, 82]. It is a concept which is in part related to burnout but also to moral distress and vicarious traumatization (or secondary traumatic stress) which are also factors related to work and work stress, as "cost of caring" and possible contributors to the loss of compassion in healthcare [83] (Table 2.2). Data of studies in several settings show different prevalence of compassion fatigue (affecting up to 40%) and secondary traumatic stress (affecting up to 38%) indicating the need for great attention to these phenomena [84–87].

Both burnout and its related conditions have significant negative consequences severely impacting not only the patients' outcome [88–90] but physicians' profession and physicians' health as well [91], The symptoms are in fact represented by exhaustion, insomnia, somatization, headaches, stomachaches, sleep disturbance,

fatigue, as well as reduced immunity, risk of cardiovascular and musculoskeletal disorders [92], diabetes [93], and other physical disorders [94–96], often associated with depression (as a systemic disease) [97–99].

Therefore, without attention to the emotional life of physicians and their personhood, it is hard to imagine that the practice of medicine could implement the dignity-in-care and compassion models, repeatedly recommended as the essence of medicine [24, 100]. In effect, recent literature has clearly shown that burnout is a problem of the whole healthcare organization, rather than individuals, and that intervention programs specifically devoted to reduce the emotional suffering of physicians should adopt an organization-directed approach [101]. Burnout symptoms, especially detachment and depersonalization and poor professional and personal accomplishment, may be better treated if changes and improvement of the "sick" organization are pursued rather than by acting on the physicians only [102, 103]. A recent model, for example, indicates that leaders of healthcare systems should address physicians' basic physical and mental health needs first, then patient and physician physical safety, and then higher-order needs (e.g., respect from colleagues, patients, processes; appreciation and connection) [104]. The WHO itself is developing evidence-based guidelines on mental well-being in the workplace which take into account the areas of work life related to burnout (i.e., workload, control, reward, community, fairness, and values) [105] and act to mold them in a positive way for physicians and healthcare professionals in general.

Conclusions

In this chapter we have illuminated issues around physician personhood in the modern healthcare environment in relation to the provision of patient-centered care. Physician mental health issues are not new but rather being exacerbated by changes in medicine such as the high tech demands; environmental changes, such as in practice settings; and corporate culture.

We have considered that the more medicine has become a high-tech area, with a relationship based on "services to be provided," the more the human side of medicine has been put at risk in favor of a commercial territory where health can be bought and high expectations and every request can be met. With respect to this, the new language spoken into the healthcare system where the despotism of bureaucracy, budgeting, and downsizing of resources is by definition far away from the humanistic approach is based on commerce which is not the expression of true medical care. Maybe this is in part related to the general crisis of evidence-based medicine and the sense of a new scientific paradigm which are frequently debated (e.g., as we have discussed, holistic, humanistic, narrative, and narrative evidence-based medicine) and synthetized in person-centered medicine.

We are also aware that, speaking in terms of doctor-patient relationships, the old "paternalistic" practice of a solemn profession, with the relative aura of healing around it, has also the risk to denigrate the sense of humanity and to consider – as it

was in the past – physicians like gods rather than human beings, with all their limitations. It is understandable that being in a position to ask for the help of someone who is considered the rescuer and the healer means that the rescuer and healer are not only invulnerable but able to solve every possible situation. However, the transformation of paternalistic medicine to a joint decision-making relationship has also risks, and it is perhaps not sufficient to give a sense of parity between the contractors of a therapeutic covenant. Certainly, the shift from physician paternalism [characterized by professional dominance one up/one down] to patient autonomy [characterized by a client-profession responsibility one up/one up] should take into consideration the respect for the physician with the human side of him/her. The ambiguity is in fact that for some aspects it is a bidirectional relationship (e.g., "we have to make shared decisions as partners"), but not for others (e.g., "you are the doctor and should perfectly fix my problem, being you and only you responsible for the outcome"), with inequalities in the humanized relationship between the sick and the healer. These changes, along with what described in terms of bureaucracy and corporatization of the healthcare system, typical of modern medicine, expose physicians to risks for their own health, especially mental health which is at higher risk than in the past.

On these bases, we have discussed the need, within a person-centered approach, to consider the person of the physician. Literature has repeatedly pointed out in the last decades the role of burnout and its related dimensions (e.g., compassion fatigue, moral distress) in reducing the satisfaction of patients and the outcomes in terms of their health but also in impacting the psychological and physical health of physicians as well. It is therefore extremely important, as Miles indicated [10], that a modern person-centered medicine really takes full account of all the dimensions, physical, emotional, spiritual, and social, of the patient, but, we have to add, of the physician as the member of the system of care as well. Without the attention by the healthcare system to the human side (with all its strengths and limitations) of the physician as a person, too, it will be difficult to propose and practice a humanized medicine.

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Burnout in Medicine

3

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Introduction

Burnout is a prevalent and important occupational hazard, experienced by a multitude of physicians across specialties and throughout the career trajectory. The term burnout is used to characterize a complex syndrome of emotional exhaustion, depersonalization, and self-perceived low personal accomplishment. Burnout results from prolonged stress in the workplace [1] and is considered specific to occupations requiring intense interactions with other people [2].

History and Definition of Burnout

The concept of burnout could be found in a vast literature, as the term "to burn out" appears to have been used also by Shakespeare, among other authors [3]. The first appearance of the term burnout in the scientific world has been attributed to the psychoanalyst Herbert Freudenberger [4] who in 1974 described a condition he observed among volunteers in free clinics for drug abuse. This concept was then

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further and independently characterized by Christina Maslach and colleagues, beginning in the 1970s. Maslach published innovative research, describing the syndrome of burnout within human service-oriented professions (e.g., clergy, police, social workers, teachers, medical) [5], and developed a self-reporting tool to assess burnout. The complexity and heterogeneity of factors contributing to burnout result in varying manifestations of symptoms among individuals, though physicians are at higher risk for overall burnout compared to general population controls, with burnout nearly two times as prevalent among physicians versus other US workers [4]. Though this chapter will focus on the concept of burnout in terms of its connotations in the medical field, implications and consequences overlap with other entities, especially compassion fatigue and depression, and the burnout experience among physicians in various specialties. It is important to note that burnout impacts clinicians in various roles (e.g., nurses, advanced practice providers, respiratory therapists) and practice settings. In the 1980s, the initial primarily qualitative research became more empirical, and the now famous Maslach Burnout Inventory (MBI) survey was used to quantitatively assess the syndrome across caregiving professions. In the 1990s and beyond, burnout research has grown in terms of the number and style of measurement tools as well as the scope of occupations being evaluated (e.g., education, medicine, law, law enforcement, ministry).

Burnout is seen as the final step in a progression of unsuccessful attempts to cope with a variety of negative stress conditions [6]. The WHO does not recognize burnout as a medical condition but as an occupational phenomenon.

In fact, ICD-11 [4] states that "burnout is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. It's characterized by 3 dimensions: (1) Feelings of energy depletion or exhaustion; (2) Increased mental distance from one's job, or feeling of negativism or cynicism related to one's job; (3) Reduced professional efficacy." The ICD-11 continues: "Burnout refers specifically to phenomena in the occupational context and should not be applied to describe experiences in other areas of life."

Different tests have been developed to assess burnout, among which the Maslach Burnout Inventory (MBI) is the most widely used. It is a self-report, comprising 22 items measured on a 7-point Likert scale considering three domains, according to the burnout model developed by Maslach [7] and parallels the ICD-11 definition:

1. Emotional exhaustion (EE): the exhaustion domain describes a condition of fatigue, loss of energy, and debilitation.
2. Depersonalization (DP): also named cynicism, this dimension is characterized by irritability, withdrawal, and issues in the relationship with the clients.
3. Personal accomplishment (PA): also named inefficacy, this dimension refers to a diminished productivity, low morale, and inability to cope.

A burnout profile is characterized by high levels of emotional exhaustion and depersonalization and low levels of personal accomplishment.

The Experience of Burnout and Its Tragic Implications

The experience of burnout has a negative impact on a physician's personal and professional health and well-being. Burnout is associated with increased risk for cardiovascular disease and shorter life expectancy, problematic alcohol use, broken relationships, depression, and suicide [8]. A number of studies have found that physician burnout is adversely associated with quality and safety (e.g., medical error), patients' satisfaction with their care, professionalism, communication, turnover or early retirement of impacted clinicians, and healthcare costs. Collective drivers of physician burnout include loss of autonomy, decreased meaning in work, decreased control, and inefficient use of time due to increased administrative requirements, sleep deprivation, isolation, large debt burden (from educational loans), excessive workloads, and lack of work-life integration [8].

Burnout and Overlap with Depression and Compassion Fatigue

In addition to elevated risk for occupational burnout, the prevalence of depression or depressive symptoms is alarmingly high in physicians [9]. Despite debate about overlap, depression and burnout are distinct entities, with discrete measurement tools. Though burnout should not be overlooked as a modifiable risk and aggravating factor for depression, conceptualizing burnout as depression risks missing the opportunity to address its organizational, structural, and societal drivers [10].

Burnout, depression, and work-related stress display some correlations and overlaps, but they are three different constructs. On the one hand, symptoms of burnout and aspects of an individual life easily resemble depression, but on the other hand, burnout is more context-specific: in fact, it arises from distress in the workplace and exerts effects in the work environment [11]. Furthermore, burnout dimensions as measured by the MBI do not correspond to depressive symptoms: while correlations were observed between depression and EE, this was not the case for depression and PA, and only a minor correlation was observed between depression and DP [12]. However, depression and burnout are indeed two related constructs, as it is possible that burnout may lead to an increased risk for developing mental disorders: a longitudinal study observed that burnout predicted the risk of taking antidepressants in an 8-year follow-up [13]. Work-related stress when prolonged leads to burnout; however occupational stress may arise in every kind of profession, while burnout is considered more specific to jobs where interpersonal relationships, and especially relationships of care, have a great role.

The Importance of Measuring Burnout

There is considerable variability in how researchers studying physicians, medical students, and trainees have defined and measured burnout. Variability in measurement tools can have significant implications, including underestimation of the rate

of burnout across populations [14]. A meta-analysis on 65 studies from 1991 to 2001 on physician burnout observed that emotional exhaustion appeared to be the core dimension of burnout [15]; the authors observed both regional differences between American and European physicians and differences between outpatients and inpatients specialties in terms of factors contributing to emotional exhaustion. However, in a systematic review of 182 studies between 1991 and 2018, there was substantial disagreement in the literature on what constituted burnout, finding at least 142 unique definitions for meeting overall burnout or burnout subscale criteria [16]. In a 2015 longitudinal study, Shanafelt and colleagues found the prevalence of physicians reporting burnout symptoms to be 54.4% [9]. The 2019 Medscape National Physician Burnout, Depression & Suicide Report found similar rates, ranging from 32% to 54%, varying by specialty [17]. Most studies of burnout use surveys in which respondents self-report their feelings, attitudes, beliefs, and behaviors relating to their work. The Maslach Burnout Inventory, demonstrated to be reliable and valid and extensively studied, is the gold standard in burnout assessment for healthcare professionals. Other tools capture distinctive psychosocial, functional, and occupational measures. Examples of measurement tools specifically designed for physicians are the Mini-Z, offered by the American Medical Association, and the Stanford Professional Fulfillment Index, which has questions on both burnout and well-being.

Differences in prevalence of burnout exist among medical specialties, with higher prevalence often seen among physicians working on the "front lines" of patient care [4, 17]. It has been theorized that physicians are especially disposed to burnout due to traits, such as compulsiveness, precision, high expectations, and compassion, which facilitate success in medical education, training, and practice [18]. These traits, in addition to tolerance for a professional environment that stigmatizes self-care, illness, and perceived weakness and promotes denial of vulnerability, perfectionism, isolation, and delayed gratification, simultaneously create chronic emotional and interpersonal stressors that contribute to burnout. Theoretical frameworks now more explicitly integrate both individual and situational factors [19]. There is a growing appreciation that drivers of physician burnout are not solely individual but often system-based stressors within the healthcare industry such as the electronic medical record, payment systems that are burdensome, loss of autonomy and control over workplace issues by physicians, and other cultural, economic, and environmental factors.

Burnout Considerations Among Distinct Specialties

Oncology

The prevalence of burnout among oncologists is similar to that of US physicians overall, and the satisfaction with career and specialty choice is higher [20]. Long hours, the administration of often highly toxic therapeutics, and regular exposure to

death and suffering create unique stressors for medical oncologists. There is an incremental relationship between time devoted to patient care and oncologists' burnout. Among medical oncologists, many of the risk factors for burnout differ between practice settings (academic vs. private) [20–22]. Given projected shortages of medical oncologists in the upcoming decade, studies evaluating interventions that may sustain career satisfaction and/or reduce burnout are needed in this population.

Palliative Care

Stressors unique to pain/palliative care physicians include regularly facing difficult symptoms of terminal and serious progressive illnesses, distressed patients and families, stigmatization, suffering, and death. Despite these challenges, studies show that the frequency of emotional exhaustion and depersonalization are lower among palliative care physicians than in populations interacting with similar patients, such as oncologists [23–25]. Physicians in palliative care have a high degree of job satisfaction; they report being less overwhelmed, fewer conflicts, being less worried about drug toxicity, to have access to better resources, and to have better communication skills with patients [24].

General Internal Medicine and Hospitalists

General internists suffer higher rates of burnout and lower satisfaction with work-life balance than most specialties, and overall rates of burnout among hospitalists and outpatient general internal medicine physicians are reported to be similar [26]. The field of hospital medicine has experienced rapid growth, with an increasing number of hospitalists in academic medical centers. The rapid evolution of the field creates potential complications for academic success and career promotion and sustainability of academic hospitalists. In addition to these distinctive complications, stressors such as amount of control over work schedule (particularly reporting less protected time for scholarly activity, increased clinical time on nonteaching services) and level of support from organizational leaders are predictors of overall low job satisfaction among hospitalist physicians [27]. Oncology hospitalists provide acute care for seriously and terminally ill cancer patients in the hospital. Oncology hospitalists thus face similar emotional stressors as those of oncologist and palliative care physicians. Importantly, compared to other physician groups, hospitalist physicians are more likely to agree that their work schedule leaves enough time for their personal life and family [26], which suggests positive implications for quality of life in this population.

Surgical Specialties

Surgical training and practice present significant challenges that can lead to substantial personal distress for the individual surgeon and their family. Across multiple subspecialties, surgeons experience a high frequency of burnout and low mental quality of life (time for personal/family life), though most report being generally satisfied with their career and specialty choice [28]. Surgical oncologists are not immune to the previously discussed stressors nor the psychiatric morbidity and burnout associated with providing care to patients with cancer. Surgical oncology generates high levels of stress and emotional exhaustion, with the potential for maladaptive coping responses and dependence on a culture of productivity and "bravado" without thoughtful self-care. Compared to general surgical practices, however, cancer surgeons reportedly achieve more personal fulfillment and less frequently use distancing methods to cope with their patients [29].

Emergency Medicine

A recent Medscape study of burnout across medical specialties showed 43% burnout among emergency medicine physicians, a prevalence similar to the average of all specialties. This marks an improvement over the last few years, but caution should be taken before concluding that the trend will continue, particularly in light of the extreme stressors of these frontline clinicians related to the COVID-19 pandemic. In addition to the more commonly understood drivers of burnout across specialties, burnout in emergency medicine is associated with high anxiety caused by concern for bad outcomes [30]; work overload (e.g., increased number of shifts per month); chronic fatigue of circadian rhythm disruption; dissatisfaction with institutional support including from specialty services; higher than average risk of medicolegal litigation; and the physician's sense of existential meaning derived from work [31]. A recent national survey of 1522 US emergency medicine residents across 247 residencies showed an alarming prevalence of 76% burnout, which is among the highest rate of resident burnout across specialties. Burnout among these trainees is due to a higher degree of depersonalization versus attending emergency medicine physicians and other specialty physicians [32]. Negative and cynical attitudes are a predictable outcome when young physicians are overworked, caring for high acuity patients in environments that are often under-resourced.

Psychiatry

Risk factors for burnout in psychiatrists may involve patients, physicians, and organizations. The issue of *violence* in the workplace is especially important in psychiatric setting and perceived as an important source of stress, being associated with higher levels of emotional exhaustion and depersonalization [33]. Patient *suicide* has an important impact on physicians' personal lives, psychological health, and

management of their job and is subjectively considered as a major stressor in the psychiatric profession [34]. Engaging with *traumatized* patients is associated with a greater stress, leading to the manifestations of burnout [1]. Confronting patients' *families* and their high expectations may contribute to the emotional exhaustion of psychiatrists, especially when facing particularly demanding cases [15]. Other patient characteristics display an influence on burnout, such as the severity of the mental disorder and the suspect of malingering.

Psychiatrists tend to display *personality traits* such as high neuroticism, openness and agreeableness, and low conscientiousness in comparison to other physicians that may predispose them toward stress [14]; also the *attachment style* [15] and *coping* mechanisms [19] were associated with stress in work relationship and burnout. Psychiatrists may also feel stigmatized in their profession and experience increased stress [17, 18]. Organizational characteristics also play a role in the development or prevention of burnout for psychiatrists and other physicians. Some general organizational factors include workload (i.e., the capacity of meeting work demands), *control* (i.e., perceived autonomy and ability to influence decisions in the workplace), *reward* (i.e., feeling fulfilled by work), institutional or even social recognition, and *work-related community, fairness* (i.e., perceived equity in the workplace), and *values* (i.e., the conformity of perceived values of the employee and the organization.

Burnout During the COVID-19 Pandemic

Physicians at the front line of the COVID-19 pandemic have faced unique challenges, including concern for their personal safety, the welfare of their patients, families and loved ones, and job stability and security. Healthcare professionals (HCPs) are responding with selflessness, altruism, and urgency that have unexpectedly catalyzed the restoration of some elements of autonomy, competency, and relatedness [35]. The long-term impact of this experience has yet to be observed. Current and future burnout among HCPs could be mitigated by actions from healthcare and other governmental institutions, aimed at potentially modifiable factors, including providing additional training, organizational support and support for family, PPE, and mental health resources [36].

Trends in Limiting Burnout

The trend toward viewing physician burnout as a problem of the healthcare organizational culture and working environment has expanded the opportunity for both physician-directed and systemic or organization-directed interventions to reduce physician burnout and promote engagement. Engagement has been defined as the positive antithesis of burnout – characterized by vigor, dedication, and absorption in work [37]. Organization-directed interventions are more likely to lead to reductions in burnout, especially those that combine several elements such as structural

changes, fostering communication between members of the healthcare team, and cultivating a sense of teamwork and job control which tend to be the most effective in reducing burnout [38].

Nine organizational strategies to promote physician engagement have been identified by Shanafelt and colleagues [37]: acknowledge and assess the problem; harness the power of leadership; develop and implement targeted work unit; cultivate community at work; use rewards and incentives wisely; align values and strengthen culture; promote flexibility and work-life integration; provide resources to promote resilience and self-care; and facilitate and fund organizational science. These strategies are broadly applicable to healthcare organizations, including cancer centers.

Individual resilience is the ability to withstand and recover from stress and adversity in a healthy, adaptive way [39]. It is not possible to eliminate all the external stressors that contribute to burnout, and therefore physicians have a shared responsibility to build their immunity to stress and ability to tolerate uncertainty. For optimal performance, however, both the organization and the individual must be resilient [40]. The Triple Aim (enhancing patient experience, improving population health, and reducing costs) is a widely accepted approach to optimizing health system performance, which is threatened by the magnitude and ubiquity of physician burnout. It has been suggested that the Triple Aim be expanded to a Quadruple Aim, adding the goal of improving the work life of healthcare providers, including clinicians and staff [41].

Enhanced recognition and understanding of the prevalence and impacts of physician burnout has resulted in structural changes across many organizations, including hiring physician and executive chief wellness officers, developing interdisciplinary steering committees, and enlisting occupational health departments to examine employee illness and wellness in the context of potentially modifiable workplace stressors.

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Depression and Substance Use Disorders in Physicians

4

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Introduction

Being a physician can be one of the most rewarding and meaningful professional paths, but it can also be one of the most demanding and stressful occupations, as people's health and lives are at stake. Bearing this responsibility requires a career-long commitment of expanding one's knowledge and skill and working within the boundaries and challenges of the healthcare system one finds oneself in. In recent decades physicians have suffered a reduced sense of autonomy as a result of the surge in the administrative workload, concern for malpractice suits, and meeting business related expectations of today's commercialized healthcare systems [1–3].

Physicians are in no way immune to mental health disorders, and there is some evidence that they may have an increased prevalence of common mental disorders, including depression and anxiety, compared with the general population [4]. Oncologists in particular may be at risk of work-related distress due to the heavy workload and emotional demands of their specialty (e.g., having to relay bad news, witnessing more suffering, more frequent patient deaths, and being on the receiving end of patients' and families' anger and blame) [5]. Within the field of oncology, different specialties may have their unique challenges. For example, at a tertiary cancer center, medical oncologists often deal with patients with advanced stages of

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cancer, and both the patient and the doctor may have less ambitious expectations for cure. Therefore, patient's succumbing to cancer may not be as unexpected, although it is still difficult for everyone involved. On the other hand, in the field of hematology-oncology, many diseases have a high potential for complete cure, which elevates everyone's hopes for having a successful treatment outcome, but the treatment itself carries a high risk of multiple complications, many of which can be lethal, thus resulting in the painful crushing of hopes in the event of a patient's death. In addition, the day-to-day practice of taking care of patients whose medical condition can change rapidly and often remains tenuous for a prolonged period of time creates a level of chronic stress that can take its toll on a physician. Every phone ring, email, or message in the electronic medical record may trigger anxiety about another potentially serious issue that the primary oncologist has to address.

Unfortunately, there is a relative scarcity of research on the subject of mental disorders in physicians, with most of the literature offering primarily self-reported surveys of specific groups (i.e., medical students, residents, or certain specialties). Additionally, the majority of research is focused on depression (partly due to recently increased focus on burnout and suicide in physicians) and substance abuse. Clearly other kinds of mental disorders can afflict doctors, such as anxiety, bipolar disorder, attention deficit disorder, obsessive-compulsive disorder, etc., but the research in those areas is sparse, as far as their prevalence and impact on physicians. Depression remains of utmost concern because, just like in the general population, it is responsible for the most morbidity globally, leads to unfortunate outcomes like suicide, and seems to have biological ramifications (higher rates of cardiovascular disease, diabetes, accidents) as well as the multitude of psychosocial outcomes (such as divorce, poor relationships, and impact on work performance) [6]. Similarly, substance use disorders are as prevalent in physicians as in the general population, with the added concerns about their impact on patient care and safety.

Depression

Symptom Versus Disorder

Depression as a descriptor of emotion is common and its causes are usually multifactorial. The word "depression" is part of our daily vocabulary and as such, its use is frequent and highly nonspecific. Depression as a symptom may represent various emotional states, not always pathological in their nature or duration, as sadness is part of a normal range of human experience. When prolonged or severe, it may be a symptom of a disorder, such as an adjustment disorder, bereavement, underlying medical issues, or substance−/medication-induced changes in mood. In fact, depression often co-exists with a medical illness particularly in patients older than 60 years, the group also at a high risk for suicide [7]. Distinguishing these different diagnostic categories may require an expert evaluation and appropriate medical work-up.

Depression Versus Burnout

There has been a growing body of literature on the topic of physician burnout. A separate chapter in this textbook addresses the concept of burnout in detail, but we would like to point out the importance of distinguishing it from clinical depression while recognizing that the two conditions can certainly overlap and reinforce one another. Unfortunately, the overlap can lead to mislabeling depression as burnout, which can result in delayed treatment and prolonged suffering with potentially serious consequences for the physician's personal and professional life. Burnout is situation-specific and driven by a demanding work environment, coupled with insufficient resources. Given the robust stigma around psychiatric conditions, a physician may be more likely to conceptualize her or his problem as burnout rather than a psychiatric disorder [8]. It is important to note that psychiatric disorders, including depression, may be an underlying contributor to the development of burnout as well as a consequence of the unaddressed burnout syndrome. Depression and burnout are different, separate constructs, and both may be affected by a negative work environment, with only burnout improving concomitantly with positive work-related changes [9]. Depression is a mood disorder caused by underlying biologically determined psychopathology and, if untreated, will not improve just by work conditions becoming more favorable [6].

Depression as a Disorder

Major depressive disorder (MDD) is a serious medical illness with known neurobiological underpinnings. Genetic vulnerability, developmental adversity, and various psychosocial stressors are important variables, triggering and perpetuating the cascade of changes resulting in an actual depressive disorder. The weight of these factors can vary individually and the presence of protective factors can help mitigate their impact. By definition a disorder causes clinically significant distress and/or impairment in social, occupational, or other important areas of functioning.

Both the International Classification of Diseases (ICD 10) and Diagnostic and Statistical Manual (DSM-5) share the criteria for a major depressive disorder, which include persistent (1) depressed mood or (2) loss of interest/pleasure lasting for at least 2 weeks. In addition, during the same 2-week period, four or more of the following symptoms are present:

(3) Significant weight loss or gain or change in appetite
(4) Insomnia or hypersomnia
(5) Psychomotor retardation or agitation
(6) Fatigue
(7) Feelings of worthlessness or inappropriate guilt
(8) Diminished ability to think or concentrate, or indecisiveness
(9) Recurrent thoughts of death

Persistent depressive disorder (formerly known as "dysthymia") involves depressed mood for most of the day for at least 2 years. In addition, two or more of the following symptoms are present: poor appetite or overeating, insomnia or hypersomnia, low energy or fatigue, low self-esteem, poor concentration, and feelings of hopelessness. A reader interested in more detailed diagnostic criteria is recommended to turn to the two commonly used systems in nosology, the DSM-5 [10] and the International Classification of Diseases (ICD-10) for further information.

Prevalence of Depression Among Physicians

A broad range of workplace factors likely plays a role in contributing to a higher prevalence of depression and suicidality among physicians. These factors may include, but are not limited to, large workload, long and irregular working hours, pressure of patient and service demands, consequences of any errors, poor work-life balance, and the risk of moral injury if physicians are forced to work in ways that conflict with their ethics and values [11].

In a cross-sectional study of Austrian physicians, a response to the Major Depression Inventory (MDI), 10.3% of 5897 participants were found to be affected by major depression [12]. In a prospective study of more than 1300 male graduates from Johns Hopkins University medical school, the lifetime prevalence of self-reported clinical depression was 12.8%, similar to lifetime prevalence of major depression in US males [13]. The lifetime prevalence for self-identified depression in female physicians in the Women Physicians Health Study ($N = 4501$) was 19.5%, which is a rate similar to that in women in the general population and women professionals. Women physicians with a history of severe harassment in a medical setting, tobacco or alcohol abuse, sexual abuse, domestic violence, depression, suicide, or eating disorders were more likely to report their own attempted suicide or self-identified depression. It is noteworthy to mention that in this study a higher prevalence of attempted suicide was consistently associated with the characteristics also significantly associated with depression [14]. In comparison cross-sectional rates (15–30%) of depression in medical students and residents seem to be higher than in the general population [15–17]. A meta-analysis of studies involving resident physicians yielded a summary prevalence of 28.8%. A secondary analysis restricted to longitudinal studies found a significant increase in depressive symptoms among trainees after the start of residency. The median absolute increase in depressive symptoms among trainees was 15.8% within a year of beginning training [18].

Diagnosis

Depression in physicians may go underdiagnosed, underreported, and inadequately treated due to a number of factors. Fear of the stigma that views depression or other mental health issues as a sign of weakness is an important contributor. Other factors that may impact physicians' willingness to receive mental health treatment include

fear of licensure suspension, as well as perceived loss of time that one has to spend on clinical work [19–21]. At the same time, physicians are not always forthcoming with problems in their functioning [22]. Physicians' common perception of elevated knowledge of psychiatric illnesses may also impact the way they receive care, including self-prescribing [7]. Even when physicians are treated by other physicians, they receive "special" attention, which means that the treating physician often does not ask about sensitive information, thus perpetuating stigma and ultimately potentially providing worse care [6]. Physician's access to confidential and expert care is essential for successful treatment of clinical depression. The onus is on a treating psychiatrist to maintain clear professional boundaries while being aware of potential pitfalls of a colleague-to-colleague countertransference. Maintaining appropriate level of professionalism becomes much more challenging, if not impossible, when the treating psychiatrist is a personal friend or colleague at the same institution. Therefore, a physician in need of psychiatric treatment would be well advised to seek help from a specialist without any close professional or personal ties predating their treatment.

Impact on Personal and Professional Life

Untreated depression can have significant and sometimes devastating consequences beyond the individual suffering. These include, but are not limited to, a harmful impact on one's ability to function in various roles, including an intimate partnership, parenting, and broader social functions in one's community and workplace. Major depressive disorder has one of the highest levels of negative impact on work outcomes, higher than rheumatoid arthritis, ischemic heart disease, and other mood disorders, including anxiety [23]. Cognitive dysfunction (e.g., diminished concentration and attention, memory deficits, impairment in verbal learning and word finding, inattentiveness, mental slowing, and executive functioning) is one of the most common symptoms of MDD. It can lead to a decreased quality of work due to inattention to task details, failure to complete assigned tasks, and/or failure to follow through on assigned responsibilities. Unfortunately, cognitive dysfunction can persist even after symptomatic remission of depressive symptoms has been achieved [23]. Several studies have shown that even minor or subthreshold depression (including dysthymia) is related to poorer work performance. There is a strong linear relationship between depression symptom severity and the combination of work loss and productivity impairment [24]. A meta-analysis of seven longitudinal studies demonstrated that depressive symptoms in physicians are associated with future medical errors and that medical errors are associated with future depressive symptoms in physicians. In other words, the data suggest that the association between physician depression and medical errors is bidirectional. These findings underscore the need for institutional policies to remove barriers to the delivery of evidence-based treatment to physicians with depression [25]. Physicians reporting moderate to severe depression were two to three times more likely to report substantial impact on their work, personal roles, and satisfaction compared to physicians with minimal

to mild depression scores. What is even more concerning, these physicians were also more likely to avoid seeking treatment for their depression due to concerns about adverse effects on medical staff status or medical licensing and instead would often cope with their depression by "burying themselves" in their work [20]. Depression during residency was significantly associated with greater presenteeism (a term referring to working while ill) [26]. Practicing physicians with psychiatric disorders often encounter overt or covert discrimination in medical licensing, hospital privileges, health insurance, and/or malpractice insurance. It is reasonable to infer that physician's concern about disclosure of mental health records is widespread, although studies are lacking [7].

Treatment

Treatment of mood disorders can lead to better physician mental health and productivity, fewer suicides, and better physical health [7]. However, physicians are known to be reluctant to seek mental health care. They are actually more likely to self-prescribe or ask a colleague to provide antidepressants [27]. The frequency with which physicians appear to self-prescribe antidepressants and feel forced to forgo mental health care, to seek care in a haphazard or secretive fashion, or to leave their medical community altogether for treatment is particularly unfortunate and worrisome. This deserves more detailed study and intervention [21]. A workplace culture that places a low priority on physician mental health may pose an additional barrier to care [28].

On an individual level, treatment of clinically significant depression is not different from what would be recommended for non-physicians. It generally includes antidepressants (particularly for moderate to severe forms of depression) and/or individual psychotherapy. Ideally treatment is based on expert evaluation and tailored to the needs and preferences of an individual suffering from depression. There is no "one size fits all" treatment approach as there are multiple variables contributing to the onset and perpetuation of symptoms. For recurrent or treatment resistant depression, different treatment strategies may need to be employed. Treating to full remission may be particularly important given the problem of clinical inertia that depression treatment often poses, that is, lack of follow-up or treatment adjustments for patients started on antidepressants [24]. A detailed description of various antidepressants and psychotherapies is beyond the scope of this chapter.

Substance Use Disorders in Physicians

Mikhail Bulgakov's 1927 novel *Morphine* offers a beautiful, yet dramatic account of the lengths an addicted physician can go before properly asking for help and the consequences of this reticence. Polyakov, the protagonist, first takes morphine to

ease a gastrointestinal ache and, to his surprise, discovers that not only it is effective against physical pain but that it also lightens the sufferings of a broken heart. For the first time in months, he manages to sleep: "I had a good, deep sleep — without any thoughts of the woman who deceived me." Morphine, he finds, also provides him with an "extraordinary clarification of thought and an explosion of capacity for work." The rest of the novel describes magnificently his gradual descent into the deepest recesses of addiction, as he starts hallucinating and gradually withdraws from his friends and society. The pages of Polyakov's diary reveal the constant struggle between self-reproach, regret, and fear, as well as the need to deny how much of the threat morphine has become to the doctor. Eventually he is able to ask for help, although he writes to a friend, rather than a psychiatrist, and it is already too late. This cautionary tale uncovers what may seem a taboo for society: physicians are not immune from substance use and dependence. Descriptively, all the main elements of addiction are there, especially the difficulty seeking help by "impaired" physicians.

While being a physician can be fulfilling and rewarding, in fact, the job is also fraught with heavy responsibilities, intense commitment, and preoccupations that might lead to high levels of mental distress. In some instances, substance use becomes a way to self-medicate.

At first glance, literature on substance use among physicians may seem scattered and relatively scarce, which is unfortunate, especially considering the potential harms that result from substance use disorders. Inevitably, conducting a study in this area will meet the same barriers that prevent potential participants from admitting their problematic substance use and seeking help. Among them, the first and foremost is the fear of stigmatization and adverse legal consequences [29, 30].

The landmark study "The Sick Physician: Alcoholism and Drug Dependence," promoted by the American Medical Association Council on Mental Health and released in 1973, was among the first worldwide attempts to acknowledge this issue in the scientific literature and contributed to lifting the veil on a controversial subject that was previously unaddressed [31]. Since then, other reports have shed additional light on this phenomenon, in parallel and thanks to the growth of various Physician Health Programs (PHPs) [31, 32]. Still, the field might be biased by an imbalance of a far greater number of studies from the United States, compared with other countries [31].

Physicians engage in the use of illicit substances and alcohol no less than individuals in the general population [33–35]. This represents a relevant personal and societal problem, to the extent that in 2014, the state of California evaluated a proposition that would prompt random testing for alcohol and illicit substance use among physicians. However, the proposal was eventually dismissed [36, 37]. To our knowledge, very few studies have addressed the issue of harmful consequences for patients due to SUDs in physicians. In this regard, it is alarming that patients may accept to be seen and treated even if they realize the physician is under the influence of alcohol [38, 39].

Epidemiology

The epidemiology of substance use disorders (SUDs) in a medical profession relies on limited sources of data. A number of surveys are based largely on self-reported measures, rather than structured interviews, and only partly allow diagnostic considerations [35, 40–43].

The other main stream of data for research is collected in the context of primary care providers (PCP), where addicted physicians are treated either by mandate or spontaneous help-seeking [31, 40, 44–46]. The interpretation of results needs to take into account the possibility of a selection bias: as expected, surveys yield relatively low response rates (around 20–60% with few exceptions) and may lead to an underestimation of the problem, whereas reports based on PCP populations may be affected by the different characteristics of physicians who end up in treatment programs, in terms of a higher prevalence of SUDs, different patterns of substance use, and, possibly, a greater tendency to self-disclose [30].

With these caveats, it has been estimated that between 8% and 15% of physicians report having experienced any type of SUD at some point in their lives, which is usually considered in line with figures from the general population [30, 34, 47–49]. This estimate is mostly due to alcohol abuse or dependence. For instance, in a recent electronic survey among Danish physicians, 18.3% obtained a score of 8 or higher in the Alcohol Use Disorders Identification Test (AUDIT), indicating either hazardous, harmful, or dependent alcohol use [42]. A similar figure (15.3%) was detected within a survey of US physicians [35], while even greater estimates (20–25%) were detected in studies from Germany or Japan [41, 43, 50]. Male physicians in particular, as well as physicians in rural areas and older professionals, might be at a higher risk for alcohol abuse [51]. Likewise, with few exceptions, alcohol fares as the most used substance among help-seeking physicians, especially of older ages, possibly because of its widespread legality around the globe [31]. For instance, among physicians enrolled in various state Physician Health Programs (PHPs), alcohol was the primary substance of abuse (50.3%) [44].

Younger doctors, students, or residents may be more prone to using cannabis, especially in the wake of anti-prohibitionists initiatives in several countries [34]. Estimated rates of prevalence of use of other substances, including cannabis, stimulants, and opioids, are generally lower, although far more variable. Only a handful of respondents endorsed having used illicit substances in a recent survey of 920 German physicians [41], while between 1% and 3% reported their use in the United States [35]. Among physicians receiving treatment for substance use disorders, opioids were the second most used substance after alcohol (35.9%), followed by stimulants (7.9%) and other substances (5.9%). Half of the sample reported having used multiple substances [44].

Diagnosis

Although the ICD-10 and DSM-5 classification systems are not identical in their criteria of substance use disorders, they both describe the wide spectrum of the disorder, from mild to more severe forms of chronically relapsing, compulsive drug taking. By definition a disorder implies a problematic pattern of alcohol or drug use leading to clinically significant impairment of functioning or distress.

Clinical presentation of a substance use disorder in a physician can be subtle and difficult to recognize, especially from the perspective of colleagues. Signs of use of alcohol or other substances that are readily cleared from the body might go unnoticed even for years, especially considering that physicians may tend to protect their work performance over other aspects, including social, family, and personal life [33]. It has been suggested that intravenous drug or opioids use may be more rapidly progressive, so that a shorter time (i.e., few months) might elapse from the first abuse to detection [48]. Samuelson and Bryson proposed a series of behaviors and symptoms that may prompt a clinical suspicion of a problematic substance use from the perspective of colleagues [48]:

- Mood swings (e.g., irritability, anger, euphoria, and depression)
- Withdrawal from acquaintances, reduction in leisure activities
- Increased time spent at work
- Volunteering for extra calls
- Avoiding contact with colleagues
- Frequent bathroom breaks
- Increased quantities of narcotic prescriptions
- Physical changes

Some of these behaviors are correlated with a tendency to self-prescribe or directly access drugs with an addictive potential; hence few of these behaviors can be generalized to non-prescription substances, such as cannabis, alcohol, or street drugs [32, 34].

Chronic use of substances of abuse has been associated with numerous brain abnormalities, including structural and functional changes across different cortical areas involved in executive functioning and cognitive, emotional, and behavioral functions. The nature of a resulting cognitive impairment largely depends on the substance of choice and has been recently indicated as an additional subtle detrimental feature among physicians who suffered from a substance use disorder [52].

The issue of psychiatric comorbidities (e.g., depression, anxiety, bipolar disorder, personality disorder) is particularly relevant for a significant number of physicians with SUDs, increasing the likelihood of persistence of both disorders, as well as risk of unsuccessful treatment [34]. Some studies indicate that about 50% of

physicians, particularly females, with a SUD were affected by a clinically significant additional mood or anxiety disorder [30]. The relative lack of longitudinal data prevents us from the full understanding of the causal relationship between these disorders. Several surveys detected meaningful associations between substance use and burnout, depression, and suicidal thoughts [32, 35]. Indeed, the most common comorbidity identified by studies is of alcohol misuse and affective disorders [34].

Across different specialties, substance use disorders may vary in terms of the "drug of choice." Anesthesiology has been indicated as the field which is most frequently haunted by substance misuse [48]. Although anesthesiologists comprised about 3% of physicians, their prevalence reached 13% among those who were treated for SUDs [47]. A study of 44,612 anesthesiology residents, between 1975 and 2009, showed rates of SUD as high as 0.86% during training, with most common substance category being intravenous opiates. The same study underlined an important risk of relapse (43% by 30 years after the initial episode) during follow-up, pointing toward persistence of risk after the completion of training [49]. Opiates, propofol, and ketamine have been indicated as the most used agents, followed by inhalational agents and benzodiazepines [48]. A better knowledge and availability of prescription drugs in these categories may explain these findings [34, 35, 44]. Other fields of medicine seem to present with higher rates of SUDs as well, including emergency medicine, psychiatry, surgical specialties, dermatology, and primary care, whereas pediatricians and internists tend to present with lower rates of substance misuse [34, 35, 44]. Existing studies also suggest differences in the choice of the substance: emergency doctors have a higher tendency to use illicit drugs, while psychiatrists gravitate toward benzodiazepines [48].

Risk Factors

Available studies have attempted to highlight possible risk factors that may help to identify or prevent SUDs, specifically among physicians. The diversity of populations in terms of source, specialty, and type of substance use may explain the inconsistencies of findings reported by different studies. In two recent surveys on physician alcohol abuse, the peak of heavy drinking habits was evident among males in their 60s or younger females; heavy drinking was also associated with insomnia, cigarette smoking, and working in a countryside [50, 51]. Other studies have found younger age to be associated with alcohol use [35]. Among help-seeking groups, there seems to be a relatively greater prevalence of women [53]. Having a comorbid psychiatric illness, prior history of substance use or treatment, as well as family history of substance use disorders seems more common among physicians with SUDs, similar to the rates of these factors in the general population [48]. Personality traits of perfectionism, high self-criticism, and low self-esteem are also common, as well as tendency to deny emotional needs or stressful life conditions [32, 34, 44, 48, 54, 55]. Besides having easier access to controlled substances in a workplace, particularly opioids [44], other characteristics of the work environment

may facilitate the onset or relapse of SUDs in physicians: high job demands, work-home imbalance, and occupational distress, particularly within highly competitive environments [32, 34, 48].

Treatment

The experience of Physician Health Programs (PHPs) shows that, when appropriately treated, physicians with substance use disorders can recover and return to work, even better, on average, than individuals in the general population [34, 44, 46, 52, 56]. On the other hand, the decision to seek treatment is often rejected or delayed on the grounds of self-misdiagnosis or attempts to self-medicate, sometimes up to 6–7 years since the onset of a problem [34]. Refusal to seek help is often based on denial or fear of stigmatization. This may entail a failure to recognize having a problem with substances or, even if the problem is acknowledged, unwillingness to take action [30]. Denial may take the form of underestimation, or elaborate rationalizations, especially among physicians who display traits of perfectionism, perseverance, and independence – essentially the same traits that might have been adaptive to reach professional accomplishments in the past but may now hinder the acceptance of a patient role in the present, because of shame and other negative feelings brought about by the stigmatization of SUDs [30, 57–59]. Many physicians view help-seeking as linked with negative consequences in their profession, including the possibility of disciplinary hearings, suspensions, malpractice lawsuits, or even license withdrawal, which might sometimes happen but is much more unlikely among those who adhere to a treatment program [30, 44, 60]. Unfortunately most physicians seem to mistrust colleagues regarding their ability to keep confidentiality, especially where reporting is mandatory. Asking for help is feared to feed rumors and derision, although the results of a recent survey seem to reveal more empathic views by professionals [61]. Finally, treatment can be delayed by fear of potential familial, social, and economic repercussions, as well as by perceived loss of status or by equating help-seeking with a sense of personal failure [30, 34, 48].

Knowledge of the therapeutic approaches and outcomes of SUDs in physicians is largely derived from the experience of PHPs in the United States, particularly by the Blueprint study [31, 40, 44]. Despite high variability in the provision and strategies of care, PHPs have been established in the majority of US states [32]. Similar initiatives have been developed in other countries such as Canada,[1] Australia,[2] United Kingdom,[3] Italy,[4] Spain,[5] Norway [62], Switzerland,[6] and others [63]. The Federation of State Physician Health Programs has recently issued specific

[1] https://www.cma.ca/physician-health-and-wellness.

[2] http://www.vdhp.org.au/website/home.html.

[3] http://sick-doctors-trust.co.uk/; https://www.dsn.org.uk/; https://www.practitionerhealth.nhs.uk/.

[4] https://www.ctstorino.com/helper.

[5] https://www.fpsomc.es/paime_fott.

[6] https://remed.fmh.ch/en/.

guidelines for treatment of SUDs.[7] A detailed description of treatment strategies is outside the scope of this chapter, but in short, they all serve two main functions of PHPs, namely, protecting patients and rehabilitating physicians [31]. Treatment principles include the following: immediate response and highly confidential treatment, specialized treatment setting and staff, peer-group therapy, long-term follow-up program (usually around 5 years) with random drug testing, family involvement, plans for reentry into practice, advocacy, and relapse contingency plans [31, 34]. The treatment of physicians with SUDs generally starts either with residential (69% of patients in a recent study) or intensive day treatment programs (31%) followed by less intensive outpatient visits [40]. Treatment programs may include participation in community recovery support groups such as caduceus groups, Alcoholics Anonymous, and Narcotics Anonymous, which have been positively appraised by participants and have generally positive outcomes [64]. Overall, after 5 years of care, the vast majority (78%) had all negative drug or alcohol screening test results and were reinstated to practice (72%), with no differences according to physicians' specialty [31, 32, 40, 46, 56, 65, 66]. Moreover, the relapse rates for substance abuse have been estimated as two to three times lower than in the general population, although they tend to be higher among those with major opioid use, dual diagnosis, and family history of substance use disorders [51, 65, 67]. The experience of PHPs suggests that structured, long-term programs may produce good clinical outcomes and return to work, although help-seeking represents the most difficult step for many affected physicians.

Conclusion

Mental health disorders in physicians are common but often underdiagnosed and untreated. There are many important variables contributing to the prevalence of these disorders and potential barriers to their treatment. Physicians themselves are frequently reluctant to seek help. When untreated, mental health disorders can have a profound impact on a physician's personal and professional functioning.

Promoting and supporting proper self-care should be considered a professional imperative on an individual, institutional, and societal level. Within the healthcare setting, any effective strategy to enhance physician well-being must be multilayered and supported by the institutional stakeholders, as well as embraced by physicians themselves. Institutional leaders should emulate desired wellness behavior, leading by example. A resilient and satisfied workforce will be best equipped to care for patients. It is important for healthcare institutions to develop systems and resources to promote wellness for employees. The expenses and effort to address this issue can be offset by decreased cost in turnover, recruitment, and training of new staff [68]. Above all, patients need their doctors to be healthy in order to receive reliably effective, safe, and compassionate health care.

[7] See also https://www.fsphp.org/ and https://www.idaa.org/.

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Suicide and Suicide Risk in Physicians

5

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Introduction: Burnout and Compassion Fatigue Among Physicians

Burnout is defined as a state of vital exhaustion and is included in the International Statistical Classification of Diseases and Related Health Problems (ICD-10) under the section "problems related to life-management difficulty." The term "burnout" was first introduced by Herbert Freudenberger in 1974 after observing several symptoms, including emotional distress and psychosomatic symptoms, in clinic employees in the United States. Freudenberger [1] defined burnout as a syndrome characterized by "excessive demands on energy, strength, or resources" in the workplace that includes different symptoms, such as malaise, fatigue, frustration, cynicism, inefficacy, and hopelessness. Subsequently, Christina Maslach, a social psychologist, described job burnout as a syndrome comprising different features, including emotional exhaustion, cynicism, depersonalization, and low personal accomplishment or efficiency in different types of workers, thus highlighting a connection between emotional alterations and job stressors [2].

Burnout syndrome typically manifests in employees working in service occupations, such as healthcare, that are marked by a high degree of interpersonal contact.

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Additionally, the syndrome appears to be prevalent in professionals who have a high degree of perfectionism and feel guilty if they are not performing up to their expected standards [3]. The syndrome has been observed in physicians, nurses, social workers, therapists, and a variety of other healthcare workers.

A related concept to burnout is the experience of compassion fatigue [3–5]. Compassion fatigue has been described as the lost ability to care subsequent to a "snowballing process" of relationship and moral distress that impacts caregivers working to serve high-need people [3, 4]. Compassion is central to the practice of medicine; the desire to help alleviate others' suffering is the main reason many choose the profession [5]; thus, loss of this capacity often results in frustration, avoidance, and general emotional numbing [3].

In an effort to delineate these two concepts, researchers [3, 4] have noted that burnout tends to be more connected to environmental factors like mismatches in expected workload, autonomy, rewards, values, and fairness, while compassion fatigue seems more connected to interpersonal stresses related to observing continuous suffering (Fig. 5.1).

The rate of burnout among physicians is alarming [6]; over half of physicians in the USA have symptoms of burnout at some point in their career [7]. Indeed, while protective factors in the general population include higher levels of education and professional degrees, one notable exception to this is the medical degree, which seems to increase risk. Physicians working on the front lines of healthcare, including in specialties such as oncology, anesthesiology, emergency medicine, family medicine, internal medicine, and obstetrics/gynecology, are at an especially high risk of

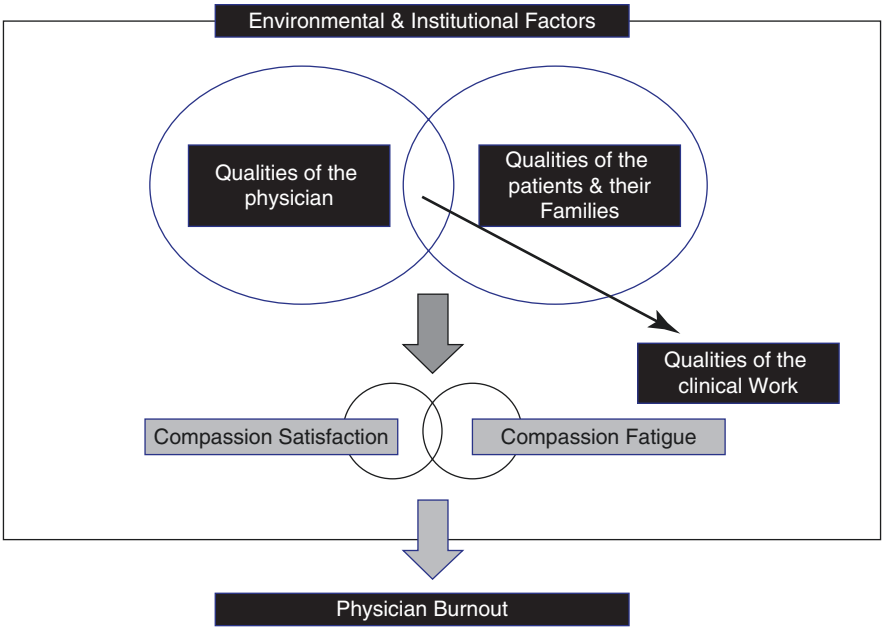

Fig. 5.1 Model of physician burnout. (Adapted from [4, 5])

burnout [7]. Burnout appears to be more frequent in females than males [8, 9] and is conceptualized as a physical and mental response that arises in relation to chronic occupational and interpersonal stressors and continues over a period of time. Indeed, Dyrbye et al. [10] found that although the types of stressors may change for physicians over the course of their career, work-related stress was a continuous feature of the profession. Burnout syndrome may develop slowly over the course of a year, beginning with mild and subthreshold symptoms such as tiredness and a lack of energy that are often followed by more disabling physical, emotional, and psychic symptoms [11] that may occur alone or in combination with other clinical presentations. Physical symptoms include chronic fatigue, cardiovascular issues, cognitive dysfunction, insomnia, and gastrointestinal complaints, while emotional symptoms mainly include anger, depressive symptoms, anxiety, and depersonalization.

The presence of burnout symptoms can undermine physicians' professional development and can contribute to carelessness, a lack of commitment, increased risk of error, and additional risks to patients.

The worst consequences of burnout and compassion fatigue include depersonalization, i.e., the treatment of patients as objects rather than human beings, altered clinical relationships with patients, a sense of inefficacy, decreased work productivity, dissatisfaction, and a higher risk of professional error [12]. Furthermore, the persistence of a difficult and exhausting work situation contributes to the development of exhaustion or cynicism, which in turn decreases physicians' sense of effectiveness. Burnout syndrome also puts physicians at risk of developing other psychological and psychiatric disorders, including depressive and anxious symptoms, alcohol abuse, drug dependence, and suicidal risk [13]. A growing amount of literature has stressed the impact of burnout on patient satisfaction, physician-patient relationships, and healthcare outcomes. Research findings have emphasized the link between physician burnout and both job satisfaction and patient satisfaction, between job satisfaction and patient satisfaction, and between job satisfaction and patient-reported adherence to medical advice [14]. Occupational stress also negatively impacts physicians' work performance, reduces the quality of patient care [15], and influences work absences due to sickness [16] and the decision to leave the profession [17].

From an etiopathogenetic point of view, burnout is not caused by a single factor. Like many other syndromes in traditional medicine, a multifactorial model may better explain the manifold causes of this very high prevalence in physicians. Several studies have proposed a model of burnout development in which personality and environmental factors play a role and exert varying degrees of influence at different stages of the burnout process [18]. Burnout models generally evaluate the influence of job demands, requests, and available resources that are stressors or moderate the stressor-strain relationship. Several external factors are implicated in the genesis of burnout syndrome among physicians, including the loss of autonomy (e.g., the ability to decide when to see patients and the amount of time to spend with each patient), medical and administrative rules, intense feelings of powerlessness (especially in physicians who work with populations in poor socioeconomic situations), work organization, financial issues, interference with family and social life, relationships with colleagues and patients, and work demand (long hours, workload, and

Table 5.1 Risk factors for burnout

Risk factors for burnout
Junior physicians: Oncology fellows, physicians ≤ 5 years from training completion
Single, unmarried/nonpartnered physicians
Personality characteristics: Compulsiveness, extraversion, type A behavior
Increased time in direct patient care
High occupational demands
Lack of control over daily tasks
Increased administrative responsibilities
Use of electronic medical record systems
Limited decision-making
Unclear job expectations
Lack of social support
Changing healthcare system
Care of patients who are terminally ill with cancer

pressure) [16, 19]. Another heavily researched area evaluates the role of environmental stressors, with one study finding that US physicians spend 2.6 hours/week complying with external quality measures instead of visiting patients [20], thus highlighting the amount of time that physicians spend performing administrative and clerical work. The aforementioned groups of variable factors are important to investigate because they have an important effect on mental health as it applies to workplace health. Once clearly defined, these variable factors may be modified to reduce their impact on the mental health of physicians (see Table 5.1).

Fernando and Consedine [5] also note that physician compassion is not a depletable resource, and rather than tiring, the experience of compassion is often transactional, rewarding, and pleasurable. This positive experience of compassion satisfaction oscillates with compassion fatigue depending on a number of factors. Fernando and Consedine [5] observed that compassion (both satisfaction and fatigue) are the result of the interplay of dynamic influence of the patient and their families, the nature of the clinical work, and other institutional and environmental factors and that compassion satisfaction can offset experiences of burnout and compassion fatigue.

Of note, several of these risk factors for burnout are also considered psychosocial hazards for workplace-related suicide [21].

Depression and Suicide Risk Among Physicians

Studies have demonstrated that the prevalence of several mental diseases in physicians is higher than in the general population [22]. The most frequent disorders among physicians are alcohol use, prescription drug use (minor opiates and benzodiazepine tranquilizers) [23], and depression [24], and there is a significantly higher suicide rate in physicians than in the general population [25].

Table 5.2 Consequences of physician burnout

Patient care
Lower care quality
Medical errors
Longer recovery times
Lower patient satisfaction
Physician health
Substance abuse
Motor vehicle crashes
Poor self-care
Depression – Suicidal ideation
Healthcare system
Reduced physician productivity
Increased physician turnover
Less patient access
Increased costs

Although physicians acknowledge that they have burnout symptoms or symptoms of a psychological-psychiatric origin, a delay in the request for help has been noted. Physicians usually deny the existence of their problems [26] because asking for help could be interpreted by their colleagues and patients as a professional weakness or disability. The medical profession is generally perceived as a very stressful occupation, and although some stressors in the healthcare settings cannot be modified, such as the management of incurable patients or the proximity to human suffering, there are other variable stressors that are involved in the genesis of burnout syndrome, compassion fatigue, and depression in physicians. Depression and burnout syndrome represent significant mental health problems in physicians that may result in reduced work performance [27, 28]. Consequences of burnout are reported in Table 5.2.

Depression is a disorder characterized by a change in mood and a loss of interest or pleasure in daily activities that is sustained over time. It is characterized also by symptoms related to irritability, anhedonia, weight and appetite change, sleep disturbances, changes in activity, fatigue and loss of energy, feelings of guilt and worthlessness, problems with concentration, and suicide risk. Several studies have demonstrated that the risk of depression is higher in physicians than in a comparable lay population [29]. In a review and meta-analysis of studies describing the prevalence of depression and depressive symptoms in medical residency, Mata et al. [30] found an overall incidence of 28.8%, with a range of 20.9–43.2%. It is notable that the prevalence increased significantly over the course of the first year of training and progressively in subsequent years. Recent meta-analyses of global studies estimate an overall prevalence of 27% in medical students, 29% in residents, and up to 60% in resident doctors [31]. However, the prevalence of depression in physicians is difficult to accurately assess due to wide variations in diagnostic measures and large differences in depressive symptoms between countries and medical specialties. Since only 35% of physicians have a regular source of healthcare, depression may

be under-recognized in this population as compared to other professions. Although depression may affect anyone, the risk is increased by genetic predisposition, early traumatic life events, later bereavements, illnesses, relationship breakdowns, poverty, unemployment, and problems caused by substance use.

Stress as a precipitating factor for depression is an important feature, especially in physicians. Causes of work stress may vary among different medical specialties: family practitioners may face increased primary care demands coupled with shrinking resources, while emergency care doctors and oncologists may suffer elements of posttraumatic stress [32]. Because many have dedicated a significant part of their life to developing the skills and status of a physician, many form a "single source identity" around their profession. Whenever anything threatens this identity – complaints, poor health, or conflicts – the "fall seems so great."

While personal attributes generally ensure patients are well cared for, they also increase physicians' risk of developing mental health problems. Conscientiousness, obsessiveness, and perfectionism may be more common in doctors, perhaps leading to rigidity, over-commitment, self-criticism, and an inability to unwind and replenish their inner resources. An inflated fear of making mistakes and a sense of diminished patient care may result in physicians experiencing overwhelming feelings of guilt, failure, shame, and low self-esteem. Failure to cope, coupled with the significant stigma that accompanies mental health problems, may dissuade many from disclosing their depression.

Suicide is best understood as the tragic result of multifactorial factors, including individual health, behavioral health, and environmental factors. For instance, a person at risk for suicide may have poorly managed mental health conditions, such as depression and bipolar disorder while also experiencing environmental factors like divorce, a death of a loved one, and unresolved childhood trauma. While factors like these are often listed when considering risk factors for suicide, aspects of the work environment are often overlooked, and in the medical professions, this oversight is proving to be deadly.

Suicidal ideation is more frequent in physicians who are suffering from significant stress, burnout, and depression. Physicians' suicide attempts are more fatal than the general population. Suicide risk increases in medical school but dramatically accelerates once trainees enter graduate medical education programs. One study reported an increase from approximately 4% during the pre-internship period to about 25% during the internship years. Sen et al. showed that the frequency of suicidal ideation increased approximately fourfold during the first 3 months of the internship [33]. Compared with the general population, the relative risk of suicide is 1.4 in male physicians and 2.3 in female physicians. In addition to a higher percentage of attempted suicides, physicians also died of suicide at a higher rate than the general population, in part because of their enhanced knowledge of toxicology and other suicide techniques. Interestingly, despite a considerably higher risk of suicide in men than women in the general population, female healthcare workers present higher suicide rates than men.

Physician suicide rates are not homogenous between all countries, and physician satisfaction has been reported to differ between different epochs of time (Kalmoe et al. 2019). Some medical specialties have been suggested to be particularly at risk of depression and suicide, and several occupational features seem to correlate with an increased risk of depression and suicide in different medical or surgical specialties; trauma and suffering probably contribute in the genesis of suicide risk. A heavy workload and working hours, including long shifts and unpredictable hours (with associated sleep deprivation) and situational stress (life-and-death emergencies), are related to burnout, depression, and suicide risk.

Bringing these concepts together, Joiner's [34] model of suicide risk helps clarify how physician experiences of burnout, compassion fatigue, and depression and environmental factors of medicine are connected to suicide risk. In his book *Why People Die by Suicide*, Joiner [34] explains that those who kill themselves not only have a desire to escape overwhelming emotional pain by dying, they have also learned to overcome the instinct for self-preservation. The theory states that the risk of suicide is partly explained by the convergence of three factors: perceived burdensomeness, thwarted belongingness, and capability. Burdensomeness can be experienced by physicians who are experiencing the consequences of burnout (e.g., loss of self-efficacy or clinical error) and disconnection from compassion fatigue. These experiences drive the "I want to" part of the suicide risk equation; however suicidal thoughts without action are common and not fatal; the risk comes from the capability for suicide – or the "I can" part of the risk equation. Joiner argues that those who have the ability to be fearless about suicide are more likely to die by suicide or have very lethal attempts. The capability for suicide comes from exposure to painful and provocative life experiences and the knowledge and skills for lethal self-harm (Fig. 5.2).

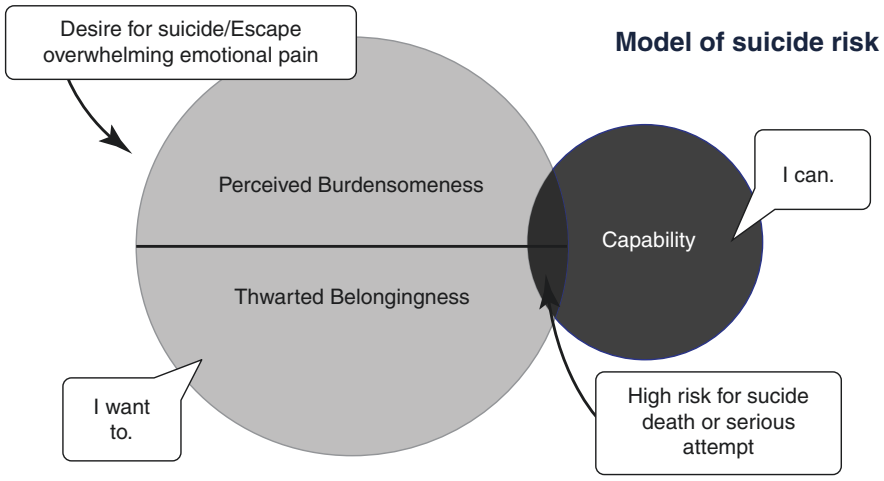

Fig. 5.2 Model of suicide risk. (Joiner [34])

Burnout Among Oncologists

Several medical specialties are considered to be at high risk of psychological stress. Although burnout and depression among physicians have received increasing attention, they still remain under-investigated in several medical specialties. Burnout and depression symptoms are overlapping yet distinct entities, and several medical specialties seem to be at greater risk of both syndromes. Specialists at the highest risk are oncologists, anesthesiologists, psychiatrists, general practitioners, and general surgeons.

Burnout is elevated in oncology, with a prevalence of 25–35% among medical oncologists, 28–36% among surgical oncologists, and 28% among radiation oncologists [35]. Environmental, occupational, and organizational risk factors specific to oncology include increased time in direct patient care, high occupational demands, a lack of control over daily tasks, increased administrative responsibilities, the use of electronic medical record systems, limited decision-making power, unclear job expectations, a lack of social support, and the changing healthcare landscape [36]. Constant life-and-death decisions, the administration of potentially toxic therapies, long work hours (63 hours/week), reduced work/life balance, and the limited ability to prolong life for many patients may also contribute to burnout [37]. Physicians who are dedicated, motivated, or even overinvolved, or who maintain poor boundaries or continuously try to prove their worth probably, are more susceptible to burnout even in relation to coping or defense mechanism used.

Many studies have demonstrated the global scale of burnout in medical oncology among different healthcare systems [38, 39]. In 2005, a survey study by Allegra et al. of over 1700 oncologists revealed that nearly 62% of oncologists in community practice in the USA reported specific burnout symptoms, including the top three signs: frustration (78%), emotional exhaustion (69%), and a lack of work satisfaction (50%) [Hlubocky et al., 2016]. A more recent study found that 45% of American Society of Clinical Oncology (ASCO) member medical oncologists have reportedly experienced emotional exhaustion and/or depersonalization symptoms related to burnout [37]. In Europe and Australia, burnout rates vary significantly, ranging from 52% to 78% depending on the medical oncology specialty, practice, healthcare system, and screening tools used [40]. For example, in France, a mailed survey study that evaluated 340 medical and radiation oncology fellows using the Maslach Burnout Inventory found that 44% believed burnout was prevalent and associated with a low perception of health status and a desire to leave medicine [41]. In Australia, 36% of gynecologic oncologists surveyed reported a high degree of emotional exhaustion, with 43% reporting a desire to leave their current position, 29% considering retirement, and 57% reporting a desire to reduce work hours [40]. Large-scale studies regarding the incidence and development of burnout are currently underway, and it is hoped that they will provide important information regarding the identification of risk factors as well as the implementation of individual and institutional interventions to address this increasingly burdensome phenomenon.

Aside from the high patient volume and other stressors that are common across many disciplines, oncologists must also work to preserve life, mitigate

complications, and negotiate death. In fact, the latter stressor (dealing with death) underlies most of the other routine stressors in oncology, as defined by Medisauskaite et al. [42]. These stressors include dealing with distressed or blaming relatives, coping with patients suffering during treatment, feeling disappointed about cancer treatment options, coping with unrealistic expectations about cancer treatment, delivering bad news, worrying about patients outside of work, worrying about withdrawal or inappropriate continuation of cancer treatment, and communicating with crying or distressed patients. Patients are constantly in precarious situations that require care and attention, and these tasks can become habituated and compartmentalized for the oncologist in the service of providing objective information and sustaining boundaries. For the most part, oncologists care deeply about their patients, and this process is not always maligned. However, problems arise when the approach becomes fixed and physicians do not vary their approach to different kinds of patients.

A recent study found that oncologists who were involved, or had additional training, in psychosocial issues in oncology were much less likely to suffer burnout or experience depersonalization in their practice [37].

Oncology is exciting because of the privilege of working with new and expanding science and helping patients get better, but oncologists remain on the front lines between life and death. Although this may not be directly associated with burnout (burnout appears to be more closely linked to work load, administrative tasks, and professional satisfaction), it contributes to depression and subsequently to suicide. Today's death-denying culture may contribute to the loneliness that physicians feel in their work. In addition, the higher the mortality salience of the patient situation, the more likely it is that communication and empathy may suffer, which may partly explain why oncologists historically have a difficult time guessing the distress levels of their patients or their current psychological states [37]. This may also explain why communication skill training is vital for oncologists. At the same time, the high risk of errors and other consequences of decisions can lead to moral injury, and all these factors can weigh heavily on the oncology work environment.

Burnout and Suicide Risk Among Other Medical Specialists

Anesthesiologists also have a high risk of suicide, which may be due to easy access to potentially lethal drugs, a high prevalence of burnout, a high workload with fear of harming patients, organizational burden, poor autonomy, and conflicts with colleagues. In a study of approximately 1500 anesthesiology residents, De Oliveira et al. [43] found a burnout risk of 41% in trainees. Burnout predictors included female sex, more than 70 work hours/week, and the consumption of more than five alcoholic drinks per week. A Canadian study on the well-being of interns and residents indicated that significant stressors, including financial debt, were present at a high level in a third of trainees and that 18% of the trainees studied reported their mental health to be either fair or poor. The demands of constant vigilance and the acuity and significance of decision-making are other

elements of anesthesiology practice that create stress for many practitioners [44]. In addition, the relative isolation in which most anesthesiologists work also contributes to stress. The nature of the intraoperative environment and the practice of anesthesiology make it difficult to have ongoing discussions, consultations, and collaboration. Staffing patterns do not include easy backup plans and there is a culture of reluctance to ask for help. These factors can create situations in which anesthesiologists continue to work following a poor outcome or challenging case rather than calling a peer to allow time for debriefing, counseling, or recovery from the event [44]. The isolated aspect of anesthesiology residency training and practice decreases the ability of these practitioners to compare experiences and performance with colleagues, which can lead to inappropriate feelings of low self-esteem and decreased confidence. These factors, plus easy access to drugs that can be diverted and abused, convey particular risk to practicing anesthesiologists and trainees and may confound the reporting and incidence of attempted and completed suicide in the anesthesiology community. The topics of drug diversion and substance abuse are beyond the scope of this article but are addressed elsewhere in this issue of the journal.

Other medical specialties at high risk of burnout or suicide include psychiatrists, general practitioners, and physicians dealing with life-and-death emergencies [45]. For psychiatrists, the high risk of suicide has been linked to stressful and traumatic experiences, including the suicides of patients. For general practitioners, moral loneliness, job interferences with family life, constant interruptions both at home and at work, increasing administrative constraints, and high patient expectations lead to low job satisfaction and poor mental health [46]. Physicians and surgeons involved in life-and-death emergencies are also under a high degree of stress [14]. It has been shown that intraoperative death increased the morbidity rate for patients operated on by the same surgeon in the subsequent 48 hours, with this rate being more pronounced when the death occurred during emergency surgery [47]. Furthermore, burnout also plays a role in the development of major depression and substance abuse. With this context, it is easy to understand why physician burnout may seriously affect job performance and well-being, as well as the quality of patient care.

Conclusions and Recommendations

To implement coordinated and synergistic preventive strategies, we need to both identify physicians with mental health conditions and how our workplace environments may be driving burnout, compassion fatigue, and suicidal despair [48]. The high risk of suicide in physicians might be explained by several putative factors such as the psychosocial work environment or specific personality traits of physicians. Literature has shown that psychosocial work environment, including conflicts with colleagues and a lack of teamwork and social support, is an important risk factor. Physicians must also routinely communicate bad news and are in frequent contact with illness, anxiety, suffering, and death. Perfectionism, compulsive

attention to detail, an exaggerated sense of duty or responsibility, and the desire to please everyone are strengths in the workplace, but increased stress and depression may trap physicians in a vicious cycle without seeking help. Physicians may refuse to ask for help because of professional culture. For some medical specializations, given the enormous emotional load related to the type of profession, it therefore seems necessary to offer psychological help and support services. In conclusion identifying the first symptoms of burnout seems essential to be able to identify the health personnel who are beginning to manifest a psychological discomfort inherent in their work activities. Additionally, medical environments might take a more proactive public health approach to reduce burnout and compassion fatigue and suicidal despair [4]:

- Provide opportunities for building stronger relationships with colleagues/classmates.
- Offer emotional intelligence training to help with emotional awareness and regulation in self and others.
- Develop mentoring partnerships to allow more tenured physicians to help buffer the burnout of newer physicians.
- Design supervision and promotional recognition and reward strategies that identify physicians practicing self-care and empowering other physicians to do the same.
- Identify and resolve mismatches in expectations in workload, control, and values between physicians and their administrators.

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Screening and Assessment of Burnout with a Focus on Oncology Healthcare Providers

6

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Introduction

Early identification of burnout is essential because burnout can have deleterious effects on both clinicians' health [1–10] and the quality of care delivered to patients and families [3, 11–17]. Therefore, it is fundamental to have accurate and reliable methods to measure and assess burnout. Accurate screening and assessment of clinicians can help in directing organizational policies to cultivate clinician well-being and improve the care provided by health organizations. This chapter will explore some of the associated factors that may help distinguish oncology clinicians at risk of developing burnout. The chapter will also examine some of the established screening tools that have been used during the assessment of healthcare professionals within the literature, as well as look at the benefits and risks of using each of these tools.

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Background and Rationale for Focusing on Oncology Providers

Attention to burnout in oncology healthcare providers has increased over the last few decades [18] as the practice of medicine in general, and oncology in particular, has changed [19]. Historically oncologists had more autonomy, often in their own practices, than they do today. The trend has shifted to that of being employees in a new world of electronic medical records, with less control over daily and weekly schedules, organization of working hours, and the balance between clinical and administrative duties, as productivity expectations are increasingly set by hospital administrators based on financial metrics. Oncology providers have always been at increased risk of burnout because of their responsibilities to care for patients with an increased likelihood of significant acute and chronic illness, suffering, and death and thus chronically dealing with grief and loss. Moreover, they work long hours and supervise the administration of highly toxic therapy [20].

The spotlight on distress and burnout has become even more acute in the tragic explosion of patients who face not only the perils of a cancer diagnosis but the new scourge of the COVID-19 virus pandemic. The pandemic has demanded more work hours, more risk of personal well-being while caring for others and watching colleagues of all oncology specialties fall ill to disease as a soldier might fall in the battlefield, less individual and family leisure time, and more patient morbidity and mortality than is often at the foundation of a rigorous career in oncology [21].

Burnout has been studied in many health caregiver specialties with general burnout instruments, as well as long and short item measurements, and has been linked to significant implications or outcome measures for patient and healthcare provider well-being [22–24]. Various specialty providers and levels of employees that have been studied for prevalence and impact of burnout have included, but are not limited to, physicians [20, 25], physician assistants [26, 27], nurses [28, 29], medical trainees [30], and even premedical students [31].

Constructs such as empathy that may impact burnout in medical residents rotating on oncology units have also been studied both in the United States [32] and internationally [33, 34] and affect a large proportion of oncologists in particular [35]. Burnout has been identified in the cancer setting in a number of varied specialties including surgery [25, 36], pediatric oncology [24, 37, 38], and radiation oncologists [39].

Associated Factors that May Influence Burnout

Previous studies highlight that many personal and professional factors can either aggravate or protect clinicians against the development of burnout. The construct of burnout is a multifaceted heterogeneous construct; therefore developing risk profiles during assessment could perhaps be helpful [40, 41]. Nonetheless, the current literature differs in their conclusions related to these risk factors; therefore, these variables should be studied more meticulously before they can be generalizable to actual clinical interventions for oncology staff at this time [29]. Nonetheless,

exploring these associated variables as they pertain to oncology staff can perhaps be helpful when trying to assess which clinicians may be at higher risk for the development of the syndrome within an institution.

Some of the Professional or Occupational-Related Variables Associated with Burnout

A perceived lack of control, lack of social support, or lack of clearly delineated job expectations have been linked to burnout [42]. For instance, lacking autonomy or the ability to influence decisions that affect one's job, such as one's schedule, tasks, or access to available resources (e.g., support services, training, or ability to request leave), is associated with burnout within the literature; such occupational variables can lead clinicians to feel a sense of helplessness or endorse work-associated stress [28, 29, 42–44].

Some studies even show that accessible professional support services, supervision, and skills training programs where clinicians feel understood and feel they are able to learn and cultivate new skills can be protective against burnout [29, 45–50].

Thus, limited interprofessional relationships or opportunities for advancement can increase burnout; hence, an organizational climate where leaders mentor and recognize strong work can also protect against burnout [50–52]. Furthermore, professional support is essential, as isolation and unsociable shifts within the workplace have also been linked to burnout [42, 53]. Payment models seem to influence burnout also, with salary-based models leading to less burnout than incentive- or performance-based models [20, 52]. Institutional culture can also contribute to burnout, for instance, the nonuse of offered annual leave can negatively influence clinician well-being [25]. Work inefficiency due to clerical burden, lack of nonphysician staff support, and electronic medical record requirements can increase burnout [52, 54]. Lastly, burnout is linked to job conditions with extremes in activity (when the job is monotonous or highly emotionally taxing) or extremes in workload (where clinicians feel burdened by excessive tasks, or are required to work long hours, or take weekend or overnight calls) [29, 41, 42, 47, 52, 55, 56].

Some Personal Characteristics or Individual Lifestyle Factors Associated with Burnout

Gender does not seem to wield a substantial influence on the development of burnout, and theoretically both men and women can experience burnout comparably [29, 56–58]. Therefore, gender is not an independent predictor of burnout [52]. However, within the literature there are trends that indicate women tend to experience more emotional exhaustion as men tend to experience more depersonalization, but this is not consistent in all studies [46, 56, 59].

Age similarly does not seem to cause significant influence on the construct of burnout and has conflicting information within the literature. For instance, one

systematic review [29] revealed that younger oncology nurses experienced less emotional exhaustion in studies [60, 61], whereas it found EE more prevalent among those oncology nurses older than 40 years [28]. Nonetheless, it recognized that this association did not hold up in all of the studies [29, 58]. However, some studies show that younger physicians (less than 55 years old) have almost double the risk of burnout symptoms in comparison to their older counterparts (those older than 55 years old) [35, 52].

Personality features and interpersonal skills are also possibly linked to burnout [52]. For instance, one study found that oncology nurses with high levels of neuroticism and low levels of friendliness and responsibility were more likely to develop burnout [62]. Having kids younger than 21 years old is associated with increased risk of burnout symptoms [32]. In a meta-analysis, burnout among oncologists was also found to be associated with being single, reduced psychological well-being, and difficulties outside of work [35]. Lastly, achieving a perceived work-life balance and individual utilization of vacation time can be seen as protective factors against the development of stress and burnout [36, 46, 63].

A Summary of Established Tools and Survey Instruments to Measure Work-Related Dimensions of Burnout

Maslach Burnout Inventory-Human Service Survey for Medical Personnel (MBI-HSS)

The MBI is the gold standard for accurate measurement of burnout most commonly found within the literature. Newer tools evaluating burnout are most commonly compared to this benchmark barometer instrument. The measure was released in 1981, originating from US researchers [64].

Format It is a 22-item self-administered questionnaire. The MBI has three subscales to evaluate the following domains:

1. Emotional exhaustion (EE): the state where "as emotional resources are depleted, workers feel they are no longer able to give of themselves at a psychological level" [30].
2. Depersonalization (DEP): the development of callous, negative, or dehumanized perceptions and feelings toward others.
3. Personal accomplishment (PA): the tendency for workers to assess themselves positively in competency levels of dealing with patients and feeling fulfilled by work [65, 66].

Each subscale incorporates several queries with frequency valuing selections of the following: never, a few times a year or less, once a month or less, a few times a month, once a week, a few times a week, or every day [64, 65].

Data Analysis Researchers frequently categorize outcomes into burnout versus non-burnout categories, but unfortunately there is no acknowledged standard definition provided by the developers of the instrument. The manual elucidates that the dimensions are established by factor analysis as three distinct and different dimensions. Therefore, it is favored to assess links with subscale scores as continuous variables and outcomes can be looked at separately [40, 64, 65].

Moreover, there has been some controversy over which domain subscales are to be included as most important in the analysis. A frequently utilized method considers healthcare workers as presenting with at least one symptom of burnout if they have either high EE (greater than or equal to 27 on this subscale) or high DEP (greater than or equal to 10 on this subscale) [20, 55, 64, 67]. Traditionally, although DEP can often get linked to the worst outcome measures of burnout, EE is considered to commonly be viewed as the most important subdomain of burnout within the literature; thus, analysis of only one subdomain of burnout can be incomplete when considering adequate screening [52]. Relatedly, some evidence indicates that elevated scores on these subscales can differentiate clinical burnout from the non-burned out, and some studies even make burnout scores related to only those two domains [20, 64]. Some scholars argue that EE and DEP are thus the core burnout dimensions, while lowered PA appears to develop in parallel [55, 68]. Nonetheless, other studies take into account all three domains and consider healthcare workers to have burnout if they have a high EE score plus *either* a high DP score *or* a low PA score (PA score less than 33) [40, 46, 64, 69].

Limitations of MBI-HSS [64, 70]

1. The results necessitate statistical resources and expertise to analyze and therefore are moderately complex to evaluate [64]. It does not produce a single burnout score but three separate scores for each subscale that can be evaluated separately or in correlation to the other subscales. Thus respondents' scale scores can be interpreted differently [64, 70]. For instance, there is not a clear consensus on which subdomains are needed, cutoffs for subdomains are arbitrary, and some scholars bring up that subdomains could perhaps be adapted to account for social and cultural differences in varying populations. Also, the results are based on a single source of information, and thus self-reported measures could affect statistical analysis and do not denote casual relationships [55, 70, 71].
2. It consists of 22 items; therefore it takes between 10 and 15 minutes to fill out and might be too lengthy for routine use if an institution wants to limit responder burden [41, 70].
3. The test is not free and has an associated cost per administration.
4. May not be sensitive to change within a short timeframe [70].
5. Applicable only to healthcare professionals who work with patients directly. However, for those without direct patient contact, the assessment could instead use the general version of this tool: MBI-GS.

Benefits of MBI-HSS [64, 70]

1. Standardized instrument validated and most widely used in published burnout literature and research. With the strongest construct validity evidence in physicians and other healthcare professionals with direct patient contact (including physicians, residents/fellows, medical students, nurses, and social workers) [64, 70].
2. Measures burnout as defined by the World Health Organization [72]. With national benchmark data (results in national samples of healthcare professionals, which aids in offering a context for interpreting results), psychometrics, and robust empirically driven literature showing that results correlate with actionable outcomes of importance to stakeholders such as patient satisfaction [73], medical error(s) [15, 64, 70, 74, 75], and healthcare worker turnover and absenteeism [9, 64, 70, 76, 77], as well as improper, illegal, or negligent professional activity [64, 70, 78].
3. Translations are available in multiple languages and have been utilized in both domestic and international research.
4. The only tool that currently has empirical data supporting it can uncover sensitivity to change within longer timeframes and can identify meaningful effect sizes from interventions [64, 70, 79].

Shortened Two-Item MBI-HSS

This is a concise adaptation of the original MBI-HSS, created in the United States by West and colleagues [80] to serve as a snapshot measure of burnout.

Format Self-administered two questions adapted from the full MBI that focus on the assessment of EE and DEP. EE is assessed using the question: How often do you feel burned out from your work? DEP is assessed using the question: Have I become more callous toward people since I took this job? Each of these queries is answered on a 7-point Likert scale, whose response options range from 0 (“never”) to 6 (“every day”) [64, 70, 81].

Data Analysis Does not require complex statistical tools to analyze [64, 70]. It provides meaningful stratification of risk of high burnout in the domains of EE and DEP, with results that show these two items correlate strongly with EE and DEP of burnout as measured by the full MBI-HSS [80–82]. The results can serve well as predictive factors comparative to the full MBI [80–82].

Limitations [64, 70] There is an associated cost with using this tool. There is no construct validity in other healthcare professionals other than physicians and medical students. The instrument may not be sensitive to interventions to change burnout. These items are not meant to provide comprehensive assessment or monitoring of burnout for individual respondents but instead can be used more as an initial

screening tool or "snapshot" in instances where it is too hard to administer the full version of the MBI; the results can subsequently influence where further assessment is needed [64, 70, 80, 82].

Benefits [64, 70] Brief assessment, therefore, reduces respondent burden, as it takes less than 3 minutes to complete [81]. Therefore, it can be helpful for larger surveys of healthcare professionals or institutions, as an initial screener. It is comparatively simple to analyze as it does not require sophisticated statistical resources. It has strong construct validity in US physicians. Strong psychometric data show that scores correlate with stakeholder outcomes of interest such as medical errors, turnover, suicidal ideation, and poor professionalism [64, 70, 80, 82].

Oldenburg Burnout Inventory (OBI)

This tool is not specific to healthcare professionals and can measure burnout in any vocational group. This is a measure released in 2002 developed by German researchers in response to the MBI not having negatively worded items [64, 70].

Format A 16-item self-administered questionnaire with positively and negatively framed items. It covers two main domains of burnout: exhaustion and disengagement from work. There are various questions for each domain, and answers are in the form of a 4-point Likert scale from strongly agree [1] to strongly disagree [4]. Exhaustion is described as an enduring consequence of strong physical, affective, and cognitive strain. Disengagement from work is described as negative attitudes toward work objects, work content, or work in general [83].

Data Analysis Each burnout domain is treated distinctly as a continuous variable [64].

Limitations [64, 70] No national benchmark data for US healthcare workers (therefore currently cannot compare results against empirical national norms). Existing data correlating instrument to variables of interests are limited to outside of the United States such as studies of Swedish nurses [84–86], Chinese nurses [87], and Dutch or German physicians [83, 88]. However, it is broadly applicable to any occupation not just healthcare professionals; therefore the tool can be utilized for those whose job is mainly about processing information or for those who perform physical work and do not necessarily have direct patient contact, but in the context of assessment of oncology providers, that is often not the case [64, 70, 83]. Furthermore, the instrument is lengthy as it is a 16-item-long tool and takes approximately 10 minutes to complete. The results necessitate statistical resources and expertise to analyze and therefore are moderately complex to evaluate. Lastly, it is unknown if the tool is sensitive to meaningful effect sizes from interventions; therefore empirical evidence is lacking that supports if it sensitive to change [64, 70].

Benefits [64, 70] The tool is publicly available for free use. Translations of the tool are available in multiple languages.

Copenhagen Burnout Inventory (CBI)

This tool was developed by researchers from Denmark and released in 2005.

Format This 19-item questionnaire measures burnout as defined by focusing on physical and psychological fatigue and exhaustion within three different domains. Six questions focus on the *personally experienced domain*, for example, questions such as "How often do you feel tired?" or "How often do you feel worn out?" Another six questions focus on the *work-related domain*, for instance, questions such as "Do you feel that every working hour is tiring for you?" or "Do you feel burned out because of your work?" The last six questions focus on the *client-related domain* (or a similar term such as patient, resident, student, inmate, etc.), for instance, questions such as "Do you find it hard to work with clients?" or "Does it drain your energy to work with clients?" There are positively and negatively framed questions, and answers vary on a scale of either "always, often, sometimes, seldom, and never/almost never" or "to a very high degree, to a high degree, somewhat, to a low degree, and to a very low degree" [89].

Data Analysis [64, 70] Each domain is independently analyzed as a continuous variable. The answer selections are translated into scores of 0, 25, 50, 75, and 100. Subsequently, items within the subscale are averaged, with one item reverse scored. Greater scores signify a greater degree of burnout. Possible score range for all scales is 0–100 [64, 70, 89].

Limitations [64, 70] It is 19 items long so it can contribute to respondent burden as it will take between 10 and 15 minutes to complete. The results necessitate statistical resources and expertise to analyze and therefore are moderately complex to evaluate. Limited data show that scores connect with outcomes of interest among healthcare professionals in the United States and have mostly occurred within studies from abroad with small sample sizes hence are not necessarily generalizable studies [88–91]. There is no construct validity evidence in US physicians or other healthcare professionals and a limited construct validity in non-US physicians and other healthcare professionals. Lastly, it is unknown if the tool is sensitive to meaningful effect sizes from interventions; therefore empirical evidence is lacking that supports if it sensitive to change. It is broadly applicable to any occupation not just healthcare professionals.

Benefits [64, 70] The measurement tool is free and publicly available. Translations in several languages are available [64, 70].

Single-Item Burnout Measures

Some health systems and investigators use a single item for initial screening purposes.

Format [64, 70] Single-item. The question and answer items can vary in different publications. One common truncated version of the larger burnout measures is the *Physician Worklife Study (PWLS) single-item* which asks "Overall, based on your definition of burnout, how would you rate your level of burnout?" Answer: possibilities range from the following – (1) "I enjoy my work, I have no symptoms of burnout"; (2) "Occasionally I am under stress and I don't always have as much energy as I once did, but I don't feel burned out"; (3) "I am definitely burning out and have one or more symptoms of burnout, such as physical and emotional exhaustion"; (4) "The symptoms of burnout that I am experiencing won't go away. I think about frustration at work a lot"; and (5) "I feel completely burned out and often wonder if I can go on. I am at a point where I may need some changes or may need to seek some sort of help" [64, 92]. However, another version of this question pulls the question "I have become more callous toward people since I took this job" from the MBI-HSS and instead looks more at DEP [41].

Data Analysis Frequently classified as either not having burnout if a respondent answers 1 or 2 or having elements of burnout if a respondent answers 3 or above, although such classifications are not empirically tested for validity within the literature. The PWLS is mostly correlated to EE and not the other domains, whereas the second example of a single-item question listed above correlates instead to the depersonalization subscale [41, 80, 93, 94].

Limitations [64, 70] May oversimplify the analysis as it focuses on only single constructs of the multifaceted concept of burnout, therefore may miss people who manifest burnout in different ways [70]. No national benchmark data, and only limited data, showing that results correlate with outcomes of interest to stakeholders [95, 96]. Limited construct validity evidence in US physicians (studies with small sample sizes, and almost singularly studying primary care providers, thus having limited generalizability). No construct validity evidence in other healthcare professionals. Too brief of a tool to have strong psychometrics associated with it in the empirical literature. Not specific to healthcare professionals and therefore can be used in any occupation.

Benefits [64, 70] Limits both organizational and respondent burden, as it is the shortest of the measures and easiest to administer and analyze the results. Publicly available and free for use.

The Physician Well-Being Index (WBI)

US researchers from Mayo Clinic created the seven-item measure which was released in 2010 and then expanded to a nine-item measure in 2014.

Format [64, 70] Measures six dimensions of distress and well-being including burnout, depression, stress, fatigue, and mental and physical quality of life. The tool is a seven- to nine-question survey with yes or no response choices. The nine-item expanded version also evaluates work-life balance and meaning associated with work.

Data Analysis [64, 70] Respondents are probed to answer seven yes/no questions and receive a summative score from 0 to 7 (1 point for each item answered "yes"), based on the answers. Therefore, lower scores are more favorable. For the seven-item version, a threshold score to identify individuals in high distress is ≥4 for medical students and practicing physicians, ≥5 for residents, and ≥2 for other US workers including advance practice providers. In the expanded nine-item version, the original seven items are scored in the established manner, with responses to meaning in work and satisfaction with work-life balance items resulting in 1 point being added or subtracted, which resulted in a score range of −2 to 9. In a sample of medical students, physicians, and US workers, every 1 point increase in score resulted in a stepwise greater likelihood of distress and risk for adverse personal and professional outcomes.

Limitations [64, 70] There is an associated fee for using the organizational interactive online version of the measurement tool. It is unknown if measure is sensitive to change.

Benefits [64, 70] Multiple dimensions, short seven to nine items, so low respondent burden associated with the measure as it takes approximately 5 minutes to complete. Free for individual research use or nonprofit public use. Relatively simple to analyze as it does not necessitate complex statistical tools to understand the results. There is a context to analyze results within, as there is national benchmark comparative data accessible for the screening tool empirically tested on residents, fellows, physicians, medical students, advanced practice providers, and the general population [64, 97]. Moderately strong data show that scores correlate with outcomes of interest to stakeholders among US healthcare professionals such as clinicians' health, intent to leave, and the quality and care delivered to patients [97–104]. Broadly applicable to any profession. Moderately strong construct validity evidenced in US physicians and other healthcare professionals.

No Diagnostic Criteria for Burnout

Burnout is not recognized as a distinct diagnosis in the current DSM (Diagnostic Statistical Manual of Mental Disorders) [105]. There is no agreement on the definition of burnout and its core symptoms [106]. There are also significant associations between certain personality traits, and workplace characteristics may be predictive factors for burnout [107] that can make categorization into a DSM entity confusing and potentially misleading.

Its clinical characteristics are often subsumed under other diagnostic entities such as adjustment disorders, major depression, chronic fatigue, stress-related disorders, or substance use disorders, highlighting the focus on the individual's liability for suboptimal coping. Although a unique DSM diagnosis would not alleviate this emphasis on the individual, the lack of recognition of this as a clinical entity may hinder serious study of solutions to this complex problem and potential medical compensation.

Summary

Continuing efforts to refine proper burnout assessment in healthcare professionals persists. It is important to look at the variety of benefits and limitations to each of the available tools before selecting a tool for assessment. Although substitute condensed MBI assessments have been proposed, and entirely separate tools have been developed independent of the MBI structure, the MBI remains the current "gold standard" for the assessment of healthcare staff [52]. Therefore, when screening and assessing oncology healthcare professionals, the full MBI represents the preferred version of assessment. However, the shortened two-item MBI-HSS or the WBI represents alternative legitimate option for the assessment of oncology healthcare staff if the full MBI is not pragmatic based on institutional confines.

Basic Assessment Screening Suggestions Going Forward

The complexity of measuring burnout accurately in oncology providers may be vital to preserve the well-being of patients and the sustainable development and preservation of expert providers. Marked variation in burnout definitions, assessment methods, and study quality has been noted [108], leading to difficulty assessing accurate prevalence rates. The development of a consensus definition of burnout and of standard measurement tools to assess the effects of ongoing distress on healthcare givers, and oncology providers in particular, is vital to more fully clarify individual subjective complaints or symptoms, within a coherent and addressable syndrome. Instruments, like the MBI, need to be general to capture nuances that

cross oncology specialties but specific enough to identify unique job and environment influences. They must be elaborate enough to pick up meaningful details but short enough to be successfully completed by busy, often tired clinicians. Successful instruments should have validity over time with the ability to be utilized repeatedly over time and look at not only individual characteristics and consequences of burnout but also the systemic and resource variables that contribute to this syndrome that needs to be addressed on a macrocosmic scale.

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7 The Ethical Implications of Burnout: A Moral Imperative to Prioritize Physician Well-Being, Resilience, and Professional Fulfillment

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Case Presentation

Dr. A has always been an energetic, dedicated medical oncologist and a successful clinical trials investigator. Now, at age 45, he is fatigued, cynical, and lonely. Dr. A's anger is directed at the healthcare system for the perceived coercion to see more and more patients per week in less time. His frustrations surround the limited clinical time he can spend with patients with advanced cancer who require and desire detailed information pertaining to disease, prognosis, and treatment. As a result, Dr. A also experiences irritability coupled with a sense of guilt in the care of these patients for what he views to be increasingly demanding, yet expected, temperaments and needs due to their role as patients with advanced cancer. The joy of oncology practice that he relished is only a memory. He detests the hours devoted to the electronic medical record and clerical administration which he believes contributes to his loss of identity and autonomy and has violated his values as healer, as an oncologist. Although Dr. A's relationships with patients once thrived, they no longer provide the same level of satisfaction. In fact, even his treasured discussions with

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his wife, who has been a supportive partner, has not relieved these feelings of intense isolation and pessimism. As he meets with colleagues, Dr. A reports feeling *cynical* regarding his future career and presents the following question to them: "Is any of this worth it?"

Introduction

The role of the physician is a rewarding experience, yet, the complexity of care provided to seriously ill, frail, vulnerable patients in an ever-evolving healthcare environment places significant demands on the individual clinician and workforce. It is the clinical ethics framework of care – patient autonomy, respect for patient welfare, avoidance of harm, the provision of justice – which serves as a model for action in the delivery of optimal medical care and further solidifies the moral duty of the physician to the patient. Yet, mounting clinical care responsibilities, coupled with increasing administrative demands on clinical time, productivity, and the evolving medical landscape, both directly and indirectly compromise the physician's moral obligation to the patient. This places the dutiful physician, such as Dr. A, at significant risk for occupational stress in the form of the burnout syndrome. Burnout arises, intensifying when physicians realize their ethical standards and values are not shared by their organization. Hence, burnout is a direct consequence of a violated, diminished personal and professional values process. Moreover, as Dr. A finds it increasingly difficult to repeatedly translate his moral decisions to ethical action, moral distress develops. When physicians experience burnout and moral distress, the physician-patient relationship is in significant jeopardy. Thus, from an ethical perspective, enhancing oncologist well-being is vital to initiating and maintaining the physician-patient relationship in medicine. Here, the authors, experts in clinical psychology, psychiatry, medical oncology, clinical ethics, and burnout, will present a theoretical understanding of burnout with associated risk factors and consequences with a central focus on the seminal ethical implications of burnout on physician well-being and resilience with proposal for intervention using the medical oncologist as an example. However, despite this focus, it is important to note that these ethical implications are applicable for all physicians despite designated specialty.

The Burnout Syndrome

Burnout was first identified in the mid-1970s by psychologist Dr. Herbert Freudenberger [1, 2] as a syndrome arising as occupational stressors coupled with additional life pressures exceed the ability to thrive resulting in physical and mental distress [1–11]. In the United States, burnout has been found to be highly prevalent in the physician workforce and is estimated to affect 50–55% of physicians at some timepoint during their careers [7]. Burnout has been empirically defined as an occupational-related syndrome characterized by signs of physical and emotional

Table 7.1 Signs and symptoms of burnout

Physical and emotional exhaustion
Chronic fatigue
Cardiovascular issues
Cognitive dysfunction
Insomnia
Gastrointestinal complaints
Affective and behavioral distress: anger, irritability, depression, anxiety
Cynicism and depersonalization
Pessimism
Isolation
Demoralization
Detachment
Low sense of personal accomplishment
Feelings of inefficacy
Decreased productivity
Overall dissatisfaction in work-life balance

exhaustion, cynicism and depersonalization (sense of detachment or disengagement), and a low sense of professional accomplishment [1–11]. These three-dimensional burnout domains exist along a continuum distinguished by distinct unique symptoms and an overlap of symptomatology (Table 7.1) [1–3]. For example, the symptoms of physical and emotional exhaustion include chronic fatigue, cardiovascular issues, cognitive dysfunction, insomnia, gastrointestinal complaints, and affective and behavioral distress (anger, depression, anxiety). Cynicism and depersonalization are characterized by signs of pessimism/depression, isolation, demoralization, and detachment. A low sense of personal accomplishment leads to a sense of inefficacy, decreased productivity, and overall dissatisfaction in work-life balance. The initial physical and emotional symptoms of burnout slowly develop over the course of 1 year [1–3]. Burnout is a physical and mental response that manifests as chronic occupational and interpersonal stressors arise and persevere over an extended period of time [1–17]. Dr. A expresses a pessimistic attitude toward his role due to mounting cumulative institutional demands as an oncologist resulting in overall decreased productivity and increased workload clinically and administratively. Increasingly, these signs and symptoms adversely impact Dr. A's well-being leading to adverse long-term personal and professional consequences (Table 7.1).

Risk Factors Associated with Burnout

Multiple individual and organizational risk factors are associated with an increased susceptibility to develop burnout in medicine [2, 5–28]. Individual risk factors are internally based dispositional factors consisting of sociodemographic and personality characteristics. Prior empirical research has identified specific individual burnout risk factors including female gender, younger age (≤55 years), junior physicians

(residents, fellows, physicians ≤5 years from training), years in practice, and single, unmarried/non-partnered physicians [4–17, 21–28]. Personality characteristics recognized as independent burnout risk factors include compulsivity, neuroticism, extraversion, conscientiousness, alexithymia, psychological hardiness, and Type A behavior [2, 21–28]. Lastly, external, environmental, occupational, and organizational risk factors identified as contributors to burnout include increased direct patient care time; high occupational demands; lack of autonomy over daily tasks; increased administrative responsibilities; use of electronic medical record (EMR) systems; telehealth; limited ethical, moral decision-making compromising physician values; ambiguous job expectations; lack of social support; and the evolving healthcare landscape [6, 9, 21–28]. As a mid-career, conscientious, physician who lacks autonomy and is incapable to meet his moral expectations as he works exceedingly long hours in direct patient care with secondary expectations to be a clinical investigator, Dr. A is at an increased risk of experiencing significant consequences.

Personal and Professional Consequences of Burnout

Burnout is not a formal medical or mental health disorder as it has been primarily recognized as an occupational-related condition by the World Health Organization [29]. It is presently incorporated in the ICD-11 with a recently expanded, comprehensive definition under the category "Problems related to employment or unemployment" (QD85 Burnout) resulting from chronic workplace stress which has adversely impacted the individual's overall health [2, 29]. Psychiatric disorders, depression and post-traumatic stress disorders, have been identified both as precursors to the development of burnout and consequences [2, 6–14, 17, 21–28, 30–32]. Burnout has been compared to both stress and depression given similar shared symptomology and metabolic, physiological systems involved (e.g., systematic inflammation or autonomous nervous system) [30–35]. However, unlike stress, which tends to be fairly short term and resolves completely once the stressful situation has changed, burnout is a *complex, insidious* process progressively developing over an extended period of time [2, 3]. The burnout process occurs in 12 dynamic stages ranging from a compulsion to prove self to a development of multiple behavioral mood changes, causing and resulting in the final burnout syndrome [2, 3, 32]. It is due in part to this gradual development in exhaustion symptoms that burnout is challenging to detect, identify, and intervene early on, therefore resulting in long-term enduring health consequences for the individual [2, 6–14, 17, 21–28, 30–35]. Unlike stress and depression, burnout symptoms may resolve once the individual changes a job, or if the work environment is altered. Yet, long-term unaddressed burnout leads to personal consequences such as chronic health conditions (heart disease, stroke, obesity) or mental health conditions (depression, anxiety, substance use, and suicide [2, 6–14, 17, 21–28, 30–35]. Professionally, long-term burnout may lead to diminished quality care and reduced professional satisfaction and accomplishment [21, 22]. To date, self-reported screening measurement scales such as the Maslach Burnout Inventory (MBI) [36] and the Mayo Clinic Physician Well-Being

Index [37] have been utilized in occupational, clinical, and empirical settings to assess burnout and burnout-related signs for various health and medical staff populations including in oncology. Yet, in addition to the abovementioned measures, the identification of specific work-life areas and occupational factors that contribute to burnout is critical in order to evaluate long-term practice health and organizational processes on physician well-being.

Work-Life Dimensions Associated with Burnout

Occupational well-being is conditional on the perceived confluence between the individual's unique capabilities and workplace factors within the environment. Leiter and Maslach empirically identified the specific occupational factors predictive of employee burnout [38]. A fit between each dimension and the environment increases employee engagement. Six dimensions of work-life were found to be considered most relevant to support a model of the organizational context of burnout for the development of a relationship between the individual, employee, and their work [38]. These identified dimensions include the following: workload, control, reward, community, fairness, and values (Table 7.2).

A brief descriptive summary of each work dimension can be applied in the analysis of the relationship between the employee and work, especially physicians, such as the oncologist, and the clinical environment [38, 39]. The dimension of workload is significant for an understanding and evaluation of the development of burnout in the physician. If the overall occupational demand of balancing clinical care with administrative responsibility transcends human ability, emotional exhaustion arises [39]. In fact, increased workload has been associated with high emotional exhaustion in the physician [39]. Control encompasses the perceived capacity of the physician to influence occupational-related decisions, to utilize personal autonomy and independence, and to gain access to internal institutional resources (e.g., social support, reward) in order to conduct and complete work tasks [39]. That is, control safeguards the physician from increased work demands. It shares a close, predictive relationship to the companion dimensions of workload, reward, fairness, and community [39]. The dimension of reward is evaluated within the effort-reward-imbalance framework centering on how reinforcement influences physician behavior and reveals to what degree intrinsic and social rewards remain consistent with the physician's expectation [39, 40]. If physicians hold the perception of abandonment due to an imbalance in the institutional reward system, they will feel

Table 7.2 Dimensions of the work environment

Workload
Control
Reward
Community
Fairness
Values

disconnected from the values or mission of the organization [39, 40]. Community is the specific work-life dimension involving the evaluation of the quality of social interactions (e.g., peers, patients, oncology team members, organizational leaders) oncologists experience within the clinical environment. Brom and colleagues report that empirical research devoted to social influences and the dimension of community focus on issues of peer support, interpersonal dynamics, cohesiveness, comradery, and teamwork [39]. The fairness dimension depicts the degree to which decision-making within the clinical environment is viewed as equitable, just, and reasonable [39]. Lastly, the values dimension highlights the morals, principles, ethical standards, and motivation that draw the physician to medicine or the oncologist to the occupational field. In the values dimension, if incongruence exists between physicians and the clinical work environment, physician engagement becomes challenged, resulting in unfavorable actions [39]. Agreement between physician-work values is critical to oncologist engagement. If the physician views a fit between all other dimensions, it is personal and professional values are respected [39, 40]. Yet, if the physician perceives a weak fit between dimensions, work-life functions as a stressor, thereby threatening overall well-being.

Using Leiter and Maslach's model, any mismatch, incongruence, between the oncologist and the clinical work environment in these six dimensions diminishes the capacity for energy, involvement, and efficacy [4, 41]. To assess the fit between the employee-work environment and the overall occupational working condition of the employee, including the physician, the Areas of Worklife Survey (AWS) has been developed and utilized [38]. The AWS is a well-validated, widely accepted brief questionnaire used across multiple organizational environments, including medicine, to evaluate these six critical dimensions in order to determine the respondent's perceptions of workplace qualities that directly contribute to the employee's experience of work engagement or burnout [38]. The AWS can be coupled with the MBI as a comprehensive work-life assessment for burnout prevention, mitigation, and remediation for many employees including physicians, especially in oncology [36, 38].

Prevalence in Oncology

The global incidence of burnout has dramatically increased over the past decade for oncologists in the United States, Europe, and Australia [42–46]. In 2005, Allegra and colleagues' survey study of over 1700 oncologists was the first to reveal that nearly 62% of oncologists in community practice in the United States reported experiencing symptoms associated with burnout including the top three signs: frustration (78%), emotional exhaustion (69%), and lack of work satisfaction (50%) [42]. Today, in the most comprehensive study of oncologist burnout to date, 45% of US American Society of Clinical Oncology (ASCO) member medical oncologists have reported experiencing emotional exhaustion and/or depersonalization symptoms related to burnout [43]. In Europe and Australia, burnout rates vary significantly ranging from 52% to 78% depending on medical oncology specialty, practice,

healthcare systems, and screening tools utilized [7, 42–46]. For example, in a multinational study centering on the oncologist experience of the burnout syndrome in Eastern Europe, 72% of oncologists were found to be at high risk for burnout with 45% at high risk for MBI exhaustion, 28.7% for depersonalization, and 47.3% for personal accomplishment [44]. A mailed survey study conducted in France involving 340 medical and radiation oncology fellows using the MBI revealed that 44% believed burnout was prevalent and associated with low perception of health status and a desire to leave medicine [45]. In Australia, 36% of surveyed gynecological oncologists reported a high degree of emotional exhaustion, with 43% reporting a desire to leave current position, 29% considered retirement, and 57% wished for reduced work hours [46]. This research captures only a few of multiple significant studies uncovering the global scale of the prevalence of burnout in medical oncology in uniquely different oncology and healthcare systems. A continuation of the investigation of the incidence and development of burnout is needed for additional identification of risk factors, including ethical dilemmas within practice that arise, further intensifying oncologist distress, and hinder immediate intervention.

Ethical Dilemmas Associated with Burnout in Oncology: Moral Distress

Burnout is at the center of a group of related concepts and subtypes (e.g., compassion fatigue, empathy fatigue) with intersecting features, yet it shares a unique relationship with a form of moral strain and suffering experienced within the dynamics of the occupational, clinical environment, known as moral distress [18–20, 47]. This moral distress arises as a direct consequence of both the ethical dilemmas and failure to practice according to the physician's personal and professional values, mainly due to a perceived lack of professional support from organizational and social constraints [48–50]. It transpires as the physician's moral, ethical framework directly conflicts with values of the healthcare, oncology system [51, 52]. According to Rushton, moral distress adversely impacts the clinician's mind, body, or relationships in response to a clinical circumstance where the clinician is cognizant of the moral problem, recognizes moral responsibility, and formulates a moral decision on what corrective action should be undertaken [19, 53, 54]. However, given the real, genuine presently occurring or perceived constraints within the clinical environment, the clinician participates in perceived moral transgression. For physicians, especially in oncology, life and death decision-making and perceptions that treatment is futile have been identified as common ethical challenges predictive of moral distress [48, 55–57]. More specifically, recent empirical evidence reveals that oncologists are particularly at high risk for developing moral distress due to their role in the delivery of serious news, perceptions regarding futility of treatment, and end-of-life decision-making [56–58]. It has also been found that moral distress will linger and endure in oncologists for the long term if coupled with emotional distress [58]. Morally distressing situations result from the collective experience of repeated events rather than an individual scenario. As moral distress remains unresolved,

including its associated ethical turmoil, moral residue emerges as a result of the unaddressed psychological struggle, and thereby acceptance of future events become less likely [51]. As this moral residue builds, moral injury arises and intensifies with subsequent distress. Moral injury, a related concept, well-described in the context of military trauma, results from actions (or lack of action) which violate the individual's moral, ethical code [58]. It is not a mental health condition, yet it causes similar detrimental consequences to burnout and poor mental health. Moral injury develops when a clinician's ability to provide optimal patient care routinely conflicts with, or is repeatedly frustrated by, other factors. It has been suggested that moral injury destroys the physician's ethical framework due to either a single event of violation or repeated events of moral distress [51]. For oncologists, although no empirical evidence exists to date that moral injury is prevalent in oncology, as a concept, it has been widely accepted given it resonates with the oncologist anecdotal experience that burnout is a systems issue driven by work characteristics [51]. Consequently, given the impact of moral strain on oncologist well-being, organizations have a responsibility to support oncologists in living authentically to their intrinsic core values by respecting physician values and fostering ethical climates to support and sustain the oncologist.

Ethical Implications of Burnout in Oncology: The Role of the Physician's Personal and Professional Values

If burnout remains unaddressed, it has the potential to harm the physician-patient relationship [48–50]. For many physicians who experience incongruence between their values and their organizational values, the only available solutions to addressing burnout involve changing employment, early retirement, or a departure from medicine. In addition to the underlying, well-accepted ethical standards and core principles of beneficence, nonmaleficence, justice, and respect for patient autonomy, additional fundamental, deeply sustained personal and professional values are also adversely impacted by the burnout syndrome. It is the values process impeded by hindered ideals and goals that transforms exhaustion into burnout [41]. Burnout undermines the physician's primary core values, a sense of purpose, identity, integrity, virtue, altruism, and autonomy (Table 7.3) [41, 58–61].

Most importantly, burnout is a direct violation of physician autonomy and the personal and professional values which influence clinical decision-making for patient care [62]. Adequate ethical judgment for patient care requires an appreciation of how guiding ethical principles should be appraised by the oncologist. Physicians must be able to discern moral questions in practice; make reliable, ethical judgments; and gain awareness of conflict between personal and ethical judgments. Yet, burnout can directly impede and adversely impact the physician's capacity to make informed recommendations regarding optimal treatment options and overall patient care [63–65]. As well, indirectly this decision-making is related to the fairness dimension of workload which represents the degree to which decisions within the clinical work environment are viewed as equitable. Therefore, the

Table 7.3 Burnout challenges, physician values

Sense of purpose and meaning
Identity
Integrity
Virtue
Altruism
Autonomy

only viable solution to addressing burnout involves not only respect for physician values, however, but also an alignment of shared, mutual guiding normative values between oncologist and the organizational mission that can sustain not only individual well-being but also practice health and in the long term the overall workforce [60]. Yet, this can only be accomplished if the organization fosters a culture of healing through the identification and recognition of the fundamental, essential values of the physician [66].

In a novel critical review, Moyo and colleagues identified a comprehensive set of personal and professional values in order to create an aspirational model for physicians and other clinicians across disciplines [62]. After a rigorous review, the authors created a framework for clinician values which were directly matched with values from the well-accepted Schwartz models (as defined within each parenthesis per authors) and included the following values: authority (power); capability (achievement); pleasure (hedonism); intellectual stimulation (stimulation); critical thinking (self-direction); equality (universalism); altruism (benevolence); morality (tradition); professionalism (conformity); safety (security); and spirituality (spirituality) [62]. The foremost values identified as guiding principles for the provision of care for clinicians include altruism, equality, and capability [62]. Although this values-centered framework was constructed to aid clinician decision-making for patient care, it can also serve as an institutional guide to inform organizational recognition of the essential physician values required for staff support. As well, this framework will illuminate physicians' own self-understanding and awareness of the relevant ideals that play a role in their own clinical decision-making for care.

Although the values of physicians should naturally align with the values of the organization, conflict occurs if both entities differ in their goals regarding the provision of patient care. According to Gabel, medicine should underscore the importance of moral clinical practice and underlying physician values in order to promote benevolent patient-centered care [67]. The healthcare system, and specifically the organization, has a moral, ethical obligation and duty to facilitate collaborations with their physician employees to meet this shared goal. Many physicians, including the oncologist, experience burnout when they hold the belief that their values such as those noted above are not only shared by their organizations but also compromised. This threat to personal and professional values arises when physicians perceive they themselves are hindered from providing optimal clinical care they desire to provide based upon training and expertise [67]. Physicians whose values are endangered also hold the perception that overwhelming work demands intimidate their own values. They become motivated to respond to this overall stress by

defending their resources, their overall belief system. These appraisals are commonly held by those who share the same culture, such as medicine. This process, known as the Conservation of Resources theory, provides a framework of understanding physician stress as these very resources are predictive of work-related health outcomes including burnout [39, 67–70]. In oncology, for example, the professional responsibility of the oncologist involves providing high-quality cancer care based upon the following factors: clinical expertise, ethical values, the individual patient situation, and the oncologist-patient relationship with an enhanced understanding of patient preferences for treatment and/or end-of-life care [71, 72]. It is vital for the organization to empower the physician to address existing incongruence between these values and the organizational values.

Empirical research has been conducted to investigate this relationship between the impact of existing incongruence between physician values and organizational values. Overwhelmingly, study has confirmed that value congruency is critical to employee, specifically physician, engagement and burnout [3, 38, 39, 73]. In fact, both workload and value congruence have been identified as unique, individual, contributing factors relevant to physician burnout. Leiter and colleagues conducted an important physician survey study that supports this evidence [73]. Here, physicians were surveyed to identify the relationship between workload and value congruence for a random sample cohort of physicians in Canada using a version of the MBI-General Survey and AWS [36, 38, 73]. The results obtained indicated that physician participants experienced moderate burnout scoring positive exhaustion, average cynicism, and mildly negative professional efficacy [73]. Additional multiple regression analyses revealed workload and values congruence predicted exhaustion and cynicism for both male and female physician participants [73]. Values congruence also predicted physician professional efficacy for both genders [73]. In summary, these research data confirm that physician conflicted professional values are predictive contributors to exhaustion, cynicism, and low professional efficacy [73]. As well, increased workload plays a contributing, predictive role for exhaustion and cynicism. Finally, the congruence of individual values with healthcare system values was of greater significance for female over male physicians [73]. The study performed here and corresponding quantitative data provide evidence to help provide a pathway for the development of organizational strategies designed to uphold fairness, respect physician values, and foster resilience as a means to promote overall physician well-being.

Cultivating Resilience

Resilience is a multifaceted psychological phenomenon which emphasizes the human capacity to cope with, overcome, and become strengthened by adversity [74–82]. Current clinical and research efforts center on the strengths of the individual, rather than the individual's vulnerability, as a means of empowerment to rise above adversity, and persevere, resulting in positive adaptation (Table 7.4). To date, the theory and study of resilience have shifted from a focus on the long-term adverse

Table 7.4 Three components of resilience

Strength of the individual
Rise above adversity
Positive adaptation

consequences of trauma to a focus on strength, triumph, and competence to build interventions tailored to foster resilience [74–82]. The concept of resilience flourished within the developmental psychology field through the study of children who were able to thrive, survive, and overcome negative abusive childhood environments with poor parenting [76–78]. Resilience has also been applied to survivors' populations of war, trauma and the military [82].

Resilience: Supports Health and Enhances Coping Through a Psychobiological Mechanism

At present, empirical research has enhanced the scientific community's understanding of the concept of resilience by placing an emphasis on specific, unique factors that support human health and enhance coping rather than highlighting stress-related factors associated with disease or trauma [75, 76, 81]. Although evidence indicates that environmental, neurologic, social, and cultural factors are associated with the development of resilience, from a psychobiological perspective, resilience is believed to be a physiological positive adaptation to stress as it is associated with maintenance of the following systems: somatic, autonomic (sympathetic and parasympathetic), and central nervous. The specific brain regions associated with resilience involve the prefrontal cortical region and amygdala [83–85]. Additionally, decreases in the stress hormone cortisol, neuropeptide Y (an anxiety neurotransmitter), and 5-dehydroepiandrosterone prevent initiation of the stress response by decreasing sympathetic nervous system activation [83–85]. Also, elevated levels of the neurotransmitters, serotonin and dopamine ("the reward center") and neuropeptide oxytocin, have also been linked to resilience [83–85]. Positive emotions (e.g., happiness; optimism) play a crucial role in the development of resilience. Although it may appear that certain individuals are genetically predisposed to effectively cope with stressful situations, resilience is not necessarily an inherited trait but rather a skill that can be learned and mastered. Yet, despite this strong scientific evidence, questions surround how to adequately describe and define resilience due to its complexity.

How Is Resilience Defined?

To date, a universally accepted definition of resilience does not exist given its complex nature encompassing social, psychological, biologic, and cultural factors that act together to determine how the individual responds to stress [78, 79, 81]. The definitions of resilience continue to advance and grow. However, most definitions

and researchers agree that for resilience to be demonstrated, both adversity and positive adaptation must be present [78–82]. Resilience is a positive response to adversities in the form of everyday minor stressors to key life-altering events. Resilience has been described as both a trait and a process, either present or absent, inherited or learned; however, according to Southwick, a well-known resilience expert, and colleagues, it likely exists on a continuum ever present to differing dimensions across several life domains influenced by psychological characteristics within the stress process [76, 78–81]. Ideally, resilient individuals persevere in the face of adversity and life stress leading to transformative positive growth, acceptance, and a sense of greater meaning in life. Yet, as a result of interaction with the environment, resilience may change depending on the individual's response to stress and interactions with others within the environment [78, 79, 81]. For example, a physician who is unable to positively adapt to work stress may successfully adapt to his personal life, or the oncologist may have fostered resilience over the course of time, during the late phase of career, yet not an early another phase such as in early residency [77].

The Interplay Between Burnout and Resilience

Although several protective factors shield the individual against the development of burnout, such as peer support, communication skills training, and self-care, resilience is the key protective factor against burnout, as it shapes and enhances the individual's efficacy, engagement, and personal accomplishment [2–4]. Christine Maslach, who has studied burnout extensively, believes that burnout involves not simply the interaction between the individual and organization but also the individual's attitudes, self-appraisal, and appraisal of others [2–4]. As such, burnout can be viewed as a barometer that measures a potentially toxic environment which does not support the clinician to manage his needs and emotions. Moreover, Maslach and colleagues found that consideration of the individual's emotions promotes the individual's sense of control, commitment, and self-efficacy that further protects the individual from burnout [2–4, 38, 41]. In addition, several key emotional personality variables associated with resilience significantly minimize the potential vulnerability to developing burnout, including a sense of coherence, thrivingness, hardiness (commitment, control), optimism, emotional competence, learned resourcefulness, self-efficacy, locus of control, potency, stamina, and personal causation [2–4]. The individual's ability to sustain and activate these resources in response to stress leads to a transformative active coping style required to directly address stressors and adversity. Research on physician resilience supports Maslach's hypothesis. Zwack and Schweitzer conducted an interview study of 200 physicians in Germany to identify health-promotion strategies used by senior physicians to maintain resilience [86]. Three core thematic domains were identified to illustrate strategies and attitudes used to activate resources that lead to active coping and the promotion of resilience, including job-related fulfillment; behavioral practice (e.g., leisure activities, limited work hours, and professional development activities); and change in

attitudes (e.g., acceptance and attention to positive work endeavors). A recent study identified that resilience was higher in physicians compared to the general population, yet burnout rates were revealed to be significantly elevated even for those physicians identified as highly resilient [87]. In short, despite stressful work conditions, physicians, including oncologists, are able to activate resources to engage in positive coping strategies needed to foster resilience, including resilience required to address ethical challenges encountered in oncology care [88].

The Ethics of Resilience

The positive psychology phenomenon of resilience has been utilized to address ethical issues, including those associated with burnout [89]. This application modifies the liberal constructive rationalist framing centering on individual autonomy and provides a comprehensive, enhanced interpretation of the societal responsibility for universally experienced ethical issues [88]. Here, the individual is not viewed as a singular player in ethical dilemmas but an entrenched citizen of society. Therefore, any moral assessment of the individual's decisions and actions involves communication and interaction between individual and society [89]. Moral resilience and the virtue of resilience are two such examples of the ethics of resilience [89–96].

Moral Resilience

Moral resilience has been widely presented to date within the nursing literature and applied to all clinicians in order to foster meaning from moral distressing patient situations occurring within clinical practice. This form of resilience has been identified as a means to transform ethical dilemmas and the subsequent moral suffering produced into action and growth beyond proposed individual and system-level interventional approaches. Moral resilience involves the clinician's ability and competency to "*sustain*, *restore* or *deepen* integrity" in response to moral challenges, uncertainty, suffering, or impediments [89–93]. It requires the capability of the clinician to discern the appropriate levels of moral responsibility in an ethically complex, conflict-laden clinical situations involving internal and external factors associated with care [89–93]. Additionally, moral resilience necessitates the fostering self-awareness, self-knowledge, and self-compassion with and a commitment to values [89–93]. Self-confidence is essential to directly address immediate adversity encountered in the clinical environment and adaptation to a continually evolving healthcare landscape. Moral resilience is cultivated from a self-regulated, calm attitude, strong values, and moral action [88–92]. It is a key element of clinician well-being, empowering clinicians to positively adjust to adversity encountered daily within the medical community and within the clinical environment. Although research centering on the moral resilience experience for physicians remains limited, thematic identification from a recent qualitative study exploring

interprofessionals' definitions of moral resilience revealed integrity and buoyancy were required to address moral challenges experienced within the work of healthcare [94].

The Virtue of Resilience

Virtue ethics is the study of the individual's moral, positive virtues or character strengths that are fundamental for a good life [95–97]. This form of normative ethics postulates that it is the practice of these very virtues that aids the individual in the navigation of ethical challenges encountered in society. In the case of adversity, the individual need not to shy away from suffering but merely connect to it, learn, grow from it, thrive. This premise can readily be applied to the case of the physician facing ethical dilemmas in the care of patients. For example, according to ethicist David Hume, of the many moral virtues previously presented (e.g., courage, truthfulness, temperance, liberality, magnificence, proper ambition, righteous indignation, modesty, friendliness, wittiness, magnanimity), Hume believed that perseverance and resilience are equally morally significant to life [95, 96]. This practical ethical argument can be justified by Hume's application and examination of the following unique personal character strengths which include those "agreeable to self"; "useful for self"; "agreeable to others"; and "useful to others" [95, 96]. Therefore, as resilience is recognized as a beneficial, favorable character strength for the individual, resilience, in itself, is a virtue [96]. A virtue, such as resilience, once acquired, becomes characteristic of the individual. Furthermore, this character-based approach centers on how virtue, and specifically resilience, is acquired through exposure, learning, and practice. Consequently, the individual's ethical code is shaped and formed by moral character.

Individuals develop this moral character through the practice of honesty, fortitude, and fairness in the presence of community where they ultimately thrive [95–97]. Ultimately, this resilience benefits the culture and community the individual shares in for the long term [95, 96].

This rationale has been supported in several published peer-reviewed empirical research studies. The first study investigated the role of character strengths and virtues for over 1000 youths who have been exposed to war and conflict in the Middle East revealing character strengths moderated relationships between conflict exposure and psychiatric symptoms [98]. In another study, character strength was found to be positively associated with resilience compared to other factors (positive affect, optimism, self-efficacy social support, self-esteem, and life satisfaction) [99]. Most importantly, the identification of the character strengths utilized by physicians has been investigated in an online study of approximately 200 hospital physicians in Austria, Europe. Here, the following character strengths and virtues (in parentheses) used by physicians were revealed as most critical for optimizing physician well-being and work engagement (fairness, honesty, judgment, love) and burnout (fairness, judgment) in the workplace [100]. Clearly, based upon this evidence, the virtue of resilience requires additional investigation by the medical community as a

relevant component of well-being in order to assist their physicians to thrive as they face ethical challenges and adversity within the medical workplace.

Addressing the Ethical Issues Associated with Physician Burnout in Oncology: Assessment of Moral Distress, Respect of Values, Learning Resilience Skills – Mindfulness Training

The case of Dr. A illustrates a common scenario: he recognizes that he is stressed yet does not take the time to stop to understand what is happening, much less create an action plan. Dr. A's belief, although he hasn't quite articulated it to himself, is that while he realizes that he is at risk of burnout, he doesn't know how to prevent it or address the symptoms. His case represents a common situation for physicians in cancer care. Because many clinicians did not have burnout prevention included in their training, it is worth naming common tacit assumptions and strategies that do not work [71]. Many physicians assume that burnout occurs when they have relinquished all freedom, everything he has to his work, and that when a fixed quantity of energy is used up that burnout becomes inevitable. In addition, many physicians during training experienced attitudes from role models that the ideal approach to cope with stress is to "tough it out" and that physicians need to deal with these issues on their own time. The strategies that result from these erroneous but common assumptions are that burnout should be approached by working longer, and harder, not admitting stress self, and addressing colleagues mostly by venting behind their backs. None of these strategies are effective – they simply compound the problem. Preventing burnout proactively and addressing established burnout needs to be addressed at the individual level and system level [71]. At the organizational level, institutions (academic centers, private practice) have an important role in recognizing burnout and its ethical impact on overall well-being, assessment is key, engagement of leaders and physicians in collaborative action planning is critical; promotion of learning skills that prevent burnout, and improvement of practice environment and culture.

A Call for Assessment and Intervention Within the Organization

Efficacy research examining the impact of individual and organizational burnout interventions found that institutional interventions are more effective than individual approaches [101–103]. Recognition and implementation of strategies designed to reduce practice-related burnout and moral stress, uphold physician ethical standards and values, and foster moral resilience in organizations are needed to increase well-being, rekindle professional engagement, and redefine ethical culture. Moreover, the support of organizational leadership plays a significant role on the professional satisfaction and burnout of physicians [48–50]. Organizational change is key, and approaching resilience is based upon upstream, early intervention. Clinician well-being is influenced by personal resources and work demands;

Table 7.5 Assessment and intervention within the organization

1.	Organizational duty to the physician: respect for values, supportive culture, communication, flexible work schedules
2.	Assessment of the ethical work climate and moral distress
3.	Improving physician well-being: enhancing moral cognition and action – mindfulness training
4.	Building community and peer relationships

therefore, fostering resilience for common challenges faced by physicians would be of benefit for building self-awareness. To address workplace issues, the assessment of burnout and the physician's perception of work demands and workplace engagement factors is a critical first step. It is vital to prioritize individual-skill building and evaluate physician burnout, work-life factors, and moral distress over time. Routine, longitudinal assessment of burnout and well-being using well-validated measures is essential. Data should be utilized to engage clinicians and leaders on fostering communication regarding salient issues for problem-solving and intervention to ensure an ethical climate. Enhancing physician autonomy is critical. Workflow changes (e.g., team-based care, less administrative tasks) are crucial. Burnout impacts the organization, the entire team, and most importantly the physician. Yet, physician burnout provides an opportunity for the medical community, including the cancer community, to prioritize oncologist physical and emotional well-being. Consequently, the cancer organization, with leadership's support, should prepare, plan, and implement interventions to build a supportive, ethical work climate to restore resilience utilizing optimal, evidence-based programmatic interventions and aid in building community and peer relationships (Table 7.5).

Organizational Duty to the Physician: Respect for Values and a Supportive Ethical Culture

As an initial step to addressing this challenge, organizations must recognize the key drivers of burnout and satisfaction in physicians. Although multiple factors adversely impact physician well-being, the six work-life dimensions must be assessed: workload, work efficiency, control/flexibility, values alignment, meaning in work, and work-life integration [39, 40]. The organization is responsible for the provision of practical work-load/productivity expectations, an efficient practice environment, oncologist input into practice decisions, and physician flexibility/control over their work [12]. Organizations should uphold and respect the essential personal and professional values of physician values as they fulfill their obligations to patients. These organizations have an ethical obligation to provide essential informational resources to physicians, such as oncologists, to fulfill their duty of providing quality oncology care. Quality improvement devoted to enhancing physician safety is key involving the design of flexible work schedules to promote physical resilience;

prioritizing overall well-being (e.g., sleep, nutrition) is vital [50]. Offering opportunities for individual oncologists to focus on, some portion of their time, on the aspect of work that provide meaning and purpose (e.g., a specific type of cancer, education, supportive end-of-life care, clinical trials, quality improvement, administration), rather considering them as homogenous "clinicians," is also critical for the preservation of physician engagement in the long term [104]. Practice structure and organization (e.g., call schedule, hospital coverage arrangements, office work hours, vacation coverage) can either promote or harm efforts at improving and maximizing work-life integration [71].

Assessment of the Ethical Work Climate and Moral Distress

Addressing moral distress involves the cultivation of ethical, compassionate occupational environments. Ethical, occupational environments are measured using the Hospital Ethical Climate Survey to evaluate perceptions of the current workplace mechanism supporting ethical practice [54]. Also, routine moral distress assessment is critical to ensure an ethical work climate exists in oncology [105–107]. The Moral Distress Scale-Revised (MDS-R), a 21-item instrument, assesses the individual's perceptions of hypothetical scenarios causing moral distress in two areas: (1) frequency of the encountered work situation and (2) intensity of moral distress [107]. If moral distress is addressed, empirical evidence confirms that physician, and specifically the oncologist, introspection and team reflection arise yielding enhanced interpersonal understanding [57]. Organizational commitments to physicians are paramount in resolving moral distress.

Improving Physician Well-Being

Organizational interventions are critical mechanisms to addressing physician well-being and fostering resilience [93, 108, 109]. Professionally empowering the oncologist to thrive, overcome adversity, and positively adapt to stressors within the clinical environment is essential for cultivating resilience, including moral resilience [88, 93]. As described above, resilience promotes well-being by strengthening the oncologist's vitality, self-efficacy, engagement, and the ability to cope. Team-centered interventions can contribute to improving physician well-being. Individual burnout interventions have been implemented at the organizational level [102, 103, 110]. These train-the-trainer interventions should be strongly encouraged as an ethical response for physician care. For example, well-accepted, empirically validated, efficacious approaches such as mindfulness-based stress reduction (MBSR) and cognitive behavioral therapy address unhelpful thoughts and fears to foster self-compassion [111–114].

Enhancing Moral Cognition and Action: Mindfulness Training

Recent evidence suggests that morality is a multifaceted system of principles and values which is executed through a dynamic physician-environment interaction [115]. In fact, based upon traditional Buddhist practice and outcomes from biopsychological and neuroscience research, the development of a "mindful state" fosters an awareness of morally related internal and external environmental and situational cues. These cues promote the emergence of moral cognitive awareness of ethical conflict, reasoning to problem-solve, and cognitive processes leading to prosocial moral action to address ethical conflicts and dilemmas. This application along with other experimental psychological analyses examining the impact of mindfulness on ethics, virtues, and character strength expands current thought that mindfulness mediation is only relevant for the improvement of psychological well-being and cognitive skills [116].

In contrast to cognitive-behavioral techniques that center on the content and restructuring of thoughts, mindfulness meditation traditionally involves placing purposeful attention on the process of thoughts [117, 118]. For physicians, the relevance of mindfulness is that it offers training to change how they deal with multiple demands, the constant pressure to multitask, and habits that keep them focused on the cognitive skills used clinically. To date, two seminal studies indicate that mindfulness training for practicing clinicians can have an effect on burnout, empathy, and well-being for clinicians [117, 118]. It is worth noting that mindfulness brings full attention to the present moment, rather than distraction, and that not all forms of mindfulness have been comprehensively studied.

Fostering Community and Peer Relationships

Cancer organizations should strive to support an enhanced, collaborative community [119]. The ability for a clinician to connect with other clinicians at a personal level, in a way different from their typical clinical duties – either with family, friends, or colleagues – has also been identified in research aimed at identifying components of well-being. Mutual sharing of perspectives from peer physician colleagues alleviates moral distress. Peer support is an effective, meaningful resource designed to promote institutional resilience [48–50, 120]. It enhances the oncologist's professional development by enhancing mastery of clinical interactions [119]. The value of peer support lies within the oncologist-oncologist camaraderie, acceptance, and compassionate understanding gained [71, 120]. A deeper connection to self, patients, and colleagues develops from shared experiences explored through various perspectives centering on issues of dying, suffering, or grief [120–122]. Organizations foster peer relationships in times of crisis through community-building; prioritizing workplace factors (i.e., enhancing workflow); virtual peer meetings; physician-driven meditation groups; and telephone support [123, 124].

Peer support is beneficial for addressing moral distress for considerable systemic challenges without immediate solutions [119–121]. Moral distress can be rectified in a trustworthy environment where physicians are encouraged to prioritize well-being.

Rebuilding Local Culture in Medicine

For physicians, whose practices have changed from self-run small businesses to large managed systems where they are employees, the issue of work culture represents an important transition [124]. Physicians who are adjusting to having their work defined and structured as employees, negotiating with payers in new ways, mandates for quality and documentation that more complex than ever, are dealing with change management, leadership challenges, and reimbursement changes that have changed significantly how physicians regard each other as colleagues. In addition, the shift of medical care, including cancer care, to a team-based model means that physicians form new kinds of collegial relationships with nurses and other specialists. As medical care undergoes continued restructuring, the importance of rebuilding a community of practice that connects physicians as committed clinicians will require that individual clinicians think bigger than the organizational roles they are assigned to the community of colleagues they want to practice, learn, and care for patients with. As individual clinicians, physicians may not possess the ability or power to change a situation like that – yet physicians do each have a responsibility to advocate and participate in building the kind of culture that ensure that they do their very best work and offer the optimal, ethical care for patients.

Conclusion

To date, burnout and moral distress have intensified in medicine impacting the physician's emotional health due to the ethical dilemmas encountered as they address patient needs and administrative tasks. Yet, unaddressed burnout has the potential to damage and harm this physician-patient relationship. Advocacy is critical for awareness, education, and promotion of the plight of the physician in an open communication forum to restore professional fulfillment within the organization. Supportive, ethical climates can be developed and enhanced through community collaboration. Moreover, the organization has a fiduciary duty to commit to the care of the physician's physical and emotional health, uphold physician values, and foster moral resilience and overall well-being for a long term. In fact, the medical community (leadership, administrators, organizations, professional societies, ethicists, policymakers) must commit to this fiduciary duty by promoting a moral institutional culture by addressing the needs of the physician and ultimately sustaining the future of the workforce. Now is the time, more than ever.

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8 Euthanasia and Medical Assistance in Dying as Challenges for Physicians' Well-Being

Luigi Grassi, Karandeep Sonu Gaind, Tristan Nash, and Rosangela Caruso

Introduction

The inviolability of life and prohibition for doctors to end it are ethical tenets that inform the entire medical culture, codified since Hippocrates, in fourth century B.C. Most likely, the Hippocratic code interpreted the best practice of the period, as a primordial and long-lasting manifestation of the natural law. Then as now, physicians were called to act in accordance with the non-maleficence principle (*primum non nocere*) (see also Chap. 1), avoiding by all means damage to their patients. The validity of natural law has been reiterated in human history, enduring time to the point of influencing the Declaration of Human Rights [1, 2]. In this light, doctors feel the moral duty to act with the purpose of reducing their patients' suffering.

In many areas of medicine, however, especially palliative medicine, the themes of death with dignity have been examined both from the perspective of palliation as

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intended by the World Health Organization (WHO)[1] and also from the perspective of hastening the patient's death to put an end to his/her suffering, as a form of care. Within this framework, the questions about what physicians are allowed to do or not to do in order to care for people in terminal phases of physical disease (e.g., cancer, lateral amyotrophic sclerosis) has been the object of an ongoing and contentious moral debate. Several questions arise with respect to this: are physicians allowed to use all the possible ways to reduce suffering of patients, including use of drugs that will hasten death? When physicians withhold-withdraw life-sustaining medical support in a dying person in whom nothing therapeutically effective can be done, are they killing by intention? If so, is there any difference between omission (i.e., withholding-withdrawing treatment) and action (i.e., actively and intentionally terminate the patient's life by an act such as a lethal injection or in helping a terminally ill person to end his/her life)? This has opened the door to the debated problem of euthanasia (EU) and physician-assisted suicide, more recently defined as physician-assisted death, medical-assisted death, physician assistance in dying (PAD), or medical assistance in dying (MAiD).

Besides the moral matter, physicians have therefore to practically deal and compete with the complex situation to put an end to a person's life or to help him/her to do so. This understandably can give rise to intense feelings of pity, empathy, responsibility, or guilt and put a strain on their capacity to override the dilemma between ideal concepts of justice, care and reality. Even when a doctor is rationally convinced that deciding to put an end to one's severe suffering is a fundamental right of the person, this conflict, innate in the medical profession, maintains the potential to generate a profound distress and undermine emotional stability and well-being.

In this chapter we will examine some of the literature regarding the problems of EU and MAiD and concentrate our attention on the potential emotional implications and consequences on physicians and healthcare providers, including moral distress ("an adverse psychological/emotional reaction to the inability to do what one believes is morally required" is highly present in end-of-life care context, as a consequence of the morally charged nature of the decisions to be taken [3] (see details in Chap. 8)) and other psychological disorders, although the literature on this is quite fragmented and sparse.

[1] The World Health Organization (WHO) defines palliative care as the "approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual." Palliative care provides "relief from pain and other distressing symptoms, by affirming life and regarding dying as a normal process; intending neither to hasten or postpone death; integrating the psychological and spiritual aspects of patient care; and offering a support system to help patients live as actively as possible until death […]" [52].

The Moral Debate around EU and MAiD

The problem of action and omission are important topics in medicine. In a general sense, action relates to all the intentional activities (*doing*) that a physician may perform to a patient; omission relates to the intentional decision to not act (*not doing or stop doing*) to the patient. EU, MAiD, and also palliative sedation are part of the former, while withdrawing-withholding treatment is part of the latter, as summarized in Table 8.1.

Without going into the details of palliative sedation and withdrawing-withholding, it is important for the purpose of the aims of this chapter to concentrate attention on the issues related to EU and MAiD. The moral debate about these practices is extremely vast, with those explicitly against both practices and those supporting them as morally acceptable.

Regarding the first group who opposes the practices of EU and MAiD and considers these immoral, thus non-legalizable, it is claimed that religious and secular traditions uphold the sanctity of human life. This group argues that society and medicine have to preserve human life and uphold suicide prevention underlining that there is an important difference between passively "allowing to die" and actively "killing." Therefore, neither EU nor MAiD is morally justifiable. In this sense, medicine is definable by its devotion to a single and clearly stateable purpose: healing and conserving health and life since in the doctor-patient relationship stands the moral duty of the preservation of "the most intimate, most personal, and most humane uses of technology—the helping, caring, and curing of vulnerable, anxious, dependent, and trusting members of the human community" [4] (page 24). Therefore it is vicious and immoral for a physician to act intentionally in order to destroy even vestigial integral functioning of her patient [5]. As a further argument, patients, as individuals, have also obligations (e.g., to their family, social context including physicians, nurses, and the society in general) as long as they are alive. These obligations limit their rights, and if patients may refuse medical treatment they do not have the right to be killed, since this, in the reciprocity of the doctor-patient relationship,

Table 8.1 Definitions about acts and omissions in medicine

1.	*Palliative sedation* (formerly defined as *terminal sedation*): administration of drugs with the intention to reduce refractory symptoms of suffering, even if the intervention may hasten the death of the patient (*principle of double effect*)
2.	A*ctive euthanasia*: Causing the death of a patient by administering a lethal drugs (a) *Involuntary*: Causing the death of a patient without his or her consent when he or she is competent to give consent (b) *Nonvoluntary*: Causing the death of a patient who has irrevocably lost – Or never had – The capacity for competence, so without any consent from him/her (c) *Voluntary:* Causing the death of a patient at that person's voluntary and competent request
3.	*Medical assistance in dying (physician-assisted death* or *physician aid in dying* or *physician-assisted suicide*): Intentionally helping a person to end his/her life by administering or providing drugs for self-administration, at that person's voluntary and competent request
4.	W*ithdrawing/withholding life-sustaining supports*, sometimes defined (but many rejects this term) as *passive euthanasia*

would mean that physicians have a duty to kill [6]. Those of this view would argue that EU or MAiD violates the Hippocratic Oath's directive of "nor shall any man's entreaty prevail upon me to administer poison to anyone."

In an opposite position are those endorsing the practices of EU and MAiD and considering those practices moral, thus legalizable. They claim that everyone (not the society, not the family) is the owner of his/her own life (including death, as part of the process of life). Thus, as an autonomous, rational, and self-aware individual, his/her decisions, including those about time and circumstances of death, should be respected (e.g. [7, 8]), since giving everybody the right to have a good death through EU or MAiD should be acceptable as a universal principle. It can consistently be willed as a law that everyone ought to obey, as the only rules which are morally good are those which can be universalized.[2] From this perspective there is no reason to consider it morally wrong to benefit the patient by giving him/her a shorter, less painful life rather than having him/her endure a longer, more painful one, exactly as it is for amputating a leg which may be done for the person's own good [9]. These argumentations confirm the need to reconcile the misunderstanding about the good (i.e., life) and the bad (i.e., death), since the opposite can be true, with death being a greater good than living in suffering.[3] Furthermore, if a right to live exists, this does not mean just to exist but to have a life with dignity and values, since a life without dignity is not life anymore. For these reasons those of this view see the practices of EU and MAiD as morally permissible. They would argue that the Hippocratic Oath's directive that "I will take care that they (the sicks) suffer no hurt or damage" supports helping people end their life if it helps them avoid prolonged suffering. A further argument to support the legalization of EU and MAiD is to dissolve the distinction between deaths caused by actions and death caused by omissions. In certain circumstances it is thought to be permissible to allow a person to die. If no morally significant difference can be found between deaths caused by omissions and deaths caused by actions, then, by extension, there are grounds for allowing for death caused by actions.[4]

[2] Through this perspective, I, as a competent adult in a terminal phase of an illness, should have the right to die when and how I want to and to choose the timing and manner of my death, including the right to accept or refuse treatment that will prolong my death (thus my agony), since it is immoral to allow to prolong a life that has lost its dignity. On these premises, prohibiting EU and MAiD drastically limits the rights of personal liberty and prevents intervention aimed at solving loss of independence, of sense of purpose and meaning, and functional capacities.

[3] From a utilitarian point of view, deciding to put an end to life will make a severely ill patient happier (good death) than being constrained to a slow death in pain and existential distress (bad death). From a libertarian point of view, if an action, such as EU and PAD, promotes the best interest of everyone concerned and violates no one's rights, then that action is morally acceptable.

[4] In this sense James Rachels seeks to demonstrate that there is no morally significant difference between deaths caused by omissions and death caused by actions by arguing that someone who kills their young cousin by drowning them in the bath to benefit from an inheritance is equally morally reprehensible as a person who intends to drown their cousin only to see them slip in the bath and standby while they drown (p. 32). He further argues that letting a person die is a type of action, demonstrated by the fact that we would consider a doctor blameworthy if he needlessly let a person die. As Rachel argues, "it would be no defense at all for him to insist that he didn't 'do anything.'" He would have done something very serious indeed, for he let his patient die (p. 34).

In relation to the welfare of physicians, we may instinctively feel that bringing about death by omission places less of a psychological burden upon the physician than death caused by an action. If we are to accept Rachels' argument ([10], see also note 4), then there are no good grounds for why this should be the case. However, it may be that the perceived difference in the psychological burden highlights a moral difference between cases where a death is brought about by an omission and cases where it is brought about by an action. Even if this is not the case, the difference in the psychological burden between the two types of conditions is still a consequentialist factor to take into consideration when assessing whether EU and MAiD should be permissible.

As the scope of who could or should be eligible for EU or MAiD expands beyond those who have terminal conditions to those who are not near the end of life but suffering from nonterminal conditions (e.g., dementia, refractory depression or schizophrenia, severe personality disorders), this debate gets even more complex. Some who may consider EU or MAiD acceptable for terminal conditions oppose it for those with nonterminal conditions on various grounds. This includes those who make ethical arguments in considering a moral distinction between helping a dying person die peacefully and providing death to a non-dying person, to clinical arguments regarding the unpredictability of prognosis of some nonterminal diseases such as most mental illnesses, to social justice arguments that psychosocial suffering of nonterminal patients risks vulnerable or marginalized persons seeking death as a relief from poverty, loneliness, or other psychosocial stressors [11–16].

Effects of EU and MAiD on Physicians

As said, while the theoretical debate about the ethical and moral implications and contrasting positions on EU and MAiD is increasing, the practical aspects, involving the medical profession, have determined a significant change in the organization of the health system in the countries where these practices are legal, including the Netherlands, Belgium, Luxembourg, Switzerland, Spain, Colombia, Canada, Victoria (Australia), and some states in the USA (e.g., California, Montana, Vermont, Colorado, Oregon, Washington, Washington DC, and Hawaii). All have promulgated laws that allow physicians to provide a means by which seriously ill patients, who encounter specific criteria, may be assisted in ending their own lives [17–22]. Also, in six of the countries where MAiD is currently legal, mental disorders are also accepted as conditions for which MAiD may be granted, and in four of these countries, MAiD in minors with mental disorders is also accepted [11].

While the aim of these laws is to preserve patients' self-determination in the face of severe suffering and terminal pain, and prevent experiences of loss of dignity, the psychological and moral implications of end-of-life care procedures on physicians can be extremely complex, especially when the themes of direct actions, namely, EU and MAiD, are at stake and need to be explored [23].

In fact working in some contexts, such as oncology, intensive, and palliative care units, but also, as said, more recently psychiatry or geriatrics, poses healthcare professionals under a moral strain: clinicians may literally feel that they have another person's life "in their hands," with doctors expressing feelings of powerlessness and isolation, being profoundly adversely stricken and shocked by the suddenness of the death [24]. Furthermore, these areas require physicians to manage the tension between a twofold responsibility: on the one side, professionals are expected to act with the aim to save the patients' lives; on the other they feel an ethical obligation to maintain patients' quality of life acceptable and dignified [25, 26]. This renders the ethical decision-making process a demanding task for clinicians, with consequences on their well-being and, in certain circumstances when distress is particularly intense and enduring, on their capacity to provide an acceptable quality of care for the patients. The main physician's role in EU and MAiD determines the need to understand the psychological impact of these practices on them. In effect, changing the direction of care from preserving and extending life to helping someone end it – although with the aim of preserving dignity and autonomy of patients – can be felt as a detachment from the fundamental values of medicine to heal and promote human integrity, thus producing critical effects at a deep emotional level [24].

Early descriptions from the countries where EU and MAiD have a long tradition, such as the Netherlands, highlighted that many physicians who had practiced EU stated that they would be extremely reluctant to do so again [27]. Different results were presented in a further report [28] of a sample of 405 physicians (general practitioners, nursing home physicians, and clinical specialists) interviewed between 1995 and 1996. All of them had experience in having performed formal EU (i.e., administering drugs with the explicit intention of ending a patient's life at the patient's explicit request), MAiD (described by the authors as assisted suicide, i.e., prescribing or supplying drugs with the explicit intention of enabling the patient to end his or her own life), life-ending without an explicit request from the patient (i.e., administering drugs with the explicit intention of ending the patient's life without a concurrent explicit request from the patient, that is, involuntary or nonvoluntary EU), and alleviation of pain and other symptoms with opioids (i.e., administering drugs in doses which the interviewees believed large enough to have a probable life-shortening effect). In 52% of the cases of hastening death, physicians had feelings of comfort afterward, which included feelings of satisfaction in 44% and of relief in 13% (higher among those who performed MAiD in comparison with other forms of hastening death). However, feelings of discomfort, referred to as emotional (28%) or burdensome (25%) or heavy responsibility (13%), were also reported (42% of the sample). Discomfort was higher among those who performed EU (75%) or MAiD (58%) in comparison with those who performed involuntary/nonvoluntary EU (34%) or alleviated pain and other symptoms with opioids (18%). Almost all physicians were willing to perform EU (both voluntary and involuntary/nonvoluntary) again in similar situations, 5–7% had doubts, none had regrets, while 43% of those performing voluntary euthanasia would like to have support afterward in comparison with 16% of those ending the life of the patient without his/her explicit request.

More recently, Evenblij et al. [29] reported the findings from a study of two groups of physicians, the first who refused a request for EU or MAiD and the second who granted this request. Concerns about specific aspects of the EU and MAiD, such as the emotional burden of preparing and performing the practices, were commonly reported by physicians who refused and who granted a request. The large majority of physicians reported contradictory emotions after having performed EU or MAiD. Also, pressure to grant a request was mostly experienced by physicians who refused a request, especially if the patient was old, had a life expectancy of less than 6 months, and did not have cancer. Among primary care physicians, it has been shown that different emotions emerged during EU, specifically tension (before EU), loss (during EU), and relief (after EU) [30]. The relationship with the patient, the sense of personal loneliness, the role of the family, and the pressure from society also emerged as main issues physicians had to deal with, underlining that the need to have sufficient emotional space and time to take leave adequately from a patient is important for physicians. In a Belgian study carried out on nurses, however, moral distress was more related to providing futile and inadequate care than EU and believing to hasten an unconscious patient's death by increasing morphine in geriatric end-of-life care [31].

In the USA, a study carried out among randomly selected oncologists who reported participating in EU or MAiD showed that about half of the physicians felt comfort from having helped a patient with these practices. One quarter regretted performing EU or MAiD, and 16% reported that their emotional burden adversely affected their medical activity [32]. In a mail survey of 81 physicians who had performed EU or MAiD, Meier et al. [33] reported the following responses pertaining to the most recent prescription for a lethal dose of medication or a lethal injection: 18% of the physicians reported being somewhat uncomfortable with their role in writing a prescription, and 6% were very uncomfortable with the lethal injection. In further study, [34] the impressions of 35 Oregon physicians who had performed MAiD were examined and showed that they often felt unprepared and experienced apprehension and discomfort before and after receiving requests (e.g., concerns about adequately managing symptoms and suffering, not wanting to abandon patients, and incomplete understanding of patients' preferences, especially when physicians did not know patients well). Even when they felt they had made correct choices, many physicians expressed mixed feelings about what they had been through and uncertainty and a sense of estrangement, as it appears from some of their responses: "But my thoughts are about the fact that I know that it is a very difficult thing as a physician…I wonder if I have the necessary emotional peace to continue to participate." "I find I can't turn off my feelings at work as easily…because it does go against what I wanted to do as a physician." In some other cases, physicians report a feeling of entrapment and a moral conflict arising from the patient's request to be helped to die: either they agree to perform EU or MAiD, and then they will struggle with profound emotional consequences, or they retreat, and this will make them feel as if they have abandoned their patients in despair [34]. This aspect, regarding countertransference, can furtherly complicate the emotional context related to end-of-life care.

More data are however needed regarding the personality and the emotional conditions of physicians, considering, for example, that in a country where EU and MAiD are not permitted, such as Italy, agreement with both practices among general practitioners was correlated with non-Catholic religious affiliation, inexperience in treating terminally ill patients, and the burnout dimension of depersonalization [35].

A further important issue raised as a problem not solved yet at this level regards the new educational needs for both medical students and physicians who will be called to act in MAiD. As Gewarges et al. [36] underline, there is little published research on the impact that such deaths have on physicians who provide MAiD, or on others who are indirectly involved, and there is still virtually no literature to guide MAiD education in clinical practice. This is in clear contrast with the cumulative evidence regarding the impact of patient death on medical students, residents, and attending physicians that suggests a need for supported discussion and debriefing to process and reflect on the emotional experiences that follow patient death [36]. With respect to this, Patel et al. [37] showed that dealing with requests for hastened death determined clinicians indicating their responses in seven domains: policies, professional identity, commitment to patient autonomy, personal values and beliefs, the patient-clinician relationship, the request for hastened death, and the clinician's emotional and psychological response. These needs are in line with data indicating that although participation in MAiD requires a large investment of time and it is emotionally intense, physicians rarely receive support from colleagues, while it is more common to discuss emotional aspects of their experiences with their spouses [34].

The recent extension of the practice from terminally ill patients to other contexts (e.g., patients with severe mental illness or dementia) is posing further challenges. Again the moral debate has to do with the principle, accepted by countries that approved its application, that offering MAiD to a patient with a mental illness who suffers unbearably, enduringly, and without prospect of relief, such as schizophrenia, can be ethically acceptable, since the seriousness of the suffering of the patient does not depend on the cause of the suffering; thus a distinction between physical (or somatic) and mental suffering should be rejected [38–40]. Data regarding the experience of these countries where MAiD is possible in psychiatry are accumulating, although, to our knowledge no literature have investigated the psychological effects on physicians, especially considering the difference in anticipating the death to a person who is terminally ill and a person who is physically health but psychiatrically ill.

Areas Requiring Further Study

While studies have focused on the characteristics of patients seeking EU and MAiD, there is a relative dearth of research on the characteristics of physicians providing EU and MAiD and how this may influence the impacts of EU and MAiD on physician health and well-being. Several studies suggest that patients seeking EU and

MAiD often do so for reasons of existential distress and that their views on assisted dying are mostly determined by psychosocial traits and beliefs rather than disease severity or symptom distress [41–43]. While different authors have conflicting views on whether EU and MAiD provide hope to patients seeking relief from a state of suffering, or lead to despair by signaling there is no hope of improvement [44], little is known about providing hope in the context of EU and MAiD. While some have suggested "false hope" in providers might lead them to recommend "invasive and useless" treatments instead of EU or MAiD, others question whether similar pressures of "empathic frustration and feeling powerless to help while witnessing patients' continued sufferings, coupled with the desire to be useful, [could] lead other providers to support MAiD) as a way to feel helpful themselves" [45]. What drives physicians to participate, or not participate, in EU and MAiD is naturally likely to impact their reactions to EU and MAiD, and it would be important to further study this to understand impacts on physician well-being. This would be particularly important in jurisdictions where EU and MAiD are provided for non-end-of-life conditions, such as mental illnesses. Uncertainty of predicting irremediability, conflation of psychosocial suffering with illness suffering, and challenges of differentiating nonterminal patients seeking EU and MAiD from suicidal patients suicide prevention initiatives could be anticipated to have complex effects on physician well-being and mental health [46].

Conclusions

The changing scenario in the approach to death and dying, with an increasing number of countries endorsing and legally approving the practice of EU and MAiD, has determined the need to examine in more detail the psychological implications and consequences for physicians practically performing or involved in both practices. As Stevens [24] suggested the shift away from the fundamental values of medicine to heal and promote human wholeness to the pressure on and intimidation of doctors by some patients to assist in suicide has significant emotional impacts on clinicians. Participation in EU and MAiD can in fact create significant conflict: from one side it can contrast with perception of professional roles, responsibilities, and personal expectations and the duty to preserve life, and from the other it can perfectly attune to the sense of helping the patient and not abandon him/her, according to the duty to relieve suffering.

In spite of the importance of these themes and this issue to medical practice, as recently indicated by Kelly et al. [47], this is a largely neglected area of research with limited studies to date that indicate 30–50% of doctors describe emotional burden or discomfort about participation and significant, ongoing adverse personal impact in about 15–20%, while findings also identified a comfort or satisfaction in believing the request of the patient was met. Since responding to a request for hastened death can be an overwhelming task for clinicians, it is necessary to have an approach that takes into consideration the legal, personal, professional, and patient perspectives to provide a response that encompasses all the complexities associated

with these delicate areas of the medical profession [37]. This highlights the need to address the responses and impact on clinicians and the support for clinicians dealing with this challenging area. The effect of countertransference in the doctor-patient relationship may influence physician involvement in these practices should be also examined.

This is particularly true for the further challenging area of the application of EU and MAiD in nonterminally (somatically) ill patients, that is, those with dementia or psychiatric disorders or just tired of living. Dutch data show that the majority of physicians would grant a request for EU or MAiD in a patient with cancer or another physical disease, while about one third found this conceivable in patients with psychiatric disease, early-stage dementia, or advanced dementia, and one quarter for people tired of living [48]. Similarly in Canada, while over 70% of psychiatrists support the availability of MAiD in some situations, only one third support MAiD for mental illnesses in the absence of a terminal condition [49]. Risks have been raised in this area, given the complex societal and medical interactions involved, including the possibility that the slippery slope is a reality already. For example, economic pressures are a problem in most health systems, and providing MAiD is far more cost-effective than providing medical care to chronically ill or end-of-life patients, with estimates of between $34.7 million and $138.8 million in annual savings under current Canadian MAiD policies (which currently allow MAiD only for conditions where death is "reasonably foreseeable"; the cost implications would be greater if MAiD were expanded to other conditions) [50]. It has also been pointed out that, as some of the people requesting EU or MAiD are likely to be a source of usable organs for transplantation, their broad inclusion would strengthen the link between EU and MAiD and organ donation, with potential damage of general trust in medical, professional, and public health authorities [51]. The psychological implications on physicians should be carefully examined, given the further conflict for the role that physicians have in the health system and their moral boundaries and duties.

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Moral Distress in Physicians

9

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Moral Distress in Physicians

Physicians operate in systems, like citizens in a republic, and inevitably conflicts arise between the values and needs of the physician and those of the institution. Much of the time, a reconciliation or compromise can be found, but when this is not the case, these points of friction can create an internalized phenomenon generally called moral distress. Healthcare systems have become increasingly complicated and opaque, leading to mounting pressures and escalating stress in the physician workforce. This chapter will provide an overview of moral distress in physicians including definitions, common sources and constraints, as well as interventions with specific examples from oncology and the COVID-19 pandemic.

Definitions of Moral Distress

There have been many attempts to define Moral distress since its introduction to the literature in 1984 in Andrew Jameton's work on nursing ethics. Jameton categorized moral and ethical problems in the hospital broadly as uncertainty, dilemmas, and distress. He described distress specifically as an experience that arises "when one knows the right thing to do, but institutional constraints make it nearly impossible to pursue the right course of action." [1] Following this description, additional refinements emerged. In 1993, Jameton added an axis of time, describing initial

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moral distress or the "feeling of frustration, anger, and anxiety" experienced in these moments and reactive distress which occurs when the initial distress is not acted upon [2]. Additional formulations more explicitly link the concept of moral distress with psychological and physiological suffering. Both features of this term, morality and distress, carry their own sense of vagueness which makes pinning down a clear taxonomy challenging.

One definition from 2016 that attempts to capture multiple aspects of moral distress involves three components or domains, much like contemporary understandings of burnout in physicians. These domains include negative attitudes one experiences, one's perceived involvement in a situation, and perceived moral undesirability of the situation [3]. Each one of these areas has shades of nuance; negative attitudes can be subdivided by the type, appropriateness, intensity, timing, and consequences of attitudes. Perceived involvement allows for type and degree of engagement, and perceived moral undesirability can encompass the source, degree, and accuracy of perception.

To apply this definition to the scenarios they involve, let us examine a particular case in end-of-life care in oncology, taken from a narrative review on this subject. The quote below refers to the practice of performing aggressive care at end of life, specifically futile resuscitation attempts [4].

> It is so distressing. You are beating someone's body, and often as the medical provider, you personally are beating their body… It is very difficult to go home at the end of the day and be like, 'I just did this. I just battered someone today.' (US, PGY3).

In this brief snapshot, the different facets of moral distress are reflected. This physician perceives themself as an agent of violence, likely accompanied by self-directed shame and anger and exemplifying internalized negative attitudes about their own behavior. The personal involvement of the physician is more explicitly highlighted here, as is the moral undesirability of the act, evident in the use of the verb "beating" and "batter" to refer to chest compressions.

Sources of Moral Distress

The sources or root causes of moral distress are defined by the literature in three broad categories: clinical situations, internal constraints, and external constraints. The distinction between the three can be artificial, and these categories span both the individual and institutional scope of medicine. There are, however, a few common sources of moral distress that are repeatedly referenced, specifically care near the end of life – which can prolong or hasten the dying process – interprofessional practice in a hierarchical medical system, fear of litigation, hostile and unprofessional work environments, economic and societal factors adversely affecting patient care, and organizational values and ethical climate [5]. A number of qualitative studies have helped define these common causes of moral distress and the psychological and at times physical consequences on clinicians [6]. Figure 9.1 illustrates

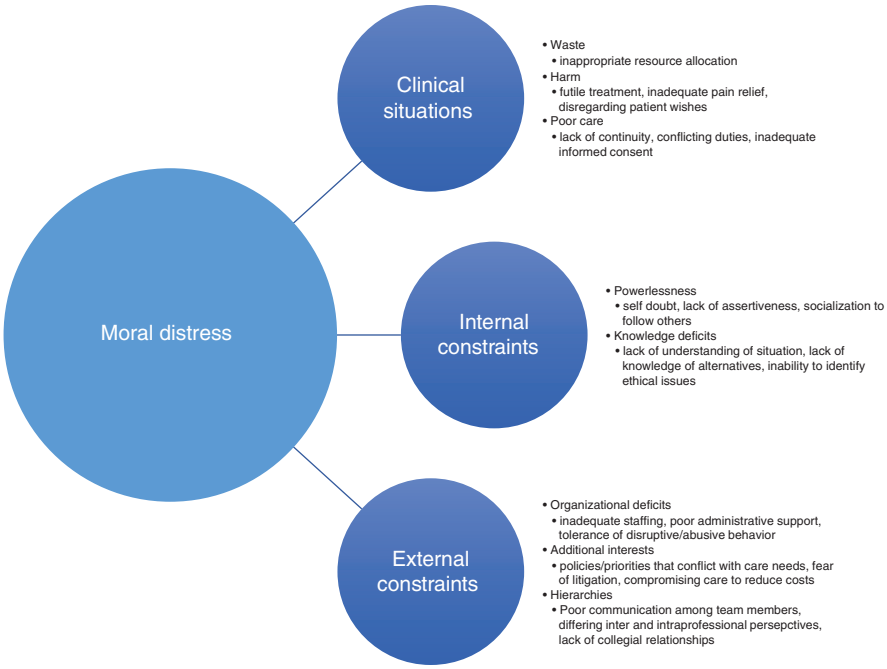

Fig. 9.1 Root causes of moral distress

these factors that contribute to the root causes of moral distress, adapted from quantitative research done on this topic [7].

Trying to quantify moral distress in a clinical environment can be challenging and is likely a shifting target tied to the time and context of a surveyed population. In one study from 2013, a single health system was surveyed for frequency and intensity of moral distress for common clinical scenarios across several disciplines including nursing, trainees, physicians, social workers, and chaplains [8]. All groups rated moral distress an intensity higher than frequency, though causes varied by discipline. Physicians were noted to have a higher mean moral distress intensity compared to other groups, though it is worth noting that the response rate was approximately 5% for physicians.

Impact of Moral Distress

The consequences of moral distress in clinicians can be hard to clearly delineate, though it seems from the very definition that the impact is predominantly a negative one. One model of the influence of Moral distress over time involves the concept of moral residue, which is the distress that remains after a situation has resolved. This residue can accumulate with repeated incidents and lead to a crescendo or breaking point, after which the providers' moral integrity erodes and can result in

desensitization and withdrawal in the face of other moral aspects of care [9]. In terms of behavioral consequences, moral distress has been recognized as an important factor that can prompt clinicians to leave a job or even leave the field [10]. Quantitative measurements have been developed, the first and most widely used in the USA being the Moral Distress Scale [11]. This scale was first created in 2001 and sought to characterize the frequency and intensity of distress in a variety of clinical situations. It underwent a revision in 2011 to include measures of moral residue, and the scale was made more applicable to a range of clinical practices [12]. There are several challenges with both qualitative and quantitative studies of moral distress, most notably differing definitions and inconsistent terminology, methodological limitations, and cultural limitations.

Another common association with moral distress is burnout, and several studies have looked at correlation between Moral Distress Scale scores and various burnout inventories. One study of ICU nurses found that moral distress was a significant predictor of all aspects of burnout [13], and another linear regression analysis of ICU clinicians also identified moral distress as independently associated with burnout, particularly severe burnout [14]. As is discussed in other chapters, the impact of clinician burnout has wide-reaching consequences for both providers and patients. Burnout can lead to poor well-being and job turnover [15], unprofessional behavior [16], decreased quality of care, and higher rates of medical errors [17]. These downstream outcomes add urgency to further study of moral distress.

Within the field of oncology, there are particular circumstances that are more likely to engender moral distress in clinicians. In an ethnographic study, three factors were observed to foster conflict: delaying or avoiding difficult conversations about poor prognosis, being caught between competing obligations, and silencing different moral perspectives [18]. Talking about end of life is complex and challenging for clinicians and often hindered by a perception of death as failure, discomfort around prognostic uncertainty, and challenging patient and family dynamics [19]. This often leads to delays in when and how treating teams address preparation for end of life. A common example of competing obligations arises in shared decision-making, when there may be incongruence between patient or surrogate autonomy and clinician's principles of nonmaleficence and beneficence. As an illustrative example, competing obligations for a clinician could arise when a surrogate decision-maker refuses pain medication for an incapacitated patient with severe cancer-related pain [20]. Resolving scenarios like this requires nuance and an ability to weigh the patient or surrogate's goals and values against the possibility of doing harm by withholding analgesia. Lastly, differing moral perspectives can arise within a team and particularly in cross-cultural situations. For example, in some cultures, it is normative for family members to ask clinicians to withhold diagnostic or prognostic information about cancer from the patient. Individual autonomous medical decision-making is not universally considered the norm, and family members may feel obligated to shield bad news from the patient [21].

This chapter thus far has addressed moral distress from an American perspective; however moral distress is not isolated to one geographical location. There is an

increasing body of literature regarding moral distress in different countries with different healthcare systems [22]. Many of the themes remain the same; however there are notable differences in cultural attitudes and resource allocation.

Moral Distress in a Global Pandemic

The eruption of global pandemic from SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2) in late 2019 and throughout 2020 has brought shared moral challenges [23]. The intense stress on medical systems has allowed for all of the root causes of moral distress highlighted above to come to the foreground in the domains of clinical situations and internal constraints and external constraints.

In the early phase of the pandemic in the USA, the lack of adequate resources to provide optimal care was notable and led to challenging ethical questions around appropriate use of these scarce supplies and fears of waste [24]. Further complicating the issue is incomplete and insufficient clinical knowledge about the efficacy or futility of different interventions for this novel virus. For clinicians who had to make choices about whom to expend resources on and why, there were – and continue to be – many opportunities for moral conflict and distress. On an individual level, the unknown and overwhelming nature of the disease engendered feelings of self-doubt and inadequacy in treatment providers [25]. These presentiments may extend beyond the clinical sphere, as physicians and nurses struggle to financially and emotionally provide for themselves and family during times of danger and uncertainty. In a survey of Chinese nurses, done around the peak of COVID-19 cases in Wuhan (February 2020), mean scores of self-efficacy were low [26], below the T norms for heterogenous adult populations [27], which may exemplify the subjective reality described above.

External factors contributing to moral injury and distress during COVID-19 occur at broad cultural, systemic, and organizational levels. Throughout the pandemic, the guidelines and recommendations from governing bodies have shifted and fluctuated in their attempt to balance individual care and community well-being. One particularly poignant example in the USA is blanket visitor restrictions for hospitalized patients, leading to the distressing reality of hundreds of thousands of Americans dying alone [28]. Furthermore, clinicians are potential vectors of disease spread, and institutional policies aimed at quarantining exposed individuals can further strain limited staffing despite increasing need. On the societal level, the pandemic has highlighted underlying injustices, with disadvantaged communities experiencing delayed access to testing, lack of insurance, higher existing chronic disease burden, provider bias, as well as disproportionate economic hardship from prolonged quarantine [29]. With these entrenched inequities leading to higher rates of mortality in certain populations, clinicians can feel complicit in a broken system. These clinical, internal, and external factors together provide a moral crucible for clinicians today, with distress stemming from psychological injury and conflicted feelings of responsibility and involvement.

Interventions for Moral Distress

Having looked at the definition of moral distress and seen ways it can occur in particular contexts, the next step is to identify different interventions. Interventions can be targeted at the root causes and components of moral injury and distress, on both individual and organizational levels. These include fostering resiliency in individual clinicians, providing support (such as interdisciplinary ethics teams and psychiatric services) and moral leadership and ethical culture.

Individual interventions for moral distress tend to emphasize the concept of "moral resiliency." Resilience is viewed as a process rather than a trait and refers to an ability to adapt to or recover from stress, trauma, or loss. Moral resilience particularly focuses on the moral aspects of human experience and involves having a sense of moral identity, responsiveness, and flexibility in complex ethical situations, exercising conscientious objections, and seeking meaning in situations that threaten integrity [30]. One of the first steps toward achieving this response involves an educational framework that introduces fundamental values, cultivates self-awareness, and develops personal efficacy. There hasn't been a consensus ethical curriculum so to speak, though some institutions have developed educational programs with didactic and high-fidelity simulations such as the Mindful Ethical Practice and Resilience Academy in the Johns Hopkins school of nursing [31].

Areas of additional study in cultivating individual moral resiliency include the use of mindfulness techniques and improving understanding of coping styles. Mindfulness meditation is adapted from a school of cognitive behavioral therapy developed and validated in the treatment of depression and anxiety [32]. This technique of pausing, noticing, and connecting to one's inner resources can help cultivate emotional regulation in the setting of adversity [33]. Another avenue of self-study involves better understanding of coping styles in the face of moral distress, which can vary between individuals and even interprofessionally. In one examination of nurses and physicians in an oncology practice, four dominant ways of coping were identified (thoroughness, autonomy, compromise, and intuition) all of which have their own strengths and weaknesses and can impact the functioning of a team [34].

On a more systems level, there are interventions that can reduce moral distress such as the implementation of ethics consultation services and mental health interventions for healthcare practitioners. Ethics committees are a common way of addressing ethical issues in US hospitals; however their role can often be variable [35]. In the context of moral distress, however, ethics consultation can serve a purpose beyond providing expertise in challenging clinical situations. They can be instrumental in maintaining the "moral habitability" of an organization, by supporting staff and leadership and fostering interprofessional collaboration [36]. Even more directed interventions, such as unit-based ethics conversations or development of a moral distress consultation service, can focus on identifying root causes of moral distress in units and systems [37]. Anticipatory mental health interventions may also play a role in supporting clinicians encountering moral distress. Organizations could provide psychological support for staff, for example,

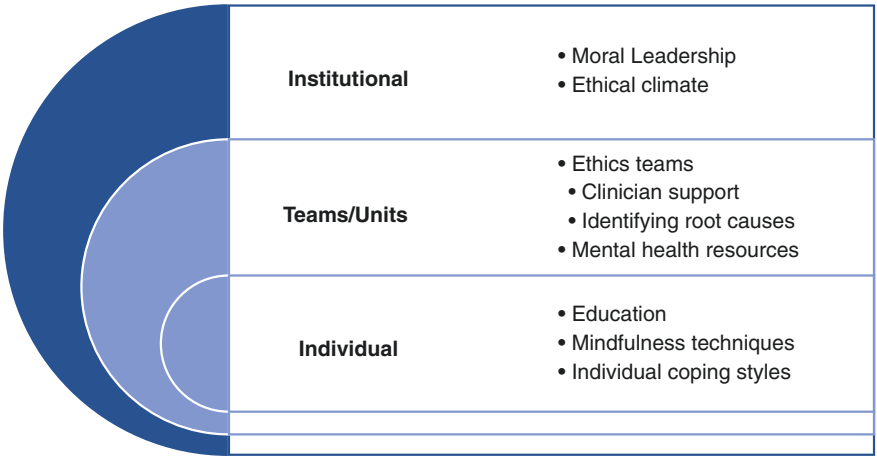

Fig. 9.2 Interventions for moral distress

addressing burnout and depression resulting from moral distress with trauma-informed therapy resources [38]. Peer groups have also been studied as an intervention for work-related stress [39] and provide a safe space for clinicians to reflect on challenging situations and develop supportive relationships.

Lastly, moral leadership and organizational culture can be powerful tools to address moral distress. Leadership in this context is distinct from management and refers to the capacity of a leader to model values and interact with and motivate their followers. In business literature, a leader's moral development is congruent with employee moral development which is positively associated with job satisfaction [40]. To bring this concept to the realm of moral distress, an ethical work climate can decrease many of the extrinsic root causes leading to moral distress. For example, an institution's ethical priorities can influence how physicians approach resuscitation decision-making near the end of life, which can lead to overly aggressive care and subsequent moral distress [41]. The overall goal of aligning leadership and organizational and individual values within a shared mission can foster an ethical workplace with moral resiliency. In summary, a problem as challenging and protean as moral distress requires multiple types and levels of intervention as shown below in Fig. 9.2.

Conclusion

While the particular stressors weighing on clinicians may vary depending on field of practice and time, the impact of moral distress appears to remain the same. There has however been a burgeoning interest in this phenomenon as a vital factor in physician well-being, and an international effort to better understand and address moral distress has emerged. In this chapter, we discuss the definitions of moral distress, review the hypothesized causes, examine the impact in different clinical contexts,

and outline different types of interventions. Further scholarship will hopefully illuminate more aspects of this difficult topic and provide new avenues of understanding and reasons for hope.

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Embitterment in the Workplace

10

Michael Linden and Christopher P. Arnold

Introduction

Burdens, strains, demands, social conflicts, daily hassles, severe negative life events, and even life-threatening events are common experiences in life. This is also and even more so true for physicians. They often have to work around the clock. They have to cope with terrible illnesses and death, which may even be contagious. They have contact with many, and very different, and sometimes even aggressive persons. They often have to work under insufficient and unsupporting conditions. Persons in this profession show by selection or training often great hardiness and resilience and even love their job. An important resilience factor which helps to endure all these adversities are ethical beliefs. Patients are in need of help and physicians feel that their role and destiny are to help. The guiding rule for physicians since ancient times has been "the patient first."

Given the importance of such ethical basic beliefs for their self-definition and daily work, violations in this area can have severe psychological sequelae. Breach and disrespect of basic beliefs is a severe negative life event, which can challenge one's self definition, the justification of what one does or has done for so many years, and the motivation to respond to ongoing demands. If a person has cared for patients and worked for the institution, irrespective of personal costs, and the answer is criticism, blame, downgrading, exploitation, and thanklessness, then this is experienced as injustice. Injustice is aggression, which is typically answered with

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counteraggression. But, if this does not result in compensation and the reinstalment of justice, then helplessness and in the end embitterment will emerge.

Injustice is a special, frequent, and important burden in the medical field, and embitterment is a natural response. Nevertheless, this problem and this emotion have so far found almost no attention in science, the organization of institutions, and individual care for caregivers. This chapter describes how injustice can occur in medical practice, how embitterment can develop, and how to prevent it.

Social Conflicts and Injustice in the Workplace

Workplaces are in most cases characterized by complex social relationships. Positive are group integration, social support, and positive self-experience. On the other hand, there are also negative aspects and burdens, such as conflicts, rivalries, bullying, demands and sanctions by superiors, negative group interactions, and aggression from customers or other third parties [1].

A special burden which has found much attention is injustice in the workplace. There is "organizational injustice" caused by structures and the organization of the workplace which leads to unfair treatment of employees. Examples are gender inequality, racism, favoring of friends, unfair promotion rules and pay, or in general an "effort-reward imbalance." This includes "informal injustice" which is defined as dishonest communication with workers, which goes hand in hand with decisions that are not justified. The aggressor is the "system" but translated by persons who represent the system. Therefore, the risk of "personal" insults and humiliations is higher than of organizational injustice in general [2–4].

Organizational Injustice and Exploitation

Physicians have high ethical standards, which first of all includes care for their patients. They stay with the patient as long as needed.

This is abused by the employers when an insufficient workforce is hired because of the expectation that physicians will take care of the patient even though this results in long shifts which are often not even paid adequately.

This ethical responsibility to assist a patient in need is being exploited by the organization and can be described as "organizational injustice."

Furthermore, there is also "personal" or "interactional injustice" which describes unfair treatment of employees by people with whom they are in direct contact. This includes interactions with colleagues, supervisors, and clients. Interactions are considered unfair when an employee is treated without respect, with downgrading statements and personal attacks, which has found much attention under the heading of "bullying" or offensive and aggressive surveillance [5–8]. The scale for abusive supervision [7] includes items, such as the following: "I need to tell my manager how to split my working hours," "My manager gives me no space to organize things

for work as I think it is right," "My manager increases the pressure when I take breaks from work," "My manager tries to exert influence over decisions concerning my work," "I am closely monitored by my manager at work," "My manager knows what I do every day at work."

Interactional Injustice and Humiliation

In particular in medicine and hospitals, physicians are closely supervised by superiors. An important goal is to prevent harm for the patient and educate young physicians. This requires looking for inadequate treatment and giving advice and instructions which often include criticism.

This can be insulting and downgrading, especially when the criticism may be wrong, phrased in harsh words, and expressed in the presence of colleagues or even patients.

Injustice can also be caused by customers, clients, and patients [9, 10]. A general saying is that the customer is always right and decides what should be done. The person who is addressed by the customer is often not responsible or in command, like a train conductor when it comes to delays. However, customers then may exhibit rude behavior as if the other person was their servant. Some use verbal abuse and sometimes even become physically aggressive. A scale for measuring injustice by customers [10] includes items such as the following: (the customer) refuses to listen to you, interrupts you, accuses you of not delivering, starts irrelevant discussions, questions your abilities, shouts at you, uses condescending language, and communicates aggressively with you.

Injustice by Patients

Physicians work in direct social contact with patients. Patients need help, care, support, and even emotional affection by physicians.

At the same time, patients can behave as if the physician was their servant or would be responsible that they are ill and do not recover. They have idiosyncratic ideas about what should be done, blame the physician when things do not work, become aggressive, or may even start legal disputes.

Responses to Workplace Injustice

The general consensus in the scientific literature is that injustice in the workplace is associated with psychological distress. This has become apparent in regard to general psychological well-being, psychosomatic symptoms, or life satisfaction. Concomitant emotions are anger, depressive symptoms, sleep problems, or increased alcohol consumption. Workers whose salary was reduced suffered more from sleep

disturbances than employees whose salary remained unchanged. Relational injustice and an effort-reward imbalance have a negative impact on sickness absence, while job interventions designed to improve respective working conditions have the potential to reduce the level of absence [2, 4, 11–16].

Injustice is experienced as aggression and often answered by counteraggression. When physical aggression is banned, social aggression is an alternative. This can be directed immediately at the primary aggressor, such as a colleague, superior, or customer [17–20]. In a meta-analysis injustice emerged as a predictor of aggression in the workplace [21].

Counteraggression
Aggression and hostile behavior toward physicians by a patient, the hospital management, or other persons can lead to counteraggression. The patient is reacting uncooperatively, and the physician may become cynical, mock the patient, retreat from the patient, or even start especially painful interventions, e.g.*, when removing a band-aid.*

When a physician feels that he is being treated by the organization in an unfair way, counteraggression can involve inner emigration, dysfunctional work output, or absenteeism.

Aggression against colleagues or superiors can have different faces. The workplace aggression scale [22] has statements such as the following: “I have passed on harmful information about my superior,” “I said something to offend my manager,” “I threw something at my manager,” “I pushed my manager.” Employees can also use aggression, retaliation, and sabotage against customers after unfair treatment. A scale developed by Skarlicki et al. [10] lists examples of anti-customer aggression and sabotage in call centers, like deliberately putting the customer on hold for a long time, intentionally forwarding the customer to the wrong authority, or telling the customer that the damage has been repaired even though this did not happen.

Due to the special conditions in the workplace, counteraggression cannot always be exercised in public, so the worker has to use hidden strategies. This can be clandestine revenge or sabotage against the institution or the person who is seen as the cause of injustice or humiliation. Examples of deviant behavior in the workplace are as follows: “the worker stole property from work without permission,” “waste of the work environment,” “insulting someone at work,” or “leaving the workplace too early, without permission.” Passive-aggressive reactions are another form of counteraggression. These are characterized by internal emigration and resignation when there is no direct path of confrontation or when no specific person can be identified as the harmeing person. The consequence is an inner aversion and reduced commitment, poorer performance, and reduced productivity [10, 22, 23].

Embitterment in the Context of Work-Related Conflicts

When injustice is accompanied by humiliation and breach of trust when it refers to areas in life which are important for the self-esteem of the person and when it is associated with helplessness, then embitterment is a natural reaction [24–27].

In one of the first publications on severe embitterment, a case of organizational injustice was described [28]. It is of an East German social worker who had been employed for many years in a church-owned nursing home, who had done everything to keep the institution running during the turmoil of the German reunification. He was happy and proud of what he had achieved. When finally another church-affiliated company took over, he was the first person who was fired in the course of management reorganization. After that he retreated from all social contacts and even declined new job offers.

Another published case [29] of embitterment in response to "interpersonal injustice" is of a woman who had been working as a saleswoman in a small supermarket for years in close and friendly connection and solidarity with colleagues. When an external auditor visited the supermarket and falsely accused her of stealing money, she responded with acute dissociation, immediately left the supermarket, ended all contacts with her colleagues, stayed jobless, and even thought about killing herself. The accusation of the auditor did not hurt her much, but the betrayal by her colleagues who stood silent and did not come to her defense when she was denounced as thief was hurtful.

The common underlying psychology in both cases is that expectations in justice were severely violated. If doing everything for the foster home and even saving its existence, then you deserve acknowledgment. Being fired instead is highly unjust by the organization. It does not matter that the top management made this decision based on general and important considerations on financial issues and need of a younger workforce. In the case of the saleswoman, it is the breach of trust. If you were closely working together with colleagues, always ready to help while maintaining a friendly relationship, then it is highly unjust to be left alone when one is being attacked by an external person. This has led to violations of basic beliefs and concepts of oneself and other persons. An interesting point is that the victims were "good" persons. They themselves acted according to social standards and therefore expected that others do the same. The "good" employees are those who can be hurt by injustice, and their strengths makes them vulnerable. Those who care about their job can be hurt in this area of life, while those who believe that the family stands above everything are vulnerable in this area. Embittered reactions happen when important values, assumptions, world definitions, and self-definitions are questioned because of injustice. These basic values are the same ones that motivate people, control behavior over the lifespan, and are necessary to be well-adjusted in life and therefore also at work.

Embitterment

A physician was working in an understaffed and professionally mediocre department of a hospital as deputy of the department head. His superior quit the job and he took over the interim directorate. He worked for two and managed that the department achieved a new perspective, so it was recognized as a good medical institution and even made a small profit. This motivated a big company to take over the hospital. Instead of acknowledging the achievements of the physician and making him the new head of the department, they hired another person and dismissed him. Consequently, he spent all his time and money to unsuccessfully sue the new hospital owner, up to the point of bankruptcy. He did not look for a new job which he easily could have had.

Embitterment is an emotion which is known to everybody. Nobody needs to read a psychology book in order to understand the meaning and phenomenology of embitterment. Similar to other emotions like anxiety, it can occur as transient feeling after a discussion with a colleague [27]. There is stimulus bound embitterment, when for years this emotion is elicited, when a certain critical event is mentioned, while there are no psychological problems in all other areas of life. There may be embitterment-prone personalities, who are easily offended for minor reasons. Finally, there is the "posttraumatic embitterment disorder" [26, 28] where a single critical event causes the person to become ill from 1 minute to the other, withdraw from social contacts, and suffer from repeated intrusive memories of what has happened, is downhearted, broods in thoughts of revenge, and ponders thoughts of suicide or even murder suicide.

There are several studies on the prevalence and correlates of work-related embitterment. Karatuna and Gök [30] investigated employees from the public sector, including 23.9% who were labeled as victims of bullying. The experience of bullying was found to be highly correlated with feelings of embitterment, intrusive thoughts, and negative moods. In a study by Ege [31, 32], 91.5% of persons who reported conflicts at work showed elevated embitterment scores. This suggests that some victims of workplace conflicts, who are presently diagnosed and treated as depression or phobia, are in fact suffering from embitterment. In an online survey by Michailidis and Cropley [33] with 337 respondents, results showed that procedural injustice and over-controlling supervision were significant predictors of embitterment and that embitterment significantly contributed to the prediction of increased affective rumination and reduction in detachment. Embitterment was a significant mechanism through which organizational injustice and over-controlling supervision exerted their effect on affective rumination which is indicative of insufficient recovery from work. In a 6-month longitudinal study [34], the authors found that perceptions of distributive injustice, informational injustice, and employees' perceptions on supervisory over-control significantly predicted embitterment at follow-up. Only the relationship between employees' perceptions of supervisory

control and embitterment remained significant after controlling for baseline levels of embitterment. Sensky et al. [35, 36] reported data on persons attending an occupational health department in a single NHS Trust. There were 30% of attendants, mostly nurses, who had an elevated embitterment score which shows the importance of this psychological reaction. Staff showing embitterment were significantly more likely to be on sickness absence although they were not depressed. They rated procedural justice and organizational support lower than other staff. Sensky [37] argues that embittered individuals are likely to appraise their work as demanding, and because embitterment is intrusive and spills over into the person's life outside work, recovery from work is likely to be impaired. These complex interactions may also explain why Muschalla et al. [38] found in persons attending a psychiatric military hospital that embittered persons showed impaired contacts with others and reduced group integration. Eckert et al. [39] found in a survey on nurses that academic nurses showed less embitterment than non-academic nurses, while there was no link between embitterment and material aspects, e.g., salary. They conclude that material aspects seem to be less important than the human need for respect and recognition.

Prevention and Improvement of Embitterment in the Workplace

The relation between injustice, embitterment, and dysfunctional behavior and problems at work suggests that we should be nice to each other, not insult each other, and be fair and just. Everybody will agree with these statements. General rules of good conduct in the workplace and of transparency of decisions of superiors can undoubtedly help. The problem is that human beings are not always nice, that there are very different views on what can be called "just" or "unjust," and that organizational and management decisions depend on aspects which cannot always show consideration for the expectations or even needs of individual employees. It is therefore necessary to find ways of coping with inevitable stress, conflicts, and injustice. This requires the capacity to find emotional distance from the critical event [40].

Psychological capacities which help to cope with unsolvable problems, irretrievable losses, and irreparable negative experiences are described under the heading of wisdom. There is a comprehensive psychological literature in this regard [41–43]. Wisdom includes several subdimensions, such as factual and procedural knowledge, contextualism, value relativism, change of perspective, empathy, relativization of problems and aspirations, self-relativization, self-distance, perception and acceptance of emotions, serenity, forgiveness and acceptance of the past, uncertainty tolerance, and long-term perspective. Wisdom has been proven to be a resilience factor when confronted with stressors of any kind or unsolvable problems in life. Wisdom can be learned and trained [44]. It can also be an interesting approach in corporate health management programs [45]. If there are persons who are overwhelmed by embitterment and suffer from posttraumatic embitterment disorder,

professional help is required. This can also be based on principles of wisdom psychology to induce a cognitive reframing and change of perspectives, to turn away from the past to the future, and to forgive [46]. The first step in any case is to recognize embitterment in all its facets [31, 32].

Conclusion

Injustice is a frequent social stressor, which is often also experienced by health workers. It is typically associated with downgrading and breach of trust. As the belief in a just world is an inborn mighty psychology, injustice results in strong counteraction. If it associated with helplessness, embitterment can emerge, a burning negative emotion, causing much suffering to the person and the environment and also stimulating dysfunctional behavior. Injustice and the development of embitterment should therefore be recognized early on, and preventive measures should be taken.

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Prevention of Burnout Through Resilience, Wellness Programs, and Civility in the Work Environment

11

Caroline M. Kissane and David W. Kissane

Introduction

When emotional resilience is overwhelmed to produce exhaustion, detachment, and loss of professional accomplishment, the resultant burnout is characterized by ICD-11 as an "occupational phenomenon." [1] Preventing burnout requires responses at both the individual and at the institutional level, taking account of organizational culture, stage of training, specialties, and gender. The surge in the challenge of burnout is termed an "epidemic" or "crisis" because the prevalences are rising to alarming levels.

The British Medical Association 2019 survey sampled over 4300 clinicians including 1400 medical students and reported the prevalence of a formal diagnosis of a mental health condition in the last 12 months by age group, from 27.9% in medical students and junior doctors around 25 years of age to 8.4% for doctors older than 64 years [2]. This pattern of greater burnout in medical students, interns, and residents was evident in a 2004 review of 15 studies (1983–2004) [3], confirmed in Australia by the *beyondblue* survey of 14,063 physicians and medical students in 2013 [4] (high exhaustion in 48% of those under age 30 years compared with 11% of those over 61 years), and acknowledged in a recent 2018 review of medical student and resident burnout [5].

In the USA, the 2018 Physicians Foundation survey of Practice Patterns and Perspectives [6] assessed burnout by appraising the morale and satisfaction of 8774

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physicians. Some 55.3% reported somewhat or very negative professional morale, and 61.6% reported feeling somewhat or very pessimistic about their future. While 78.7% describe the doctor-patient relationship as the most satisfying aspect of medicine, the three least satisfying concerns were as follows: (1) 39.2% rated the design of the electronic health record as least satisfying; (2) 37.7% decried the burden of regulatory and insurance oversight; and (3) 66% reported that patient care was adversely impacted by third-party authorizations, which took clinical autonomy away from clinicians. Many of these perspectives are uniquely resultant upon the US medical insurance culture.

Given such high prevalences with risks for poor care provision, medical error, medicolegal consequences, and physician suicide, this chapter focuses on prevention, spanning the promotion of wellness and resilience in the individual to organizational approaches that enhance the workplace.

Interaction of the Person with the Workplace

Pioneers of the measurement and study of burnout, Christina Maslach and Michael Leiter identify the goodness of fit between each person and their work environment as crucial [7]. Both components, the workplace and the individual, potentially contribute, yet more is accomplished by an initial focus on environmental factors [7]. Key workplace factors include the scope of the workload, the extent of initiative and control the employer permits, and the recognition that is provided for every contribution, fostering a sense of teamwork and workplace community, ensuring equity and justice, and creating an alignment of the common values that motivate the workforce. Maslach and Leiter start with the concept of civility in the workplace, where a culture of appreciation is built to acknowledge each person's effort, teamwork is nurtured, role ambiguity is avoided, and workloads are balanced. Then the health workforce can tackle challenging patient problems in an optimal environment, which cultivates competence, compassion, and care provision by all. Let us review each of these key dimensions in more detail.

Workloads

West and colleagues conducted an important systematic review and meta-analysis in 2016 to examine interventions that decreased burnout [8]. Organizational interventions helped more than ones aimed at the individual, and foremost among these was reduced duty hour requirements for rosters and shifts. Burnout was significantly reduced by 12% when resident hours were reduced across six varied cohort studies [8], creating a more sensible work-life balance. Practices of time off after night duty, alternating rosters of day and night coverage, and sensible total hours are all features of these equitable policies.

Permitting Initiative and Control

Ambitious leaders in top-ranked medical institutions often invite the creation of productivity goals, whether as income earned, patient numbers consulted, research grants won, publications generated, or discoveries recognized. Tension can readily develop between such a culture of productivity and the need for self-care [9]. Respectful performance reviews that affirm contributions, honor the person's role and support of the team, thank them for their service, and then invite their goals to be developed for the next year sustain the necessary civility and respect. The clinician is encouraged to take their own initiative and feel very much in control of the work they set out to do.

Recognition and Reward

Workplaces that cultivate annual awards for performance and contribution instill pride in their workers and deepen the motivation that succeeds. Role models are inspiring to others, while team awards also acknowledge the common effort. Strong leaders know that every person on their team gains from expressions of thanks and gratitude for a job well done. Much more is achieved by praise than criticism.

Community

Workplaces that hold regular social events, foster collegiality, and normalize relaxation away from work build the cohesion of the team, including a sense of pride to belong. Training days and regular educational fora also build this teamwork, allowing for peer review and mutual support as clinical reviews are undertaken and evidence-based approaches to quality care are sought by all. Strong institutions achieve a healthy balance between education and service, taking opportunities for junior staff to educate others as a pathway to learning themselves.

Equity

Gender bias, with unequal training and job opportunities in some specialties for women, has been an obvious example, but studies draw attention to rostering and on-call schedules, reimbursement, access to administrative support, taking annual leave, and arranging coverage for conferences and holidays as other examples where issues of equity can arise [10].

Values

Acquisition of skill and clinical competence is essential to the practice of medicine and is a fundamental core value. Compassionate care is then supported by empathic communication, which is an acquired skill learned through communication skills training and a very important response to the challenges of working with difficult patients [11, 12]. The ethic of support in the workplace is best exemplified, however, when a clinician is sued for medicolegal issues. This is a remarkably frequent life event in some countries, with specialties like surgery and obstetrics topping the lists. This is identified as highly stressful, partly because lawyers advise their medical clients to not discuss the case, the resultant silence denying support and assistance. Institutions do well to routinely arrange support via a senior mentor from another discipline so that debriefing can occur and the clinician is not left to feel alone.

Preventive Strategies for Students and Young Physicians

Selection Strategies for Medical School Entry

Greater movement to mature age entry for medical schools, with consideration of personality traits, gender, learning styles, and coping strategies, appears pertinent. One systematic review identified Chinese males developing more exhaustion, depersonalization, and suffering than females [13], while different cultures revealed the reverse, exemplified by Saudi females [14]. High levels of neuroticism, avoidant coping, and inflexibility to change are negative predictors in contrast with openness to new experience, conscientiousness, agreeableness, active problem-solving, durability, and determination to persevere [15, 16].

Fostering Social Support

Building a strong personal support base through family, friends, and collegial relationships is crucial [17]. Peer support is developed through the use of problem-based learning groups in medical schools and debriefing about complex cases in small groups in the workplace. In private life, functional and meaningful relationships sustain a healthy work-life balance. For many, the spousal relationship is a primary and vital source of support, which therefore needs to be prioritized, nurtured, and sustained in a mutually responsible manner [10].

Nurturing Self-Efficacy and Resilience

Cultivating self-awareness, capability, self-belief, and values consistent with medical life can empower behavior change that fosters resilience, leadership,

agility, collaboration, and creativity. A reflective capacity is essential. Strong connections, capacity for trust, open communication, and decisiveness foster the capability that ensures success. Mentoring can be one pathway that facilitates such development.

Structured Mentoring Programs

As we move from the student into the development and wellness of the young doctor, mentoring becomes an important activity to guide each person's maturation. Medicine is so large that generic mentoring is challenging, but as soon as individuals gain a sense of direction and interest in specialization, this becomes feasible. Good colleges and specialty training programs both normalize and structure this mentorship by making it a responsibility of a training director to ensure that effective matching of trainee and mentor occurs [17]. Trainees ought to nominate a senior doctor they admire, reflecting a goodness of fit between the interests and career path of the mentor and mentee. Mentoring creates a reflective space in which a young physician can consider and review their training program, needs, aspirations, and journey on the path to becoming a full-fledged specialist in the area of medicine they want to practice. Their work-life balance and overall wellness are gentle components of the process.

Mentoring is, of course, a different process to direct clinical supervision of a young doctor, where specific skills are taught to achieve competency in entrustable professional activities. Effective supervision is a sine qua non for every reputable medical training program.

Management of Rostered Hours for Residents

Evidence shows that working greater than 50 hours per week is associated with increased mental health disorders and suicidal ideation in medical staff [18]. As a modifiable risk factor to reduce burnout, several countries have legislated maximum working hours per week as well as limits on continuous working hours per day and required length of break between shifts. The use of forward rotating shifts from day to evening to night shifts has been found to allow better adaptation of sleep cycle patterns [19]. The use of "Hospital At Night" teams with senior medical and/or nursing staff leads to ensure even distribution of workload as well as increased support and educational opportunities for junior staff and has been found to improve staff well-being as well as patient safety [20]. Rostering of protected time to complete administrative and educational duties can also reduce unpaid overtime and improve job satisfaction [21].

Wellness Programs to Prevent Burnout

The leadership of organizations must recognize that burnout is not the sole responsibility of individual physicians, but rather there is a moral responsibility to address it as a shared, systemic issue [21]. Good leaders champion the promotion of both institutional and departmental approaches to wellness (see Fig. 11.1) through targeted interventions and a culture of connection and mutual support, so that work-life balance is integral to the ethos of the institution. In this section, we review programmatic offerings that have proven helpful.

In response to the *beyondblue* survey data highlighting increased rates of burnout in doctors, hospitals in Australia have embraced mental health and well-being awareness days such as "R U OK?" and "Crazy Socks 4 Docs" to facilitate open discussions among staff at all levels and improve knowledge of available support services. Hospital grand rounds and junior doctor teaching programs have incorporated well-being sessions with motivational speakers such as physicians and high-performance athletes discussing their own experiences of depression and anxiety (see, for instance, https://www.ruok.org.au/ and https://www.crazysocks4docs.com.au/) (Fig. 11.1).

Competent Meaningful Work

Dedicated commitment to ongoing education, training, and skill development is a lifelong professional requirement [22]. Inbuilt here is recognition of each physician's unique abilities, so that their talent is directed to meaningful and fulfilling work [23]. In general, at least 20% of professional activity needs to target what is most meaningful for any physician in order to significantly protect against burnout [24].

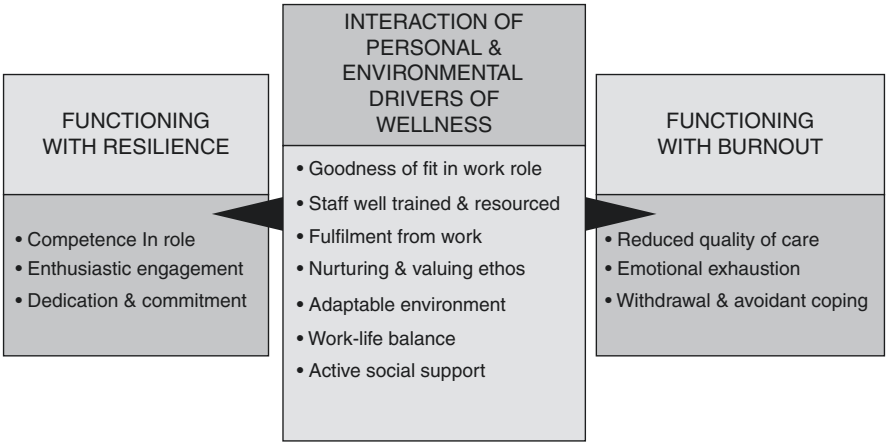

Fig. 11.1 Resilient functioning in preference to burnout results from the interaction of personal and environmental factors that promote wellness

Stress Management for Personal Wellness

Taking personal time to relax, pursue hobbies, disconnect from work, and enjoy regular holidays empowers doctors to then engage at work with vigor and commitment [25, 26]. Healthy sleep hygiene is one dimension; sensible use of alcohol is another. Pursuit of a spiritually enriched life helps many. The practice of mindfulness has a growing evidence base in preventing burnout [27, 28].

Exercise Programs

Surgeons and proceduralists with an action-oriented mindset endorse the value of regular exercise in a hospital-based gymnasium as integral to their sense of wellness [10]. Team-based approaches to exercise routines in hospital staff are beneficial in preventing burnout and enhancing quality of life [29]. Yoga sessions appeal to some clinicians.

Balint Groups

Clinicians value debriefing about difficult patients, developing strategies and communication techniques for responding to anger and criticism, and learning from each other as peers who face similar problems [30, 31, 32]. These groups, named after Balint, who first started these for general practitioners, have a strong evidence base for preventive benefit [33, 34]. In a Comprehensive Cancer Center, for example, discipline-specific peer groups (six to eight medical oncologists) supported by a psychiatric colleague would meet bi-monthly over 3–4 years to share experiences of challenging patients and mutually support one another.

Schwartz Center Rounds

The presentation of difficult and sometimes ethically challenging cases in which clinicians reflect on their personal feelings and share reactions about what proved demanding with their colleagues has proven helpful in building collegiality and collectively acknowledging the way in which compassionate care impacts upon clinicians. A systematic review of ten studies of such rounds highlighted some, albeit limited, evidence of their positive impact on both individuals and the institution's culture, their accessibility to all staff being clearly appreciated [35].

Buddy Systems

Buddy systems and near-peer mentoring programs help to support junior doctors navigate stressful transition phases, such as from medical student to junior resident, with guidance from doctors who have more recently gone through a similar

experience rather than senior mentors [36]. While these relationships can develop informally through work interactions, formal systems that assign juniors to a near-peer buddy can also help to provide a social connection for those new to a hospital or geographical area. Mentors also benefit with further development of interpersonal, self-reflective, and leadership skills.

Workplace Education About Bullying and Sexual Harassment

Educational online programs are encouraged in many institutions to raise awareness about zero tolerance approaches to unwelcome behaviors such as bullying or sexual harassment. These preventive programs have the goal of elimination of such stressors in the medical workplace.

After some Australian female surgeons spoke out publicly about their experiences of sexual harassment during training and the negative impact that reporting had on their careers due to the hierarchical system of medicine, the Royal Australasian College of Surgeons established an advisory group to investigate and address the issue [37]. The resultant "Operate with Respect" campaign acknowledged the widespread significance of the problem and introduced new training modules, anonymous complaint systems, and free counseling services.

Recovery from Workplace Injury

Institutions usually engage a confidential Employee Assistance Program (EAP) [38] through which counseling can be arranged for employees where work stress from whatever reason is developing. A survey of 44 organizations supporting over 50,000 employees through EAP demonstrated strong satisfaction and organizational benefit after workplace stress or injury [38].

Conclusion

Resilient clinicians result from excellent training in a specialty well suited and fulfiling to them, so that they engage in outstanding patient care with enthusiasm, dedication, and compassion. Institutions who are blessed to employ these stellar physicians reward and nurture them with a sensible work-life balance, adaptability to meet their needs, and pride in their scholarship, teaching, and extraordinary patient- and family-centered care.

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Cultivating Resilience and Preventing Burnout: A Mindful Multipronged Intervention Approach

12

Fernando Kawai and Daniel McFarland

Introduction

Exceedingly high rates of burnout in healthcare professionals across each discipline serve as testament to this unfortunate state of affairs [1]. For oncologists specifically, the global incidence of burnout has increased drastically over the past decade in the United States, Europe, and Australia [2–4]. While adverse mental states related to clinical work is not a new concept and was documented even in the time of Hippocrates, the degree to which this is taking place is alarming as noted in previous chapters [5].

There are evidence-based interventions to prevent burnout and relieve the work-related mental health burden experienced by healthcare professionals. However, understanding why interventions are effective, to what extent they work, and for which clinical settings and which clinicians are all open questions. The data guide curious and well-meaning clinicians and organization in certain directions but do not provide clearly delineated, evidence-based pathways for all burnout scenarios. Interventions to address burnout, depression, and other mental health maladies associated with the clinical work of physicians are generally divided into those that address the individual clinician versus those that address the operation of the organization, which of course also affect individual clinicians. The evidence reveals that both are effective. Studies that incorporate both types of interventions (combinatorial studies) are rare but are particularly promising since burnout is essentially a worker-work place mismatch.

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This chapter is divided into Parts 1 and 2. Part 1 will provide a general overview of the evidence for burnout interventions at both levels (individual and organizational). It will highlight interventions for individual clinicians and in particular the use of mindfulness-based stress reduction and cognitive behavioral techniques and how these may be incorporated into the context of organizational strategies to reduce burnout. A review of consensus-based recommendations for organizational initiatives to address burnout can be accessed from Shanafelt and Noseworthy [6]. Part 2 offers an example of an individual treatment plan to prevent or treat burnout in a burned-out clinician that is inspired by the Buddhist perspective of mindfulness. Formal mindfulness training is highly recommended but may require a significant commitment by individual clinicians and organizations. While there is not a substitute that provides the same evidence-based benefit, mindfulness techniques can be incorporated seamlessly into one's clinical practice. Part 2 offers many practical suggestions that can be practiced and incorporated into an individual clinician's day to day routine with significant flexibility based on the needs of the clinician.

Part 1 Restoring the "Tragedy of the Commons"

The tragedy of the commons is an analogy from economics published in 1968 that demonstrates how a shared resource such as a common area or town pasture becomes overused when the self-interest of an individual or single entity is amplified to an entire group acting similarly without regard for replenishing the resource [7]. In this case, the commonly used resource from which individuals and society benefit is physician well-being. The health of a community or a hospital system benefits from the presence of resilient clinicians, but the cultivation of clinician wellness and resilience is undermined by a *dispersion of responsibility for replenishing* this valuable commodity. Patients, hospital corporations, and society benefit from the talents, integrity, discipline, and hard work of those who enter the medical field and cultivate its practice over a lifetime. Without proper nourishment and restocking, this enviable and invaluable resource of clinician well-being, which buttresses professionalism and the integrity of medical practice, can become compromised by the effects of burnout and, most tragically, suicide.

The restoration of physician well-being has become a priority according to many professional societies. The way forward is multifaceted and evolving. Interventions should identify and incorporate root causes for burnout and address workplace environments where the work-worker mismatch takes place. Consensus statements and expert opinion describe how these problems begin insidiously and reinforce the idea that *addressing the root cause* means making systemic changes, creating institutional awareness and a culture around clinician wellness [6]. The vast majority of interventions for individual clinicians focus on symptom reduction rather than addressing root causes of burnout.

Several systematic reviews and meta-analyses provide organized and collective assessments of intervention effectiveness and the strengths and weaknesses of different approaches [8–12]. Overall, efforts to reduce burnout and other clinician

mental health maladies are effective and demonstrate small to moderate effect sizes. Reduction in symptoms may be greater when examining depression/anxiety/distress outcomes and clinicians who were already experiencing mental health dysfunction (e.g., burnout). Subgroup analyses found that burnout interventions may be more effective for practicing physicians over resident physicians and that organizational interventions may offer greater symptom reduction [8, 9]. Also, interventions may demonstrate greater effectiveness for physicians in primary care disciplines rather than subspecialized care. Of the individual interventions, those that use mindfulness-based strategies and cognitive-behavioral techniques offer the most benefit. These meta-analyses, which had slightly varying entry criteria, outcomes, and targeted populations, also highlighted the limitations of applying static interventions across the varied landscape of medical practice.

Specifically, West and colleagues analyzed 15 randomized trials and 37 cohort studies (2914 physicians) that evaluated interventions to prevent and reduce physician burnout [8]. Almost all study endpoints were reduction in burnout using the Maslach Burnout Inventory (MBI). Both individual level and structural or organizational strategies resulted in meaningful reductions in physician burnout, but many studies focused on only one element of burnout (i.e., burnout domain such as emotional exhaustion, depersonalization, personal accomplishment) rather than an overall assessment of burnout. The effects of the interventions were similar between randomized and observational studies although there was considerable variability. Absolute reductions in burnout may seem modest (e.g., a reduction of 1–3 points on the MBI was noted in the meta-analysis by West and colleagues [8]); however, it should be noted that small changes in burnout scores by even 1 point on the MBI are associated with meaningful differences in important adverse outcomes [13]. In addition, clinicians with higher burnout scores in Emotional Exhaustion and Depersonalization had even greater reductions in burnout scores. Half of the randomized studies assessed resident physicians, and the majority involved a combination of small group intervention with duty-hour restrictions, while the cohort studies involved mostly resident duty-hour restrictions.

A meta-analysis of interventions to reduce burnout in physicians conducted by Panagioti and colleagues only evaluated controlled interventions across primary, secondary, and intensive care physician practices (1550 physicians) looking at Emotional Exhaustion (EE) of the MBI [10]. Of the 20 interventions, 12 were individual based (MBSR, educational, communication skills, education) and 8 were organizational (workload rescheduling or more extensively changed workflow), 10 were in sub-specialized care disciplines and 12 were with "experienced" physicians only (not in training). Overall, they found a small but significant reduction in burnout (SMD = −.29) with EE scores decreasing from 17.9 (SD 9.0) to 15.1 (8.5). Interventions directed at the organizational level were more effective than physician-directed interventions (SMD = −0.45 versus −0.18). The difference was larger in "experienced" non-trainee physicians and in primary healthcare settings but was not statistically significant.

Petrie and colleagues analyzed eight intervention studies that evaluated changes in distress, anxiety, depression, and suicidal ideation in 1023 physicians [9]. They

noted a lack of controlled studies at the organizational level, and only a few well-controlled intervention trials were directed toward practicing physicians as opposed to physician in training. Interventions consisted of variations of cognitive behavioral therapy (CBT) and mindfulness and organizational changes (e.g., protected time). The time commitments to the intervention varied significantly from 90 minute in-person weekly group sessions over 16 weeks to receiving a letter of tailored feedback after filling out an assessment entitled "self, relationship, and work" [14, 15]. A priori subgroup analyses found that group interventions were more efficacious than individual interventions (SMD 0.78 versus 0.39, respectively). Interventions that were classified as CBT or mindfulness-based were more efficacious than a composite of "other" interventions (SMD 0.79 versus 0.46, respectively). They found no difference based on type of control used and no significant heterogeneity or bias. Some notable future directions included decreasing burden of documentation, clarification and guidance of administrative tasks, replacing licensing board questions with questions of functionality rather than diagnosis, encouraging a participatory management style with physicians, and instilling a professional ethos of self-care.

Melnyk and colleagues evaluated 29 studies that aimed to improve mental health, well-being, physical health, and lifestyle behaviors of physicians and nurses but found that the wide array of outcome measures precluded quantitative pooling and a meta-analysis [12]. Of note, this review also included studies evaluating outcomes in nurses. They found that mindfulness and CBT-based interventions were effective in reducing stress, anxiety, and depression. They highlighted studies that incorporated deep breathing techniques, gratitude practices, and interventions to increase physical activities (e.g., pedometers, visual triggers, health coaching with texting).

These systematic reviews found that interventions that incorporate mindfulness-based stress reduction (MBSR) are particularly efficacious on the individual level and are also effective for reducing compassion fatigue [16]. Mindfulness can be defined as "paying attention in a particular way on purpose, in the present moment and non-judgmentally" [17]. A mindful clinician could be described as one who "attends in a nonjudgmental way, to his or her own physical and mental processes during ordinary everyday tasks to act with clarity and insight" [18]. The appeal of mindfulness in clinical practice is that it allows clinicians to "listen attentively to patients' distress, recognize their own errors, refine their technical skills, make evidence-based decisions, and clarify their values so that they can act with compassion, technical competence, presence, and insight." However, authenticity and honesty with oneself are required for sustaining mindfully oriented clinical practice, which is quickly undermined when coupled with an overly demanding or inefficient workplace. Variations of cognitive behavioral therapy also help create self-awareness and limit self-sabotaging behavioral patterns and harmful automatic beliefs. While these interventions are effective for individual clinicians, organizational interventions that alter the structure of practice in some way may be more durable and efficacious. The most common types of organizational interventions are work-hour

restrictions (e.g., for resident physicians in training) but may include the cultivation of workplace relationships, changes in call schedules, or providing group accountability for alleviating burnout.

Importance of Leadership

In addition, hospital and clinical leadership is an integral component to instituting sustainable changes that may ameliorate burnout or enhance clinician competence [6]. For example, the American College of Physicians has introduced mandates to increase meaningful practice and reduce administrative work (e.g., use of scribes) [19]. Also, the American Medical Association instituted "Back to Bedside," which is a program designed to encourage bedside teaching and rounds, thus providing meaningful clinical experiences for attending physician who are charged with teaching and for the trainees to experience meaningful patient interactions. This initiative stems from the fact that loss of patient interaction has been associated with burnout [20]. Leadership to reduce burnout is housed in the "quadruple aim" that includes physician wellness as one of the goals of healthcare organizations [21]. A salient example rests in a study of primary care physicians on the west coast of the United States where leadership decided to put their physician groups in charge of not only monitoring their own burnout but creating and implementing their own interventions based on their own needs to ameliorate and prevent burnout [22]. This intervention was highly effective. The importance of leadership in this area has been recognized by institutions that have hired directors of clinician wellness or thought leaders with other titles who are responsible for monitoring and improving clinician wellness by collaborating at the leadership level. These initiatives speak to the need for change in organizational culture around clinician wellness and well-being.

Addressing Burnout in Oncology

In oncology specifically, it is important to focus on the unique stressors for oncology clinicians in addition to the stressors that are causing burnout and depression in medicine in general. Given the interpersonal demands of working in oncology, communication skills training is effective for oncology professionals to both enhance communication with patients and have a positive effect on physician well-being [23]. However, it is not clear if these results are sustained over time. Some researchers have found a parallel between oncology physicians and military personnel where suicides are also elevated [24]. Programs that highlight *creative (*i.e.*, artistic) outlets* are effective for soldiers and could be highly relevant for oncologists whose work environment is particularly stress laden with high levels of mortality salience. In addition, difficult patient conferences (e.g., Schwartz Rounds) and meetings for oncologists (e.g., "Balint groups") and even art therapy for staff on oncology units have been found to be specifically effective [25, 26].

Considering the Many Causes of Burnout and Related Concepts (e.g., Resilience)

Studies have also noted many possible directions that may include decreasing the burden of documentation, clarification, and guidance of administrative tasks, replacing licensing board questions with questions of functionality rather than mental health diagnosis, encouraging a participatory management style with physicians, focusing on long-term viability and focus, and instilling a professional responsibility to care for the self by replenishing meaning, focus, and attention toward clinical care. The type and level of intervention may depend heavily on the target clinician group, practice setting, and outcome. Several outcomes have been mentioned in addition to burnout. These may include compassion fatigue, depression, suicide, empathy, medical errors, and resilience. These outcomes are defined and described in Table 12.1. While there is overlap between these outcomes, they are clearly distinct and may differ based on their root causes and the extent to which they are derived from workplace factors.

Of note, resilience, and its cultivation and preservation, has been called upon as an outcome goal that will enhance physician well-being. Interestingly, the related concept of "hardiness" predates the discussion of burnout and was used historically to describe the ability to persevere (e.g., function) despite adversity [27]. It is not tied to workplace necessarily and seems to focus on the individual. The concept evolved into resilience and essentially asks the question: What is it about those other clinicians who do not experience burnout that allows them to function or thrive despite external or internal pressures? [28]. While the cultivation and enhancement of resilience seems like a laudable goal, a meta-analyses from 2020 found that there was not a significant effect on physicians who were already in practice [11].

Table 12.1 Definitions of concepts related to burnout

Concept	Description
Burnout	A syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. Characterized by three dimensions: (1) feelings of energy depletion or exhaustion; (2) increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and (3) reduced professional efficacy
Mindfulness	A practice of purposely bringing one's attention to experiences occurring in the present moment without judgment. The skill develops through training (e.g., meditation) and is derived from *sati*, a significant element of Buddhist traditions
Mindfulness-based stress reduction (MBSR)	A secular intensive mindfulness training program to assist people with reduction of stress, anxiety, depression, or pain. It is evidence-based and typically taught over 8 weeks. It was developed at the University of Massachusetts Medical Center in the 1970s by professor Jon Kabat-Zinn
Compassion fatigue	May be referred to as secondary traumatic stress (STS). It is characterized by a diminished ability to feel compassion for others along with exhaustion (emotional and physical). It is described as the negative cost of caring
Resilience	The ability to adapt well to circumstances in the face of adversity, trauma, tragedy, threats, or a significant source of stress. Resilience has been described as the ability to "bounce back" and can also stimulate personal growth

Part 2 A Treatment Plan to Address Clinician Stress and Burnout Inspired by a Buddhist Perspective and Approach to Individual Well-Being

Although physicians strive to alleviate the suffering of patients and families, the care of the clinician is frequently neglected, and systems of modern healthcare do little to address clinician-related maladies brought on by the healthcare work environment. While the intervention choice to ameliorate and prevent burnout depends on the clinical setting, many of these desired outcomes overlap (e.g., less burnout or compassion fatigue, greater resilience, empathy, and enhanced well-being). Therefore, one intervention type will inevitably address multiple outcomes to some extent. To date, the data demonstrate that many of the interventions used to prevent or treat burnout broaden the clinician's perspective and help reduce the sympathetic tone of the fight or flight response inherent to stress. In fact, these effects may represent the mechanisms by which these outcomes are obtained (e.g., burnout prevention/reduction, depression treatment). In the current evidence-based literature, mindfulness-based stress reduction and CBT techniques, in addition to organizational interventions, appear to have the greatest and longest-lasting effects.

The mindfulness teachings, which broaden one's perspective and reduce anxiety, are based on centuries-old Buddhist philosophy and approaches to living a fulfilled life. A dedicated program in mindfulness-based stress reduction is highly recommended for all clinicians. However, the time commitment of formal MBSR training may be prohibitive. Therefore, essential elements of requisite self-care are provided in Part 2 with the hope that these concepts will be helpful for all clinicians. A case vignette guides the reader through the individual wellness plan, which involves the following: (1) creating self-awareness; (2) cultivating mindfulness; (3) enhancing fitness and sleep quality; (4) tending to relationships; (5) finding meaning and purpose in the practice of medicine; and (6) optimizing workflow patterns and organizational partnerships and policies that influence physician well-being (Table 12.2).

Table 12.2 Buddhist-inspired interventions used in the case vignette to address burnout

Intervention	Core features
Self-awareness	*Identifying stress triggers and cognitive distortions*
Mindfulness/breathing	*Being present* *Mindful pauses and brief breathing exercises* *Body scan* *Meditation and yoga* *Visualization and guided imagery exercises* *Self-compassion*
Fitness and high-quality sleep	*Work-life balance* *Self-awareness of the negative effects of perfectionism at work* *Learning to say "no"*

(continued)

Table 12.2 (continued)

Intervention	Core features
Relationships	*Work-life balance* *Establishing healthy boundaries* *Quality time with loved ones*
Finding meaning and purpose in life	*Appreciating daily small accomplishments* *Focusing on the big picture*
Organizational approaches	*Engagement activities* *Training programs in self-awareness, mindfulness, and narrative medicine* *Work environment improvements*

Box 1 Case Vignette

Dr. Smith is a mid-career oncologist, and his Monday schedule was terribly busy. He had 20 patients scheduled for his clinic, and he was also involved in the care of three of his patients that were admitted. Several encounters were challenging throughout the day: A patient "Googled" several chemotherapy treatments and asked Dr. Smith to change his chemo regimen according to the suggestions that the patient found on the Internet. Dr. Smith was very frustrated during that encounter. Another patient was a 45-year-old male with metastatic pancreatic cancer, not responding to palliative chemo and with worsening functional status. Dr. Smith had to break the bad news and discuss a hospice referral with the patient and his wife. The meeting was very emotional because the patient had two young children and his family was devastated to hear the news. Dr. Smith was emotionally exhausted after that meeting.

His day was also interrupted due to several calls from the hospitalists caring for his patients who were admitted and were not doing well. He ate a sandwich quickly for lunch because there was no time to eat a proper meal. In the afternoon Dr. Smith got an email from the chairman of his Department of Medicine informing him that his oncology division was not meeting the quality and productivity markers for the quarter and that the institution would be expecting better results for the next cycle. Dr. Smith has had exceptionally low job satisfaction for the past few months, and the quality improvement (QI) pressure has been very upsetting for him. He also received a thank you email from a patient that recently survived breast cancer in which she expressed her gratitude for his services, but he browsed very quickly through the message because he had so many emails to check.

He left the clinic late and missed his son's recital at school, and his wife and son were upset. After he arrived home, he stayed up late completing medical notes and working on a grant proposal which had a deadline later in the week. Dr. Smith had joined a gym earlier in the month but was not going because of his busy schedule. He also has not been in touch with any of his close friends and other family members, and despite having a few friends at work, he has had no recent social interactions with them. Dr. Smith has been experiencing frequent symptoms of burnout for the past several months, including frustration, emotional exhaustion, and a lack of work satisfaction.

Self-Awareness

Awareness of stress-related symptoms and tracking their activation are fundamental. Once the clinician identifies his/her common triggers for stress, they can take steps to de-escalate the stress. Triggers are often unique and vary from person to person and may be related to past events in each person's history combined with their own individual personality traits. Many cognitive behavioral techniques help clinicians with stress reduction [29, 30].

In one of Dr. Smith's encounters, he had to deal with a patient who searched for chemotherapy treatment options on the Internet and then tried to dictate his own treatment. This was a particular trigger for Dr. Smith. He felt insulted and angry when a patient with no medical degree or even familiarity with oncology argued that the Internet-based treatment was more appropriate despite Dr. Smith's extensive training and experience. This trigger was coupled with another trigger later in the day when the Chairman of Medicine's email called out Dr. Smith's practice for not meeting the quality and productivity markers for the cycle. Dr. Smith felt frustrated because he believed that the administration had set unreasonable goals and they were disconnected from the daily challenges that frontline clinicians face. The last trigger, perhaps the last straw, happened when Dr. Smith had to break bad news to a young patient with pancreatic cancer. Dr. Smith had recently lost many young patients due to aggressive cancers, and this was starting to undermine his sense of self-efficacy.

In this case, the patient who wanted to dictate his own treatment set off a stress cycle that was later escalated by additional triggers that were particularly troubling for Dr. Smith based on the perception of ridicule (i.e., the Chairman's email) and recent experiences (i.e., deaths of young patients). Essentially, this was a bad day for Dr. Smith with several triggers at once. The effects of a day like this will depend heavily on his self-awareness into his emotions and why he is feeling a particular way. Once these triggers are identified, clinicians can deploy strategies to reduce the stress caused by them. Before Dr. Smith embarked on his day, it would be important for him to have asked himself the following: *What are my triggers? What emotions and patterns do they bring? (*e.g.*, I get angry and become withdrawn and lash out at other people).*

The practice of modern medicine brings many unique challenges and problems, but sometimes the emotions around these problems create more suffering than the problems themselves. The ancient Buddhist parable of the two arrows discusses a common human behavior related to suffering:

> It is said the Buddha once asked a student: 'If a person is struck by an arrow, is it painful? If the person is struck by a second arrow, is it even more painful?'
>
> He then went on to explain: 'In life, we can't always control the first arrow. However, the second arrow is our reaction to the first. This second arrow is optional.'

This is sometimes interpreted as "pain is inevitable, but suffering is optional" [31]. The first arrow causes the physical pain of the injury, and the pain of the

second arrow can be described as how our subsequent thinking about the event causes further suffering. “Why was I in this war? Why did I get sent to battlefield? Why was I the only one to get shot? I am angry and I will take revenge”, and so on. Sometimes the feeling of anger, blaming, and planning revenge can cause much more suffering than the arrow wound itself. Life will shoot many arrows at health-care providers, difficult patients, end-of-life situations, unreasonable administration, and the COVID pandemic, and these are certainly difficult situations. Unfortunately, it is not possible to control or avoid many of these situations. However, clinicians, like everyone, have control over how they react to these situations, and this new approach of conscientiously choosing how one will react to a trigger may greatly reduce suffering. In other words, the clinician has the option of saying “Ouch- this hurts, but I will try to take care of this wound” as opposed to “Ouch-this really huts, why me!?, I will get my revenge!” A self-aware reflection would be to ask oneself if the anger and blame are helpful or not. While anger is important to acknowledge and can even promote change, it is often destructive, not helpful, and can worsen or complicate a situation.

In addition to identifying triggers of stress, awareness of cognitive distortions can also help clinicians dealing with burnout. Cognitive distortions stem from automatic thoughts that lead people to perceive reality inaccurately. Many common cognitive distortions are well described and include the following: catastrophizing, filtering (only dwelling on the negative), over-generalizing, all-or-nothing thinking, jumping to conclusions and personalization, or blaming. These distortions can happen on different levels of awareness and may require therapy to uncover. But many cognitive distortions will be revealed and ameliorated by becoming more self-aware because they can cause intense emotions and their presence can be revealed by not only acknowledging the emotion but thinking about its origin on a personal level [32]. That is, identifying one’s personal triggers and cognitive distortions is not going to solve the many challenges that clinicians face, yet once one is aware of his or her triggers this can be the first step to initiate strategies to de-escalate the situation by potentially using mindfulness techniques that will be discussed in the next section.

Mindfulness

The practice of mindfulness emphasizes “moment to moment purposeful attentiveness to one’s own mental processes during everyday work with the goal of practicing with clarity and compassion.” Mindful clinicians attend in a nonjudgmental way to their own physical and mental processes during ordinary, everyday tasks. This analytical self-reflection enables physicians to listen attentively to patients’ distress, recognize their own errors, refine their technical skills, make evidence-based decisions, and clarify their values so that they can act with compassion, technical competence, presence, and insight [18]. Studies indicate that mindfulness training for practicing clinicians can have an effect on burnout, empathy, and well-being for clinicians [33, 34].

An important feature of mindfulness is that *the practice is simply observational.* The clinician observes thoughts and feelings without doing anything to change them, elaborate on them, stop them, or alter them. It is a practice about "being" that incorporates a new and deliberate approach to observation, which ricochets back serenity and a more equanimous "being" or observer. A mindfulness approach stands in contrast with the usual emphasis on "doing" for which we are acculturated to revere and is a very natural state of being as a busy clinician [35]. This shift to observing concentrated in a state of being can drastically change what one actually does over time and lead to greater clinical effectiveness as well as physical and emotional well-being.

There are several ways to incorporate mindfulness in one's daily clinical practice. At the core of mindfulness interventions is the concept of "being present." It is important to note that the goal *is not* "being peaceful" all the time but rather *being present to what is in front of us*, moment by moment. The clinician who is becoming mindful will be open to experience what is present at any given moment. It may be a connection or positive engagement with colleagues and patients or a burst of anger, frustration, or discomfort. The clinician may witness his or her negative reactions and take action to de-escalate the stressful reactions. This clinician may bear witness to the suffering of patients and families and experience a new capacity for empathy and compassion. This newfound capacity to be present and aware of the richness of our moment-to-moment experience can lead to a sense of peace and joy even while negative events and emotions are observed.

But it is not possible to be always completely present without experiencing the influence of our minds (e.g., judgmental thoughts, bodily needs). Practicing mindfulness is bringing the mind back to this observational state without harsh judgment or recourse. It is a constant exercise of coming back to the present moment repeatedly.

There are several mindfulness techniques that may be easily incorporated in a daily busy practice. The goal in listing these is to explore how they might be incorporated into one's daily practice. They are suggestions that can be practiced occasionally, daily, or multiple times a day. The best results come with consistent practice as these suggestions do not work as well on demand if the mind has not trained for it.

Placing dedicated attention to one's *breathing and cultivating mindful (awareness)* pauses has been a core meditation technique for thousands of years. There are well-designed, randomized controlled studies that have demonstrated that breathing-based meditation techniques significantly reduce anxiety and hyperarousal symptoms in individuals [36]. These techniques may be performed throughout one's clinic or during other activities that induce stress. In between patients, a clinician may take three slow deep breaths focusing on the present moment, "resetting" the brain in between clinical encounters: *one breath*, pause, *two breaths*, pause, *three breaths*, pause. As the mind wanders, one just observes the thoughts in a nonjudgmental way during this dedicated time or moment, allowing them to come and go, refocusing the attention on coming back to the present breath and the present moment. In addition, a clinician could easily take a few breaths when washing hands in between patients and several times per day. By focusing on the sensation

of the water on the hands and taking a few breaths, one can reset his or her mind in order to leave the prior patient encounter behind and enter the next meeting focusing on the patient in one's presence. These periods of reset allow the clinician to consciously decide to be present, which also means not worrying about the patients or tasks that will be coming next. Worrying about past or future patients does not help either set of patients and detracts from the patient in the room during the current moment.

In addition to breathing and mindful pauses, another meditative technique is the *body check*. This brings attention to the body to connect to the present moment and focus. By breathing mindfully one can achieve focus in the present moment, experiencing the sensation of the air coming in and out. In addition, the body check allows the clinician to acknowledge the present state of the body focusing again on the present moment while sitting, walking, or standing. *Can I feel my hips while sitting? Can I feel my feet while standing?* In this way, the body check can help to identify symptoms of stress. For example, some typical signs of stress like retrosternal burning, dry cough, or worsening gastroesophageal reflux disease (GERD) may become apparent with stress. The body check forces the clinician to focus on the present moment. With time, one will become more aware of these symptoms as they first start, which allows the clinician to accept their presence, calm the mind, and take a few breaths to reset one's mind. As these mindfulness and meditation practices progress, one may be able to ameliorate these symptoms associated with stress. A useful question for clinicians who will utilize the body scan method of meditation is to ask the following: "What are the physical signs of stress that manifest themselves in my body? Is it headache? Chest pain? Constipation? Neck pain?" Once the body scan begins to create more awareness of the psychological and physical triggers of stress, there may be an opportunity to identify the source of stress and act upon it.

These well-studied approaches (e.g., breathing, mindful pauses, and body check) involve secular forms of meditation, which may also include more organized meditative or mindful activities such as yoga or sitting meditation [37]. In fact, some clinicians may prefer sitting meditation, while others may prefer the structure of yoga, the body scan, or *visualization*, *also called guided imagery*. This meditative technique has been associated with significant acute improvements on stress, mindfulness, empathy, and resilience [33]. A brief visualization exercise can be incorporated into mindful pause, which incorporate slow, intention-filled, or mindful breaths with a visualization of the clinician's favorite place. It should be well described during the exercise. *What is your favorite place? What does it feel like to be there? What are the colors, sounds and sensations of your place? Can you try to briefly go there in your mind?* As providers navigate the many stressful moments of clinical practice and witness stressful events, it may be helpful to visualize a safe inner haven for a moment during mindful pauses throughout the day. In addition, *self-compassion* can be practiced and used as a meditative technique.

In the case vignette, Dr. Smith had a terrible day in which he felt inadequate and imperfect. Several issues at work were coupled with his personal life and feelings about himself. He felt bad that he was not able to save his patient with advanced

pancreatic cancer and felt bad that his practice was not meeting the quality goals for the fiscal quarter. At the end of the day, he also felt bad that he was not a good father when he missed his son's recital. A long tradition of perfectionism exists among clinicians, which may seem like a good thing at first glance but can lead to complications and burnout. One can turn the same perfectionism toward oneself and feel shame, anxiety, and anger, and worry that one is less than perfect. Self-compassion begins with kindness and inward self-reflective curiosity while acknowledging our own pain and humanity. Self-compassion has three parts. First, we aim to be kind to ourselves even when we have not been at our best, realizing that every person has difficult moments, or moments that fall short of our expectations. Second, we can focus on our connection to others and humanity and remember that we are not the only ones struggling with a sense of inadequacy. Lastly, we can always return to mindfulness and cultivate friendship toward ourselves [38].

A quick self-compassion exercise is the repetition of the self-compassion mantra:

> May I love myself just as I am. May I be truly happy. May I find peace in this uncertain world. May I love and be loved. [39]

Regardless of practicing a mantra meditation, the main goals are to practice acceptance of life "as it is" rather than "as we would have wished it to be." Perfectionism may be a powerful tool as clinicians strive to become better, but perfectionism can become a significant source of distress as well. In a sense, modern medicine often brings a promise of assuredness, but as clinicians know all too well, there are always unexpected surprises that are encountered and perpetuate a cycle of uncertainty and negative emotion. Healthcare providers can strive to be good clinicians and aspire for excellence, but practicing *self-compassion* is an important step toward burnout prevention.

Generally, it is recommended that the clinician progress gradually in mindfulness techniques by beginning with brief daily meditative mindfulness sessions lasting a few minutes and progressing slowly in week-long increments by extending the practice only slightly 1 week at a time. Several research studies indicate that changes occur in as short as a 2-week period and that there is a dose effect – the more you do

Box 2: Mindfulness Techniques

Breathing/mindful pauses: As the name implies, these strategies involve the breath and mindfulness-based pauses, which can be used multiple times throughout a busy clinical day. For example, a clinician may take three slow deep breaths focusing on the present moment, "resetting" the brain in between clinical encounters: *one breath*, pause, *two breaths*, pause, *three breaths*, pause. A practical way to incorporate breathing exercises is to practice pauses of mindfulness throughout the day. In addition, the multiple times per day that clinicians wash their hands may be an opportunity to dedicate to mindfulness

(awareness). By focusing on the sensation of the water on the hands and taking a few breaths, one can reset his or her mind in order to leave the prior patient encounter behind and enter the next meeting focusing on the patient in one's presence. These periods of reset allow the clinician to consciously decide to be present, which also means not worrying about the patients or tasks that will be coming next. Worrying about past or future patients does not help either set of patients and detracts from the patient in the current moment.

Body check: Bringing attention to your body can be a helpful way to connect to the present moment and focus. Body checks can help us identify symptoms of stress that are common or unique to our physical natures. With time, the clinician may become more aware of these symptoms, which allows the clinician to accept their presence, calm the mind, and take a few breaths to reset one's mind.

Meditation: This may be conceptualized as a more formal practice that involves a sitting meditation and stillness. A more formalized process may be preferred by some clinicians.

Guided imagery/visualization: Calling up a selected image or scenario with as much detail as possible. It can be incorporated with *mindful pauses* and revisited throughout the workday.

Self-compassion: Kindness to oneself even when goals are not met. Focus on connections to others and humanity in general while fostering a gentle relationship with oneself.

every day, and the longer you do it, the more benefits you get. But even a short dose – 3 minutes or even 3 breaths – can be beneficial [35].

Fitness/High-Quality Sleep

Physical activity and high-quality sleep are associated with significant cognitive benefits [40, 41], yet the goal of achieving appropriate work-life balance that would provide for both often remains elusive for healthcare clinicians. There are several potential strategies that may help clinicians find healthy boundaries, but there is not one easy solution per se. Competition between work and home life is very common, in fact, inevitable, and clinicians need to balance priorities and demands by setting boundaries in a way that is healthy, flexible, and realistic [42]. One should be sure that perfectionism isn't getting in the way of achieving work-life balance, to the extent that is possible. While striving in one's profession, clinicians often neglect their own self-care – a common theme in this chapter and book. One may look for possible strategies to say "no" to mounting obligations. A good question to ask oneself is: "What is my main goal?" For example, a primary goal of enhanced physical fitness may preclude extra academic activities during a given time since it may be unrealistic to achieve both goals simultaneously.

When considering an increase in physical activity to enhance wellness, it is important to choose a modality that suits your own personality and schedule. Some prefer outdoor activities, while others prefer the gym, or team sports, etc. Also, starting slowly and improving progressively through small increments may be helpful to prevent injuries and increase compliance. But the first step may involve saying "no" to other activities or projects. Defining these priorities helps establish healthy boundaries. Another possible way to incorporate exercise into one's daily routine may involve simple solutions such as walking to work, if feasible, or just taking the stairs instead of elevators. Every little bit helps and climbing stairs can be both an opportunity for exercise and an opportunity for mindful pauses throughout the day.

Relationships

Human beings are social by design. Family and peer support are integral components of well-being that cannot be ignored. In fact, loneliness is a growing problem in many communities, and social isolation has been identified as an independent predictor of mortality [43]. For busy clinicians, an old African proverb is universally applicable:

> If you want to go fast, go alone. If you want to go far, go together.

The ability for a clinician to connect with other clinicians at a personal level, in a way different from their typical clinical duties – with family, friends, or colleagues – has also been identified as beneficial in studies aimed at identifying components of well-being [37, 44].

How does one prioritize relationships with the demands of work life? The process of maintaining and cultivating important relationships will involve saying "no" to additional professional or work commitments and working on establishing healthy boundaries. Working on setting more modest or realistic goals at work in order to open time in your schedule for relationships with friends and family can have significant benefits. Another consideration is to invest in the "quality" of the time spent with loved ones. Mindfulness will help reduce distractions while engaging with family and friends allowing for more quality time with family and friends because one was more mentally present to experience/witness it. The Buddha famously said the following:

> Change is the only constant in life and old age, disease and death will come to us all.

Each meeting with a loved one is a precious moment for which one can be uniquely present and engaged. Recruiting a mindful demeanor can help inspire meaning during these encounters and enhance the quality of these important relationships. The clinical vignette demonstrated how professional stressors sabotaged Dr. Smith's ability to be engaged and present with his family. This can become a vicious cycle.

Important relationships need to be prioritized for their own sake and for that of professional well-being as well.

Meaning and Purpose

Reconnecting with one's purpose as a clinician can provide insight, inspiration, and motivation to do the work needed to deal with stress. Purpose is an overarching motivation or goal that the clinician values deeply. There is a tendency to wait for hugely meaningful moments to bring or define one's purpose, but meaning is present in quotidian and even tedious activities. Mindfulness is a useful vehicle to harness one's thoughts, slow down, and witness the transient beauty of existence [45]. In the case vignette, Dr. Smith received a thank you message from a patient who had recently survived cancer, yet he barely glanced at the message, prioritizing other tasks in his mind. His mind lacked the calmness needed to appreciate the message, and he missed an opportunity to create greater meaning in his work, which may have compensated for all the other negative experiences he endured.

One widespread program that has touched many clinicians was developed by Rachel Remen, author of the bestseller *Kitchen Table Wisdom*, and incorporated in many medical schools as The Healer's Art [37, 46].

Viktor Von Frankl, psychoanalyst and Holocaust survivor, hypothesized that human beings are driven by a quest to find meaning in their lives. Its presence can be highly motivating, and its absence can drive one to perish. He noted at Auschwitz that some prisoners who were starving would pass on their food to others in an act of self-sacrifice. This is an example of the power associated with the creation of meaning in one's life no matter how dire the circumstances. In his famous book *Man's Search for Meaning* [47], Frankl saw three possible sources for meaning: in *love* (caring for another person), in *courage* during difficult times, and in *work* (doing something significant for oneself, one's community, and the world). Meaning and purpose do not need to be grandiose or earth-shattering as there are infinite sources of meaning. It can be created from experiences (e.g., connection to love, beauty, or humor), creativity, courage, and responsibilities. In fact, the creation of meaning and purpose has been used as the centerpiece of meaning-centered therapy for patients with cancer and their caregivers, which is derived from Victor Frankl's original discoveries [48]. The same principles are universally applicable for clinicians as well.

Below are some examples of possible sources of meaning and purpose for clinicians [45]:

- Your contributions – to others, to science, and to clinical care
- What you are learning about your craft, either as a clinician or researcher
- Your accomplishments, large or small
- The respect you feel from others
- Your ability to use power wisely and constructively
- The community that you feel that you belong to

- The sense that you have autonomy and control over your work
- Your connection to humanity, your patients, their families, and the quest for helping in the midst of pain

As clinicians navigate the challenges of daily practice, it is easy to get upset over the many small frustrations that frequently happen. But if the clinician keeps their focus on the larger picture and is connected to the personal "why" of their work, it becomes easier to overcome daily obstacles and struggles that lead to suffering and other long-term consequences.

Interfacing with Organizational Resources

This chapter has focused on the individual clinician's approach to wellness, which should be complimented by organizational priorities toward wellness and clinician resilience. As noted above, studies have shown that the most beneficial effects come from organizational changes in workflow structure, schedules, and prioritization of clinician goals. It has been demonstrated convincingly that clinicians thrive when at least 20% of their time can be devoted to the work activity which they find most rewarding (e.g., researching a specific topic, teaching residents, administrative work, a certain type of clinical work, or a procedure) [49]. An open question remains how to achieve this balance with the demands that organizations face to meet their financial bottom lines. In general, physician turnover will cost organizations upward of over one million US dollars in lost revenue, on-boarding, and administration time in finding new employees to fulfill the work of a clinician who has left due to burnout [50]. The economic incentive to find solutions for burnout is huge, especially as these types of systemic or organizational changes may have positive effects on many clinicians simultaneously. As an individual, it is important to advocate for changes to enhance well-being for oneself at the organizational level. The case vignette demonstrated how the added stress may factor into the clinician's daily stressors and perpetuate a cycle of reinforcing negative thoughts.

Conclusion

The Buddha proclaimed that life is suffering as his first noble truth. However, his third and fourth noble truths reveal that suffering can be relieved by practice along the right path. These Buddhist tenets along with evidence-based practices are effective at minimizing the negative consequences of clinician burnout. While the phenomenon of burnout is related to the circumstance of modern healthcare, to suffer, even in one's work, is universal, and these practices are beneficial irrespective of the source.

At the same time, identifying the source of burnout is crucial for individuals and organizations to consider when identifying interventions for burnout. The evidence-based approaches reviewed in this chapter are drawn from Buddhist principles and

include cultivation of self-awareness, mindfulness, physical fitness, high-quality sleep, and trying to find meaning and purpose in one's clinical work and life and aligning oneself within one's organization to support a community of wellness. The journey toward improving well-being and preventing burnout is arduous. There will always be challenges and setbacks, but the important thing is to stick with a routine that allows for wellness to flourish and cultivates clinicians' growth personally and professionally. Attention to this area of clinical care (i.e., clinician wellbeing) is growing, and more information about evidence-based practices for clinicians and organizations is forthcoming. These are exciting times for the enterprise of clinician well-being, and it will be especially rewarding to see how these individual changes may lead to larger organizational changes in healthcare.

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