1 WHAT IS MEDICAL TRAUMA?

IN THIS CHAPTER, YOU WILL LEARN:

- *A definition of medical trauma, including its most prominent characteristics: medical trauma is subjective, biopsychosocialspiritual, on a continuum, contextual, and relational*
- *The basic psychophysiological effects of trauma*
- *How the ecological perspective of understanding human behavior can be applied to an understanding of medical trauma*
- *A model for understanding levels of medical trauma across three levels of care*
- *The psychological effects of medical trauma, including clinical disorders and secondary crises affecting all areas of life*

MEDICAL TRAUMA: A COMPLEX PHENOMENON

Health care and mental health professionals alike are quite familiar with the concept of trauma, having likely read about the topic, watched TV shows and movies depicting traumatic events, and consumed countless news stories about trauma experiences. If you have experienced trauma personally or vicariously, you have a visceral understanding of what trauma means, how trauma feels, and how trauma can have a lifelong effect after the ending of a distinct event. It seems the topic of trauma is omnipresent in the media, especially given horrific human experiences of war, terrorism, mass shootings, natural disasters, disease epidemics, and domestic violence. Contemporary life has certainly challenged us to find the most effective means of helping

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those who have experienced trauma; in fact, in recent decades numerous new therapies have emerged as having a unique efficacy in treating the effects of trauma; the most promising of such therapies address trauma using techniques that integrate the mind *and* the body, recognizing that trauma is a psychophysiological experience rather than a singular event happening to the mind *or* the body. It seems that finally we are abandoning the Cartesian perspective of mind–body dualism, due in large part to our growing understanding of neuroscience.

While there is currently a plethora of books, articles, and websites dedicated to exploring the effects of and treatments for trauma, it can be helpful to revisit simple definitions in order to get at the heart of the matter, as they say. According to Merriam-Webster's online dictionary, the term *trauma* was first used in the late 1600s and comes from the Greek word *traûma*, which means *wound*.

The dictionary defines *trauma* as

- A very difficult or unpleasant experience that causes someone to have mental or emotional problems usually for a long time
- A serious injury to a person's body
- An emotional upset

These characteristics of trauma may seem general, and in fact, they are. Who is to say what constitutes a difficult or unpleasant experience? What is meant by emotional problems? How serious does a *serious* injury have to be in order to be labeled a trauma? Definitions of *trauma* and *traumatic event* become more specific as we move into the realm of mental health. Consider these definitions:

The American Psychological Association defines *trauma* as

- An emotional response to a terrible event like an accident, rape, or natural disaster

The American Psychiatric Association (2013), in the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (*DSM-5*), describes a *traumatic event* as one in which someone is

- Exposed to actual or threatened death, serious injury, or sexual violation
- "Exposure" means directly experiencing the traumatic event, witnessing the event, learning of a trauma happening to a close family member or friend, or being repeatedly exposed to aversive details about a traumatic event

The *DSM-5* definition of traumatic events forms the basis for the diagnostic criteria for posttraumatic stress disorder (PTSD), so it makes sense that these definitions are narrower with greater objectivity than the

aforementioned dictionary definitions; however, it would be a mistake to limit our understanding of trauma to an objective set of criteria or list of checkboxes, for at the center of every traumatic experience is a person who derives meaning from that experience, and it is that meaning-making that becomes a key to appreciating the complexity of medical trauma.

Toward a Working Definition of Medical Trauma

When we first began researching patient experiences with medical trauma several years ago, we were struck by how little we saw the term "medical trauma" in the research and throughout the Internet. Most of the literature on trauma related to the medical setting has centered on "trauma medicine" and included topics such as specific clinical procedures and best practices for working with patients who have experienced various traumas *outside* of the medical setting (i.e., serious accidents). From countless conversations about medical trauma with health care professionals, we have realized that the idea that a patient could experience psychological trauma resulting from contact with the medical setting—the very place where people come to be healed—was intriguing to them at best and incredulous to them at worst, especially regarding trauma for adult patients. Despite the numerous research studies that focus on the effects of specific medical traumas (e.g., cardiac arrest) and that use the term "medical trauma," we have not seen a useful or descriptive definition of the phenomenon; therefore, given the absence of a general working definition of *psychological* medical trauma, we felt it important to draft one. Note that this definition and the model of medical trauma we discuss in this book refer to the emotional and subjective experience of trauma rather than the complex physiological responses to trauma. For a detailed review of how trauma affects multiple systems within the body, see Desborough (2000).

Definition of Medical Trauma

Medical trauma is a trauma that occurs from direct contact with the medical setting, and develops through a complex interaction between the patient, medical staff, medical environment, and the diagnostic and/or procedural experience that can have powerful psychological impacts due to the patient's unique interpretation of the event.

Let us break down this definition into its distinct components. First, in using the term **direct contact**, we attempt to initially define medical trauma for the *patient* (the phenomenon of vicarious medical trauma, in which family, friends, and medical staff can have a traumatic stress response to a patient's experience, is another important dimension worthy of attention but not a focus of this book). Second, medical trauma occurs through contact with the

medical setting. The term "medical setting" can refer to any aspect of direct experience with the health care system, from spending time in the hospital for treatment of an illness, injury, or procedure; visiting an ambulatory surgery center for an outpatient procedure; visiting an outpatient physician's office for ongoing treatment of a chronic or life-threatening illness, such as an autoimmune disease or cancer; visiting the dentist's office for the first time in 15 years; or getting an annual pelvic exam at an OB-GYN's office. These are but a few examples of the many health care experiences patients face on a daily basis at acute care (hospital) facilities, ambulatory surgery centers, testing centers, and outpatient medical and dental offices. Third, medical trauma develops through a **complex interaction** of multiple factors, including the patient, medical setting (including interactions with the staff and the environment), and the diagnosis or procedure. It is important to note that, while medical trauma is a subjective experience, the subject (patient) is not the only factor in the equation. In other words, a patient does not experience medical trauma simply because he or she has a predisposition for experiencing a medical event as traumatic: There are many characteristics of the medical environment, staff, and diagnoses/procedures that can influence a patient's response. Fourth, medical trauma can have powerful **psychological impacts**, from the development of clinical and subclinical mental health issues to affecting the health of relationships, sense of self, the body, work, leisure, and spiritual life. Lastly, the **patient's unique interpretation** of the medical trauma is a key to understanding the overall impacts of the experience. Meaning-making is at the heart of the medical trauma experience.

You might still be wondering how or even if medical trauma might differ from other forms of trauma, especially if we remove the context of the medical environment. Is the experience and maintenance of medical trauma symptoms any different from the traumatic stress response and ensuing psychological sequelae from other kinds of traumatic experiences? Donald Edmondson's (2014) work examining life-threatening medical events and PTSD has yielded the Enduring Somatic Threat model, a theory which differentiates medical trauma from nonmedical trauma in several compelling ways. First, Edmondson argues that nonmedical traumas and PTSD are in response to a discrete event in one's past, while medical trauma reactions endure because the threat (of disease, pain, and even death) is located in one's own body. Second, for many who experience a life-threatening medical event, ongoing medical care and monitoring are required in order to avoid subsequent events (e.g., heart attack and stroke). While many psychophysiological triggers of trauma could potentially be avoided in cases of nonmedical trauma, patients who experience life-threatening medical events can be retraumatized with ongoing medical care that can contribute to symptoms of hyperarousal, reexperiencing, and avoidance. Edmondson (2014) exemplifies this point when describing a patient's experience of

cancer, suggesting that the trauma arises not because of a singular event, but rather from the emotional experience and vulnerability inherent in having this life-threatening disease. Third, Edmondson argues that a real and present danger associated with medical trauma is the influence of the traumatic stress response on subsequent health behaviors and overall health, as the perception of an ongoing threat can impact blood pressure, heart rate, sleep, and inflammation—all of which are risk factors for subsequent life-threatening medical events.

We revisit the concept of enduring threat and how it can maintain medical trauma symptoms in Chapter 3, but now we continue to build on our definition by addressing some of the characteristics of medical trauma that may exemplify its uniqueness as well as help us understand why it has in some ways been "off the radar" in terms of broader conversations about whole-person care. In order to deepen our understanding of medical trauma, we expand our definition to highlight that medical trauma is subjective for the patient; best understood as being on a continuum; biopsychosocial-spiritual in both the experience and in the effects; contextual; and relational.

Medical Trauma Is Subjective

While many trauma researchers study reactions from events universally thought of as traumatic, such as the effects of war, violence, or natural disasters, some contemporary scholars have turned their attention to trauma experienced in everyday life and the importance of subjectivity in the interpretation of the experience. Scaer (2005) and Levine (2010) both speak of their own traumas and how these experiences shape their perspectives and understanding of trauma as subjective. In *The Trauma Spectrum*, Scaer points to his experiences of medical trauma as a child as being particularly poignant, and argues that trauma exists on "a continuum of variably negative life events occurring over the life span, including events that may be accepted as 'normal' in the context of our daily experience because they are endorsed or perpetuated by our own cultural institutions" (p. 2). He continues by asserting that whether or to what degree these negative life events are perceived as traumatic depends upon how they are interpreted by the victim—in other words, if a person experiences an event as traumatic—*it is trauma*. These points strike at the heart of our understanding of medical trauma, for the subjectivity of this type of trauma is one of its most important characteristics.

In other words, medical trauma is not black or white, nor is it easily detected if we are not partnering with patients in order to understand their experiences. Because the interpretation of medical experiences as traumatic is not something we as clinicians can objectively ascertain without talking with the patient (i.e., we cannot objectively label a patient's experience as traumatic or not traumatic simply because they received X diagnosis or Y procedure),

we should be careful to avoid attempts to characterize the effects of a medical experience without first understanding the patient's point of view.

Medical Trauma Exists on a Continuum

From the standpoint of assessment, we should approach medical trauma as if it could occur for patients at any point in the care delivery process. While we certainly cannot account for every patient's moment-by-moment emotional response to medical experiences, we can target specific kinds of medical experiences that are more likely to have psychological effects and intervene appropriately. In terms of building a model of medical trauma, we organize these specific kinds of medical experiences in three levels, moving along a continuum from greater to lesser threat to life: Level 3, or medical emergencies; Level 2, or life-threatening/life-altering diagnoses; and Level 1, or planned/routine medical care. Although we discuss medical trauma in terms of these three levels or categories, we see these categories as being fluid and easily traversed. For example, a patient who has a heart attack (Level 3) and who has a traumatic stress response and ensuing, ongoing psychological effects could continue to struggle through his or her follow-up care (Level 2) to the point that every contact with the medical setting—even a trip to see a family physician for a sinus infection—could ignite acute reexperiencing and hyperarousal of the trauma (Level 1). We examine this model in more detail later in this chapter.

Medical Trauma Is Biopsychosocialspiritual

Through the work of trauma researchers and our increasing understanding of neuroscience and the brain, our body of knowledge about the complex effects of trauma is growing at a remarkable pace. From leading researchers on trauma, we understand what happens in the body and mind when the sympathetic nervous system, or more specifically the hypothalamic–pituitary–adrenal axis (HPA), is activated in response to stress and attempts to regulate the body, as well as what can happen if this activation becomes a patterned response to stressful stimuli. Further, we know the damaging effects of the traumatic stress response and excessive amounts of adrenaline and cortisol flowing through the body, especially in those individuals who develop PTSD.

Like other forms of trauma involving a direct connection to the body, medical trauma happens at multiple levels:

1. The body's integrity is compromised through illness or injury, and treatment is required to restore health or manage acuity.
2. A patient interprets this medical treatment, his or her suffering, and contact with the medical setting in a way that is unique to him or her

(in other words, the patient has a psychophysiological response to treatment).

3. A patient experiences a medical trauma socially, through ongoing interactions with medical staff and family.
4. A patient experiences the trauma spiritually, especially when facing his or her own mortality.

By viewing medical trauma holistically, we can improve our ability to assess how patients are experiencing their compromised health in the context of the medical setting. Given our earlier discussion of the subjectivity of medical trauma, we know that not everyone is going to experience a physical diagnosis or procedure as traumatic; in fact, the majority of people may not. For those who do, it is important to remember that the traumatic stress response can happen not only because of the patient's unique psychophysiological response, but also due to the qualities of the health care environment—or its context.

Medical Trauma Is Contextual

Studies of the effects of medical trauma often focus on specific factors of the patient: Preexisting mental health problems, past history of trauma, and personality factors are but a few topics addressed in the literature about medical trauma. It is important to remember that medical trauma, while subjective, does not happen in a vacuum. A medical experience is not traumatic simply because a patient has a vulnerability or predisposition to being traumatized; in other words, having been traumatized by a medical event does not denote weakness on the part of the patient. There are a number of other factors that can influence a patient's experience of a medical event as traumatic, one being the context of the medical environment. Qualities of the setting, such as lighting, unfamiliar or frightening objects, sounds, and scents, as well as uncomfortable furniture are but a few examples of how environmental factors can influence a patient's psychological response. Further, protocols within the medical environment that can increase a patient's feeling vulnerable—such as waiting for a procedure alone in a hospital gown without one's clothing—can heighten stress and leave someone susceptible to intense emotional reactions. How medical staff members communicate with patients and their overall sensitivity to the unique situation of the patient constitute other important factors in a patient's overall experience of a procedure or ongoing care with a chronic diagnosis. In sum, the environment and staff create a context for each episode of care that can either subtly or greatly impact patients' experiences.

Throughout this book, we explore the many factors that make up the context of medical trauma, and how characteristics within the medical setting

can contribute to the experience of medical trauma. Beyond the medical environment, another contextual factor that is highly influential in a patient's experience is the context of the relationship between patients and providers.

Medical Trauma Is Relational

While some traumas occur outside of human relationships (for instance, a man sustaining injuries from a car accident caused by black ice or a woman who sustains serious injuries by slipping on rubble while hiking, causing her to fall several feet), medical trauma is often a relational trauma in that it occurs within the context of the patient–provider relationship. This is an important distinction and one that adds to the complexity of trauma experienced in the medical setting. The quality of the patient–provider relationship is foundational to the patient experience and rests upon the ability of a provider to build rapport, inspire and earn trust, and communicate care and respect. When a medical trauma occurs, the patient–provider relationship can become fractured; if a medical trauma remains undetected and goes unaddressed, the patient–provider relationship can suffer as a result.

The patient–provider relationship is a unique one. While much attention is paid to achieving a patient-centered health care experience, there is some debate about what that means and how to achieve it. Although we have made strides to move away from paternalistic care in favor of collaboration, regardless of our efforts a power differential always exists in a helping relationship. Despite the empowerment that can come from knowledge gained in this age of online information gathering, the fact remains that a patient submits himself or herself to the skill and expertise of a provider, especially in disempowering situations such as surgery or an invasive procedure. The fact also remains that in a helping relationship, there is vulnerability for the person seeking help and great responsibility for the person giving it.

Patient/Healer Relationship

Socialization

At a young age, we become socialized to accept medical treatment that will lead to our health and healing. There can be great fear for children who enter the medical setting: strangers asking questions, touching parts of their bodies that may be in pain, giving injections. Even for healthy children, these procedures can bring intense anticipatory anxiety. For example, my 11-year-old daughter has a great fear of getting tested for strep throat, given her ultrasensitive gag reflex and disdain for feeling overpowered or out of control. A few times when she was younger, she was held down by at least two nurses or medical assistants while a third swabbed the back of her throat, hoping to get a good enough sample for the test. On more than one occasion, my daughter

vomited while getting swabbed, which further added to her discomfort, embarrassment, and fear. As a parent, it was difficult to watch and certainly triggered an inner conflict with the deeply held belief that I protect my child and never let anyone cause her harm. I remember the first time she struggled with the strep test. She was four, and as she was being held down to get the swab, she looked at me with panic and confusion. On the way home, she asked me repeatedly, "Mommy, why did you let them do that to me?" I tried (in vain) to explain to her that it was for her own good, and that we needed to know if she was sick so that we could get medicine to make her well again. Each time she has received a strep test, she has had strep throat—which has helped me reinforce to her how important medical testing can be, and has helped me socialize her into the role of being a patient. Because she is still a child, she has not yet been able to overcome her fear of getting this test, and regardless of my attempts to teach her how to better tolerate the procedure, her psychophysiological response takes over.

For children who have chronic illnesses or serious injuries, anxiety about medical treatment can be quite common given their frequent contact with hospitals and ongoing physical pain and discomfort. Thankfully, there are helpful resources through the National Child Traumatic Stress Network specifically developed to help children and their families manage the psychological impacts of medical trauma. Perhaps we have done a better job managing pediatric medical trauma because we recognize that children lack the ability to fully understand what may be happening to them, and given their vulnerable status they are more susceptible to fear regarding pain, suffering, and uncertainty. Adults have ostensibly had years of socialized acceptance of the inevitable discomfort that can accompany medical care; in effect, many of us give silent, lifelong consent to do what it takes to mend us, heal us, and save us. We submit ourselves to the procedures, the medication, the treatment—while often keeping our fears hidden and thus our psychological reactions to extreme medical events ignored.

Double Bind

In the preceding example of my daughter's first experience with the strep test, she talked about her thoughts, fears, and confusion with me on the car ride home. She needed to try to make sense of an experience that seemed to contradict what she had come to know of me and of our relationship, given my role as her primary protector, caregiver, and trusted parent. That I stood by and watched as people held her down while she was scared and defenseless did not seem to fit the paradigm of how she saw me. It was important that we had a long talk about this, even if she did not completely understand my rationale. Our open dialogue potentially thwarted the development of a *double bind*.

While much has been written about the "double bind" as it relates to the development of schizophrenia, the concept is interesting to explore as it relates to the experience of medical trauma. Gibney (2006) defines the double bind as "a communication matrix, in which messages contradict each other, the contradiction is not able to be communicated on and the unwell person is not able to leave the field of interaction" (p. 50). While the double bind is a rather complex interaction that was originally posited as a factor in the development of psychosis, it provides an intriguing lens through which to view medical trauma and the provider–patient relationship. The original double bind theory focused on parent–child communication, with the victim or receiver of the double bind being the child, and the sender, the parent. For the victim of a double bind, interactions with the sender create confusion and a lose/lose proposition; in many cases, there is no clear opportunity to address this confusion, and even if there were, there would be no validation in the exchange.

In the context of medical trauma—especially in cases in which extreme, painful, and even frightening measures are required to save a patient's life—a patient can experience the health care provider in complicated duality: In this case, the provider is a healer, yet also a perpetrator of a trauma. While we adults intellectually understand that medical staff perform required tasks to save and heal us, the pain inflicted on our bodies and the terror, confusion, and panic we may feel are not lessened because the intentions of doctors and nurses are pure; in fact, it may be precisely because of those pure intentions and our socialization to the medical setting that we often stay silent about this vulnerability and about the intense emotions we may feel. The double-bind concept is most relevant in cases where the threat to life is very real; emotions such as fear, terror, and uncertainty are intense; and patients experience their medical care as resembling torture.

Disenfranchised Trauma

As a result of the silent suffering experienced by some patients, medical trauma can be thought of as a disenfranchised trauma. For our purposes, we are using the term "disenfranchised" to simply mean unacknowledged. You might already be familiar with the term "disenfranchised grief," which is sometimes used to describe grief that a woman may experience after having a miscarriage or an abortion, or the grief following the death of a pet. When grief is disenfranchised, it is not discussed or acknowledged sometimes because the person grieving fears that people may not understand or that they may minimize the pain or suffering he or she is experiencing. For example, a few weeks ago I had dinner with a friend who shared with me the sad news that her cat had died. She told me the story of how she had to make the heart-wrenching decision to end her pet's life and then shared details of

the experience. At the end of her story, she said that she had not told many people because she knew that most people "wouldn't understand" (and she knows how much I love my pets, and it probably did not hurt that I am a counselor, so she could at least expect an empathic response). It really struck me in that moment how vulnerable she was in her grief, and how disenfranchised some forms of grief can be. I thought back to the countless times clients would tell me—often with much trepidation—about abortions, miscarriages, divorces, and other experiences that are sometimes invalidated or minimized by others. Just as some grief can be disenfranchised, so too can trauma be invalidated or remain unacknowledged. Medical trauma can be one such trauma.

You might be wondering why we view medical trauma as being disenfranchised. The fact that we are well into the 21st century and, despite the abundance of books written about trauma, this is the first book dedicated solely to the topic of managing the psychological and emotional impacts of this unique trauma, is the first reason. Second, it has only been in the past few years that we have even seen the term "medical trauma" used; just a few years ago when Googling the term, I (Michelle) would consistently see resources related to trauma medicine, not medical trauma. The only exception to this was the National Child Traumatic Stress Network, which uses the term medical trauma, but only as it relates to children and their families. This was curious to me, and it would have given me pause to wonder if adult medical trauma actually existed, except for the fact that I experienced an extreme medical trauma and am still managing its effects over 10 years later. It is through this experience that my intense interest in researching medical trauma has grown, and it is from this experience and through countless conversations with others that I have learned that medical trauma is disenfranchised.

How does medical trauma go unacknowledged? There are many factors that can contribute to this, with patients, families, and providers playing roles in the issue. First, despite some efforts to provide more integrated services at primary care, specialty care, and hospital settings, the focus of care is overwhelmingly on the physical body: We see this in the information given at discharge, which often addresses only the physical implications of an episode of care; we hear it in conversations with providers and family members, who inquire about level of pain and physical discomfort; and we see how patients' emotional discomfort can become eclipsed by physical distress and pain. The result of this lack of acknowledgment of the psychological implications of medical treatment is that it remains off the radars of providers, family, and perhaps most seriously, the patients themselves. Furthermore, because the stigma for seeking mental health treatment is very much a reality in the lives of many patients, psychological distress and emotional consequences of medical trauma can remain unacknowledged, perhaps permanently.

UNDERSTANDING MEDICAL TRAUMA IN CONTEXT: THE ECOLOGICAL PERSPECTIVE

In growing our understanding of medical trauma, it is helpful to understand the complexity of the experience in order to design interventions that will lead to positive patient outcomes. From our earlier exploration of the characteristics of medical trauma, we can see that this trauma is not so simple to understand, in part because it is often not the product of a single factor. While it can be tempting to oversimplify the source of medical trauma as being located entirely within the patient and his or her predispositions, in doing so we are missing a large portion of the medical trauma puzzle. To help train our lens to see the broader landscape of medical trauma factors, we turn to the ecological perspective (EP).

What Is the EP?

When you see the word *ecology,* what comes to mind? For most of you, ecology has to do with the natural world, and more specifically, the *environment*. In basic terms, ecology is the study of relationships between living things and their environments. It seems logical that this would apply just as aptly to people as to animals, plants, and the like, and in the 1930s, psychologists borrowed the tools of ecology and began applying them to human behavior. Lewin (1935) did just that and created a formula, conceptualizing human behavior (B) as an interaction (*f*) between a person (P) and his or her environment (E), whereby indicating the complexity of interplay between the factors within a person (e.g., thoughts, emotions, traits, values, attitudes, personal history) and his or her context (i.e., the physical environment and sociocultural forces within the environment). The following is Lewin's now well-known formula or heuristic to represent the relationship:

$$B = f(P, E)$$

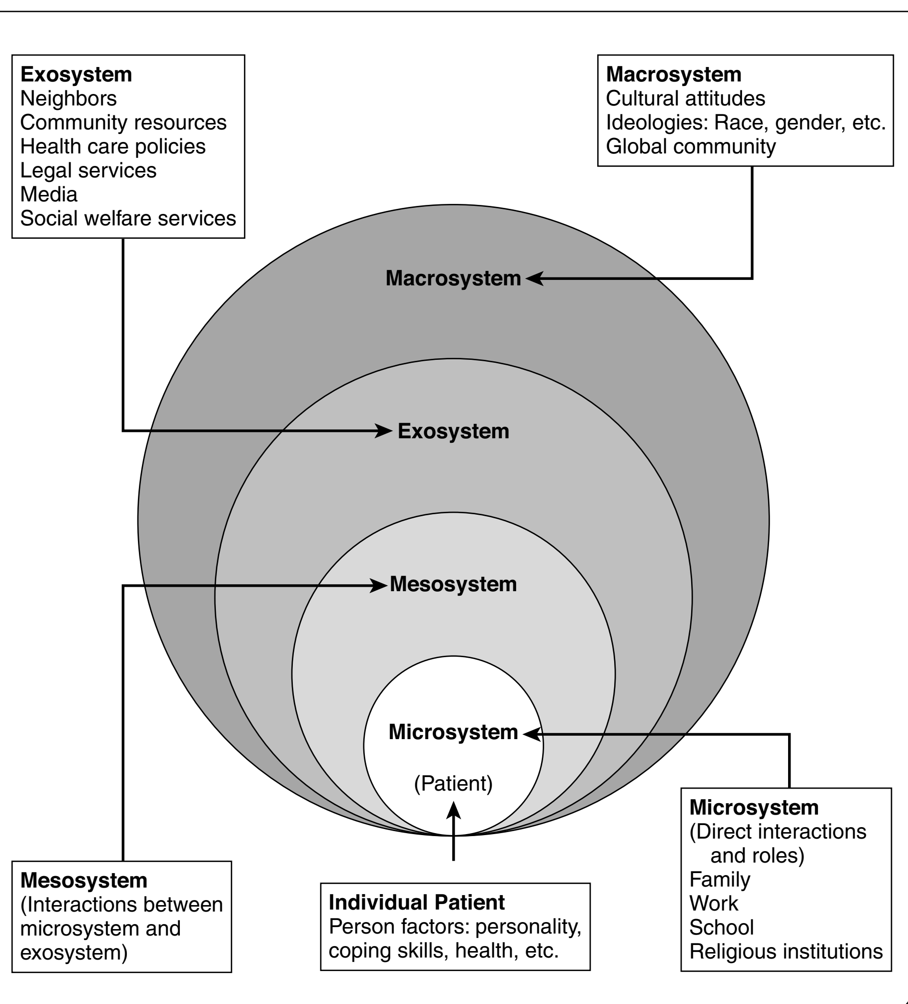
While the EP is an incredibly detailed and complex theory, we present it briefly here in order to illustrate a simple point: Behavior is contextual, and there are often multiple factors—both from a person and from his or her environment—that influence his or her thoughts, feelings, and actions.

Beyond Lewin's formula, there are other aspects of the EP relevant to our exploration of medical trauma. An example would be the conceptualization that our environment is composed of multiple systems (or contexts) of varying degrees of direct and indirect influence on our everyday lives. Bronfenbrenner (1979) first presented the concept of nested systems or environmental contexts using concentric circles, wherein the innermost circles represent environments more proximal, and therefore influential to an

individual (such as school, workplace, or church) and the outermost circle represents more distal influences, such as mass media, the global environment, and other sociocultural forces. In this model, multiple systems make up the entirety of our environment (Figure 1.1).

At the center we see the individual, whose personal characteristics, including personality, physical features and health, development, history, thoughts, feelings, and behaviors interact to create each unique person. Moving beyond the person, we see the most proximate system of influence in his or her life, or the microsystem. The microsystem includes family and friends, place of work, school, the local community, and places of worship—and

FIGURE 1.1: Bronfenbrenner's ecological model.



represents the context in which individuals play multiple roles and engage in dyadic interactions (e.g., spouse, coworker, parent, and friend). Beyond the microsystem is the mesosystem, which represents the connections between elements in the microsystem. In the context of the medical setting, the mesosystem can be the interactions between family and health care providers. The exosystem represents a larger social system in which the individual does not directly participate but from which an individual can benefit or by which an individual can be affected. For example, the community and its resources, neighbors, local industry, and media are elements in the exosystem. Finally, the macrosystem includes the cultural context that is removed from the individual but still affects him or her, such as cultural attitudes or beliefs. The EP purports that people exist not in a single context but in multiple, nested systems much akin to the Russian stacked dolls where the smallest doll in the very center represents each person within his or her multiple, nested contexts of varying proximity and influence.

The EP provides a nice platform on which to build a model for understanding medical trauma due to the complex interactions between patients, staff, the medical environment, and medical experiences. The salient factors that exist within an individual patient, such as risk and protective factors, tolerance for the medical environment, and issues of identity (Chapter 2), as well as the many environmental forces at play, such as the physical environment of the medical setting (Chapter 3) and the medical staff (Chapter 4), create a complex interaction that influences how patients respond to a medical diagnosis, procedure, or event (Chapter 5). The EP reminds us that behavior is complicated, and that people exist in unique contexts that affect them and that are affected by them.

The Importance of Meaning-Making

In our earlier examination of the characteristics of medical trauma, we asserted that medical trauma is a highly subjective experience; in other words, a person's unique interpretation of his or her medical experience plays a central role in how that person thinks, feels, and acts in response to the physical sensations of an illness or intervention, behavior of staff, and aspects of the treatment environment. In terms of the EP, this subjective interpretation is understood to be a person's *meaning-making*. Each patient experiences the medical environment, diagnoses, procedures, interactions with providers, and adjustment following health care treatment in varied and unique ways, and it is really a person's meaning-making that drives his or her emotions, decisions, ability to cope, and behaviors throughout life.

In order to assess how a medical experience has impacted a patient, we must work to understand its meaning to them and for them. Later in this book, we present tools to help providers ascertain patients' meaning-making,

or their unique interpretations of their diagnoses, treatment experience, and implications for their future health and well-being.

MODEL OF MEDICAL TRAUMA

While achieving a deeper understanding of the EP is well beyond the scope of this book, we wanted to give a basic description before presenting a model of medical trauma that we believe emphasizes the most salient contributing factors. With that basic understanding of the ecological framework achieved, we can now discuss a view of medical trauma that underscores the importance of viewing events, experiences, and reactions through a contextual lens. Recognizing that the experience of medical trauma is a complex interplay between the unique characteristics of the patient, the medical environment, medical staff, and the specific diagnosis and procedure(s)—and how the patient interprets the experience (meaning-making)—we can conceptualize it this way:

$$\text{Medical Trauma} = f\left(\frac{\text{Patient} \times \text{Diagnosis}}{\text{Procedures} \times \text{Medical Staff} \times \text{Medical Environment}}\right)$$

Another way in which to conceptualize the four factors of medical trauma is to place each factor in a nested system. Figure 1.2 illustrates the interactions among the four factors by placing the patient at the center, with the medical interventions being a shared experience between patients and staff—all happening within the context of the medical environment.

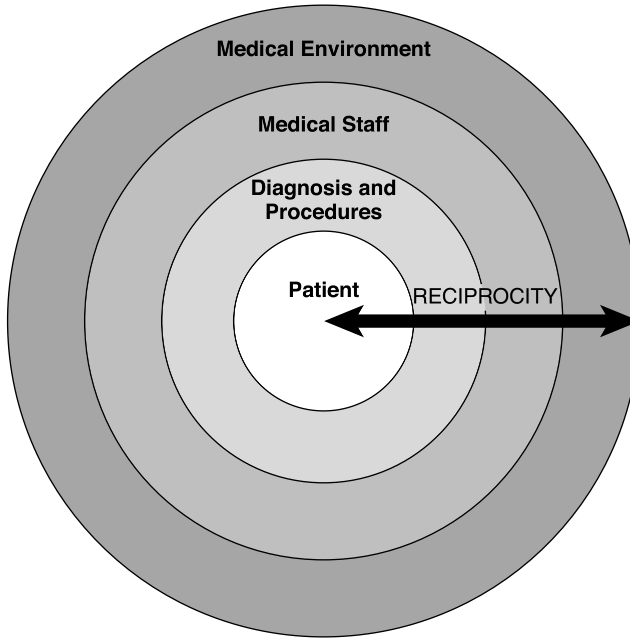
Four Factors of Medical Trauma

While we recognize the complexity of medical trauma and acknowledge the difficulty in simplifying the interactions among numerous contributing factors, we can at least begin by exploring the major categories within the formula that seem to account for the variables. While we explore each of these factors in detail in the next four chapters (Chapter 2, Patient Factors; Chapter 3, Diagnoses/Procedures; Chapter 4, Medical Staff; and Chapter 5, Medical Environment), we provide a brief introduction to each of the factors in the following.

Medical Trauma Factor: The Patient

We have already discussed the subjective nature of medical trauma, and how little we should assume about the unique experiences and interpretations

FIGURE 1.2: Ecological model of medical trauma.



of the patient. We learned about the importance of meaning-making within context, but what factors contribute to patients' interpretations of medical events as being traumatic? There are numerous variables we can explore regarding the uniqueness of each patient, but some factors seem to significantly influence a person's reactions to medical diagnoses/procedures, staff, and environment. From personality traits such as the Big Five (i.e., openness, agreeableness, conscientiousness, extraversion, and neuroticism), past history of trauma, and preexisting mental health conditions, patients' predispositions and histories can increase the likelihood of their experiencing a significant medical event as traumatic; conversely, patients bring protective factors to the equation, be it their resilience, hopefulness, strength, and/or optimism.

Medical Trauma Factor: Diagnoses/Procedures

While it is true that a patient could experience any diagnosis, procedure, or medical event as traumatic, some circumstances could be considered more likely to trigger a traumatic stress response. For the purposes of this book, we focus on diagnoses that can have chronic, life-altering effects or that can be life-threatening, as well as emergency procedures and events that can

present a threat to life and well-being. Recognizing that some patients can be predisposed to having a traumatic stress response to even routine medical care, we suggest providers view medical trauma as being on a continuum with various levels according to the specific medical experience and the unique interpretation of the patient. Along that continuum we can plot three distinct levels of medical trauma, recognizing the interrelationship between all levels.

Level 1: Planned or Routine Medical Procedures

In a Level 1 Medical Trauma, patients can experience psychological distress as a result of medical procedures or office visits that are planned (e.g., a scheduled outpatient surgery or in-office procedure such as a pelvic exam). While the actual threat to life or well-being may be extremely low to absent in these circumstances, patients can interpret such experiences as threatening or stressful, especially with prior history of traumatic medical experiences. Whether they are triggered by some aspect of the setting, the actual procedure, fear of pain or discomfort, prior history of trauma, or by any number of other risk factors, patients' unique interpretations are important for providers to understand because they can impact overall health in many areas of life. Furthermore, in many cases the real effects of a Level 1 Medical Trauma do not manifest until after patients leave the medical setting, making follow-up care that much more critical. In Chapter 6, we present the case of Keith who experienced a Level 1 Medical Trauma.

Level 2: Life-Threatening/-Altering Diagnoses

Level 2 Medical Traumas, which include life-threatening diseases and/or chronic, life-altering diagnoses, can have a profound effect on patients' lives and psychological well-being. The Agency for Healthcare Quality and Research has labeled 15 of these conditions as a "top priority" because they "affect many people and account for a sizable portion of the national health burden and associated expenditures" (Institute of Medicine [IOM], 2001, p. 10). The 15 top priority conditions that make up Level 2 Medical Traumas are:

- Cancer
- Diabetes
- Emphysema
- High cholesterol
- HIV/AIDS
- Hypertension
- Ischemic heart disease

Stroke

Arthritis

Asthma

Gallbladder disease

Stomach ulcers

Back problems

Alzheimer's disease and other dementias

Depression and anxiety

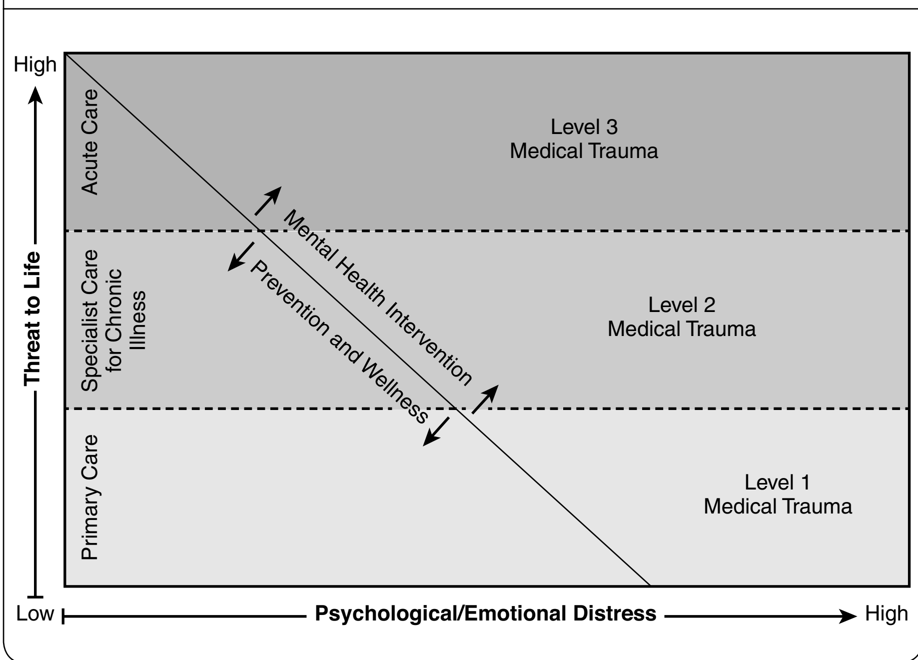
Of these 15 top priority conditions, we would venture to guess that only the last disorders in the list—depression and anxiety—are *consistently* treated using an approach that integrates mental health professionals into the health care treatment team and vice versa. There are great opportunities to improve how we care for the whole person with respect to these chronic and potentially life-threatening diseases, which we explore later in this book. We present an example of a Level 2 Medical Trauma in the case of Sharon in Chapter 6.

Level 3: Medical Emergencies

Level 3 Medical Traumas are perhaps the most obvious medical events that could trigger a traumatic response, given their critical nature. Most objective observers would readily understand how and why a patient may have a traumatic stress response to a medical crisis, especially one that is life-threatening. Events such as heart attacks, strokes, accidents, emergencies requiring surgery, and childbirth traumas (e.g., postpartum hemorrhage), during which a patient is cognizant of the potentiality of his or her death and conscious while experiencing life-saving procedures that may be painful, can be traumatic for patients, their families, and even providers. Regardless of how obvious the traumatic nature of an event may be to patients, families, and providers, this awareness does not always translate to ensuring that patients are assessed for psychological distress and that they receive mental health intervention. We explore a Level 3 Medical Trauma in Chapter 6 through the case of Ann.

While the levels of medical trauma include many kinds of health care experiences, it does not necessarily mean that patients who have these conditions or who experience these events will necessarily have a traumatic stress response or even that they will struggle to adjust following the experience. Figure 1.3 illustrates the continuum of medical trauma, plotting each level of trauma according to the actual threat to life and well-being and the patient's subjective interpretation of the experience. Notice the diagonal line of intervention, which suggests mental health intervention for medical trauma, and prevention and wellness for patients who experience less psychological distress.

FIGURE 1.3: Three levels of medical trauma.



It should be noted that patients can experience trauma at each point on the care continuum, depending on his or her unique medical history. Consider a patient (John), who suffers his first heart attack (Level 3 Medical Trauma) and who has a traumatic stress response to the event. Following a brief hospital stay, John is discharged from the hospital with the knowledge of his diagnosis: coronary artery disease. As a result of his life-threatening medical diagnosis (Level 2 Medical Trauma), John is now living with the possibility of having additional heart complications and feels a looming threat with regard to his physical health and safety. John will have to continually monitor his health, which will require regular visits to his physician and cardiologist. Given his acute experience and the ongoing challenges of living with a life-threatening disease, even visits to his primary care physician (Level 1 Medical Trauma) trigger an intense psychological response.

Most research on medical trauma has explored the effects of specific medical events and diagnoses on various psychological domains and on the development of PTSD, sometimes isolating certain risk factors and qualities of the patient. Although fewer studies have examined characteristics of medical staff and how providers can influence the psychological state of patients, we feel it is important to examine such characteristics and how they contribute to the patient experience of medical trauma.

Medical Trauma Factor: Medical Staff

There is no doubt that the medical staff plays a central role in the patient experience. From the first contact with a receptionist to the weeks and months of follow-up care and ongoing communication, the rapport and relationships built with patients in many ways create the foundation for eventual patient outcomes; furthermore, the quality of care provided by staff and the level of sensitivity, empathy, and caring present in communication and in the manner in which providers perform procedures can influence how patients interpret and respond to their health care experience. Factors that contribute to health care providers' abilities to provide empathic care include their own communication styles, emotional intelligence and ability to perform tasks while maintaining awareness of patient emotions, and personal stress-management style.

While sensitive and empathic care is important in every health care interaction, also relevant are health care providers' attitudes about and competency with integrating mental health professionals into treatment teams when necessary. This integration requires ongoing training for both health care and mental health professionals to learn how to function on interprofessional teams with mutual respect and synergy. High-functioning interprofessional teams create a safety net for patients who experience medical trauma and can ensure that patients are getting the holistic care they need. Interprofessional teams can also work to manage aspects of the medical environment that can contribute to the experience of the medical setting as traumatic.

Medical Trauma Factor: Medical Environment

Think back to the discussion of the EP, specifically with respect to the concept that we all live, think, feel, and behave within specific contexts. For health care professionals working in the hospital setting, this context is completely normal to them; they have become habituated to this environment. While they were not always habituated to this environment, with time and experience they became increasingly more comfortable operating within it. They grew into their roles as physicians, nurses, medical assistants, and specialists, and they function within this environment in ways that are congruent with their identities as professionals. In other words, when health care professionals enter into health care environments, they are *contextualized*.

Now, think about the experience of the patient. Patients are often not habituated to the health care environments they enter. They enter with their names and health histories and become increasingly *decontextualized* as processes unfold. Patients must adjust to a consistent stream of new faces, communication styles, questions, directives, procedures, equipment, and environments—all while managing the vulnerability that seems built-in to the

patient role. For some patients, being decontextualized and disempowered can contribute to their experiencing a medical event as traumatic. While the medical environment is likely not going to be the sole cause of a medical trauma, it can certainly add fuel to an already burning fire.

Up to this point, you have learned about the characteristics unique to medical trauma, the four factors that contribute to an ecological understanding of medical trauma (patient, diagnosis, medical staff, and medical environment), and the three levels of medical trauma. Before exploring each of the four factors in more detail in the next several chapters, we first want to explore how medical trauma impacts the patient, from the emergence of clinical mental health disorders to various secondary life crises.

THE EFFECTS OF MEDICAL TRAUMA

Much of the literature related to the effects of medical trauma focuses on specific medical events or diagnoses and the occurrence of PTSD (e.g., the occurrences of PTSD following cardiac arrest). While PTSD is certainly one possible psychological response to medical trauma, it would be a disservice to patients if we were to limit ourselves to only discussing this severe disorder and other *DSM-5* clinical disorders: Medical trauma can have other wide-ranging and long-lasting effects (we call them secondary crises) that may not meet diagnostic criteria but that may be life-changing nonetheless. That said, following a brief review of some possible clinical reactions to medical trauma, we explore secondary crises that can result from the trauma experience.

Trauma and Clinical Disorders

Anxiety and PTSD

Over the past several decades, scholars have worked to increase our collective understanding of the prevalence of PTSD in response to various medical crises, including obstetrical trauma, cardiac emergencies, stroke, and serious autoimmune disorders such as HIV. In studying these medical traumas and their effects, we have achieved a greater understanding of psychological risk factors and contextual characteristics that contribute to the development of this debilitating emotional disorder. In Chapter 3, we review current research regarding anxiety and PTSD related to the 15 priority conditions. While it seems obvious to focus our efforts on understanding the development of acute stress disorder and PTSD as they relate to medical trauma, it is important to note that patients can experience other clinical disorders, the effects of which can equal PTSD in their intensity, severity, and impact on well-being. One such disorder is depression.

Depression

Like other mental disorders, depression exists on a continuum, or from what would be considered nonclinical, transient depression to grief to clinical depression that can be mild, moderate, or severe. As we have already discussed, the experience of a medical trauma can be a shock to patients' sense of well-being, equilibrium, and mortality. For some patients who receive unanticipated diagnoses such as cancer, heart conditions, or diabetes, it is not uncommon for them to feel sadness and dismay in addition to fear, anxiety, and a myriad of other intense emotions. For some, a life-altering or threatening diagnosis can represent an ending that becomes very painful emotionally; whether it is an end to good health, quality relationships, certain lifestyle activities, or even to life itself, serious diagnoses can trigger grief and depression that is sometimes not immediately recognized by patients and their families. In Chapter 3, we explore depression and grief as they relate to specific physical diagnoses and procedures.

In addition to the many clinical reactions some patients can develop as a result of medical traumas, traumatic medical experiences can also lead to significant impairment in nearly all areas of life, affecting relationships, work, development, sense of self, spirituality, and even identity. The following is a brief discussion of these secondary crises, which we revisit in Part II of this book when discussing how to screen patients for medical trauma.

Consequences of Medical Trauma: Primary and Secondary Crises

In addition to the subclinical and clinical mental and emotional responses to medical trauma, patients can also experience crises as a result of medical conditions and procedures. We organize these crises in two levels: primary crises, which are immediate physical and emotional effects of a medical trauma; and secondary crises (Hall & Hall, 2013), which result from primary crises and develop through patients' meaning-making and unique context. In our personal and professional experience, many primary and secondary crises of medical trauma can often be overlooked—by medical providers, patients, families, and even mental health professionals who will likely recognize the crisis but may or may not make the connection to the patient's medical experience.

The following section introduces these crises and provides brief examples of how they might manifest in different levels of medical trauma. We have conceptualized these primary and secondary crises according to categories of wellness, recognizing that medical traumas can compromise wellness in all areas of life: A life-threatening or chronic diagnosis can have dramatic impacts on our bodies, emotions, spiritual well-being, relationships,

development, identity, work, leisure and lifestyle, finances, and sense of self. We explore each of these in this section, as well as in Chapter 6 through case studies. We begin with the physical crisis, which can become the first domino in a cascade of crises in a patient's life following the experience of a medical trauma.

Physical Crisis

Perhaps the most obvious crisis for the patient, the physical crisis refers to the destabilization of physical health and well-being both during and after a medical event, or throughout a patient's experience with a serious diagnosis. This destabilization can include pain, wounds, altered physical abilities, difficult side effects from medication, and other changes in the physical state of the body. Health care providers most readily anticipate the physical crisis of a medical trauma, attending to pain management, medication management, and wound care while regularly monitoring signs of physical health and distress. When patients are discharged from a hospital stay, resources and instructions often focus solely on the ongoing management of the physical crisis; directions for the administration of medication and care of wounds, as well as guidelines for addressing disruptions in the expected healing process are the most commonly covered topics in discharge materials following a medical procedure or hospital stay.

Whenever the body is sick, injured, or procedurally cut/manipulated, a physical trauma occurs. Given the model of medical trauma and understanding of the deeply contextual nature of the experience, each patient's reaction to this destabilization within the body can be as unique as the patient is. For some patients who experience medical trauma, the physical crisis of illness, lingering pain, and/or healing can lead to emotional distress and, subsequently, disruptions in other life domains.

Emotional Crisis

As we learn in greater detail in Chapter 2, the unique characteristics of the individual patient make up a significant factor in the experience of medical trauma as being emotionally distressing. Personal factors such as personality, distress tolerance, coping skills, and optimism can influence how a patient adjusts to temporary or more permanent disruptions in functioning due to medical conditions or procedures. Some patients can develop clinical reactions to a medical trauma (such as anxiety, PTSD, or depression) while others may experience emotional distress that is subclinical yet still significant. It is normal for patients to have emotional reactions to medical experiences: For example, patients may feel scared about the pain of an upcoming procedure, worried about the healing process and how they will cope with physical

limitations, or angry about a miscommunication or medical mistake. While these examples certainly do not adequately cover the range of emotional responses patients can have before, during, or after a medical procedure, they remind us of how normal it is to have feelings about the state of our physical health and well-being.

When patients experience emotions that grow in intensity and get caught in a loop to the point of creating a disruption in their normal levels of functioning, we could say that they are experiencing an emotional crisis. Sadness, anger, worry, irritability, fear, and even apathy—when unabated—can lead to secondary crises in the lives of patients. When patients are destabilized and experience emotional dysfunction, one of the first areas of life to be affected is relationships.

Relational Crisis

When we say that no medical trauma exists in a vacuum, we are also implying that no patient exists in isolation of his or her context—which ultimately means the social context of family, friends, coworkers, and neighbors. When operating at peak health and wellness, our patients are fathers, mothers, sisters, brothers, husbands, wives, daughters, sons, aunts, uncles, grandparents, coworkers, and friends; when our patients are sick or injured, they obviously do not shed these roles. Due to the sometimes extreme emotional distress and physical limitations that can accompany a medical trauma, patients can be challenged to function in these roles to the levels in which they—and everyone else—have become accustomed. Given this, relationships can change—and suffer—as a result of a medical trauma.

For example, Lana was diagnosed with uterine cancer at age 28 and had a complete hysterectomy in order to remove several tumors. While she felt her treatment team was very competent and caring, Lana still experienced great emotional distress while in the hospital. After receiving the news that she was now cancer free, Lana found it difficult to relax and engaged in constant worry about her health. In addition, she became more irritable, and little squabbles with her husband Jeff seemed to erupt into arguments that would last for days. Having lost her uterus and ovaries, Lana was now taking hormones to keep her body functioning properly and it seemed she was always struggling to keep her emotions regulated. Jeff struggled to understand Lana and be patient with her fluctuating moods, and Lana began to resent Jeff for not being more understanding of her situation. Because Lana was having difficulty working through her anxiety about having sex after surgery, as well as her chronic struggle to regulate her hormones and mood, her physical relationship with Jeff suffered. With a lack of physical intimacy, little emotional understanding, and difficulty communicating, Lana and Jeff's marriage began to crumble. They divorced within 2 years of Lana's

surgery. While Lana's experience provides an example of a relational crisis, given her age at the time of her surgery, a developmental crisis could be on the horizon for Lana as well.

Developmental Crisis

A developmental crisis could be defined as a disruption in what could be considered the normal course of development in the life span of the patient, as defined by his or her social and cultural context. Some medical traumas, especially Levels 2 and 3, can destabilize a patient enough to alter when, how, or whether he or she meets life development milestones. In the aforementioned case of Lana, the experience of cancer (Level 2 trauma) and subsequent hysterectomy altered Lana's plans to someday give birth to children of her own. While she certainly could plan for adoption or use of a surrogate, her dreams for biological motherhood ended abruptly with the surgery to remove her cancer and reproductive organs. At 28, Lana could not help but compare her own circumstances to those of her peers—many of whom were getting married and having babies while Lana battled a life-threatening disease, lost her ability to reproduce, and eventually ended her marriage.

Medical traumas can lead to many developmental disruptions, from delaying reaching specific milestones to requiring temporary or permanent interruptions in school, work, and the regular interactions within a patient's social world. While some patients are resilient to such interferences and life course changes, others experience emotional distress when faced with redefining roles and remapping the direction of their lives.

Identity Crisis

Sometimes accompanying a developmental crisis, a crisis of identity is a dysregulation in how people perceive themselves—their roles, abilities and self-efficacy, life course, goals, and even self-worth. During an identity crisis, we struggle to bridge our past with our potential future, especially when we reject some aspect of our current circumstances. In Lana's case, her identity crisis centered around her struggle to redefine herself as a woman, having lost her ability to reproduce and her role as a wife—both of which, for her, were significant in the forming of her identity. Lana grew up in a family and culture in which the most prized roles for women were those of wife and mother, therefore Lana would understandably experience some struggle around these issues.

Some patients who experience a crisis of identity related to medical trauma can feel confused about how to proceed in their lives. Serious illness and injury can derail our life plans and require that we learn to accept new circumstances despite strong emotions, such as sadness, disappointment,

fear, and anger. For those who struggle to find peace and acceptance of the state of their health, a medical trauma can prompt a crisis of faith, a spiritual crisis, or an existential crisis.

Spiritual/Existential Crisis

Anger and confusion can sometimes lead us to question *why*. When faced with the uncertainty and fear that often accompany a medical crisis or trauma, patients will often lean on their faith to give them strength and courage to get through the procedure or course of treatment. Hospitals often employ chaplains and pastoral counselors to support the spiritual health of patients and their families, and these spiritual advisors are often called upon for support during a medical trauma when the outcome is gravely serious, such as the certain death of the patient. For patients who experience medical trauma, survive the ordeal, and have ongoing difficulty accepting new circumstances, they can question their faith, even losing faith in the higher power they previously called upon for protection and comfort.

A patient's interpretation of a medical trauma is often at the core of a spiritual or existential crisis. *What does this experience mean to me*? *For me*? *How will I go on, given these new changes I now have to deal with*? *Why did this have to happen to me*? This last question is a quintessential one, often at the heart of a patient's spiritual struggle with medical trauma. Harold Kushner (1981) grappled with this very question in his classic book, "When Bad Things Happen to Good People," and while this book and others like it are full of insights, it seems that each of us must struggle with this question, whether alone or within our faith communities. Some patients unable to heal emotionally from a medical trauma can continue to struggle spiritually, maintaining anger toward God and an inability to accept this experience as part of their life stories.

Avocational/Leisure Crisis

We use the term "avocational/leisure crisis" to refer to other aspects of a patient's life that might become altered as a result of a medical trauma, from the disruption of normal routines to the inability to participate in loved activities. While at first glance this kind of crisis could seem minor compared to other crises listed earlier, the inability for people to live their lives as they wish can become a central crisis with devastating effects. In many cases, a lifestyle crisis can lead to other, potentially more serious crises because leisure activities (or how we choose to spend our time when we are not working, going to school, or cleaning the house) can protect us from depression and anxiety, and can add a sense of purpose and meaning to our lives.

Consider the case of Jim Miller, a beloved father and husband in the prime of his life who experienced an injury that required that he stop running, an

activity he excelled in and cherished for most of his life. As a result of his inability to run, Jim lost his chief coping skill to help him handle stress and ward off depression. Still functioning at work and at home, Jim masked his increasing struggle until the day he decided to end his own life. In an article published by the *Cincinnati Enquirer* about Jim's death, the author says of Jim's injury: "It deprived him of the place he said had made him feel free" (Ramsey, 2014). While this is an extreme example of the effects of medical trauma on lifestyle, it is important that we remember that this example depicts a Level 1 trauma (orthopedic injury)—which can easily remain off the radar of health care and mental health professionals with regard to psychological effects.

Financial Crisis

The financial crisis is another challenge patients can experience as a result of a medical trauma, and it can be both a cause and an effect of other secondary crises. For some, a medical trauma such as cancer, heart attack, or severe birth trauma can have devastating financial consequences that only serve to exacerbate a struggle to heal and can lead to other secondary crises. We hear the term "mounting hospital bills" and understand that for many patients, medical treatment for serious health issues can lead to financial hardship that can feel unsurmountable. For many, financial stress is one of the most significant and damaging forms of stress in their lives, and can have devastating effects on relationships, physical and emotional well-being, and a healthy self-concept. Given that many patients will face work disruptions as they heal from medical trauma, this only serves to exacerbate financial stress, leading to more debt and financial crisis.

Over the years, we have worked with many individuals who developed depression, anxiety, and/or difficulty handling anger as a result of the effects of medical trauma on the ability to engage in loved activities—especially when the activities contribute to wellness. In Chapter 6, we explore three case studies depicting the psychological impacts of medical trauma, from clinical disorders to the complex interactions among secondary crises.

SUMMARY

In this chapter, you have become acquainted with the concept of medical trauma, exploring the many characteristics that make trauma from contact with the medical setting unique. Medical trauma is a subjective, relational, contextual, and psychophysiological trauma that is best understood through the lens of the EP, recognizing that medical trauma develops through a complex relationship between the patient, his or her diagnosis and procedures,

medical providers, and the medical environment. Depending on the nature and severity of patients' diagnoses, a medical trauma can be labeled a Level 1 (routine/planned procedures), Level 2 (life-threatening/-altering diagnoses), or Level 3 (emergent medical events) Medical Trauma. Lastly, you have learned that medical traumas can have psychological impacts ranging from the development of clinical disorders, such as PTSD and depression to the experience of secondary crises that affect all areas of life and functioning.

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