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Characteristics and Interventions

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Meet the editor

Robert W. Motta, Ph.D., ABPP, is Professor Emeritus of Psychology and founder of the Child and Family Trauma Institute at Hofstra University, New York. There, he served as the chairperson of the Psychology Department and founded an American Psychological Association (APA)-accredited PsyD program. He has published more than 150 scientific papers and book chapters as well as 5 books: *Alternative Therapies for PTSD: The Science of Mind-Body Treatments*; *Secondary Trauma: Silent Suffering and Its Treatment*; *Altered: A Trauma and PTSD Casebook; Suicide*; and *The Psychology of Panic*. Dr. Motta is board certified in cognitive-behavioral psychology and in behavior therapy. He is the former president of the School Division of the New York Psychological Association and is licensed as a clinical psychologist and certified as a school psychologist.

Contents

Preface

Burnout typically refers to the experience of emotional exhaustion, fatigue, and depletion that arises from giving of oneself in the service of others. While this is our principal understanding of burnout, there are other examples that do not involve people's work, and these too are addressed in this book. Systematic investigations of burnout began in the 1970s when it was recognized that many of those who worked in demanding social welfare settings often reached a point of emotional exhaustion. Having reached this stage of depletion, they could no longer effectively help others because of their own growing sense of exhaustion. It was also during the 1970s that burnout was seen as precipitating a range of dysfunctional emotions including depression and anxiety. Cynicism and emotional withdrawal were other consequences of developing burnout. Similarly, burnout has been associated with physiological reactions such as elevated blood pressure, a weakening of the immune system, and a whole range of physical ailments.

This book covers not only the nature and causes of burnout but also addresses a wide range of interventions that have been proposed as ways of lessening the negative impact of this phenomenon. For example, burnout is examined in organizational and educational settings and specific interventions are proposed that can be initiated individually and in groups. Organizational strategies are also covered, and these are presented as approaches that can decrease the probability of developing burnout in the first place.

The importance of burnout and its management has been brought into focus by the relatively recent COVID-19 pandemic. Hospital healthcare providers commonly became overwhelmed by the huge numbers of people who became seriously ill because of COVID-19 infection. These workers also experienced many deaths of those they were treating. The outcome of these extreme demands on the healthcare workers' emotional and physical resources was that many of them became dysfunctional due to burnout and many simply left their employment as a way of coping with the extreme stressors they had to endure.

A good deal of further research is needed to understand the causes of burnout syndrome and its treatment. This book will hopefully add to our growing understanding of the very human reaction of burnout.

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Section 1

Perspectives

Chapter 1

Introductory Chapter: Understanding Burnout

Robert W. Motta

1. Introduction

The term "burnout" is a popular expression that is used to describe general feelings of exhaustion and fatigue. After a hard day at the office or dealing with misbehaving children at home, for example, one might report, "I am just so burned out." Statements such as these become part of common parlance and are basically self-reports of fatigue from having engaged in an activity that is draining. The "cure" for such feelings is to stop engaging in the activity and perhaps to seek relaxation or engagement in a distracting or enjoyable activity. Often, this is all that is needed to alleviate the condition of burnout and to feel reinvigorated so that one can then reengage in the former activity with renewed energy or, at the very least, reduced feelings of fatigue.

This popular perspective of burnout contrasts with the same term used in clinical psychology. Here, the term represents a far more serious condition that is not so easily alleviated by distracting activity. In extreme cases of burnout, the only solution to reducing the feelings of emotional exhaustion and depletion is to permanently cease the activity that is associated with burnout [1].

2. Clinical perspective

The concept of burnout and the use of this term has been associated with Herbert Freudenberger [2, 3] who, in the 1970's, dedicated himself to the development of clinics to treat the underprivileged in California. These "free clinics" served the poor, homeless, drug addicts, and those with various medical diseases, all of whom had limited ability to pay for treatment services. What Freudenberger noted was that some of the particularly dedicated personnel who worked in these clinics, and especially those who treated many people and spent long hours in treatment, began showing some characteristic signs of fatigue and emotional exhaustion. Other symptoms included depression, sleeplessness irritability, frustration, cynicism, negativism, and others. These accumulated symptoms and behaviors appeared to be so common among some members of the treatment staff, and Freudenberger referred to this commonality of clinical signs as "burnout syndrome" [4]. A popular measurement device, *The Maslach Burnout Inventory* [5], and other such standardized measures are commonly used to measure the all-too-common phenomenon of burnout. The existence of a verifiable clinical syndrome and associated measurement devices shows that the concept of "burnout" is not just a term of common expression but that it is a recognized clinical entity.

While Freudenber focused primarily on treatment clinic personnel and their stressors, it is now recognized that burnout is found in a wide variety of professions and activities. A partial listing of these are psychotherapists, physicians, nurses, first responders, those caring for seriously impaired family members, teachers of various kinds especially those who work with special education children, and many others. A variety of treatments have been put forward including leaving the stressful environment, meditation, yoga, exercise, engagement with animals, social support, and others [6]. What these treatments have in common is that they are non-traditional forms of intervention and do not fall along the lines of cognitive-behavioral psychotherapy, psychoanalysis, etc. Burnout is not considered to be a treatable emotional or cognitive disorder. Rather it seems to be, as Freudenberger suggested, the outcome of intense commitment to the welfare of others and the consequent exhaustion and depletion that commonly follows. It thus requires effective interventions specifically targeted to the alleviation of the felt distress associated with burnout syndrome.

3. Current status

The recent worldwide COVID-19 (2020–2022) pandemic has provided a reawakening of interest and research on the burnout syndrome. It is well known that healthcare workers, and particularly those involved in treating COVID patients in hospitals, were under a great deal of stress and were likely to have experienced high levels of burnout. The question that arises is, now that this epidemic has subsided, is there now an equal subsiding in burnout?

The residual impact of COVID-19 on burnout was addressed in a recent study that compared the mental health of approximately 1500 workers prior to COVID-19 in 2018 to an approximately equal number of workers in 2022 [7]. One might expect that, in 2022, there would be a decrease in burnout and mental health challenges in comparison to what was seen during the active phase of the pandemic. The surprising results revealed an increase in burnout as assessed in 2022, and this finding was particularly apparent for healthcare workers. Healthcare workers in 2022 reported burnout rates of approximately 45%. What these results suggest is that burnout is pernicious and that once acquired, it tends to persist. Two factors that appeared to reduce levels of burnout were supervisory and administrative support of workers and including workers in decision-making processes.

4. Summary

Burnout and the burnout syndrome are terms that came into common use during the 1970's. The terms described persistent feelings of depletion and emotional exhaustion that could occur from giving oneself to others over an extended period. Healthcare workers were found to be particularly vulnerable to developing burnout although many other groups could also experience the syndrome. Interventions for burnout do not follow traditional psychotherapy lines, but many diverse approaches designed to alleviate distress appear to be helpful. The relatively recent COVID-19 epidemic has provided an opportunity to study the impact of burnout on healthcare workers and others. Overall findings of present and past studies show that burnout syndrome continues to be a mental health problem that

afflicts a large number of individuals, that it is persistent, and that continuing studies are needed to identify the most effective interventions for dealing with this mental health challenge.

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Chapter 2

An Overview of Burnout and Relevant Interventions

Robert W. Motta

Abstract

Burnout is a term used to describe the emotional and physical depletion that occurs after a period in which a person gives of themselves to the point of exhaustion. It has often been associated with studies involving therapist exhaustion but is also applicable to those who care for others within families, for first responders, for health service providers, and even for those who may not be involved in people work, but simply become drained from incessant job demands. Several practical interventions are presented, and these interventions are generally not of a formal psychotherapy nature. Some interventions involve structural changes in the work setting along with activities such as social engagement, yoga, meditation, exercise, etc.

Keywords: burnout, syndromes, secondary trauma, PTSD, vicarious trauma, compassion fatigue

1. Introduction

Burnout or burnout syndrome are terms that are used to describe the exhaustion that occurs when one becomes depleted by the unrelenting demands that are placed upon them, usually in a work setting. Herbert J. Freudenberger (1926–1999) is credited with popularizing the expressions, burnout and "burnout syndrome," and these descriptors appear to have arisen out of his personal experience with "free clinics" that he dedicated himself to in the 1970s. According to Freudenberger the free clinic movement found its origin in Haight-Ashburn, in San Francisco to provide services to the poor, the young, for bad drug trips, venereal disease, and other medical problems [1, 2].

The clinics were free in that they did not charge a fee for services, and they were supported by the efforts of volunteers. The concept of free clinics was a philosophical divergence from traditional fee for health service offerings and was intended to support the spirit of inquiry into alternative lifestyles that was epitomized by the "hippie" culture of the day. Freudenberger's description of the burnout syndrome arose from his personal experiences of working long hours as a psychoanalyst. He suggested that free clinic workers "Spend all the time you can spare-and some you cannot …and be prepared to work long hours for no pay" ([2], p. 61). This ostensibly endless giving in the service of others was said to lead to "Staff Burn-out" [2].

The idea of a "syndrome" came about when Freudenberger provided a list of both physical and psychological "signs" or symptoms that accompany burnout. The physical symptoms include fatigue and exhaustion, inability to shake a cold, sleeplessness, shortness of breath, and others. Behavioral or psychological symptoms include depression, irritability, frustration, suspiciousness, stubbornness, inflexibility, and feelings of knowing more than others in the clinic and thereby feeling indispensable. Freudenberger [3] saw "man" as an "energy system" and when the provider wishes to help in excess, this energy system becomes drained and can dry up leading to the emotional exhaustion of the burnout syndrome. He further asserted that those who are committed to and identify with their work are more likely to burn out than those who are less committed [3]. He speculated that the overly committed may be those who are attempting to deal with their own childhood adjustment difficulties by throwing themselves into work involving helping others. Their work with others becomes more than simply a job but is additionally a way of undoing their past emotional difficulties and trauma by overidentifying with the helper role. The helper or counselor is managing the pain of others but in doing so is attempting to also deal with their own emotional difficulties. It is likely that Freudenberger, having fled Nazi Germany and having lived on the streets in the United States was all too familiar with the burnout syndrome that he describes as taking place in others [4].

2. Terms closely related to burnout

One of the difficulties that is encountered when dealing with burnout is existence of other terms that appear to describe phenomena like burnout. Among these terms are secondary trauma, secondary traumatic stress disorder (STSD), vicarious trauma, compassion fatigue, and empathic strain. The various terms describe emotional stress that follows from working with others who are in distress and particularly those who have been traumatized. It might be argued that burnout can occur in work environments that don't involve dealing with others who are in distress but could also occur in demanding work settings where one is frantically trying to stay on top of the demands being made upon them. Nevertheless, several authors consider the various terms that are like burnout to be interchangeable for the most part [5, 6].

Secondary trauma which is also referred to as secondary traumatic stress disorder (STSD) [7], and vicarious trauma describe the transfer of emotional distress from a traumatized individual to the person who is treating or dealing with that individual. The outcome of the emotional distress is referred to compassion fatigue or empathic strain. All these phenomena, i.e., STSD, secondary trauma, and vicarious trauma can, through the process of compassion fatigue or empathic strain, get to the point where the caretaker begins to become emotionally drained or burnt out. From this point of view, burnout can be conceived as an endpoint or consequence of giving oneself to the point where emotional exhaustion, cynicism, sleeplessness, irritability, and other symptoms, take place.

Again, it is important to note that burnout, unlike the other terms used in this section, can involve environments where one is not dealing with the distress or trauma of others but is rather dealing with job demands that are ultimately draining and overwhelming. However, despite what appears to be differences among the various terms, the degree to which they overlap, often results in the terms being used synonymously. For example, one research summary paper [8] on burnout defined it as "a syndrome of emotional exhaustion, depersonalization and reduced personal accomplishment

that can occur among individuals who 'do people work' of some kind" (p. 26). Here we see that the definition now entails 'people work' and this would imply that burnout does not occur with other kinds of work. As can be seen from this difference in points of view, there is little universal agreement on the use of term of "burnout" and other related terms. Some see it as occurring because of people work and some do not. Additionally, there is lack of empirically based differentiation among the terms based upon methodologically sound research studies. The lack of agreement among writers results in considerable confusion. Nevertheless, it is generally agreed that burnout or burnout syndrome does represent a kind of emotional and physical exhaustion [9] and depletion that results from what is perceived to be excessive demands placed upon an individual.

3. Perspectives on intervention

There has been considerable high-quality research on interventions for PTSD and primary trauma, but this is not the case for burnout or similar phenomena like secondary trauma, vicarious trauma, etc. In fact, some authors (e.g., [10]) maintain that while there are many treatments and interventions noted in the literature, that there is little evidence that one measure is any better than any other, and that no intervention has a sound empirical foundation showing it to be effective in ameliorating burnout. Despite the lack of strong empirical support and validation, it has been suggested [10] that interventions strategies should include (a) self-monitoring, (b) obtaining supervision, and (c) intervention and support of colleagues.

Self-monitoring and self-awareness are critical elements for optimal functioning in those involved in psychological treatment [11]. Self-monitoring involves careful assessment of one's stress levels and then engaging in activities to reduce this stress. These activities could include personal psychotherapy, meditation, prayer, exercise, pleasure reading, and engaging in social activities.

Obtaining supervision is another strategy that can be implemented to manage burnout. Supervision can be sought from colleagues or from those who specialize in working with therapists on the verge of burnout. Supervisors can provide novel perspectives regarding client needs and can also help the provider to become more aware of their own needs for stress reduction. Supervision can also be provided by the organization within which the provider may provide services.

Regarding social support, "There is overwhelming evidence that social support is a hugely beneficial factor in reducing and coping with stress reactions" ([12], p. 44). Providers would do well to seek out support groups whether these groups involve healthcare professionals or not. Similarly, it is the ethical responsibility of providers to volunteer support to any colleagues who needs support. It appears that the benefits of social support are "hardwired" into us such that its absence can be painful. One need only observe the impact of solitary confinement to realize that isolation in painful and support can be of significant benefit.

4. Burnout vs PTSD interventions

There are those who have proposed that interventions for burnout, secondary trauma, STSD, vicarious trauma, etc. and those for PTSD are nearly identical [13, 14]. This position does not appear to be warranted given the nature of the different

stressors in PTSD and burnout. PTSD is due to an identifiable stressor or stressors that are perceived to be far beyond what the individual is capable of managing. PTSD stressors can be life threatening events, natural disasters, debasing and demeaning experiences, assaults, car accidents, and other personally experienced, extreme stressors. PTSD stressors typically produce overwhelming fear. Burnout is of a different nature. Rather than feeling fearful and overwhelmed by discrete experiences as in PTSD, burnout produces a sense of emotional exhaustion that results from excessive giving of oneself, whether it be in support of others, or simply being unable to cope with the unremitting stress of job demands.

Traditional interventions for PTSD often involve some form of cognitive-behavioral psychotherapy (CBT) or prolonged exposure [15]. The essence of CBT is that cognitive distortions or irrational thoughts are the bases of emotional upsets. For example, a woman who is sexually assaulted by a person of a particular appearance or ethnic group may develop a fear reaction to all those who similar appearances. The dysfunctional thought here is that it is critical to be weary of anyone who bears a resemblance to individuals of that group. A similar dysfunctional thought might be that you cannot trust the environment at all and that one needs to seek isolation. Prolonged exposure involves directly confronting the trauma producing stimulus and doing so for multiple extended periods of time. In the case given above, the traumatized person would be encouraged to scrutinize pictures of individuals look like the person that assaulted her. She might then be asked to interact with them of a face-to-face basis. With repetition of such exposures, a reduction of anxiety eventually occurs because the traumatized individual comes to realize that there is no real threat.

From the above description of the treatment of PTSD it should be clear that burnout is different from PTSD. Burnout is not due to exposure to a defined stressor but is more generally a form of emotional depletion and as such, it requires different forms of intervention. The material that follows will describe what are referred to as "structural interventions" [16]. These interventions typically involve beneficial environmental changes that are not the individual psychotherapy types of interventions like CBT and prolonged exposure. Examples of structural interventions might be reducing one's case load, altering the types of cases that are seen, engaging in distracting activities, obtaining more training or supervision, exercise, meditation, and others. The person experiencing burnout or compassion fatigue generally requires some form of alleviation of their stressors and not individual psychotherapy.

5. Structural interventions

Given that there is no specific set of empirically supported interventions for burnout, the following will be a sampling of variety of interventions that have been proposed in the literature.

Norcross self-care strategies [11]. These strategies might be employed by those who have experienced burnout from caring for ill family members or by healthcare providers who have reached their limit of giving. 1. Recognition. It is important to recognize that the type of activity in which one is engaged can be emotionally depleting "Affirming the universality of the hazards are in and of themselves therapeutic" (p. 710). 2. Employ multiple strategies to alleviate stress, e.g., yoga, meditation, exercise, peer support, etc. 3. Self-awareness. This element involves self-reflection on ways one traditionally handles stress situations. 4. Employ multiple strategies for self-change rather that sticking to one. 5. Engage in changes such as changing

one's workplace or trying to make changes in one's physical environment, while engaging to any of various diversions, e.g., team sports, exercise, fishing, knitting etc. 6. Emphasize the human element. For example, give more attention to friendships, peer groups, loving relationships, and participation in supervision groups. 7. Seeking therapy. Therapy need not be of the traditional CBT type, but rather a non-directive sharing of one's emotional concerns. 8. Avoid self-blame and catastrophic thinking, i.e., magnifying one's problems. 9. Seek diversity. For example, an EMT might engage in teaching activities in addition to their direct service. If providing care for an ill family member, one might consider bringing in others to help, or engaging the ailing person in games and other distracting activity. 10. Appreciate the rewards. Here Norcross is referring to allowing oneself to appreciate the importance of the work they are doing. Effort aimed at helping others is inherently worthwhile and worthy of praise.

Gilbert-Eliot ([17], p. 37) also lists a set of "proven strategies" for managing burnout and secondary trauma. These strategies include: Not bringing work home; change of or lighten of case load; schedule time off; engage in peer group support; actively engage supervisors to help in reducing the stress of work environments; and create change in the timing of one's work schedule, e.g. perhaps putting the brunt of the demanding work in the morning where one might have more energy and lessening the demands later in the day.

Phipps and Byrne [18] provide counselling strategies to be used with those in volunteer counseling organizations, for emergency service personnel, medical personnel, and those involved in community-based services. These include supportive listening without pulling for details; using the burnout out or secondarily traumatized individual's language for describing their trauma situations; normalizing, i.e., conveying to the trauma victim that their response was the expected one under the given situation; and teaching self-managed anxiety-reducing skills such as self-instructional training (SIT; [19]).

6. Social support

It has been previously mentioned [12] that social support is a crucial element in managing burnout, secondary trauma, and even PTSD reactions. People generally find the presence of others with whom they might share endured stresses can have a beneficial effect in terms of ameliorating the emotional consequences of this stress. Why social support is so beneficial is a complex subject and one writer [20] suggests that the positive impact of social support may be due to the cognitive assimilation of emotionally troubling experiences in the process of sharing them with others. The assimilation is facilitated by the feedback that might be received from others and is said to possibly reduce rumination and flashbacks.

There are, however, situations in which the seeking out of social support can have detrimental consequences. For example, the uniformed services may sometimes see the need for social support as an indication of weakness. Some uniformed service members take the position that strength means being able to handle stressors without needing the support of others. In fact, if an individual service member over relies on others, such activity might be a barrier to promotion. In one study [20] it was found that communication with police officer peers about troubling experiences that were experienced during their work had a stress buffering effect. However, too much communication was found to have a "reverse buffering effect" ([20], p. 419). In other words, moderate levels of communication about experienced stressors with peers

was beneficial but higher levels were not. In contrast, communication with supervisors involving experienced stressors did not buffer the trauma-strain relationship. There have been many reported instances in which seeking help or communicating one's distress was shown to have a negative impact on promotion and advancement. It is unclear why this might be so but it has been speculated that help seeking might run counter to stereotypical expectations of independence and strength among the uniformed services.

Despite the exceptions noted above, most research studies have shown that social support is a commonly accepted means of alleviating distress of the kind that leads to burnout and secondary traumatization. Human beings are often considered to be social animals and the need for social interaction and the benefit that comes from that form of interaction is substantial. The lack of support or the lack of availability of support is not only detrimental to one's psychological functioning it is also associated with several physical ills [21].

7. Exercise

There is a substantial body of literature showing that exercise reduces various forms of distress including depression, anxiety, burnout, PTSD, secondary trauma, and many physical illnesses related to chronic stress [15, 22, 23]. While most of the research has been conducted on aerobic exercise, perhaps because it is easier to quantify than anaerobic exercise, there is general agreement in the literature that all forms of exercise are beneficial in ameliorating the deleterious effects of stress and burnout. Even though several hypotheses have been put forward as to why exercise is so beneficial, there is no universal agreement on the cause of these benefits. Among the hypothesized causes of the beneficial effects of exercise are the following:

7.1 Thermogenic hypothesis

This hypothesis proposes that the body temperature elevation that takes place during exercise results in a quieting impact on the nervous system. If this were valid then one would expect that those living in warmer climates would experience lower stress levels than those in colder ones. This has not been found and so the thermogenic hypothesis is not supported.

7.2 Endorphin and endocannabinoid hypotheses

The endorphin hypothesis is probably the most popular among the many speculations of the benefits of exercise. However, it has been found that there does not appear to be a strong correlation between circulating beta endorphin and mood states. Additionally, substances such as naloxone that block endorphins during exercise do not appear to have much of an impact on mood. And finally, endorphins have not been found to cross the blood-brain barrier, so it seems unlikely that endorphin production during exercise would impact the nervous system. A more recent alternative to endorphins is the endocannabinoids which are produced during exercise and which act on both peripheral and, unlike endorphins, the central nervous systems. Although a promising avenue for further research there is not an

abundance of well controlled studies supporting the role of endocannabinoids in reducing stress reactions as seen in burnout and secondary trauma.

7.3 Monoamine hypothesis

Like the endorphin and endocannabinoid hypotheses, the monoamine hypothesis posits that certain substances or neurotransmitters released during exercise may have a quieting effect on affective states such as anxiety and depression. The specific neurotransmitters that have received a good share of the attention are dopamine, serotonin, and norepinephrine. The lack of substantial validation of the role of these neurotransmitters may be due to the difficulty in conducting such research on humans. One of the difficulties is that the assessment of emotional states such as anxiety and depression rely upon some form of self-report from a person engaged in exercise. The vagaries and unreliability of self-report measures are well known. An additional problem is that levels of neurotransmitter that are released during or shortly after exercise, would have to be obtained by way of invasive medical procedures such as spinal taps. Obtaining measures of neurotransmitters through urine samples does not provide information on levels within the central nervous system. The result of these difficulties in measurement leaves hypotheses involving neurotransmitters without a substantial body of empirical support.

7.4 Psychological hypotheses

Several psychological hypotheses have been put forward to explain the beneficial role of exercise in reducing anxiety, depression, and stress reactions that might be related to burnout and secondary trauma. In the interest of brevity, two will be mentioned here. The distraction hypothesis states that the mental focus needed to engage in exercise removes one from the kinds of rumination that lead to negative affective states. However, if this were the case, then any other distracting activity such as reading, watching TV, or doing housework should also reduce negative emotional states. There appears to be little in the research literature that presents a compelling argument for the distraction hypothesis.

The self-efficacy hypothesis is another mechanism that has been put forward to explain the beneficial role of exercise in reducing negative affective states. Self-efficacy is a term used to describe the self-perception of improvements in one's capability to attain certain objectives. So, theoretically one might see increased competence in engaging in exercise as providing the beneficial mechanism of change. Unfortunately, available research shows that even when perceptions of increased competence in exercise are not attained, there are measured psychological benefits. In fact, single bouts of exercise where one cannot see improvement, has, in several studies, shown to have beneficial psychological effects.

In summary what the available research shows is that one of the ways of reducing the debilitating effects of burnout is through exercise. The form of exercise can be aerobic, not anerobic, or even stretching activities. Why this is so is the source of considerable debate. For the person who is shouldering the negative impacts of burnout, it is likely the reasons that exercise is beneficial are less important than the fact that there is ready access to an activity that has been repeatedly shown to be both psychologically and physically beneficial.

8. Mindfulness meditation and yoga

Meditation and yoga are being presented together because they have both been shown to alleviate the distress that is commonly seen in burnout, secondary trauma, and primary psychological traumas [15]. While mediation usually involves focal attention while sitting quietly and yoga commonly entails the enactment of balanced poses and stretches (asanas), they both call upon the need to take one's attention away from ongoing concerns and worries and to direct it narrowly on specific stimuli.

8.1 Mindfulness meditation

While meditation is a practice of focal concentration, it might be argued that mindfulness meditation is a specific form of meditation involving a focus on what is taking place now, in this moment, as opposed to a focus on concepts such as gratitude, love, world peace, etc. A focus on what is taking place now might involve a focus on one's breathing, how each part of the body feels as one sits on a meditation cushion (a zafu), the coolness of the air on one's skin, or one's breathing as the air enters and exits the lungs. One popular writer describes mindfulness meditation as "Mindfulness means paying attention in a particular way: on purpose, in the present moment, and non-judgmentally ([24], p. 4). The objective in mindfulness meditation is to attempt to stop the normal wanderings of the mind and to focus it. There might be a focus on the rising and falling of one's diaphragm as they breathe in and out. They might note the air passing through their nostrils and the feelings of coolness. They might note how their buttocks feel as they sit on the zafu. When the mind wanders, at it inevitably will, the attention is brought back to the initial focus repeatedly.

A typical mindfulness session lasts approximately twenty minutes, and it is generally recommended that practice takes place daily. When one reads about meditation practice, it seems easy, but the research suggests that this is not the case. There are two primary difficulties. The first is that focusing one's attention and not being distracted by intruding thoughts, worries, and concerns is difficult. Many report that it takes years to become competent at the practice of not letting wandering thoughts intrude. The second difficulty is that meditation must be practiced somewhat like exercise is practiced. One does not engage in exercise once or twice and expect lasting benefits. Meditation, like exercise, to be effective in warding off burnout, must become a lifelong practice. There are many meditation practices that can be found in the literature, online, on phone apps, in workshops, etc. What is important is not the finding of the "right" meditation, but rather finding the one that that will be done regularly and with sincerity of purpose [24]. No one can say with certainty why mindfulness meditation reduces the stresses commonly seen in burnout or why it brings harmony to most of those who practice it regularly and who may not be enduring excessive stresses. Nevertheless, there is abundant research and metanalytic studies that support the value of mindfulness meditation in reducing stress and bringing about a more gratifying perspective on life.

8.2 Yoga

There are similarities between mindfulness meditation and yoga. They both involve a focusing of attention, the exclusion of intruding and troubling thoughts, a reduction in stress, and the development of a more positive perspective. Yoga and meditation have been practiced for thousands of years and it has been argued that

yoga is a form of meditation that takes place while engaging in various postures and stances or asanas. In Sanskrit yoga means "union" or "connection," and what is being united is the body and mind [25]. People who experience burnout or other forms of traumatization try to separate from themselves or push away from the unwanted memories and images that have caused them distress. The practice of yoga is one of uniting, of pulling back together, of reintegrating. Regardless of whether the data in support of yoga for dealing with various forms of psychological trauma is electrophysiological, self-report, or behavioral, the available empirical research supports its value in dealing with trauma situations and burnout. Most Veterans Health Administration Centers for the treatment of various forms of trauma include yoga among their offerings [15].

There are approximately 30 different types of yoga that are practiced in the United States [26], but this is likely to be an underestimate. The types differ in terms of whether they are for beginners, intermediate, or advanced practitioners. They also differ in terms of the precision with which they are practiced, the temperature of the room, the overall vigor or activity level that they entail, the degree to which formal meditation is part of the practice, whether the meditation emphasizes focus (dharma) or absorption (dhyana) or oneness (samadhi), the degree to which certain breathing techniques are utilized (pranayama), and others. A partial listing of the names of the various types of yoga are Anusara, Ashtanga, Bikram, Hatha (one of the oldest and most popular forms), Iyengar, Jivamukti, Kripalu, etc.

One of the more recent modifications of yoga is to have the yoga instructor be less directive and more accepting of variations in the practice of the different postures or asanas. The reason for this is that many of those who have been traumatized or have experienced burnout often feel out of control of their environments. By allowing the practitioner more say in how the yoga session is to be conducted, the instructor will likely lessen the perceived stress to the yoga session and attain more beneficial outcomes of the yoga practice. In all, however, yoga and meditation have both proven themselves to be healthy and effective way of dealing with burnout and other forms of trauma.

9. Animals and outdoor environments

9.1 Animals

The presence of animals has been associated with stress reductions of the type that is often seen in burnout, primary, and secondary trauma including PTSD. Spending time with animals can reduce anxiety, depression, and isolation while increasing levels of exercise, trust, and playfulness. Human have kept animals for companionship and stress reduction throughout history [26]. Archaeologists have uncovered the remains of a puppy in the arms of a human as early as 10,000 BCE. Cats and other pets have been found in the presence of humans many thousands of years ago. There is an intimate bond between humans and various animals and these human-animal bonds have been associated with lowering of blood pressure, less cardiac disease, strokes, etc. in addition to the previously noted psychological benefits. Within the last decade "service" animals have become a commonly accepted phenomenon and they are commonly accepted in public establishments that previously excluded them. Not everyone is a fan of animals, but surveys show that most people are positively disposed to them. Animals are a valuable resource to those who experience the depletion,

irritability, cynicism, unhappiness, and tendency toward isolationism that is often seen in burnout.

There is abundant and compelling research on the use of service dogs with military veterans who have been traumatized by their combat experiences and have become isolated and withdrawn. In one study [27] veterans were paired with service dogs who were trained to identify when the veteran was having nightmares, anxiety reactions, depression, and withdrawal from the environment. The service dogs also learned to form a barrier between the veteran and others when closeness began to create anxiety. Another group of veterans was not paired with service dogs but had applied to have them. Among the findings were that those with service dogs had lower scores on standardized measures of depression, anxiety, and PTSD. They had more social interactions, fewer absences from work, fewer avoidance and withdrawal responses, and fewer medical visits and need for medical interventions.

While there have been fewer studies of the impact of animals on secondary trauma and burnout our relationship with animals has many health benefits. The research shows that a surprising array of animals can have a positive impact in addition to dogs. The list includes cats, horses, fish, reptiles, rodents, pigs, and many more. The individual who experiences burnout is a person feeling the painful effects of emotional depletion. Animals, in their relationship with humans, refill the emotional void. They are trusting, loving, and accepting. In healthcare facilities, it has been found ([28], p. 7) "An animal's unconditional, unbiased, and abiding love is very rewarding to witness in actions. It elicits smiles, encourages movement, and stimulates conversation, play and interactions. Love from an animal encourages reminiscing, provides nurturing, and produces enjoyment. It encourages therapeutic touch, increases self-esteem and, most importantly, provides a home-like atmosphere in any setting". Overall, the presence of animals is one of the important resources that should be considered when dealing with the ravages of burnout.

9.2 Outdoor environments

Immersion in nature can also be an effective way of reducing the negative impact of burnout, compassion fatigue, and secondary trauma. The naturalist Edward O. Wilson [28] coined the term "biophilia" to describe the seemingly innate desire to immerse oneself in natural settings. The psychological study of nature's impact is sometimes referred to as ecopsychology. The Japanese appear to appreciate the health promoting effects more fully than do those from the U.S. They endorse regular excursions into natural environments as a way of alleviating the distress particularly among those involved in professional activities. The Japanese use the term *shirin yoku* or "forest bathing" to describe this immersion in nature [29].

It is difficult to design empirically defensible individual studies to assess the benefits of natural environment immersion. Such studies would be expected to have random assignment, double-blind procedures, objective methodologies, and the use of psychometrically validated assessment instruments. Rather than attempt to construct such studies one can combine reasonably well controlled studies with some less well controlled ones and place the additive results in a meta-analysis that examines "effect sizes". A common definition of an effect size in statistics is a standard deviation of difference. So, if one study's mean is one standard deviation different from that of another study, the effect size would be 1.0, which is considered a large effect size. Medium effect sizes of about .5 are accepted as meaningful, while small effect sizes of .3 do not instill great confidence of a difference between groups.

Bowen and Neill [30] conducted a meta-analysis of 197 studies of immersion in nature and were able to report on 2900 effect sizes across different measures relevant to the calming effect of natural environments. The mean effect size in this study was found to be .5, a medium and meaningful effect size. By way of comparison, these authors report that individual psychotherapy has an effect size of .67 which is also a medium effect size. The implication here is that natural environments have a positive impact that is comparable to that seen in individual therapy. The authors examined the impact of no immersion in nature and found a small effect size of .08. The various nature programs in this study included simple walks in nature to natural adventures in which participants engaged in environmental challenges such as crossing active streams and climbing up steep inclines. The positive impact of natural environments in seen for all ages studies and seems to have its greatest impact on older adults. Following a careful evaluation of the obtained data, one study [31] found that a minimum of two hours per week in nature is required to have a significantly positive impact of lessening anxiety and depression, and on the emotional exhaustion that follows from secondary trauma and burnout. Overall findings of these various studies strongly suggest that those experiencing burnout can obtain some degree of relief by regularly spending time in nature.

10. Conclusion

The origin of the terms, "burnout" and "burnout syndrome" has been attributed to the psychoanalyst Herbert J. Freudenberger in the 1970s. Since then, these terms have become important concepts in the psychological literature. Freudenberger was immersed in "free clinics" in the San Francisco area and his writings suggested that many clinicians, and perhaps he himself, began to show signs of emotional exhaustion, depression, anxiety, and weakened immune systems, after extended periods of providing services to needy clients. The free clinics, as the name implies, provided services at no expense and the providers volunteered their services, also for free. Burnout has since been reported to occur among individuals who care for family members, first responders, health service providers, and anyone else who gives of their energies to excess.

Interventions for burnout do not fall within the umbrella of cognitive-behavioral psychotherapy and/or exposure therapy. These approaches are said to be the treatments of choice for conditions such as specific anxieties and phobias, depression, and PTSD. Burnout interventions, in contrast, involve structural changes within the work setting such as reducing the number of contact hours or altering the content of the services that are provided. Other interventions are aimed at stress reduction, and these are alternative therapy approaches such as increased social contact, yoga, meditation, exercise, spending time with animals, or immersing oneself in natural environments. There is a need for additional quality research studies on the most effective interventions for burnout and burnout syndrome, and this research is currently being amassed, but is not as well developed and established as that body of research which is relevant to traditional disorders such as anxiety and depression.

11. Summary

There is a general lack of empirical data that would support the favoring of one type of intervention over others for the treatment of burnout. What does seem clear

Structural interventions such as reducing workload and restructuring workday [11, 17, 18]
Social support [12, 20, 21]
Various forms of exercise [15, 22, 23]
Mindfulness meditation [15, 24]
Yoga [15, 24, 25, 26]
Interaction with animals [27, 28]
Spending time in outdoor environments [29, 30]
Self-care strategies [11, 18, 19]

Table 1.
Proposed interventions having potential for lessening burnout.

is that the traditional CBT interventions that are employed for disorders like PTSD are unlikely to be effective in burnout (e.g., [15]). What we are left with individual empirical studies, some of which are reported in this book, along with is anecdotal reports that are provide support for a variety of interventions. These interventions include changes in the work environment and personal self-care strategies. **Table 1** summarizes these interventions and includes relevant references.

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Section 2

Occupational and Organizational Factors

Chapter 3

Occupational Stress and Burnout

Clarine Jacobs

Abstract

The concept of stress can be considered so multifaceted that one single process or definition does not explain the whole phenomenon. Physical or psychological demands, known as stressors, can cause strain. Stress can be identified as the process in the body for adapting to influences, changes, demands, and strains to which it is exposed. Stress caused by a working environment is known as occupational stress and globally considered to be among the topmost serious health issues. Stress and burnout have reached all-time highs across various professions as stressors have become assiduous and indeterminate - employers and employees alike are scrambling to return to normalcy in the working environment. Burnout results from the physical, mental, and psychological reactions from experiencing prolonged stress. Burnout, considered an occupational phenomenon rather than a medical condition, is often exacerbated with depression and anxiety leading to concerns of employee well-being and mental health. The progressive escalation of occupational stress and burnout has gained attention from global organizations and as the nature of work continues to evolve, understanding occupational stress can support initiatives for managing it.

Keywords: stress, stressors, strain, stress response, person-environment fit theory, occupational stress, stress disorder, burnout, quiet quitting, loud quitting

1. Introduction

- Explore the concepts of stress and strain.
- Explain occupational stress.
- Explicate causes of occupational stress.
- Examine how occupational stress can lead to burnout.

> *As so cleverly denoted by Selye, the founder of the term 'stress' as we know it today, "Everybody knows what stress is and nobody knows what it is...Stress in health and disease is medically, sociologically, and philosophically the most meaningful subject for humanity that I can think of" [1].*

2. Background

The terms "strain" and "stress" were introduced into the health psychology language in the 1920s whereby strain suggested structural changes and stress emphasized external factors. Cannon [2] defined stress as physical and psychological "disturbances" that threaten homeostasis (the body's state of balance). These disturbances were termed as a "fight or flight" expression and used to describe the physiological changes that occur to mobilize energy to the body to fight or flee when threatened by a stressor. The 'fight or flight' reaction activates the sympathetic nervous system – targeted muscles increase heart rate, blood pressure, and respiration, decrease digestion, increase perspiration to cool the body, and pupils dilate [3]. Selye's experiments in the 1930s and 1940s discovered that a variety of aversive stimuli produced these physiological responses and coined this response "stress".

Selye identified the general adaptation syndrome (GAS) as the set of responses to diverse types of stressors [3, 4]. Research by Holmes and Rahe [5] concluded that an accumulation of life events was found to be harmful to health. Cassel [6] introduced the vulnerability or resistance of the individual who was exposed to stressful stimuli into the theoretical framework as a factor in the outcome of stress and the effect of stress on health.

Various definitions of stress emerged; however, a common and acceptable definition is still lacking because the concept has not only become so widespread, but the term is also used so diversely by so many people in so many different situations and settings. The concept or term can be considered so multifaceted that one single process or definition does not explain the whole phenomenon. Stress definitions are generally categorized in three ways: (1) Stress as a stimulus, (2) Stress as a response, and (3) Stress as an interaction between an organism and its environment [7].

Selye's triadic model can be used as a basis for the stress-response pattern. When experiencing stress-induced physiological changes, the following stages may occur – each associated with changes in nervous and endocrine functioning: alarm, resistance, and exhaustion [8, 9].

- Alarm – When encountering an acute stressor, the amygdala sends signals to the hypothalamus (functions as the brain's command center) which activates the sympathetic nervous system and adrenal glands release the hormone epinephrine into the bloodstream. This process can elicit physiological changes (rapid heartbeat, fast breathing, surge in energy, etc.) and is otherwise known as the fight, flight, or freeze response [10].

- Resistance – Once the stress has passed, the parasympathetic nervous system minimizes the body's stress response. If the stressors continue, stress hormones will continue to produce additional symptoms such as irritability, frustration, or poor concentration [10].

- Exhaustion – Prolonged and chronic stress can cause the stress response to repeat in the body which may lead to anxiety, fatigue, depression, burnout, sleep disturbances, heart disease, psychiatric disorders, etc. [10].

The complex construct of stress initiated other various models and theories to describe the process. Most recognized theories originated from Kagan and Levi's stress-disease model [11], Levi [12], Lazarus and Folkman's transactional theory of

stress and coping [13], and Seyle's general adaptation syndrome [14]. Although Selye was noted as the pioneer of stress response theory, other contributors in the field of stress response included Mason [15], McEwen and Mendelson [16], and McEwen [17].

As one of the most interesting and mysterious processes, the study of stress not only focuses on what happens in the body during a stressful experience but also on what occurs in the psyche of the individual mind. Current psychological theories of stress evolved from the Theory of Emotion (James-Lange) [18, 19], The Emergency Theory (Cannon-Bard) [20, 21], and the Two-Factor Theory of Emotion (Schachter-Singer) [22].

3. Stress, stressors, and strain

Stressor: Stimuli from the environment that causes a state of strain or tension – forcing adaptation or change.

Experienced Stress: Challenged with more demands than perceivably able to manage (based on personal physiological and psychological perception).

Strain: Force that causes a change in the body when stress is present (**Figure 1**).

Stress can be identified as the process in the body for adapting to influences, changes, demands, and strains to which it is exposed. The National Institute of Mental Health defined stress as the physical or mental response to an external cause. This response can be either positive, referred to as eustress, or negative, referred to as distress [8]. Stress responses allow for adaptation and adjustments to new situations. Positive response may be focus and alertness from the production of adrenaline, triggered by stress and the body's 'fight or flight' response. We all have some level of stress in the body and therefore the body has a stress response; however, at times of great distress, the stressors experienced may be too excessive with an inability to cope and thus cause strain. Stress can be viewed positively or negatively depending on the situation and severity of the experience. If we view an exhausted athlete who won the gold medal or a newly promoted stressed-out business executive, we may view this experience as positive. Both individuals may have achieved exceptional goals towards accomplishment; however, the strain may have caused stress in the body. Consider the commitment to training or working long hours, even possibly disrupting a healthy work-life balance. Negative results could be physiological such as harm to muscles, elevated blood pressure, disrupted sleep, or other developed heart conditions. Whereas positive responses to stress could be alertness or motivation, negative responses emerge when stress from continued stressors without relief continues.

Physical or psychological demands, known as stressors, can cause strain. Continued strain from stressors can cause individual adaptive capabilities to be overextended and lead to chronic behavioral, emotional, psychological, physiological

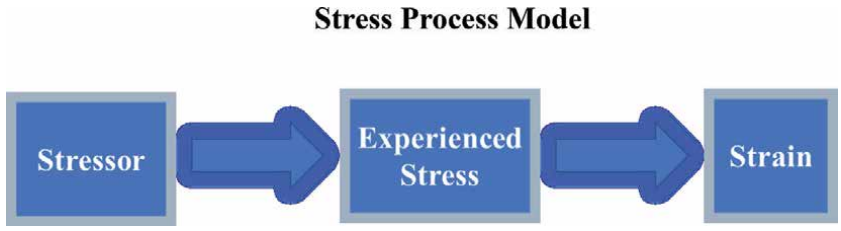

Figure 1.
Stress process model.

problematic outcomes [23, 24]. Stress is a state of mental, emotional, or physical "strain" or tension resulting from opposing or very demanding circumstances. One can experience stress without strain, but strain requires the presence of stress. Strain results from stressors, pulling or pushing an individual in different directions. Unmanaged and overwhelming stress with an inability to adapt to the proper context or situation can cause negative outcomes and the response could be anxiety, depression, insomnia, fatigue, procrastination, elevated heart rate, or even high blood pressure. Fundamentally, "strain" causes "stress".

4. Stress response

Intrinsic and extrinsic adverse factors (known as stressors) that threaten homeostasis trigger the stress response. To counteract, maintain, or restore homeostasis (body equilibrium or eustasis), physiological and behavioral responses are activated as the adaptive stress response. Activation is required from a complex range of responses in the body, including the endocrine, nervous, and immune systems to maintain homeostasis during times of chronic stressors – collectively known as the stress response and crucial for stress management [25]. These responses are highly dependent on intricate and interconnected cellular, molecular, and neuroendocrine infrastructure to create the stress system.

Neurohormone systems regulate the maintenance of homeostasis and allostasis (otherwise known as defective homeostasis, dyshomeostasis, or distress) during stress. The hypothalamic-pituitary-adrenal axis, or HPA axis, identifies the interaction between the hypothalamus, pituitary gland, and adrenal glands which play a prominent role in the body's response to stress. The hypothalamus manages many functions in the body such as releasing hormones and conserving the body's internal balance. The pituitary gland signals other glands to release hormones [26, 27]. The adrenal glands function in producing hormones for regulation – including metabolism, immune system, blood pressure, stress response, and others. The cortex of the adrenal glands produces corticosteroids and this pathway of the axis results in the production of cortisol, providing energy for the body to manage the stressor. The hypothalamus releases Corticotrophin Releasing Factor (CRF), transported by the bloodstream to the pituitary gland, then produces Adrenocorticotrophic hormone (ACTH) when chronic stressors are perceived [28].

The initial stress response is mediated by the sympathetic nervous system and occurs almost immediately, releasing the secretion of epinephrine and norepinephrine hormones. These hormones strive to maintain homeostasis during times of stress by binding to the cells they target to relay messages and activate changes to the body (e.g., metabolic changes, release of glucose, increase of blood flow, etc.). After the initial response, the HPA axis will be stimulated, and the hypothalamus will release corticotropin-releasing hormone (CRH) – the central regulator of the HPA axis [27].

The Sympathetic-adrenal-medullary (SAM) system and Hypothalamic-pituitary-adrenal (HPA) axis work concurrently, activating the energy needed to respond to stressors.

- Sympathetic-adrenal-medullary (SAM system) response – Responsible for the release of hormones (epinephrine and norepinephrine by the adrenal gland) that redirect energy within the body to muscles that help us respond to stressors. Referred to as the "fight or flight" response (increases in heart rate, blood pressure, and respiration; decrease digestion; and dilate pupils) [29].

- Hypothalamic-pituitary-adrenal (HPA) axis response – The main stress response system responsible for maintaining body homeostasis (balance). The hypothalamus secretes corticotropin releasing hormone (CRH) signaling the pituitary gland to release adrenocorticotropic hormone (ACTH) and initiating the adrenal glands to release cortisol and glucocorticoids (stress hormones) [29].

5. Person-environment fit theory

The term person–environment fit was devised by French and colleagues in 1974 [30] and corroborates Lewin's [31] belief that behavior is a function of a person and the environment which corresponds to the "whole is other than the sum of its parts" in Gestalt psychology.

Kurt Lewin's behavior equation

$$\text{Lewin's Heuristic Formula}: B = f(P,E) \tag{1}$$

Behavior = B; f = function of Variables: Person = P; Environment = E

The theoretical perspective of person–environment (PE) fit contributes to interactional psychology – the primary driver of human behavior is the interaction between personal and environmental attributes. The PE fit ideology crosses two lines of scholarship – environmental perspective and person-centered perspective. Organizational environments are recognized as being one of the most important settings with which people may fit or misfit within the PE fit research. The overarching theme surrounding this theory is that certain individuals or persons are better matched for certain environments than others.

Stress results when there is a bad "person-environment" fit. This bad fit or misfit can be objective, subjective, or both. In other words, the environmental demands are not matched (or fit) to individual ability. In the context of work, an example would be a worker having the ability to perform work, but if additional work or duties are required beyond the ability of the worker, the fit becomes bad. The paradoxical mystery of the amount of stress that equates to a "misfit" is not fully known because everyone is unique and has varying degrees of responses. Nevertheless, individual motivation, behavior, and health (mental and physical) can be affected by the compatibility between a person and an environment. A compatible match could equate to aided functioning within an organization whereas an incompatible match could equate to instability creating tension on both the P side (exhibiting as job stress, dissatisfaction) and tension on the E side (exhibiting as absenteeism, reduced performance) of the PE fit eq. [32].

6. Occupational stress

Stress caused by a working environment is known as occupational stress and globally considered to be among the topmost serious health issues. Occupational stress can be described as a mental and physical condition that can create negative organizational and individual outcomes [24, 33–39]. The World Health Organization (WHO) defined occupational stress as "the response people may have when presented with work demands and pressures that are not matched to their knowledge and abilities and which challenge their ability to cope" [40]. Furthermore, WHO declared occupational

stress as a global occupational phenomenon and an epidemic because of the negative economic, health, and social outcomes [23, 24, 40]. Similarly, the National Institute for Occupational Safety and Health (NIOSH) defined occupational stress as "the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker" [24, 41].

You could be experiencing workplace or occupational stress if your job demands more than you can deliver or perform [42]. The inability to avoid tensions in the workplace can be psychologically overwhelming when experiencing too much stress [43]. With any employer, at some point, the pressure of work-related stress is common to most employees. As employers and employees alike are scrambling to return to normalcy after the pandemic in the working environment, change can create stress and anxiety. The scientific community internationally was compelled to find answers and therapies to control SARS-CoV-2. In 2020, WHO [44] affirmed a public health emergency (PHE) of international concern, the highest level of alarm under international law. Heightened rates of burnout were experienced throughout the country by 2021 [45] and continued until the Public Health Service Act (Section 319) expired in May of 2023 by the Department of Health and Human Services (HHS) [24, 46]. This traumatic experience and change in normalcy intensified occupational stress among employees globally.

For most people, a quarter to a third of their lives are spent in the workplace. For that reason, maintaining a healthy work-life balance is essential for mental and physical health. According to Mental Health America [47], four in five employees report that workplace stress affects their relationships with friends, family, and coworkers. With Americans struggling with so many external stressors out of their control, over 25% reported that they are so stressed they cannot function on most days [48, 49]. Gallup's State of the Global Workplace report found that U.S. workers reported the experienced stress level to be 20% higher than the global average [50].

Based on the statistics found in the NIOSH report, 40% of workers described their job was very or extremely stressful; 25% of workers considered their jobs as the number one stressor in their lives; 29% of workers reported quite a bit or extremely stressed at work; and 26% of workers identified often or very often burned out or stressed by their work [41]. Approximately 3 in 5 employees reported negative effects of work-related stress, such as lack of interest, motivation, or energy (26%) and lack of effort at work (19%). In addition, 36% of employees expressed cognitive weariness, 32% portrayed emotional exhaustion, and 44% experienced physical fatigue [45, 48]. Roughly 65% of U.S. workers surveyed (each year consistently) have considered work as being a very significant or somewhat significant source of stress [50, 51]. According to WHO, 83% of US workers suffer from work-related stress and 54% of workers report that workplace stress affects their home life [52].

Occupational stress research has been explained through other various models such as the Job Demand-Control-Support model, the Effort-Reward Imbalance model, and the Job Demands-Resources model [53–57]. Although many challenges emerged in stress literature historically, five significant organizational factors have been correlated as sources of occupational stress within the content and context of work environments: (1) Intrinsic workplace factors, (2) Role factors, (3) Career development factors, (4) Relationship factors, and (5) Organizational structure, formalization, and culture factors [33, 34, 36, 48, 58, 59].

Intrinsic workplace factors originate from the content of work, creating a mismatch between demands and individual capabilities (i.e., person and environment) to cope with such demands [60]. Examples of these intrinsic factors could be workload (overload or underload), time pressures or demands, poor physical work conditions,

lack of job meaningfulness, or other similar problems. Role factors could include any unclear work or conflicting roles or boundaries causing stress including role ambiguity, role conflict, or level of responsibility. Career development factors might include job instability or insecurity, lack of training, stagnation, or even under/over promotion. Relationship factors may include poor relationships with colleagues or managers/leaders, discrimination, or even bullying. Organizational structure, formalization, and culture factors could include office politics, decision-making participation, or leadership [33, 34, 36, 48, 58, 59]. Work stressors associated with producing strains resulted in increased tension including (a) diminished job-related attitudes (job satisfaction, intentions to leave or quit, organizational and work-unit commitment), (b) lower levels of psychological health, and (c) burnout (causing emotional exhaustion, depersonalization, and a diminished personal accomplishment) [34, 48, 61].

With reported increases in occupational stress throughout the country, research attention has shifted to psychosocial risk factors from chronic exposure to stressors in occupational settings and the adverse effects of stress on chronic disease [62–64]. Psychological and psychosocial well-being is not only important to employee productivity and work satisfaction but also the onset of mental health and physical health [65, 66].

7. Examples of stress by workers in various industries

When we think of stressful jobs, we may think about Soldiers defending our country or firefighters who brave flames for our safety. Enlisted military service members were highlighted as having the most stressful job in the world [67]. Among the other top four most stressful occupations were firefighter, airline pilot, and police officer [68]. According to the American Institute of Stress, 62% of employees have elevated levels of stress, with extreme fatigue/feeling out of control with causes of stress reported as workload, people issues, work-life balance, and lack of job security [51].

Although there is associated stress with almost all jobs, some have more than others. The Occupational Information Network (O*NET), part of the U.S. Department of Labor, ranked 873 of the most stressful jobs, requiring the ability to accept criticism professionally and react calmly and effectively in high-stress situations. Interestingly, not all careers listed as stressful included high salaries. Jobs noted among the top twenty stressful jobs included: lawyer, judge, physician, surgeon, nurse, operator, sales manager, structural iron/steelworker, security guard/officer, financial analyst, compliance officer, and therapist/counselor [69, 70].

8. Stress disorder and burnout

Stress can be measured subjectively or objectively. If we consider stress caused by external events (stressors) that increase demands or change, stress may be measured objectively by those stressful events. However, if stress is measured by self-reporting or by an individual's perception of stress caused by stressors, the focus shifts to a subjective measure. Therefore individual experiences, perceptions, and coping strategies may differ. Whereas one individual may successfully manage distress to reduce associated negative health, mental health, and behavioral outcomes, another individual may experience clinically significant distress or impairment in the forms of acute stress disorder, post-traumatic stress disorder (PTSD), or secondary traumatic stress (also known as vicarious traumatization) [24].

Acute stress disorder can develop following a person's exposure to one or more traumatic events [24, 71]. The Association for Behavioral and Cognitive Therapies defined PTSD as a stress-related disorder that develops after a traumatic experience, involving a combination of emotional, physical, and behavioral symptoms because of experiencing the traumatic event and that significantly affects the daily well-being of a person [24, 72]. The Vicarious Trauma Institute defined vicarious trauma as an indirect exposure to trauma through a first-hand account or narrative of a traumatic event [73]. Or in like terms, the trauma that can occur after exposure to someone else's trauma [74].

Stress can illicit extreme pressure and burnout results from the physical, mental, and psychological reactions from experiencing that prolonged stress. In 1974 Freudenberger described the term "burnout" as "the extinction of motivation or incentive, especially where one's devotion to a cause or relationship fails to produce the desired results" [75]. Burnout syndrome (BOS) has historically been attributed to caring or helping professions, in which the term referred to a particular experience and mental state in the workplace prior to evolving into a psychologically and clinically relevant condition. Now the terms burnout and BOS are associated with almost every industry [76]. In the tenth revision of its International Classification of Diseases (IDC-10), WHO called it "a state of vital exhaustion" [77, 78]. Workplace burnout is an occupation-related syndrome resulting from chronic stress that has not been successfully managed [43, 79]. Symptoms of burnout can contribute to other physical and mental health problems, such as insomnia, reduced cognitive function, blood disorders, and coronary heart disease according to the American Psychological Association and The American Institute of Stress [45, 50].

Burnout and stress are at all-time highs across professions. WHO declared burnout an occupational phenomenon – rather than a medical condition – in the eleventh revision of its International Classification of Diseases (IDC-11) [80]. Characterized by feelings of exhaustion, disengagement from one's job, increased mental distance with feelings of negativism or cynicism related to one's job, and a sense of diminished professional fulfillment or efficacy – burnout is considered the result of chronic work stress that the individual is not able to manage [24, 81].

Prolonged stress can cause acute and chronic changes in the body. Common, or regular stress can be managed through adaptation. However, chronic, and pathological stress may result in negative physical and mental health outcomes. Specifically, two distinct adverse outcomes of stress are burnout and depression [82–84]. Burnout has long been understood as an outcome of prolonged, unresolvable, work-related stress [85–87]. Burnout encompasses three responses to chronic job-related stress: (1) decreased energy or emotional exhaustion, (2) depersonalization or cynicism, and (3) diminished personal accomplishment, lower productivity, or professional inefficacy [80].

Burnout and depression have been reported as two key indicators in occupational or workplace distress research. Depression manifests in affective, behavioral, cognitive, and somatic symptoms including dysphoric mood and anhedonia. However, depression can be considered as a "dimensional phenomenon – a continuum – with only individuals at the highest end of the continuum meeting criteria for formal diagnoses of depression" [88]. Symptoms of depression are outlined in the Diagnostic and Statistical Manual of Mental Disorders according to the American Psychiatric Association. Clinically significant distress or diminishment in areas of functioning (e.g., social, occupational, etc.) must be caused to receive a diagnosis of depression [89]. Consequently however, there are no clear diagnostic criteria for burnout. Even so, burnout and depression can complement one another. In other words, an individual may have increased symptoms of depression with increased symptoms of burnout [88].

With a profoundly shifting employment landscape, escalating employee mental health challenges, and the steadfast risk of an economic recession, burnout in employees climbed as a critical concern for employers. Based on the American Psychological Association 2023 work survey, a combined 92% of employees said it is very or somewhat important to work for an organization that values their emotional and psychological well-being and that provides support for employee mental health [90].

Burnout is a substantial issue that has beleaguered employees over the past few years – exacerbated by the pandemic and its mass problems, including blurred lines between work and home life as remote work became the norm. Burnout can cause both individual and organizational consequences. Individual effects of burnout can present as decreased productivity, substance abuse, intensified anxiety and/or depression, or other health issues. Organizational effects of burnout can be contributed to depressed commitment, increased absenteeism and presenteeism, and greater employee turnover. It is reported that employees who experience workplace burnout have a 57% increased risk of workplace absence greater than 2 weeks due to illness; 180% increased risk of developing depressive disorders; 84% increased risk of Type 2 diabetes; and 40% increased risk of hypertension. Additionally, workplace burnout is associated with cognitive impairment across multiple cognitive domains: short-term memory, attention, and other cognitive processes essential for daily work activities [43, 91].

According to the State of the Global Workplace report, 85% of employees are not engaged or are actively disengaged at work [92]. This sign of global mismanagement [93] results in struggling organizations and frustrated employees – prompting a burnt-out work culture to grow exponentially. The "Great Resignation" or "Great Disengagement" is evident throughout industries and burnout has been cited as a leading cause. The pandemic blurred the lines between work and home for many employees and workers strove to establish boundaries in their work-life balance [24].

9. Quiet quitting

Quiet quitting is often used to cope with burnout and nearly 6 in 10 employees are doing so. Differences in definitions emerged for quiet quitting. Whereas some define quiet quitting as not actively going above and beyond at work, others argue it is a form of passive resistance to redraw the boundaries between employees' professional and personal lives. In general terms, quiet quitting describes a trend where unmotivated, disinterested, and checked-out employees do bare-minimum work at best [94]. Quiet quitting can result when an organizational culture fails to deliver on employment promises tarnishing employee trust and employees psychologically disengaging from work. Employees want more engagement with a positive culture promoting recognition, opportunities to gain experience and learn, fair treatment, clearer goals, and better managers. Employees also want pay with benefits and effective well-being [95].

10. Loud quitting

Another trend to cope with occupational stress is loud quitting. Whereas quiet quitting can be referred to as employees that are not engaged, loud quitting refers to employees that are actively disengaged. Loud quitting occurs when employees not only feel unhappy at work but resentful that their needs are not being met by the employer and act out on that unhappiness as a result. Loud quitters often report

more stress – compared to other employees – and are much more likely to be actively looking for a different job [96]. The combination of loud quitting and quiet quitting employees cost the global economy $8.8 trillion. Nearly 1 in 5 workers are 'loud quitting' and this occupational phenomenon is more extreme than 'quiet quitting'. Based on the State of the Global Workplace Report, 18% of employees admit to loud quitting and 59% say they are quiet quitting [95–97].

11. Conclusions

With the progressive escalation of occupational stress, attention from global organizations has increased – American Psychological Association (APA), Centers for Disease Control and Prevention (CDC), Mental Health America (MHA), National Institute for Occupational Safety and Health (NIOSH), Society for Occupational Health Psychology (SOHP), World Health Organization (WHO), etc. Paradoxically, mental health awareness has found a voice not only in the public through media exposure and workplace policy, but increased stress has exacerbated burnout and exhaustion.

The study of occupational stress has evolved and proves to be a difficult endeavor because of the complex nature of the topic. Numerous factors can influence the development and exacerbation of workplace stress. In addition, workplace stress is highly subjective and objective in terms of exposure, outcomes, and coping mechanisms. While individual differences and perceptions are critical to note, scientific evidence correlates certain working conditions stressful to most employees such as psychological well-being, commitment from the organization to the employee, and resources [65]. As the nature of work continues to change at whirlwind speeds, occupational stress will continue to pose a threat to the health of employees and employers. Therefore, understanding occupational stress can support organizational change by implementing effective occupational stress prevention, coping skills, and interventions.

Definitions of key terms

Stress: a state of worry or mental tension caused by a challenging or threatening situation [52].

Stressor: experiences that cause stress or strain and threaten homeostasis.

Acute stress: any stress that is experienced for a brief time.

Chronic stress: any stress that is experienced for a long time.

- Stress response: physiological and psychological changes that occur as a reaction to the stressors experienced (also referred to as stress).

- Fight or flight response: activation of the sympathetic nervous system to prepare the body to fight or flee in response to a perceived threat [3].

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Chapter 4

Burnout-Related Factors in Healthcare Professionals during the COVID-19 Outbreak: Evidence from Serbia

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Abstract

Burnout is one of the phenomena that occurs in situations of increased mental and emotional exhaustion at work, so it is expected that healthcare professionals will experience it more often in a situation of increased stress amid the outbreak of COVID-19. The aim of this national cross-sectional survey study was to examine the levels of burnout and the relationship between burnout syndrome, healthcare workers' resilience, and different sociodemographic and work-related variables during the outbreak of COVID-19 in Serbia. The sample included 398 healthcare professionals who actively worked with patients during the COVID-19 outbreak. The primary contribution of our study was that we identified moderate to high levels of burnout among healthcare professionals (doctors, nurses, psychotherapists, and pharmacists) in Serbia during the COVID-19 outbreak, but also significant negative correlations between these levels of burnout and resilience, as well as statistically significant factors related to burnout such as the number of working hours per day, age, length of service, and profession.

Keywords: COVID-19 outbreak, burnout, healthcare professionals, resilience, Serbia

1. Introduction

The first cases of the coronavirus disease 2019 (COVID-19) were described in Wuhan, the capital of Hubei, China, in December 2019. Soon after, the number of cases increased dramatically, spreading across China and worldwide [1]. The WHO Emergency Committee declared a global health emergency on January 30th, 2020 [2]. Another country impacted was Serbia, where a state of emergency was announced on March 15, 2020, enacting some of the toughest anti-pandemic measures in Europe.

The first verified case was reported on March 6, 2020 [3]. In the midst of the COVID-19 pandemic, healthcare workers in all countries of the world, including Serbia, have increased workload and protection measures, care for their own and patients' health, strict protocols in the treatment of COVID patients, reorganization of previous work models, and implemented prevention measures. All this undoubtedly affected not only physical but also mental and emotional exhaustion and other difficulties at work, which can further seriously endanger the mental health of healthcare professionals [4–7]. Healthcare personnel are predicted to suffer burnout more frequently in a setting of heightened stress due to COVID-19 because it is one of the phenomena that occurs in situations of greater mental and emotional weariness at work [8].

As a syndrome caused by ongoing stress at work that has not been effectively handled, burnout is classified as an occupational phenomenon by the International Classification of Diseases (ICD-11). It has three characteristics that define it: experiencing reduced professional efficiency, feeling worn out or depleted of energy, and growing mental detachment from one's work [9]. Burnout studies among healthcare professionals increased during the COVID-19 epidemic. A multitude of healthcare professionals may be negatively impacted by burnout, depending on a number of aspects, including the professionals' occupation while dealing with patients (nurses, physicians, and other allied health workers). Also, in addition to healthcare providers, burnout has negative consequences for patients [10–12]. Healthcare workers have more work to do during a pandemic, which further increases the risk of SARS-CoV-2 infection, accounting for up to 11% of cases in some countries [13], and the risk of self-infection may be another factor that can lead to burnout [14]. Depending on psychological resources, such as resilience and personality traits, there are notable individual variances in how each person responds to a stressful, event such as a pandemic.

The capacity of a person to resume regular mental functioning following traumatic or dangerous experiences without suffering long-term harm is known as resilience [15]. Resilience research in relation to the healthcare worker population is less frequent than burnout research. High resilience, which may be attained through the right medical training program, was mentioned even before the global COVID-19 epidemic as an ability that helps healthcare workers to quickly recover from a variety of challenges at work [16, 17].

Studies suggest that burnout among healthcare workers increased during the COVID-19 pandemic compared to the time before the pandemic [18, 19]. Also, the findings of research conducted around the world before and during the COVID-19 pandemic suggest that in healthcare workers, resilience and burnout are interrelated phenomena [20], so greater resilience implies less burnout, as well as greater burnout, implies weaker resilience [20–24]. Taking all of this into account, the aim of this study was to examine the levels and correlations of burnout and resilience in healthcare workers who actively worked with patients during the COVID-19 pandemic in Serbia, as well as the effect of demographic and work-related variables (such as gender, length of service, number of hours spent per day at work, profession, and type of institution in which they work) on the level of burnout and resilience. The following hypotheses were set: (1) Significantly higher levels of burnout will be observed among healthcare workers, (2) Resilience as a personality trait will be negatively correlated with burnout, and (3) Demographic variables, as well as work-related variables (number of working hours per day and days per week as well as profession), will have an effect on burnout and resilience.

2. Methods

2.1 Sample and procedures

A cross-sectional correlational study design was used in this study. Inclusion criteria for the study sample were residents of Serbia being in the health profession (physicians, medical technicians or nurses, pharmacists, and psychotherapists). Exclusion criteria were residents of other countries, members of any profession outside of healthcare occupations, as well as healthcare workers who did not work actively with people during the COVID-19 pandemic in Serbia.

To minimize social interactions, as recommended by the government of Serbia, data were collected online using the Google Forms platform during April 2020 in Serbia. We used a snowball sampling method by sharing the questionnaire link on Facebook and Viber medical community groups (healthcare workers, pharmacists in practice, psychotherapists, nurses, and medical technicians). Potential participants were given an explanation of the research's purpose in Serbian at the outset of the anonymous online survey. The respondents were assured of the confidentiality and anonymity of the data collected, and participation in the study was voluntary and done so with informed consent. The study team was the only one with access to the safeguarded data. The statistical analysis did not include survey replies that were improper or duplicated.

The Institutional Review Board (approval number: #2020–2030) of the Department of Psychology, Faculty of Philosophy, University of Belgrade, gave its approval for the study. This study's protocols complied with the Declaration of Helsinki's guidelines [25].

2.2 Measures

The first part of the online questionnaire included a brief study description and an invitation, demographic data such as gender, age, and country of residence of the respondents, and data related to work engagement during the pandemic such as profession, active work with people during the COVID-19 pandemic, type of institution where they work, length of service, number of hours per day at work, and number of days per week at work.

The second part of our questionnaire included questions related to resilience, defined as the ability to recover from stressful or threatening events. Respondents completed the brief resilience scale (BRS) [15], which is one-dimensional and consists of six items (e.g., "I tend to bounce back quickly after hard times.") Reverse scoring is present on three items (e.g., "I have trouble getting through stressful events.") From 1 (strongly disagree) to 5 (strongly agree), respondents could select one response on a five-point Likert-type scale. The mean of the six items on this scale is the overall score. According to the original authors, this scale has very good reliability; the Cronbach's alpha coefficient was above 0.8 in previous research [15].

The third part of our questionnaire was used to assess healthcare workers' burnout and included two scales: The Oldenburg Burnout Inventory (OLBI) [26] and the single-item burnout measure (SIBM) [27]. The Oldenburg Burnout Inventory [26] has 16 items divided into two scales: disengagement (e.g, "I talk about my work negatively more and more often") and exhaustion (e.g, "I often feel emotionally drained during my work.") Respondents had the option to choose one answer on a

four-point Likert-type scale from one (strongly agree) up to four (strongly disagree). Demerouti et al. [26] define the basic dimensions of burnout somewhat differently compared to earlier conceptualizations. Exhaustion is defined as the result of intense physical, affective, and cognitive stress, while disengagement refers to one's own distance from work in general [26]. Therefore, only the exhaustion scale was used for the purposes of this research. Cronbach's alpha on this scale, according to the original authors, is 0.78 [26]. Another tool employed in this study to assess burnout was a single-item burnout scale. It asked participants to explain burnout in their own words and states, "Overall, based on your definition of burnout, how would you rate your level of burnout"? The responses are evaluated using an ordinal five-category scale, with one indicating enjoyment at work, for example, "I am not experiencing any signs of burnout."; 3 = "I am experiencing signs of burnout, including emotional and physical tiredness."; and 5 = "I am so exhausted that I frequently question whether I can continue. I am at the point where I might need to make certain changes or look for assistance" [27].

2.3 Statistical analysis

Statistical analysis of the gathered data was performed using SPSS statistics software (IBM SPSS Statistics for Windows, Version 22.0, Armonk, NY, USA). Descriptive statistics were measured using means, standard deviations, skewness, kurtosis, and minimum and maximum values. Using Cronbach's alpha coefficient as a measure of internal consistency, the validity of the measures was examined. From statistical analyses, descriptive statistics were conducted to examine levels of burnout and resilience, Pearson's correlation was used to examine the relationship between these constructs on a sample of healthcare workers, and in order to compare groups, the t-test and ANOVA were used. The statistically significant level of probability was $p < 0.05$.

3. Results

3.1 Participant characteristics

The sample consisted of 398 healthcare workers, which we classified into: medical personnel with two categories — physicians and medical technicians/nurses and allied health professionals with two categories — pharmacists and psychotherapists. The age of the respondents ranged from 19 to 62 years; the average age of the sample was [mean (M) ± standard deviation (SD)] 39.12 ± 9.76 years. There were 267 (67.1%) female respondents and 131 (32.9%) male respondents. Out of a total of 398 respondents, 119 (29.9%) were physicians, 154 (38.7%) were medical technicians and nurses, 56 (14.1%) were pharmacists, and 69 (17.3%) were psychotherapists.

Table 1 shows scale reliability and descriptive statistical metrics. The α coefficient of internal consistency, also known as Cronbach's alpha, indicated that all of the instruments utilized in this study had high reliability, as was anticipated.

It is important to note that the single-item burnout measure (SIBM) has only one question and does not have a Cronbach's alpha. The other two instruments show good or very good reliability. Thus, the exhaustion scale from the Oldenburg Burnout Inventory (OLBI) obtained in this study (0.85) exceeds that obtained by the original authors in their study (0.78) [26]. This certainly speaks in favor of the reliability of

Scale		Min	Max	M	SD	Skew	Kurt	α
Burnout	OLBI	1	4	2.78	0.64	−0.37*	−0.31*	0.85
	SIBM	1	5	2.81	1.09	0.58	−0.46	/
Resilience		1	5	3.02	0.86	−0.16*	−0.45*	0.83

*SD – standard deviation; *<1.96.*

Table 1.
Descriptive statistics of burnout and resilience.

this scale within this inventory. The average number of respondents on the exhaustion scale is 2.78, which indicates that their degree of burnout is significantly higher compared to the normative data of the OLBI, which is 2.47 [26]. Furthermore, on the second measure of burnout, the single-item burnout measure (SIBM), the largest number of respondents (41.2%) stated that they had certain symptoms (occasional stress and lack of energy) but not burnout. In addition, only 6.5% of them have no symptoms of burnout and enjoy their job. The rest of the respondents (52.3%) consider themselves to have burned out at work with different levels of symptoms (from physical and emotional exhaustion to frequent thoughts of frustration at work and the need to seek help).

When it comes to resilience, the reliability of the scale fits within the range determined by the author of this scale (0.80 to 0.91) [15]. According to the same author, averages starting with the numbers one and two are indicative of low resilience, and averages starting with four and five are high. Therefore, the sample of this study can be described as normally resilient, although the normative data for BRS is 3.53 [15].

Furthermore, based on the values of skewness and kurtosis and their standard errors, conclusions can be drawn about the normal distribution on the Oldenburg Burnout Inventory (OLBI) and the brief resilience scale (BRS). The estimated value of the 97.5 percentile point of the standard normal distribution in probability and statistics is 1.96. Because of the central limit theorem, 95% of the area under a normal curve comes within approximately 1.96 standard deviations of the mean. As a result, approximate 95% confidence intervals are constructed using this value [28].

Table 2 shows that medical technicians, nurses, and physicians spend the most time at work on a daily basis in terms of hours, while on a weekly basis, in terms of number of days, the highest engagement is among medical technicians and nurses.

Table 3 shows the correlations between two burnout measures and resilience. It can be seen that all three measures are correlated and that all correlations are

Profession	Number of work hours per day			Number of work days per week		
	N	M	SD	N	M	SD
Physicians	119	8.13	8.18	119	5.56	4.04
Medical technicians/nurses	154	8.27	3.99	154	6.19	6.96
Pharmacists	56	7.68	4.68	56	5.18	2.69
Psychotherapists	69	6.75	2.70	69	5.17	2.68

Table 2.
Descriptive statistics for the number of hours per day and days per week that healthcare workers spend at work during a pandemic.

		Burnout		Resilience
		OLBI	SIBM	
Burnout	OLBI	—	0.712*	−0.563*
	SIBM		—	−0.465*
Resilience				—

*$^{*}p < 0.01$.

Table 3.
Correlation between burnout and resilience.

significant at the level of $p < 0.01$. The two burnout measures, the OLBI and the SIBM, are significantly correlated ($r = 0.712$, $p < 0.01$), which indicates a high agreement in the results of these measures. The correlation of burnout, as measured by both scales, with resilience ($r = -0.563$, $p < 0.01$ and $r = -0.465$, $p < 0.01$) is significantly negative, which suggests that resilience is an important factor in burnout prevention.

In order to determine whether there are differences between males and females according to the burnout and resilience variables, the independent samples t-test was performed. Significant gender differences were found only on the resilience variable, where men show significantly higher levels, as seen in **Table 4**.

Using the ANOVA analysis, significant differences were obtained between the groups of employed healthcare workers (physicians, nurses/technicians, pharmacists, and psychotherapists) according to the levels of burnout and resilience, which can be seen in **Table 5**.

Table 5 shows that there are differences between groups of respondents (physicians, nurses/technicians, pharmacists, and psychotherapists) in terms of burnout levels and resilience. Conducting post hoc analysis showed that psychotherapists burned significantly less than other groups, in relation to which they are also significantly more resilient.

Most of the respondents (118, or 29.6%) work in hospitals, followed by health centers (132, or 33.2%), private practice (55, or 13.8%), pharmacy (53, or 13.3%), and counseling (40, or 10.1%). An analysis of variance, shown in **Table 6**, showed that there are significant differences between people working in different institutions in terms of levels of burnout and resilience.

		t	Df	Sig. (2-tailed)	Gender	Mean
Burnout	OLBI	−1.378	396	0.169	Male	2.72
					Female	2.81
	SIBM	−0.549	396	0.583	Male	2.76
					Female	2.83
Resilience		−2.598	396	0.013*	Male	3.44
					Female	2.59

*$^{*}p < 0.05$.

Table 4.
Gender differences in burnout and resilience.

		Source of variation	SS	Df	MS	F	p
Burnout	OLBI	Between groups	38.14	3	12.38	38.48	0.000*
		Within groups	93.03	394	0.39		
		Total	131.17	397			
	SIBM	Between groups	31.81	3	10.27	10.05	0.000*
		Within groups	283.29	394	0.20		
		Total	314.10	397			
Resilience		Between groups	23.27	3	7.42	11.91	0.000*
		Within groups	174.25	394	0.74		
		Total	196.52	397			

** $p < 0.01$.*

Table 5.
Analysis of variance of burnout and resilience according to profession.

		Source of variation	SS	df	MS	F	p
Burnout	OLBI	Between groups	26.89	4	5.47	20.17	0.000*
		Within groups	79.27	393	0.40		
		Total	106.17	397			
	SIBM	Between groups	16.53	4	3.13	3.51	0.001*
		Within groups	233.57	393	0.91		
		Total	258.10	397			
Resilience		Between groups	19.85	4	5.21	8.63	0.000*
		Within groups	153.66	393	0.74		
		Total	151.52	397			

** $p < 0.01$.*

Table 6.
Analysis of variance of burnout and resilience according to the institution in which the respondents work.

Significantly lower levels of burnout, as measured by OLBI, were shown by those working in private practice compared to those working in hospitals, health centers, and pharmacies. In addition, employees in counseling centers achieve significantly better results on the same test than those who work in hospitals. Significantly higher burnout, as measured by the SIBM, is present in hospital staff compared to employees in private practice. Finally, this analysis showed that those working in private practice have higher levels of resilience than employees in health centers and hospitals.

A correlation analysis of the relationship between burnout and resilience on the one hand, and the age of the respondents and their length of service on the other hand obtained the data that can be seen in **Table** 7.

From **Table** 7, it can be seen that age is related only to the score on the SIBM ($r = 0.182$, $p < 0.01$), but that this correlation is weak. This means that as the years go by, healthcare workers estimate their burnout to be higher, or that the pandemic has hit those older among them harder. Furthermore, both burnout measures are

	Burnout		Resilience
	OLBI	SIBM	BRS
Age	0.73	0.182*	−0.052
Length of service	0.148*	0.214*	−0.063

*$p < 0.01$.

Table 7.
Correlations of burnout and resilience with the age of the respondents and the length of their service.

	Burnout		Resilience
	OLBI	SIBM	BRS
Number of work hours per day	0.282*	0.058	−0.128*
Number of work days per week	0.042	0.066	0.039

*$p < 0.05$.

Table 8.
Correlations between burnout and resilience with the number of hours per day and days per week spent by healthcare workers at work during a pandemic.

correlated to the length of service of healthcare workers ($r = 0.148$, $p < 0.01$; and $r = 0.214$, $p < 0.01$). The correlations are low in this case as well, suggesting that burnout is slightly higher in those who have more work experience. Finally, the data related to the amount of employment of healthcare workers during one working day and one working week with burnout, were correlated. The results of these analyses can be found in **Table 8**.

Table 8 shows that there are no correlations between burnout and resilience and the number of days spent at work. On the other hand, along with greater work engagement in the number of hours, burnout measured by OLBI ($r = 0.282$, $p < 0.01$) is also higher, which indicates that the more hours the respondent works in 1 day, the stronger the symptoms of exhaustion as an aspect of burnout syndrome. In addition, a negative correlation was observed between the number of hours spent per day at work and resilience ($r = -0.128$, $p < 0.05$). This finding suggests that people who spend more time at work have a weaker capacity for resilience and the ability to bounce back.

4. Discussion

Since the beginning of the spread of the coronavirus, healthcare workers have been among the most affected by the fact that they are exposed to potential infections and excessive workload on a daily basis. A review of the literature shows that healthcare professionals face challenges at work that can affect their health, emotional well-being, and efficiency at work [29]. This study examines the associations between psychological variables of resilience and burnout in light of the current COVID-19 pandemic among healthcare professionals: physicians, medical technicians/nurses, pharmacists, and psychotherapists, who actively worked with patients during April 2020, providing them with care, assistance, and support. Respondents completed four questionnaires: the OLBI, the SIBM, the BRS, and a questionnaire designed for

this research to collect demographic and work-related data. The scores from these tests were later correlated and compared with the aim of confirming or disproving hypotheses.

The first hypothesis, which concerns significant levels of burnout among healthcare workers in Serbia during the COVID-19 pandemic, was confirmed by the results of the OLBI, while the single-item burnout measure showed mixed results. According to OLBI, the burnout of this population is significantly higher compared to data obtained before the pandemic and in other studies [26], while a moderate finding was obtained on SIBM. Assumptions about the existence of higher levels of burnout among health workers who actively worked with people during the pandemic have been confirmed. It is known that healthcare workers experience higher levels of stress at work than the general population, and this stress has physical and psychological consequences [30]. In a study from Switzerland in which doctors and nurses participated, similar to this study, significant levels of burnout symptoms were obtained in both groups. However, it has been noted that women and nurses are more affected than men and doctors [31], which does not coincide with the findings of this study. In a study conducted in Spain, one of the most severely affected European countries [32], at the beginning of the pandemic, no gender differences were observed on the scale of emotional exhaustion as an aspect of burnout syndrome, similar to the findings of this study. Moderate (23.1%) and severely elevated (41%) exhaustion levels were achieved by 64.1% of respondents [33].

A systematic review and meta-analysis of burnout among healthcare workers during the COVID-19 pandemic shows that burnout among healthcare workers is exacerbated by the unique characteristics of the COVID-19 pandemic. The goal of the study was to provide an extensive overview of the prevalence of burnout and its dimensions across various healthcare workers during the COVID-19 pandemic. It found that 52% of health workers had burnout, with nurses and/or doctors having the highest rate (66%), which is higher than the rates found in previous studies carried out over the previous 20 years [12]. In Italy, which was one of the most affected countries in Europe during the COVID-19 pandemic [34], high rates of exhaustion [18] were recorded in the population of healthcare workers, which is in line with this study. Higher levels of burnout compared to the periods before the pandemic were also noted by authors from Romania, so in their sample of doctors of different specializations, as many as 76% of respondents had some symptoms of burnout [35]. Research findings from Puerto Rico are in line with the moderate levels of burnout obtained in a domestic sample. In addition, nurses on average show the most severe burnout syndromes [36], which is not in line with the differences between the professions noted in this study (where only psychotherapists differ significantly from the other three groups of health professionals). All of the above indicates that burnout is becoming a "global phenomenon" that can negatively affect those providing health care [37].

The second hypothesis has been partially confirmed. Resilience has proven to be an important factor in prevention, and the strength of this effect is stronger than expected. The only group of respondents who deviated significantly were psychotherapists, who were significantly less burned and significantly more resilient. Some authors call resilience a good preventive measure in relation to burnout [38], which can be confirmed from the analysis of the results of this research, given that a significant negative correlation was found between burnout levels measured by two measures and resilience. Our finding is consistent with the results of a domestic study that also found a negative association between resilience and burnout in medical

staff [20], as well as a study conducted in the United States where a negative correlation between burnout and resilience was also observed. Namely, higher resilience was found in subjects who did not show the presence of burnout. However, 29% of physicians with the highest resilience have burnout, indicating that measures should be taken to preserve their mental health [39].

The third hypothesis is only partially confirmed, as gender differences in resilience have been identified as well as a significant negative correlation between the number of hours spent at work and resilience, while the number of days per week at work does not affect the level of resilience. As also assumed, sociodemographic variables have mixed correlations with both burnout and resilience, and most relationships are not statistically significant. This coincides with the assumption that sociodemographic factors will have a variable impact on the levels of these two psychological constructs. Those that are, such as the lower resilience of female respondents and higher levels of burnout in the elderly, more experienced, and those who work more hours a day, can more precisely target psychological help efforts at those people who fit those profiles.

Healthcare workers from Spain, doctors and nurses, showed moderate levels of resilience. The correlation between burnout and resilience was significantly negative [33], as noted in this study. A negative correlation between resilience and exhaustion, both physical and mental, was obtained in a sample of healthcare workers in China during the COVID-19 pandemic [40]. Similar to an earlier study from the United Kingdom [41], the level of resilience among health professionals in Serbia is moderate. The same authors did not show a difference in resilience by gender, age, or length of service, which is in line with the data of this study when it comes to age and length of service but not by gender. Furthermore, in one Chinese study, data were obtained indicating lower resilience in female medical staff [42], which agrees with the findings of this study, where females had significantly lower resilience scores. Also, another Chinese study found, similar to this one, a negative correlation between resilience and burnout [43].

The strength of our study could be the timing of data collection related to the period of the first wave of the COVID-19 outbreak in Serbia. It is important to consider the limitations of this study when assessing the findings. The cross-sectional study methodology is the primary limitation because it is difficult to establish causal links between the variables in the study. A long-term study is required to validate our findings in order to address this issue and acquire a deeper understanding of causal relationships. Self-reporting bias may exist because the data was gathered *via* a self-reporting questionnaire. It is also necessary to consider the limitations of our sample methodology. The method known as snowball sampling has significant biases and is not a random process. The sample size of this research does not allow the generalization of results so that they apply to the entire population of health professionals. However, as demonstrated by other international studies, the results of the burnout analysis indicate that the COVID-19 pandemic most certainly played a major role in the notable rise in burnout levels among healthcare professionals compared to the pre-pandemic era [20].

5. Conclusions

The primary contribution of our study was to identify moderate to high levels of burnout present in healthcare workers in Serbia during the COVID-19 pandemic, as well as significant negative correlations between these burnout levels and resilience.

The relationship in which the greater the resilience of individuals, the less their burnout, proved to be stronger than expected, which consequently increases the implications for the practice of this finding. The creation and implementation of preventive measures to encourage greater resilience among healthcare workers [44], especially doctors, nurses, and pharmacists, may prove very useful in preventing burnout and maintaining mental health during a pandemic.

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Chapter 5

Address Job Burnout by Focusing on Organisational Health

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Abstract

This research aims to ascertain the degree of job burnout experienced by healthcare professionals and investigate the effectiveness of organisational health in mitigating this phenomenon. To accomplish this objective, a sample of 384 individuals was randomly selected from healthcare professionals located in KSA, Egypt, and Jordan. The survey instrument was employed as a means of gathering data. A total of 318 questionnaires were returned, representing a response rate of 83%. The research findings have verified the presence of a mean level of implementation of organisational health practises across the examined healthcare facilities. This underscores the need for greater emphasis on promoting awareness regarding the significance of organisational health. The research results additionally confirmed the presence of heightened rates of burnout among healthcare professionals, thereby elucidating the occupational stressors to which they were subjected. The statistical findings have validated that organisational health exerts a noteworthy affirmative impact on mitigating job burnout. A chart was developed with the aim of enhancing the implementation of organisational health dimensions in healthcare institutions, thereby fostering a conducive and healthy organisational milieu that bolsters the efficacy of healthcare personnel and mitigates their job-related stress and burnout.

Keywords: organisational health, job burnout, healthcare professionals, hospitals, external pressures emotional exhaustion, depersonalisation

1. Introduction

The need to keep up with global changes and intense competition has necessitated the implementation of modern management techniques and concepts. This is essential to enhancing the efficiency and performance of organisations, both internally and externally. This can only be achieved by giving heed to the human factor. Human beings are the most efficient and valuable resource, possessing an unparalleled ability that cannot be replicated. Consequently, there has been a growing interest among organisations to explore various means and resources that can enhance the productivity, dedication, and allegiance of employees while also mitigating the risk of burnout.

Multiple academic studies and research studies have substantiated that the presence of organisational health (OH) creates a conducive environment that facilitates the attainment of organisational objectives. The purpose of the current research is to determine primary dimensions that influence an individual's experience of job burnout (JB). This will be achieved by creating a comprehensive metric of the dimensions that are crucial in promoting OH and mitigating the psychological consequences of organisational burnout.

The primary inquiry of the study arises from the preceding discussion and can be formulated as follows:

RQ: What is the impact of integrating OH dimensions among healthcare professionals and its impact on reducing JB?

The primary research question gives rise to several subsidiary questions.

RQ1: Is there a susceptibility to JB among healthcare professionals?

RQ2: What is the correlation between OH and the mitigation of JB?

RQ3: What are the primary factors of OH that effectively mitigate JB among employees?

RQ4: What are the potential mechanisms for organisational improvement that could lead to better health outcomes?

Upon formulating a research problem, it is possible to ascertain the significance of the present investigation for two distinct reasons, namely:

The primary rationale is the temporal novelty of the subject matter. This study investigates the influence of OH on organisational burnout.

The second rationale pertains to the dearth of consensus among scholars regarding the facets of organisational health, as evidenced by a comprehensive analysis of extant literature on this subject matter. Furthermore, the study aims to establish comprehensive dimensions for assessing organisational health.

2. The theoretical framework

2.1 Organisational health (OH)

The idea of "organisational health" has arisen as a modern administrative concept that represents the ability of companies to respond to changes and new developments in the business environment [1]. Furthermore, the process of adapting to organisational changes has developed into a vital subject that cannot be disregarded as a method of handling important social and economic developments that transcend geographical borders [2]. The maintenance of an organisation's vitality, potential, productivity, and competitiveness is reliant on its organisational health) [3].

Moreover, the notion of OH prioritises the welfare of personnel by conducting a comprehensive evaluation of their medical histories and devising customised rehabilitation and training programmes with the objective of enabling a secure reintegration into the workforce and revitalising their physical and psychological vitality.

Bennis' [4] work is regarded as one of the primary sources for the notion of "organisational health." According to Bennis, organisations that demonstrate exceptional financial performance are considered the most resilient [5]. In 1965, Miles presented a proposition to adapt the notion of health to better align with the educational environment.

The term "healthy organisations" was introduced by Rosen and Berger in 1991 to refer to organisations that adhere to a set of values and implement various

environmental and regulatory practices [3]. Peltier argues that health promotion should incorporate interventions that target both the organisational and environmental domains, as stated in the subsequent year. Singh and Jha [5] cited Southern and Dejoy's argument from 1993, which posits that the concept of organisational health pertains to the dynamic interplay between individual and organisational components that are amenable to alteration over a duration of time.

Cooper and Cartwright [6] introduced the concept of "organisational health," which includes the welfare of employees and effective financial administration. This concept acknowledges the dynamic relationship between the efficient utilisation of individual and collective resources within an organisation. The significance of the association between the enhancement of the wellness of staff members, as well as their financial well-being, was emphasised. McHugh and Brotherton [7] introduced the concept of OH by incorporating structural, cultural, and administrative processes with organisational performance [8].

Upon examination of the chronological progression of the scientific discourse surrounding organisational health, it is evident that subsequent to Bennis' seminal work in 1962 [4], the concept underwent a series of evolutionary phases and advancements. At the outset, the emphasis was placed on the financial facets, right down to the prioritisation of employee welfare and efficacy.

The concept of OH pertains to the ability of an organisation to adapt and innovate at a pace that exceeds the rate of change and development in its dynamic environment [1]. Scholars have initially sought to establish a correlation between OH and the capacity of an organisation to expand, progress, and endure amidst the constant fluctuations in its external milieu [9].

OH can be defined as the degree to which an organisation is capable of adapting to changes and advancements, recognising and resolving issues to improve the well-being of its members, and effectively utilising its available resources and competencies to attain a competitive edge.

Since the inception of the notion of OH, numerous scientists and managerial researchers have endeavoured to devise a collection of metrics to assess the efficacy of implementing the concept. Hoy and Forsy [10] proposed a categorisation of OH comprising seven distinct elements [11]. These elements include institutional integrity, motivation, transformational leadership, influence, transparency, and individual differences.

Singh and Jha [5] have identified five factors of organisational health, namely resource utilisation, innovation, morale, problem-solving, and team orientation.

Browne [12] establishes a correlation between OH and three dimensions, namely organisational culture, climate, and values. This assertion is corroborated by Singh and Jua [8], who further augment these dimensions by including employee empowerment as one of the 14 measurements of OH. According to Quick et al. [13] argument, OH is associated with three dimensions, namely courage, integrity, and influence. We are revisiting the point previously raised by Bennis, wherein a correlation was established between the well-being of an organisation and its financial outcomes. It has been determined that the proposal was not accepted.

Following a thorough examination of scholarly literature and expert opinions, a series of metrics were devised to assess OH. Notably, there exists a disparity between the trends observed in each hand. Each metric of OH comprises a distinct quantity and a particular facet of evaluating OH. The absence of a scale that encompasses all strategic indicators, including structural, cultural, administrative, and primarily psychological factors, constitutes a research gap that necessitates further investigation, meticulous scrutiny, and diligence to develop a comprehensive and quantifiable scale.

2.2 Job burnout (JB)

The phenomenon of job burnout has garnered increasing attention in recent years from diverse academic fields such as social sciences, psychology, and organisational science [14]. This trend has also been observed among medical professionals, who have become increasingly concerned about the rising number of individuals taking prolonged absences from work due to overwhelming stressors [15]. Numerous studies have established a correlation between job burnout and negative consequences, including reduced productivity, increased turnover intention, diminished well-being, suboptimal performance, and decreased job satisfaction.

Freudenberger (1975), who together with Maslach (1976) first proposed the idea of work-related exhaustion, became interested in researching and creating treatments for burnout as a result of their own experiences [16]. The study of jurisprudence and scholarly inquiry in this domain persisted until the 1980s, at which point the notion of job burnout gained greater utility and relevance within the occupational milieu [16].

Hence, the implementation of efficient and conclusive measures and advancements aimed at mitigating the detrimental impacts of occupational burnout is deemed a crucial matter for enhancing individual and organisational performance [17]. During the latter part of the 1980s, scholars and individuals with interest in this particular area of study broadened their scope to examine the effects of job burnout beyond the confines of the human services sector. This included analysing its impact on individuals in managerial positions as well as those in both white-collar and blue-collar occupations [18]. JB is a phenomenon that occurs as a result of prolonged exposure to emotional, functional, and interpersonal stressors in the workplace. It is characterised by a persistent and enduring response to these stressors over an extended period. Over the last two decades, scholarly investigations have revealed the intricacy of the construction industry and situated personal stress experiences within a broader organisational framework in individuals' engagement with their occupation. In recent times, there has been a global expansion of research efforts in the field of combustion, resulting in the development of novel conceptual frameworks.

In this section, the most salient definitions that scholars and experts in this domain have diligently endeavoured to elucidate and explicate are Engebretsen and Bjorbkmo [15], who define job burnout as a comprehensive condition characterised by physical fatigue, emotional exhaustion, and mental fatigue resulting from prolonged exposure to intense stress.

The JD-R model offers a sound framework for comprehending the occurrence of job burnout within the workforce. The escalation of job demands results in a depletion of both the physical and mental resources of the individual, which in turn can lead to the manifestation of adverse mental and physical health outcomes. Consequently, employees tend to employ compensatory tactics to acquire resources, resulting in a motivational process when confronted with excessive workload demands [17]. According to Taris and Schaufeli [19], the efficacy of this approach diminishes over time, resulting in the exhaustion of backup resources and ultimately culminating in occupational burnout. If we consider the definitions of job burnout presented above, then according to Keinan and Malach-Pines [20], a variety of pressures contribute to the occurrence of job burnout, which can be categorised into four distinct sections.

External pressures refer to factors that originate outside the confines of an organisation and are linked to our environment.

Therefore, the primary hypothesis can be posited like this:

H1: The study's hypothesis posits that organisational health has a statistically significant impact on mitigating job burnout, with a level of significance ($\alpha \leq 0.05$).

Upon conducting a thorough examination and analysis of pertinent research and studies pertaining to JB, it has been determined that there are numerous factors that may contribute to an employee's experience of burnout. These factors include:

According to Beek et al. [21], the individual experiences both mental and physical fatigue as a result of the highly competitive nature of their work environment. The swift pace of technological advancements has led to a culture of innovation, wherein the efforts of an employee today may become obsolete tomorrow due to the emergence of newer and more advanced technologies.

This phenomenon places employees in a perpetual state of flux, wherein they are constantly striving to keep up with the latest developments and feeling the pressure to remain relevant in their respective fields [17].

The phenomenon of job mismatch is prevalent, whereby individuals may accept employment opportunities that do not align with their personal aspirations and career goals. Initially, individuals experience a sense of self-respect and happiness upon commencing employment due to the high salary and associated elevated social status. According to Beek et al. [21], there is no certain source of contentment from work, so the sensation gradually fades.

All these factors have a significant impact on an individual's sensation of burning. While individual and social factors are undoubtedly influential, a school of thought posits that organisational factors play a more substantial role in the onset of burnout.

Maslach and Schaufeli [22] identified six primary organisational factors that can contribute to JB. These factors include work task pressure, limited work authority, insufficient positive reinforcement, a lack of social support, perceived inequity, and injustice, and diminishing personal values. JB is a phenomenon that manifests itself across three distinct levels: personal, occupational, and societal.

Maslach and Jackson's seminal work in 1981, as well as subsequent research by numerous scholars, have established three primary dimensions closely linked to JB [23].

Emotional exhaustion refers to an individual's perception of being depleted and exploited not only on an emotional level but also in terms of material, psychological, and moral resources. This condition may lead to intensified emotions of fury, bitterness, perplexity, and a perception of being mocked [24]. Thus, the initial hypotheses of the investigation can be articulated (**Figure 1**).

H1.1: The study found that organisational health has a statistically significant impact on reducing emotional exhaustion at a significance level of ($\alpha \leq 0.05$).

Depersonalisation: refers to a sense of detachment or marginalisation towards the individuals with whom one interacts [24]. According to Papastylianou, Kaila, and Polychronopoulos [25], the adverse reactions of colleagues in the workplace can also contribute to job dissatisfaction. This phenomenon [26] can result in a disconnect between individuals and their work. According to Melhem's [23] research, emotional exhaustion can lead to a reduction in internal energy and depletion, causing individuals to typically withdraw from stressors rather than engage in confrontation. Therefore, it is possible to formulate in the following manner:

H1.2 The organisational health impact of reducing the sensation of depersonalisation, with a significance level of ($\alpha \leq 0.05$).

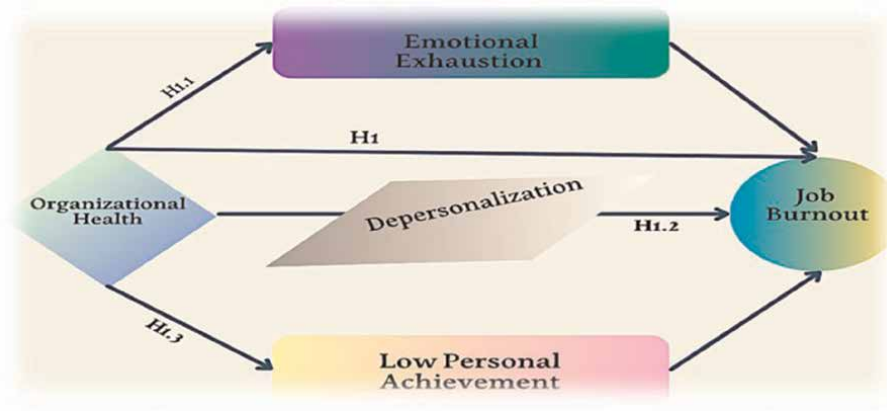

Figure 1.
Study framework. Source: prepared by the researchers.

According to Valcour [24], *low personal achievement* is indicative of reduced work efficacy and a perception of inefficacy and unproductivity. Therefore, it is possible to formulate the second sub-hypothesis in the following manner:

H1.3: The impact of organisational health on reducing the sensation of low personal achievement is statistically significant at a significance level of ($\alpha \leq 0.05$).

3. Research methodology

3.1 Sample and data collection

The study utilised the simple random sampling technique to select a sample from a study population of over 6000 individuals. The sample size, consisting of 384 individuals, was divided between doctors and nurses located in KSA, Egypt, and Jordan. The sampling methodology was devised by Richard Geiger. **Table 1** displays the chosen sample size.

The sample size, according to Richard Geiger's equation, is given by the relationship:

$$n = \frac{\left(\frac{z}{d}\right)^2 \times (0.50)^2}{1 + \frac{1}{N}\left[\left(\frac{z}{d}\right)^2 \times (0.50)^2 - 1\right]} = \frac{\left(\frac{1.96}{0.05}\right)^2 \times (0.50)^2}{1 + \frac{1}{6000}\left[\left(\frac{1.96}{0.05}\right)^2 \times (0.50)^2 - 1\right]} = 384 \qquad (1)$$

	N	Doctors	Nurses	N %
KSA	144	77	67	37.5%
Egypt	144	77	67	37.5%
Jordan	96	48	48	25%
Total	384	210	190	100%

Table 1.
The sample of study.

4. Measurement

In addition to a series of in-person interviews, the questionnaire was employed as a tool for data collection. A total of 318 out of 384 questionnaires were recovered, representing 83% of all distributed questions. The questionnaire was sent to the research sample using both the conventional method—paper—and the electronic method—an electronic connection. Three major components made up the research questionnaire: The first section discusses the respondents' demographic and personal characteristics.

Section 2: A measurement instrument, the occupational burnout scale Maslak and Jackson created a list of JB known as Maslak's list of JB. There are 21 paragraphs total, separated as follows: The scale is broken down into three sub-domains: poor personal achievement, which has seven items; depersonalisation, which has five; and emotional weariness, which has nine.

Using a five-point Likert scale (strongly agree, agree, neutral, disagree, strongly and disagree), the respondent assesses the severity of his burnout. Low personal accomplishments indicate job fatigue for the individual. This led to the classification of the person as neither functionally burned nor not functionally burned. The first degree, on another graded scale with three degrees, denotes a minimal amount of JB nonetheless. The third degree denotes a high level of JB, whereas the second degree denotes a medium level.

Section 3: "The Measure of OH," was included because of the debate among academics and researchers over the definition and aspects of OH. They should be aware of the factors that majorly impact their performance and motivation to stick around and do their jobs well. Additionally, to accomplish the study's goal, it is crucial to understand the crucial factors that influence individuals' ability to improve work performance and reduce burnout.

The majority of the aspects that have been studied in the area of OH [5, 7, 13, 27] were gathered for the study and given to the respondents. There were 45 questions in this section, evenly distributed across the 15 OH dimensions (institutional integrity, environment adaptation and problem-solving, morale, transformational leadership, optimal power equalisation, influence, transparency, individual differences, job characteristics, sufficient communication, motivation, goal-focusedness, resource utilisation, cohesiveness, innovativeness, and employee empowerment). Since the researcher considers the organisational environment, values, and culture to be complete variables rather than dimensions that may be considered when determining organisational health, they have been left out of the analysis.

5. Results

5.1 Data on the study sample's demographics and functional characteristics

This section analyses the sample's demographic information (see **Table 2**).

Table 2 indicates that the majority of the sample comprises males, accounting for 65.4% of the total, whereas females constitute 34.6%. The study sample exhibited an age distribution wherein individuals below the age of 30 constituted 4% of the sample, those between the ages of 31 and 40 constituted 36%, and those aged 40–60 constituted 60%. Regarding employment statistics, the findings indicated that the proportion of individuals with a tenure of less than five years was 16%, whereas those with a

Personal data/functional data	Statement	Repetition	%
Gender	Male	208	65.4%
	feminine	110	34.6%
	Total	318	100%
Age	Under 30 years old	13	4%
	Between 30 and 45 years old	114	36%
	Between 46 and 60	191	60%
	Total	318	100%
Experience	Less than 5 years	51	16%
	Between 5 and 10 years	95	30%
	More than 10 years	172	54%
	Total	318	100%
The employment 's contract	Permanent	213	67%
	temporary	105	33%
	Total	318	100%

Table 2.
The sample's demographic and employment data.

tenure ranging from 5 to 10 years constituted 30%. Meanwhile, approximately 54% of the sample had a tenure of 10 years or more. This represents the highest proportion. With respect to the nature of the employment agreement, it is observed that 67% of the sample population is engaged in temporary contracts, while 33% are employed under permanent contracts.

5.2 The study tool's stability

The assessment of the stability and internal consistency of the scales utilised in the study was conducted by relying on Cronbach's alpha coefficient. The results of the analysis demonstrate that the stability coefficient of the initial variable, namely organisational health, was 0.769, while the stability coefficient of JB was 0.908. The study's stability coefficient exhibited a high value of 0.955. **Table 3** presents the degree of stability of the study tool as indicated by the values, which is a noteworthy observation.

5.3 Descriptive analysis of the independent variable

The research utilised this analytical approach to assess the various dimensions of OH by determining their mean and standard deviation.

Table 4 shows that integrity dominates with a 4.13 average loss. Employment and transformative employment follow at 4097 and 4.093, respectively, for the remaining dimensions.

5.4 Fit the data to perform regression analysis

There are two unique requirements that must be met to use linear regression for hypothesis testing. Conducting the variance inflation factor test (VIF) and tolerance

Variable	Number of paragraphs	Cronbach's alpha
Organisational health	45	0.769
Job burnout	21	0.908
Total variables	66	0.838

Table 3.
Reliability coefficients for study variables.

Dimensions of OH	N	Mean	Std. deviation
Integrity	318	4.1288	.63496
Empowerment	318	4.0971	.57269
Leadership	318	4.0930	.63666
environment	318	4.0787	.57194
Communication	318	4.0665	.62540
Influence	318	4.0235	.69562
Motivation	318	3.9898	.71317
Characteristic	318	3.9734	.71753
Morale	318	3.9591	.69898
Goals	318	3.9458	.71334
Transparency	318	3.9346	.71407
Coherence	318	3.9182	.78498
Differences	318	3.9172	.72769
Innovation	318	3.8139	.80816
Resources	318	3.6984	.88406

Table 4.
Descriptive statistics.

test is the first stage. By evaluating the skewness coefficient, the second condition requires that the normal distribution of all data be confirmed. Because all of the variables' p-values ≤ 0.05, there is a substantial connection between the dimensions.

5.5 Multiple linear correlation test and normal distribution test

For trying to determine if the model is valid, the coefficient of variance inflation was computed for the independent variable. The Durbin-Watson test has a value of 1.36. Because there is positive autocorrelation when the number is lower than 2.0, it is a favourable value. Negative autocorrelation is shown if it is higher than 2.0.

Table 5 displays the variance inflation factor (VIF) values for each dimension of OH. The VIF values for leadership, morale, goals, characteristics, transparency, coherence, differences, resources, motivation, integrity, empowerment, innovation, communication, adaptation, and influence are 1.49, 1.53, 1.63, 1.82, 2.47, 2.52, 2.55, 2.81, 2.91, 3.43, 3.73, 4.01, 4.40, 4.66, and 5.07. Consecutively, all VIF values are less than 10, suggesting that multicollinearity is not a concern. The tolerance values, all of which are below 0.05, suggest a strong correlation among the independent variables.

Independent variable	Dimensions of OH	VIF	Tolerance	Skewness
OH	Integrity	3.43	0.039	.970
	Adaption	4.66	0.022	.812
	Motivation	2.91	0.029	.907
	Leadership	1.49	0.000	.930
	Influence	5.07	0.012	892
	Transparency	2.47	0.050	.929
	Differences	2.55	0.049	.884
	Characteristic	1.82	0.022	.810
	Communication	4.40	0.028	.854
	Goals	1.63	0.010	.764
	Resources	2.81	0.015	.817
	Morale	1.53	0.021	.769
	Coherence	2.52	0.028	.774
	Innovation	4.01	0.034	.496
	Empowerment	3.73	0.036	.970

Table 5.
VIF, tolerance, and skewness tests for OH.

Then, the degree to which the data followed a normal distribution was inferred from the skewness coefficient. **Table 5** shows that all of the OH dimensions have skewness coefficient values that are less than 1, meaning that all data have a normal distribution.

It is preferable to conduct a partial least squares method analysis due to the sheer number of components deriving from the independent variable and the presence of some (VIF) values higher than (4), such as (4.66 adaptation), (5.07 influence), (4.40 communication), and (4.01 innovation).

5.6 Tests of hypotheses

After establishing that there is a connection between OH characteristics and work burnout, the following hypothesis was examined using a multiple regression analysis (see **Table 6**):

Concerning the assessment of the validity of H1, the findings of the results of the multiple regression analysis indicate that OH has a positive effect on reducing JB. **Table 6** presents a correlation coefficient of 0.814, indicating a statistically significant association between the two variables. The F value was computed to be 38.220, and the level of significance was determined to be less than 0.05. The R2 pertaining to the coefficient of determination suggests that 66.3% of the variability observed in JB can be attributed to organisational health.

Conversely, upon scrutinising H1.1, **Table 6** presents the results of the multiple regression analysis, which reveal a noteworthy correlation between OH and the mitigation of emotional exhaustion. Specifically, the correlation coefficient in the table indicates a positive effect, with a value of (.575) that is statistically significant. This is

Independent variable	Independent variable & dimensions	sig	DF	f	R2	r
OH	JB	<.005	3 322	62.285	.663	0.814
	Emotional exhaustion	<.005	3 322	53.045	.331	.575
	Depersonalisation	<.005	3 322	74.016	0.507	0.712
	Low personal achievement	<.005	3 322	38.220	0.613	0.783

Table 6.
Multiple regression results on OH and JB.

further supported by the calculated F value of 53.045, at a significance level of 0.000. The R-squared value, denoting the proportion of variability in JB that can be attributed to organisational health, amounts to 33.1%.

To evaluate the validity of H1.2, the findings derived from the multiple regression analysis reveal a favourable impact of OH on mitigating the sensation of depersonalisation, as evidenced by the correlation coefficient value of (0.7), which denotes a meaningful association. The computed F value of (74.01) and significant. The observed R-squared value for depersonalisation variance can be attributed to OH, accounting for a significant proportion of 50.7%. The statistical significance of the hypothesis is found to be below the threshold of 0.05 (see **Table 6**).

In conclusion, the statistical outcomes of H1.3 are considered satisfactory. **Table 6** presents the statistical measure of the correlation coefficient value (0.783). A statistical analysis was conducted, yielding a F value of 38.22. The level of significance obtained was less than 0.05. The R2 value, which represents the coefficient of determination, is 61.3%. Additionally, the variable displays a statistically significant difference at a significant.

6. Discussion

The scholarly investigation elucidates the correlation between the well-being of an organisation and its potential to mitigate the adverse psychological effects of occupational burnout. The empirical findings corroborated the favourable ethical impact of the facets of institutional well-being on occupational exhaustion. The statistical findings indicate that all dimensions under investigation, with the exception of individual differences and the ability to innovate, have a significant influence on decreasing the sensation of JB. The potential cause of this phenomenon could be attributed to the characteristics of the study cohort and the nature of their occupational duties. Also, the findings indicate a preponderance of males over females within the research cohort, a phenomenon that may be customary in Arab cultures.

The research findings have substantiated the presence of a moderate degree of OH implementation across the hospitals that were examined. This indicates that the level of comprehension among the management of these establishments regarding the various aspects and definitions of OH is middling, thereby necessitating an increase in awareness regarding the significance of OH.

The present investigation aligns with the research conducted by Bekai and Bashir [28], wherein a cohort of 30 transport managers in the Algerian province of Djelfa was used as the sample population. The research conducted by Khalaf [29] substantiates that there exists a moderate inclination among the faculties of private universities in Baghdad towards establishing university health organisations that aid in the realisation of their objectives. Furthermore, research conducted by Al-Subaie [30] elucidated the extent to which the dimensions of organisational health are implemented among teachers in public secondary schools located in the Jeddah governorate.

Concurrently, this research diverges from Ashour's [31] inquiry, which validated that the degree of implementation of OH facets among 86 healthcare practitioners, administrators, and support staff in Qalqilya's health facilities in Palestine is elevated. Additionally, Abu Hajeer's [32] study ascertained that the degree of regulatory health dimensions' prevalence among the Palestinian Islamic Bank's personnel is substantial.

This study has additionally substantiated the existence of elevated degrees of occupational exhaustion among the healthcare personnel, thereby elucidating the occupational strains that the medical staff had encountered in light of the worldwide pandemic.

The escalating sensation of combustion may stem from the unpredictable nature of the ongoing catastrophe that has ravaged our planet and fundamentally altered the fabric of existence. The findings further indicate a preponderance of males over females within the research cohort, a trend that aligns with prevailing gender demographics in Arab cultures.

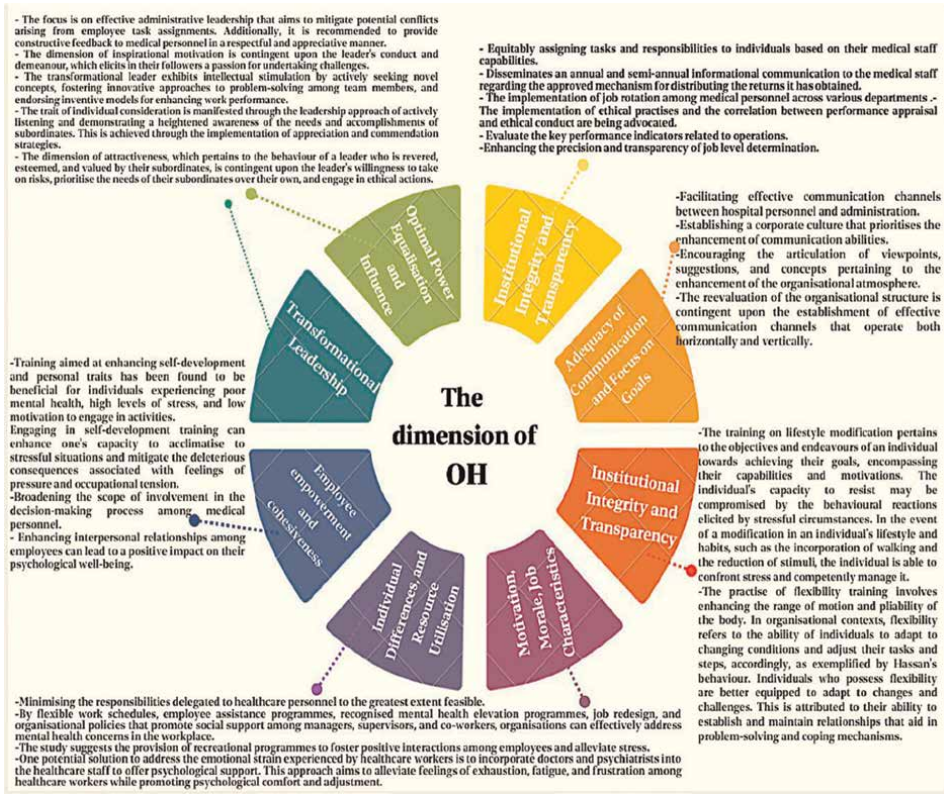

Figure 2.
A developed chart for enhancing the dimensions of OH. Source: Prepared by the authors.

On the other hand, a significant finding of the present investigation is the identification of the primary dimensions that exert the most substantial influence on mitigating job burnout, particularly in times of crisis. These dimensions are ranked in descending order of importance. Therefore, this study diverges from the research conducted by Al-Subaie [30] and Abu Hajeer [32]. Khalaf [29] posits that the achievement of organisational effectiveness is reliant upon the predominance of competencies, innovation, organisational flexibility, and communication.

According to this, the authors endeavoured to formulate a comprehensive framework encompassing the crucial facets of organisational health and their implementation in healthcare establishments (refer to **Figure 2**).

7. Conclusion

The significance of organisational health is derived from the crucial role of the human element, which serves as the fundamental component of institutional achievement and necessitates attention and investment in enhancing its efficacy. Hence, organisational health is deemed a crucial factor in enhancing the efficacy of human resources within an organisation, as it embodies the outcomes of motivation, empowerment, and influence.

Given the global challenges and difficulties, individuals across various levels and administrative sectors, particularly in the healthcare sector, are experiencing a persistent sense of extreme exhaustion that may escalate to burnout. This includes the need to establish clear and equitable roles for doctors and nurses in hospitals based on their abilities and skills, as well as define their respective responsibilities. The professional trajectory of an individual is determined by the specific powers and responsibilities that have been assigned to them. Furthermore, it is imperative that hospitals articulate their objectives in a precise, unambiguous, and purposeful manner to facilitate comprehension among their staff. It is also crucial to emphasise the importance of involving employees at different levels in the goal-setting process while prioritising their well-being and contentment.

The present investigation illuminates the outcomes of implementing the notion of organisational health. The utilisation of empirical data derived from scholarly literature and prior research aims to demonstrate the efficacy of implementing organisational health dimensions in reducing job exhaustion among healthcare professionals.

Additionally, the inclusion of ten major hospitals in three different countries broadened the study's scope and improved the generalizability of its statistical findings, which were characterised by the large size and diversity of both the study population and the study sample.

Furthermore, this study has presented a comprehensive model outlining the most influential dimensions that contribute to achieving the benefits of organisational health, along with strategies for their implementation. The study concludes by recommending disseminating and improving awareness among health officials and workers regarding the concept of organisational health and its dimensions. This is expected to enhance their performance, reduce fatigue, and contribute to overall improvement and development in the field. Efforts should be made to enhance the morale of healthcare professionals by fostering their intrinsic motivation towards work accomplishment and recognising exceptional communication, involvement, and positivity.

Noteworthy, future research endeavours should focus on assessing the influence of organisational health on administrative matters beyond combustion-related concerns. Additionally, exploratory investigations should be conducted to examine the actuality and scope of organisational health in industries beyond the healthcare sector.

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Section 3

Burnout in Educational Settings

Chapter 6

Characteristics, Impacts, and Countermeasures of Teacher Burnout Syndrome in Education Field

Huijeong Oh

Abstract

As teachers are representative, assistant professionals, the problem of burnout is more prominent among teachers. Some even evaluate that the teacher organization will be the most exhaustive. Such teacher burnout is a very serious educational problem. The problem of teacher burnout negatively affects not only the individual teachers but also the overall educational organization. In addition, the problem of teacher burnout may lead to the disintegration of the school organization by increasing the number of teachers leaving the teaching profession. Thus, it is necessary to understand the characteristics and impacts of teacher burnout syndrome and to develop strategies to cope with it. Therefore, in this chapter, I would like to examine the characteristics and impacts of teacher burnout syndrome and suggest countermeasures.

Keywords: teacher burnout syndrome, characteristics, impacts, countermeasures, education field

1. Introduction

Modern people who experience chronic job stress while experiencing new lifestyles, changes in human relationships, and various daily events in a complex organizational society in a rapidly changing modern society are in trouble with so-called burnout, a phenomenon of physical and mental exhaustion caused by excessive job stress causing negative results in physiological and behavioral aspects [1–4]. Such burnout causes various pathological phenomena, and teacher burnout syndrome is emerging as a major problem in the educational field [5, 6].

In accordance with social changes, in the rapidly changing educational field, teachers are receiving various demands, such as highly diversified work-handling skills, ability to organize relationships with fellow teachers, students, and parents, ability to cope with conflicts, and display creativity. In this process, most teachers face stress and suffer from teacher burnout syndrome. Teachers who experience a lot of stress due to social criticism of the teaching profession, heavy class burden, and

trivial work, parents' refusal to recognize teacher authority, difficulties in subject and life guidance, and teachers' personal tendencies are very vulnerable to the threat of burnout syndrome. As teachers are representative, assistant professionals, the problem of burnout appears more prominently among teachers [7], and some evaluate the teacher group as the group most likely to burn out [8]. As we feared, the problem of teacher burnout syndrome is becoming increasingly serious in the recent educational field, and as a result, the number of teachers leaving the teaching profession is rapidly increasing. Teachers who suffer from teacher burnout syndrome experience both physical symptoms such as fatigue, headache, loss of appetite, insomnia, difficulty breathing, and stomach ulcers and psychological symptoms such as anger, anxiety, lethargy, depression, low self-esteem, and lack of self-control. In addition, they lose their sense of calling for the teaching profession, reduce themselves to the position of mechanical curriculum communicator, lose positive feelings or interest in students, and avoid contact with students. When teachers are burnt out, it negatively affects not only individual teachers but also students' educational change, growth, and learning outcomes, and it adversely affects the teaching profession and organizations. As such, teacher burnout syndrome seriously affects students' school adaptation, academic achievement, growth and development, and school education performance beyond the teacher's own adaptation to the teaching profession [9]. So, it is urgent to understand the burnout syndrome and prepare appropriate measures to relieve it so teachers can properly relieve stress and burnout and continuously innovate their educational abilities.

Therefore, in this chapter, we try to identify what teacher burnout syndrome is, its characteristics, and how it affects individuals and organizations in actual school settings based on empirical research results, and suggest measures to resolve teacher burnout syndrome.

2. Concept and characteristics of teacher burnout syndrome

2.1 Definition of teacher burnout syndrome

Burnout was originally a term referring to the mental and physical condition of drug addicts in the United States in the 1960s [9], but it began to have the current pathological meaning when Freudenberger [1], a clinical psychologist at the New York Clinic, witnessed social workers at mental health centers lose their motivation, get tired, and eventually become cold to patients, and expressed this phenomenon as exhaustion or burnout. According to him, it means a state in which people in the interpersonal service occupation are mentally and physically depleted of energy due to overwork [1], and the more they have an idealistic view of work dedicated to their work, the more likely they are to fall into this state [9]. Around the same time, social psychologist Maslach [2] defined burnout as a state of emotional, mental, and physical exhaustion that occurs frequently in professionals who help and solve psychological, social, and physical problems as a result of emotional pressure in the process of maintaining close relationships with people, especially those in interpersonal service professions such as the medical field, social work, and teaching.

In the 1980s, interest in the burnout of workers in personal service occupations such as medical care, welfare, and education increased academically, centering on the United States, and entered the empirical research phase. Maslach & Jackson [10] criticized Freudenberger's definition of burnout as overlooking the phenomenon of

emotional burnout, and while developing the Maslach Burnout Inventory (MBI), they defined burnout as a syndrome accompanied by emotional exhaustion, depersonalization, and reduced personal accomplishment as the main symptoms. The MBI scale developed by Maslach and Jackson [10] made a great contribution to measuring psychological burnout, and most studies measuring burnout so far utilize the scale. In addition, Schwab & Iwanicki [11], who applied the MBI developed by Maslach & Jackson to teachers and confirmed construct validity, defined teacher burnout as a syndrome that is accompanied by emotional exhaustion, dehumanization, and loss of personal self-fulfillment as its main symptoms in a state in which they have not overcome the externally assigned job and stress related to it [11].

In the 1990s, there was a tendency to expand the application of the concept of burnout to jobs without direct contact with customers. With the introduction of the concept of positive psychology after the 2000s, positive concepts such as job engagement and efficacy emerged as opposite protective factors that could overcome burnout, a negative psychological state, and research on employee welfare from a holistic perspective is being actively conducted [12].

Taken together, teacher burnout syndrome is a general term for a phenomenon in which the ability to devote oneself to students is reduced due to a lack of emotional energy due to teaching work (emotional exhaustion), the attitude of treating students as if they are objects (depersonalization), and failure and helplessness in the teaching profession are not devoted to the development of students (reduced personal accomplishment) [13].

2.2 Components of teacher burnout syndrome

The three components of teacher burnout syndrome are emotional exhaustion, depersonalization, and reduced personal accomplishment [11, 12].

First, emotional exhaustion refers to a lack of energy in which an individual's emotional resources are exhausted due to excessive psychological burdens or demands. This emotional exhaustion occurs when teachers find it physically or emotionally difficult to provide for students [14]. In addition, emotions, trust, interest, and vigor are lost, and in a state of being unable to concentrate on work on one's own will, and in a state of emotional exhaustion, they fear that they have to return to work the next day to perform their duties.

Depersonalization is a kind of negative reaction to other people, sometimes described as the concept of dehumanization. It is defined as a psychological coping response when there is no physical alternative to overcome emotional exhaustion [15]. In general, when a problem with a customer occurs in the field, it can be said to be a countermeasure to overcome the exhaustion phenomenon consumed to solve the situation. In other words, to protect themselves from their own emotional exhaustion, they treat customers inhumanely, such as treating them as cases rather than people. In the case of teachers who experience this depersonalization, they become indifferent to students and take action to distance themselves [14].

Reduced personal accomplishment refers to a phenomenon in which people feel they can no longer achieve what they want because they no longer feel they can make a meaningful contribution to their work. These people exhibit behavioral characteristics such as self-denial, low morale, disengagement, decreased productivity, and incompetent responses [16]. Teachers who feel that they are no longer contributing to the growth of their students may also find reduced personal accomplishment. Since many teachers enter the teaching profession to create positive change for their

students rather than financial gain, the feeling of not helping their students develop can be fatal for teachers [17].

2.3 Symptoms and consequences of teacher burnout syndrome

According to Farber and Miller [18], burnout symptoms include anger, anguish, nervousness, fatigue, depression, insomnia, boredom, anxiety, helplessness, low self-esteem, withdrawal, cynicism, and overuse of alcohol and drugs. Also, burntout teachers are thoughtless in planning for learning and plans or actually intend to leave the teaching profession [18]. Bradfield & Fones [19] found that when teachers burn out, rigid thinking, negative views, frequent early leaving, and absenteeism undermine the school atmosphere. Schwab, Jackson & Schuler [20] found that usually, the first sign of burnout is a feeling of being emotionally drained from one's work. Emotionally drained teachers tend to treat their fellow teachers and students in depersonalizing ways or develop negative and cynical attitudes toward themselves and others [20]. According to Cherniss [21], burnout teachers have high resistance to going to work, feeling left out, anger and resentment, guilt, abandonment and indifference, pessimism, feelings of isolation and letdown, tiredness, constantly looking at the clock, severe fatigue after work, loss of positive feelings toward students, hesitant contact with students, clichéd treatment of students, poor concentration or listening ability, fixed feeling, cynicism, avoiding work discussions with peers, prejudice, drug overuse, frequent colds, frequent headaches, and digestive problems, rigidity of thinking and resistance to change, doubt and paranoia, and family conflicts. According to Brock & Grady [22], burnout symptoms include first, chronic fatigue; second, cognitive problems when individuals make decisions; third, social withdrawal from peers and students; fourth, emotional isolation from students, parents, and colleagues; building an emotional wall and blaming themselves, and fifth, showing symptoms of mental depression, and losing work satisfaction and self-confidence in chaos for a long time. It is said that even the mental values of individuals are severely shaken and fall into despair [22]. Grayson & Alvarez [14] found that when teachers burn out, they are less favorable to students and less tolerant of frustration in the classroom, creating a negative learning environment that is less sensitive to student needs.

As examined above, the symptoms of burnout are explained based on physical and emotional symptoms, but also specific symptoms such as impoverished interpersonal relationships, negative attitudes toward others or low self-esteem, dissatisfaction with the work environment, job stress, and inappropriate behaviors such as absenteeism without notice. In addition, when teachers experience burnout, they put less effort into teaching, avoid contact with students, do not accept advice from others, lose patience, become overly stubborn or authoritative toward students, furthermore, have negative opinions about the teaching profession and thoughts about leaving the workplace, and tend to neglect work such as absenteeism and lethargy, resulting in various dysfunctional aspects in individual teachers, students, and school organizations [20].

3. Impacts of teacher burnout syndrome

In this section, we will look into the variables that have an influencing relationship with teacher burnout syndrome in the educational field. We will look at the causal

factors that affect teacher burnout syndrome, the outcome factors affected by teacher burnout syndrome, and the controlling factors that can control teacher burnout syndrome.

3.1 Causal factors of teacher burnout syndrome

Maslach, Schaufeli, & Leiter [23] synthesized studies on burnout over the past 25 years and divided the factors that cause burnout into two types, individual factors and situational factors.

3.1.1 Individual factors

The most studied variables as individual factors can be divided into demographic characteristics and psychological characteristics. First, in the case of demographic characteristics, looking at the relationship between gender and burnout, it was found that female teachers experienced more severe emotional exhaustion than male teachers, and while there are studies showing that the intensity and frequency of female teachers' burnout are high, a study found that male teachers had a stronger degree of depersonalization than female teachers [11], and there are studies that there is no correlation with gender [24], so there is no consistent trend.

As for the relationship between burnout and marital status, there are mixed studies showing that singles have a higher relationship with burnout than married ones, studies that show no effect of marital status, and studies that married people experience more burnout than unmarried people [16].

Looking at the relationship between age and experience and burnout, Anderson & Iwanicki [25] found that teachers aged 20 to 34 had a significantly higher frequency of emotional exhaustion among the subfactors of MBI than teachers aged 45 or older, and that teachers with 13 to 24 years of experience had the lowest level of burnout in terms of personal achievement. Lim [26] presented a research result that teachers with 5–9 years of teaching experience experienced burnout the most. On the other hand, there are studies that show that there is no difference according to age or career [9]. So, age and experience also do not yield consistent research results.

As such, demographic characteristics such as gender, marital status, age, and experience do not show consistent results, making it difficult to view them as important variables in predicting burnout.

Psychological characteristics are seen as the main cause that makes the difference between the strength experienced and the ability to overcome stress and adapt to health even when the same stress is given, so it mainly appears in teacher burnout research and is established as a variable that has a great influence. Looking at the relationship between burnout and personality type among psychological characteristics, neuroticism, one of the characteristics of the five personality factors, includes anxiety, hostility, depression, self-consciousness, impulsivity, and weakness. Also, it has been reported that neurotic people are emotionally unstable and prone to psychological stress, which correlates with all subfactors of burnout [27]. So, it is positioned as the personality factor that best predicts teacher burnout [1]. In addition, among the personality types classified by reflecting temperamental attributes, type A behavior pattern, that is, members who show excessive enthusiasm for work with a type A behavior pattern by a competitive and time-pressured lifestyle, hostility, and excessive desire for control are reported to be vulnerable to job stress and burnout [28].

Looking at the relationship between burnout and locus of control, it can be divided into internal and external controllers according to the individual attribution method that controls the job stress situation, that is, according to the position of control of individual members, and internal controllers attribute success or failure to internal factors, such as lack of effort, while external controllers attribute success or failure to external factors, such as luck or lack of opportunity. Internal controllers have higher expectations and beliefs that they can control external events than external controllers, so they respond appropriately in frustrating situations, but external controllers have a relatively low belief that they can control external events, so they are anxious and have a low need for achievement [29]. Therefore, it was found that teachers who received external control experienced emotional exhaustion, depersonalization, and reduced personal accomplishment at a higher intensity and frequency than teachers who received internal control.

In studies on the relationship between burnout and self-efficacy, self-efficacy is commonly reported as an individual internal variable that lowers the degree of burnout caused by stress [30]. According to these studies, the group with higher self-efficacy compared to the group with low self-efficacy, physical and emotional exhaustion due to stress, as well as the tendency to depersonalization were lower, and the group with higher self-efficacy had a higher sense of personal accomplishment, resulting in lower burnout [30].

In the study of the relationship between burnout and ego-resilience, self-confidence, a subfactor of ego-resilience, showed that teachers who were accepting and self-confident had less psychological burnout [31]. An optimistic attitude was found to have a significant effect on all three subfactors of teacher burnout. It was found that anger control had a significant negative correlation with burnout. Through these previous studies, it has been reported that teachers with higher ego-resilience experience less burnout [31].

3.1.2 Situational factors

Regarding the cause of burnout, Maslach & Leiter [32] emphasized the importance of the work environment. They said that burnout is not an individual problem but rather a problem of the social environment in which they work [32]. Fielding & Gall [33] argued that situational factors have a major influence on burnout. In addition, several recent studies support that the job environment or contextual variables trigger teachers burnout in the school scene [14]. Previous studies on situational factors focused on finding the cause of burnout in the internal and external environments related to job performance. Also, Maslach and colleagues [23] subdivided the situational factors into job characteristics variables and organizational characteristics variables.

In the case of job characteristics, examining the relationship between burnout, role conflict, and role ambiguity, Schwab & Iwanicki [11] found that role conflict and role ambiguity could be the cause of teacher burnout. It was said that role conflict appears due to the difficulty and embarrassment felt by the role manager in performing the role, the ambiguity of their role recognition, and the conflicting expectations of the role manager with respect to the external role [11]. In addition, role conflict showed significant positive correlations with depersonalization and emotional exhaustion among the subareas of burnout, and role ambiguity showed significant positive correlations with emotional exhaustion, depersonalization, and reduced

personal accomplishment, indicating that teacher role conflict and role ambiguity were related to teacher burnout.

Looking at the relationship between burnout and lack of challenging opportunities, Pine, Aronson & Kafry [34] reported that the less opportunities to be recognized for one's abilities in the work environment or to be promoted, the more burnout is experienced. In other words, if you get an opportunity for an appropriate challenge in your job performance, you will work with a sense of self-efficacy and satisfaction with your job, but if you do not get a chance to take on an appropriate challenge because you do not have a chance to be recognized for your ability or be promoted, you can experience more psychological burnout.

Looking at the relationship between burnout and overwork, overwork refers to the amount of work that exceeds the time and ability given to an individual, and excessive work causes the most stress. Also, excessive counseling cases, time restrictions, and excessive work hours and workload were said to cause burnout [35].

Looking at the relationship between burnout and organizational climate among organizational characteristics, the closer the school organizational climate perceived by teachers was to open climate, the lower the degree of burnout, and the closer it was to closed climate, the higher the degree of burnout [36].

The relationship between principal's leadership and burnout showed that teachers burnout was high when the principal's leadership was bureaucrat-oriented and low when the principal's leadership was people-oriented [37].

Regarding the relationship between burnout and school size, Maslach and Pines [38] found that there were less stress and lower burnout rates in the smaller schools. On the other hand, Russell and colleagues [39] found that there were the higher burnout rates in the larger schools.

In addition, bureaucratic inefficiency, parents' irrationality, indifference, criticism from society in general, overcrowded classes, and isolation from the community have been identified as potential causes of burnout [40].

The causes of burnout, which have been examined through preceding studies, can be found in both individual and situational factors. However, since intervention at the organizational level can provide preventive support to a larger number of people more efficiently than intervention at the individual level, it is necessary to find the cause of burnout in situational factors that can be mediated at the organizational level in order to effectively alleviate burnout [14].

3.2 Outcome factors of teacher burnout syndrome

Looking at the outcome factors of teacher burnout syndrome, teacher burnout syndrome had a negative effect on various variables. Teacher burnout had a negative impact on job enthusiasm or school educational performance. It acted as a factor that prevented teachers from engaging in organizational citizenship behavior such as altruistic behavior. Also, teacher burnout had a negative impact on individual teachers and organizations, such as teachers' departure from the teaching profession, intention to turn over, low job satisfaction, and decreased efficacy. In addition, it was said that teacher burnout had a negative effect on students' adaptation to school [41]. Many studies have shown that teacher burnout has a close negative correlation with job satisfaction [2, 42, 43]. Maslach [2] said that job burnout as a symptom of physical and emotional exhaustion ultimately leads to job dissatisfaction, and Verbrugge [43] pointed out that job satisfaction is affected by the occurrence of physical and mental

problems caused by burnout and stress. Cordes & Dougherry [42] found that employees who felt burnout about their jobs were less satisfied with their jobs.

In addition, teacher burnout syndrome has a negative impact on the quality of life of students because when teachers who form close relationships with students experience burnout, they spend less effort in teaching, avoid contact with students, and become overly stubborn or authoritarian [20].

3.3 Controlling factors of teacher burnout syndrome

Personal and job resources can be cited as moderating factors to mitigate the negative aspects of teacher burnout.

3.3.1 Personal resources

Personal resources refer to the individual's level of awareness of their ability to control themselves and influence their environment [44]. In addition, it is said that the more personal resources there are, the higher the level of positive self-esteem and self-consistency with respect to goals, resulting in desirable results in various areas such as goal setting, motivation, work performance, job and life satisfaction [45]. These personal resources are seen as the main cause that makes the difference between the intensity experienced and overcoming stress and adapting healthily even under the same stress, so, personal resources have been studied a lot in teacher burnout studies and are positioned as a variable that has a great influence [46].

In particular, positive psychological capital can be said to be a representative personal control factor that regulates burnout syndrome. Positive psychological capital can be defined as a complex and positive psychological state composed of self-efficacy, hope, optimism, and resilience that meet the inclusion criteria for positive organizational behavior, and if the degree of possession of positive psychological capital is high, life stress is reduced, the level of life adjustment is increased, and positive organizational behavior is increased, which increases job motivation [47]. Examining the relationship between positive psychological capital and burnout in previous studies revealed that self-efficacy was a moderating variable in the relationship between stress and burnout, and the moderating effect of self-efficacy in the relationship between role ambiguity and burnout was confirmed. The higher the resilience, the more active coping behaviors such as seeking social support were used when experiencing stress, and the resistance to external stress increased, and the effects of optimism and cognitive control as protective factors to alleviate burnout were empirically confirmed [48]. Optimism appeared to be a partial mediating factor in the effect of interpersonal stress on the depersonalization factor, a subdomain of burnout. These results showed that teacher burnout can be alleviated if teachers manage interpersonal stress well in school and have optimistic beliefs that interpret situations positively. In addition, it was confirmed that positive psychological capital significantly reduced personal accomplishment among the subfactors of burnout [49].

3.3.2 Job resources

Job resources refer to job contextual factors that play a functional role in helping job managers effectively cope with their job demands, contribute to appropriately reducing negative effects such as job tension, and ultimately achieve performance

goals [50]. In addition, Hakanen, Bakker, & Schaufeli [6] emphasized that job resources are the physical, mental, social, or organizational aspects of work that can reduce physiological and psychological costs associated with job demands, fulfill their functions to achieve work goals, and cause personal growth, learning, and development. Among these job resources, we will examine social support, organizational justice, and guarantee of teacher authority that can have an important impact on controlling burnout syndrome.

First, social support is a variety of positive resources that individuals obtain through interpersonal relationships, including the expression of positive feelings toward others, recognition of others' behavior, and interpersonal relationships that are helpful to others, as well as emotional comfort and problem-solving help, material support and services, and interpersonal relationships that allow members to feel belonging to a social network [51]. Social support has a structural aspect related to how many or what kinds of interpersonal relationships an individual has and a functional aspect related to how one evaluates and perceives the quality of interpersonal relationships [51]. Among them, there is a research result that social support in the functional aspect is important in predicting adaptation [51]. Even if social support exists objectively, it can be helpful in the process of adaptation if an individual perceives that he or she is receiving support, so the person's perception of social support is more important than the social support actually provided. Other studies have also shown that perceived social support, rather than actually provided social support, has a predictive role in coping efficacy, adaptive outcomes, and psychological and physical well-being [52].

Cohen & Wills [51] argued that social support has a negative relationship with stressors and psychological burnout, so individuals under various stresses act as a buffer against psychological burnout. Demerouti and colleagues [50] argued that social support encourages the self-positive aspect when organizational members are unable to reflect on themselves due to stress, thereby reducing individual depersonalization and increasing the perception of personal accomplishment. It was said that psychological burnout increases when social support is low [53], and smooth conversations with superiors reduce organizational members' stress and burnout [54]. As such, when teachers experience severe burnout, social support appears to be a factor that can mitigate the negative effects of burnout.

Second, organizational justice refers to the perception of organizational members about the extent to which systems and decision-making within an organization are being implemented fairly. It has been proven through numerous studies that the perception of justice alleviates the job burnout experienced by organizational members and that positive feelings about the job due to justice bring about job satisfaction [55].

Third, guaranteeing teacher authority can act as an important factor in controlling teacher burnout syndrome. Teacher authority can be interpreted in various ways. It is divided into teacher rights in a narrow sense, which means teachers' educational rights and basic rights for teachers to conduct educational activities, and teacher rights in a broad sense, which includes not only the basic rights of teachers in education but also various conditions such as the status, life stability, and social environment that teachers in the teaching profession must be guaranteed in fulfilling their responsibilities and duties.

In the study of teacher burnout related to teacher authority, a study examining the effect of teacher violence by students and parents on teachers' mental health and teacher rights violation showed a high positive correlation with emotional exhaustion among the subfactors of burnout. In addition, in the relationship between loss of

authority and burnout related to the content of teacher authority, it was confirmed that the stress of loss of authority seriously affected burnout. The guarantee of teacher authority acts as a factor that moderates the decrease in job satisfaction due to burnout [56]. Also, the guarantee of teacher authority has a moderating effect of alleviating the deterioration in the quality of life of students due to burnout of teachers [57].

4. Countermeasures of teacher burnout syndrome

4.1 Passive countermeasures

Not trying to solve the problem or trying to get out of the situation can be said to be passive countermeasures. The passive countermeasures used by teachers to resolve teacher burnout syndrome can be divided into emotional coping, withdrawal, and avoidance strategies.

The first strategy is emotional coping. Teachers who suffer from burnout syndrome are emotionally battered and depersonalized to hate those around them [58]. Sometimes, they feel betrayed by the object that causes them to burnout, and they hate the children even though they do not express their emotions directly.

The second strategy is withdrawn behavior, choosing minimal education. In the complex relationship between students, parents, and teachers, the sense of mission to do one's best as a teacher is recognized that it can sometimes threaten the teacher, and the position to educate within the legally guaranteed range, that is, to use the minimum education within the framework of the law as one's own protection [59].

The third strategy is an avoidance strategy, such as waiting for vacation or not facing each other. As a result of analyzing the burnout experience of teachers, it was reported that the passive countermeasures used by the teachers were that there was no solution, or that they used avoidance methods such as waiting for breaks such as weekends and vacations, transferring to another school, and not facing the target that caused burnout. Vacation is not a method that teachers have found themselves in, but through vacation, they recover from the state of emotional exhaustion, and by diluting the state of burnout, they have the resilience to prepare for the next semester.

However, these passive countermeasures do not provide an appropriate alternative for teachers to overcome burnout, which can rather decrease teacher efficacy and cause more burnout [58].

4.2 Active countermeasures

Active countermeasures are to find ways to solve the difficulties and problems they are experiencing by using the human resources around them to overcome the burnout syndrome or by finding an opportunity for recovery. Active countermeasures used by teachers can be seen as positive relationships, healing through balance, and self-reflection and recovery efforts.

The first strategy is to establish positive relationships with fellow teachers and students. Establishing a positive relationship with a colleague teacher is to communicate with a colleague or senior teacher whom one trusts, discuss difficulties or problems they have experienced, and receive comfort, emotional support, and advice on problem-solving. Fellow or senior teachers have already experienced or are currently experiencing similar problems that the teacher is experiencing,

so they can easily sympathize with the teacher's burnout and provide appropriate support, encouragement, or alternatives. In addition, establishing positive relationships with students means that teachers open themselves up to students to solve conflicts that arise in relationships with students and naturally form positive relationships.

The second strategy is healing through balance. When burnout is a result of immersion, it is necessary to get out of the state of excessive immersion and maintain a balance between life in school and life outside school in order to overcome teacher burnout syndrome. In other words, it is a strategy to try to escape from excessive immersion by deliberately separating life inside and outside school and boldly breaking the extension link of school life. Pursuing such a balance between work and daily life is an important condition for becoming a professional as well as overcoming excessive immersion or burnout [60].

The third strategy is self-reflection and recovery efforts. In order to overcome burnout syndrome, teachers have opportunities for self-reflection or utilize know-how gained through various specialized books and related training. Teachers with expertise reflect on what they are doing in the process of practice, and this process of reflection enhances the perfection of practice. On the other hand, some teachers try to recover from burnout by actively participating in hobbies. Pointing out that modern society is a work-centered society and a leisure society at the same time, a leisure life is a way to lead a high-quality life, and participating in various leisure activities such as sports is a way for teachers who have strong teaching job stress to overcome this can be a way to recover from burnout. In this context, experiencing emotions such as social base or support by actively participating in the field of interest and feeling psychological happiness such as stress reduction and tension relaxation can be a way to recover from burnout.

4.3 Other countermeasures

In order to reduce and prevent teacher burnout, the individual aspects of teachers, the characteristics of school organizations, and changes in social and cultural awareness must be comprehensively dealt with, so solutions to teacher burnout syndrome can be sought as follows.

First, it is necessary to readjust or reduce work through research on teacher work analysis in order to relieve teacher burnout from excessive work burden. Based on these studies, it is necessary to readjust or reduce some of the teacher's work so that teachers can concentrate on their original work, educational activities, without being exhausted.

Second, in order to form a warm educational community, it is necessary to internalize a mentoring program in which fellow or senior teachers with expertise are used as mentors to form ties and communicate. Teachers learn how to respond appropriately to problem situations from their fellow or senior teachers [58]. Most of the knowledge that is the basis for teachers' professional performance is procedural knowledge acquired through trial and error experiences, so an apprenticeship-style transfer method in which experts with specialized knowledge are observed and imitated rather than acquired through books or texts is most appropriate [61]. From this point of view, active countermeasures that form close relationships with peers, senior teachers, and professional counselors will enable them to recover from burnout while at the same time transferring knowledge for professional performance and forming a supportive relationship of caring and supporting each other.

Third, in order to reduce and prevent teacher burnout, it is necessary to establish and operate teacher healing centers in each ministry of education, and to actively support. Through the operation of the teacher healing centers, teachers are protected from unreasonable infringement of teacher rights, and by creating conditions in which teachers can conduct educational activities with pride and a sense of mission, the purpose of ultimately guaranteeing student rights to learn can be realized.

Fourth, it is necessary to analyze the core competencies of teachers in order to strengthen their competencies. Teachers perform different duties according to their careers, roles, and ranks within the school, and while required competencies are different, the degree of mental and physical experience will also differ depending on the competencies teachers possess. Analysis of teachers' core competencies will be a starting point to help teachers enhance their professionalism and help find ways to reduce and prevent teacher burnout.

Fifth, developing programs and content that can cope with teacher burnout is necessary. Teachers need to flexibly deal with situations that can cause burnout and provide support on how to deal with them appropriately. In other words, it is necessary to categorize and present parent and student counseling manuals, appropriate coping methods for uncontrollable situations encountered in school field, and prepare manuals for practical codes of conduct.

Lastly, it is necessary to reflect on the relationship between the school field, the local community, and parents, and strengthen training for parents on teacher burnout and protection of teacher authority. Through the results of this study, one of the causes of teacher burnout is the change in the way they look at teachers in the current society. This means that the social environment surrounding teachers has changed. If teacher burnout or protection of teacher rights is not an individual teacher problem, but an issue to be resolved based on social common understanding, parental education on the role of parents as educational consumers, their role as educational partners, and their responsibility as subjects of home education should be strengthened.

5. Conclusions

So far, we have looked at the characteristics, impacts, and countermeasures of teacher burnout syndrome in the education field. Teacher burnout syndrome has a negative impact not only on individual teachers but also on students, school organizations, and society as a whole. Therefore, active efforts are needed to solve the teacher burnout syndrome at the level of social organization. It is necessary to clearly diagnose teacher burnout syndrome, systematically manage it, and prepare measures to improve it. It is necessary for individual teachers to go beyond the passive countermeasures to overcome the burnout syndrome problem, utilize the surrounding human resources to overcome the burnout syndrome, and utilize active countermeasures such as finding an opportunity for recovery and various supports at the social, organizational level are needed. Through this, it is possible to solve the problem of teacher burnout syndrome and ultimately promote the development of education.

Thanks

My beloved family, thank you always.

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Chapter 7

Intervention Program to Reduce Academic Burnout in University Mexican Students

Judith Banda, Rosy D'Amico and Ángel Flores

Abstract

Academic *burnout* is the stress that students experience for a long time as a result of academic tasks. The objective of the present study was to examine whether the use of *refresh* activation, which is an active meditation that uses movement, conscious breathing, focus on attention and music, as a coping technique contributes positively to academic *burnout*. The *refresh* activation intervention program lasted 8 weeks. To measure the impact of the program, a pre-/posttest of the *Maslach Burnout* Inventory-Student Survey (*MBI-SS*) was used, as well as another questionnaire for stress perception in different areas of life and another for satisfaction in daily practice de la activation *refresh*. The participants were university Mexican students. The experimental group was composed of 36 students, also four students volunteered to share in a qualitative manner their experience in the practice of *refresh* activation, this to reinforce how the program helped them in reducing *burnout*.

Keywords: students, university, *refresh* method, coping technique, academic development, young adults, service center

1. Introduction

In recent years, the study of academic *burnout* has acquired vital importance, especially due to the negative repercussions experienced by university students in the digital era, where stress has become more relevant [1]. Furthermore, according to the World Health Organization (WHO), *burnout* syndrome is considered a disease [2]. In the educational work environment, stress becomes a constant danger, given the direct contact with students. This phenomenon manifests itself when there is an increased demand for individual capabilities to cope with the tasks at hand [3].

With the advent of the pandemic, people around the world have experienced higher levels of stress, less rest, and less enjoyment in their daily lives. Before the pandemic, in 2020, seven out of 10 people worldwide felt rested (69%), enjoyed themselves a lot (70%), and smiled or laughed often (72%). However, in 2021, half of the world's population (50%) experienced a three percentage point decrease in feeling well-rested, and the percentage of those who enjoyed it a lot decreased by two points. Furthermore,

in 2021, stress in the world affected four of 10 adults, who experienced a lot of worry (42%) or stress (41%), and 31% suffered a great deal of physical pain [4].

More than 20% of adolescents worldwide suffer from mental disorders, with suicide being the second leading cause of death in young people aged 15–19 years. In low and middle-income countries, 25% of adolescents have considered to commit suicide [5]. The lack of sleep to which young people are exposed can lead to obesity and depression, also affecting their safety and academic performance [6].

According to a study published in the Journal of Adolescent Health, young people suffer from chronic sleep deprivation, with more than 59% of them classified as severely sleep deprived. That is, they sleep on average 6 hours or less during the week [7]. There is evidence supporting a significant relationship between perceived stress and sleep quality, where it is observed that the higher the perceived stress, the worse the quality of sleep, and vice versa, the worse the quality of sleep, the higher the perceived stress [8]. These findings, together with other studies conducted with students, demonstrate the influence of academic stress on their student lives and its impact on their health [9].

The mental health of young people has been systematically ignored in national and international health plans, and very few have access to programs that teach them how to manage their emotions [5]. Some young people manage to acquire the necessary skills to continue with their academic development, while others face difficulties in obtaining them. In this context, the stressors that affect the student population most are exams, academic overload, short deadlines and the personality or character of teachers [10]. A tendency has even been observed in students to experience a decrease in their academic self-concept during the period close to exams [9].

Stress precedes *burnout*, as when stress accumulates over a prolonged period, it can give rise to *burnout* [11]. *Burnout* refers to a condition in which a person feels "burned out, worn out, exhausted, and has lost enthusiasm for work" [12]. Although the concept of *burnout* is attributed to the psychiatrist Freudenberger, Dr. Maslach is the main researcher who has given worldwide recognition to this syndrome [13].

In the academic environment, the chronic stress to which students are exposed is known as academic *burnout*, and it is important to have coping strategies to reduce stress and prevent negative consequences, such as anxiety and depression [14]. During the semester, many students face stressful situations and have difficulty managing their emotions, so it is essential to pay attention to the emotional aspect in the educational environment, without limiting the focus of educational quality improvement only to academics [15].

Unfortunately, a high percentage of young people do not receive treatment for mental health disorders, despite meeting diagnostic criteria, highlighting the need to provide them with adequate support and care [16]. Coping refers to the cognitive resources used to deal with stressful situations and there are different strategies, such as seeking social support in the close environment, which helps to solve problems and improve emotional well-being [17], and religion, as a way of coping with stress [18]. Avoiding or escaping stressful situations may contribute to the development of *burnout*, whereas strategies focused on solving the problem may prevent its occurrence. *Burnout* can be considered a self-defense mechanism when stress has been prolonged over a long period [19].

Coping strategies can be classified into action-focused, which seeks to solve the problem, and emotion-focused, which refers to in-the-moment emotional responses [20]. Emotion-focused strategies are closely related to stress and emotions [17]. The choice of a coping strategy depends on personal and situational factors and is linked

to the degree of perceived stress, which implies an inseparable relationship between stress, coping and emotion [21].

In this context, this study aims to evaluate whether *refresh* activation, as a coping strategy, has a positive impact on the reduction of academic *burnout*.

2. Academic *burnout*

Stress occurs when a person is unable to cope with the demands of his or her environment, while anxiety refers to an emotional reaction to a cognitive, physiological, motor and emotional threat, and distress is related to the threat to the individual's moral values and physical and psychological integrity [22]. Stress precedes *burnout*, as the latter develops when stress is experienced over a long period of time [23].

Burnout has been described as a phenomenon that especially affects professionals who work with people and is characterized by three dimensions: emotional exhaustion, depersonalization and lack of personal fulfillment at work [24]. In the academic setting, the *Maslach Burnout Inventory-General Survey (MBI-GS)* has been adapted to the *Maslach Burnout Inventory Students Survey (MBI-SS),* which assesses burnout, low academic efficacy and cynicism [25].

Although burnout has been widely studied in work settings, it is not limited exclusively to human services professionals but can manifest itself in various work contexts and academia [26]. Academic burnout has been investigated in various areas, such as medicine, physiotherapy, nursing, business, veterinary medicine, engineering, and psychology, among others [27–32].

In the development of the *Maslach Burnout Inventory*, three subscales were identified: emotional exhaustion, depersonalization and self-efficacy. Although there is no hierarchy among the subscales, emotional exhaustion is considered the key aspect in the manifestation of burnout, as it occurs when a person's emotional resources of a person are depleted due to the chronic stress to which he or she is exposed.

2.1 A key to *burnout* development

In the academic environment, multiple factors influence the development or prevention of *burnout*, both obstacles and facilitators. These factors can be classified into academic, environmental and intrapersonal variables. Intrapersonal variables include personality traits, motivation, satisfaction, expectations, time planning, and social and cognitive competencies [33].

Intrapersonal is the form of emotional perception that refers to the focus of attention on one's feelings and understanding of oneself. Along with interpersonal skills, intrapersonal skills are considered to make up emotional intelligence. Interpersonal refers to the perception of emotions that occur in social interaction or other words, to the understanding of others [34].

Emotional intelligence has been revealed as a protective factor against depression, anxiety, stress and academic *burnout* [35]. It is defined as the ability to perceive, recognize and understand emotions, as well as to regulate them appropriately for emotional and intellectual growth [36]. Studies have shown that emotional intelligence is positively related to academic efficacy, dedication and absorption, and negatively related to perceived stress and the *burnout* and cynicism dimensions of academic *burnout* [37]. In addition, a significant relationship has been found between emotional intelligence and academic performance [38].

Academic performance is inversely related to stress. The relationship between academic variables such as performance and expectations of success is positive, while the relationship with academic efficacy tends to be negative and is associated with dropping out of school. Besides, the dimensions of *burnout* and cynicism have a negative correspondence with performance and expectations of success. These findings demonstrate the importance of considering academic variables about academic *burnout* [39].

Findings from a study with Mexican students showed that negative intrapersonal perception is associated with low educational achievement due to poor emotional management, lack of personal confidence and lack of motivation. Similarly, negative interpersonal perception is related to low school achievement. The findings also show that positive intrapersonal and interpersonal perceptions are positively associated with higher educational achievement [40]. Increased emotional intelligence leads to the development of intrapersonal and interpersonal skills that in turn lead to greater adaptability and stress management [41].

The intrapersonal state of students also plays a relevant role in *burnout* due to its influence on interpersonal communication. The intrapersonal state of students, both with teachers and with peers, friends and family, affects their studies, expectations of recognition, trust and interpersonal support. One study highlighted the importance of self-discipline and planning, showing that students with better grades had lower levels of *burnout* and cynicism, as well as higher professional efficacy. In addition, a lack of support and trust among students was associated with academic *burnout* [42]. Communication skills and openness to communication are personal coping resources for stress [43].

Time management is also linked to academic performance. One study revealed that students who applied time management strategies performed better academically in laboratory courses compared to those who did not pay as much attention to this area. Time management was negatively associated with test anxiety, suggesting better academic performance [44]. Another study found that students with higher time management skills showed lower levels of *burnout* [45].

Due to the influence of variables such as emotional intelligence, interpersonal communication, academic performance and time management on academic stress and *burnout*, it is recommended to implement stress-coping strategies, activities that promote well-being and healthy interactions, as well as time management techniques [46].

3. Coping techniques

Stress coping techniques can be classified into two categories: problem-focused and emotion-focused, according to Lazarus [47]. In the problem-focused strategy, the person seeks concrete solutions to solve the stressful situation, whereas in the emotion-focused strategy, one seeks to regulate the emotions generated by the stress through different approaches, such as positive reinterpretation or denial [17].

In a study conducted by Benavete, Quispe and Callata [48], various coping strategies used by individuals were identified. Problem-oriented strategies, such as planning and active coping, were the most frequent. On the other hand, emotion-oriented strategies included positive reinterpretation, personal growth, and denial. Perception-oriented strategies, such as mental disengagement and focusing and releasing emotions, were also observed.

In addition to these strategies, there are other coping techniques used to cope with stressful events in daily life. For example, the mindfulness meditation program has been shown to have a significant impact on the development of coping strategies, such as positive reappraisal and planning [49].

Meditation is a simple stress-reducing practice that can be easily learned. It focuses on focusing attention and pushing away stressful thoughts. This practice includes elements such as focused attention on a certain object or image, diaphragmatic breathing to expand the lungs, creating a calm environment free of distractions, and adopting a comfortable posture, whether sitting, lying down, or moving. In addition, an open attitude that allows thoughts to flow without judgment is encouraged [50].

The elements of meditation also include focused attention or creative relaxation, which allows access to memories stored in the mind and recreating pleasant images or situations [51]. Creative relaxation involves physical relaxation, and each individual can use his or her imagination to create strategies, resources and visualizations that provide well-being [52]. This technique has been shown to improve self-concept and imagination in children.

Breathing is another fundamental element in meditation, as it connects us with the present. Various techniques such as mindfulness meditation, Tai Chi, Yoga variants, Qigong and Vipassana, emphasize the importance of breathing [53–58].

Movement also plays an important role in meditative techniques. Practices such as Qigong and Tai Chi have proven results in improving health [58]. Osho's active meditation has also been shown to reduce psycho-emotional levels that cause stress. In addition, several studies claim that a higher intensity of vigorous physical activity is associated with a decrease in stress. In particular, aerobic training contributes to decreased perceived stress, and emotional fatigue and increases general well-being and sleep quality in people with *burnout* syndrome [59].

Although not all techniques involve the use of music, some of them use it as a resource to redirect stressful thoughts and other environmental stimuli [60]. Thus, the combination of breathing, movement, visualization and music gives rise to a new coping technique called *refresh* activation, which is the main focus of this research.

3.1 *Refresh* activation technique

Refresh activation is a new coping technique based on active meditation [61]. This technique involves engaging in activities such as dancing, where movements are performed without aiming for specific coordination. In addition, music is used to help raise energy and breathing is incorporated to help connect with the present moment and achieve focus and relaxation. During the *refresh* activation, the person is guided through a physical movement visualization, accompanied by uplifting music. At the same time, breathing is used as an element to help focus on the present and relax. Thus, *refresh* activation combines four main elements: breathing, movement, music and creative visualization. This technique seeks to achieve well-being and emotional balance by promoting connection with the present moment and raising energy through movement and music.

3.1.1 Breathing

Human energy manifests in different ways, including sound and breath. The way energy (known as prana or lung) manifests itself through the breath, and the voice

through the sound that is generated by breathing. Often, however, the energetic level of the voice is imbalanced, because the energy remains stagnant, diminished or altered [62].

In the *refresh* activation technique, deep inhalation using the diaphragm muscle is used to expand the lungs. The goal of this is to connect with the present moment, helping the person to control their thoughts with conscious breathing [50]. This practice seeks to facilitate relaxation and well-being.

3.1.2 Movement

Energy in the human being is manifested by movement. This energetic movement is what constitutes its emotional aspect [62]. Active meditation requires a certain degree of physical activity, shouting and even dancing while involving uncoordinated movements, to reach a passive state [61].

Cortisol is an indicator of stress. In a study on dynamic meditation by Osho, cortisol levels dropped in participants after 21 days of meditation [61]. Other studies where they use movement, as happens in Yoga and Tai Chi, contributed to reducing emotional disturbances and stress levels [53].

In *refresh* activation, body movement is free. Through body flow, the practitioner becomes aware of every part of his body, making slow movements and increasing the intensity of the movement, helping to release the flow of thoughts.

3.1.3 Music

Music is a pleasant perception of sounds that generate well-being. With it, chemicals are activated that act on "the central nervous system [which] stimulates the production of neurotransmitters (dopamine, oxytocin, endorphins) and with it, joy and optimism"[63].

Music has been shown to have a positive effect on decreasing stress during exam times when students experience its highest levels. This, in turn, favors academic performance [64, 65]. Music also helps improving concentration in the completion of tasks and projects [65, 66].

It should be noted that music, not only benefits students; it also has a positive effect on clinical staff [67]. In the *refresh* activation technique, cheerful music is used to enhance the moos of individuals. This music is part of the practice in order to promote a sense of well-being and relaxation.

3.1.4 Visualization

Visualization refers to the creation or recreation of an experience in the mind, using images and all the senses. This technique, also known as mental rehearsal, requires a proper understanding of what is to be achieved in order to have an effective impact [68].

The importance of visualization lies in allowing the release of negative thoughts and emotions that can generate blockages. By using all senses vividly, one seeks to integrate thoughts as real as possible. This helps by focusing on the proposed achievement and promoting a positive mental state [13, 68].

Visualization is effective in rehabilitation programs for injured athletes. It has been observed that this technique contributes in improving self-efficacy, motivation and reduction of anxiety in these athletes [69].

In the *refresh* activation technique, the visualization stage consists of three key steps: release, integrate and focus. First, the individual releases the flow of negative thoughts, allowing their release and detachment. Next, he begins to imagine in great detail how he would like to be or what he would like to achieve, using as many senses as possible to make it as vivid and realistic as possible. Finally, he focuses on action, visualizing specifically how he will carry out his goals and objectives [50].

Based on this, the following hypothesis is proposed:

The *refresh* activation technique reduces the effects of *burnout* syndrome in university students, which are manifested through exhaustion, decreased academic efficacy and cynical attitudes.

4. Materials and methods

The present research was designed with a qualitative and descriptive approach, using the contemporary case method to evaluate the impact of the *refresh* activation coping technique on the dimensions of academic *burnout* in undergraduate university students. The study was quasiexperimental in nature, as a pre- and post-intervention measurement was conducted, but participants could not be randomly assigned to treatment and control groups. Also, a longitudinal approach was adopted by taking measurements using the MBI-SS scale at two different points in time. Four cases of students with elevated stress perception are analyzed in detail in the research.

4.1 Participants

In the quantitative part of the research, undergraduate students from a university in Bajío, Mexico, who perceived a high level of stress, participated on a voluntary basis. The sample consisted of 43 students, with an average age of 22 years, from a university population of more than 5000 students (5504). The inclusion criteria were practicing the *refresh* activation technique for a daily average of 20 minutes and to attend at least 85% of the virtual sessions. A total of 36 students met these criteria and were part of the sample.

For the case selection process, students were invited to participate and four of the 36 students voluntarily accepted to share their experience after completing the *refresh* activation program.

4.2 Instruments

For the measurement of the dimensions of academic *burnout*, the MBI-SS instrument was applied, which is composed of 15 items distributed as follows: 5 items for Emotional Exhaustion, four items for Cynicism and six items for Academic Efficacy. The MBI-SS is the most prolific instrument among the scientific community for the measurement of *burnout* in academic contexts; it has structural validity and reliability [70].

In addition, a satisfaction questionnaire was applied to evaluate the students' perception of control over the variables influencing *burnout* and to know the effectiveness of the *refresh* activation technique as a coping strategy against *burnout*. This self-report questionnaire includes the assessment of emotional intelligence, communication, time management and academic performance. The use of self-report questionnaires is a common practice in the evaluation of psychological variables

since it allows information to be obtained on people's feelings, perceptions and behaviors [71].

Once the eight weeks of training in the *refresh* activation technique were completed, an interview was conducted with the four students, after signing the informed consent form.

4.3 Procedure

To avoid bias in the results, the students were given an introduction to the *refresh* activation technique on the first day of their participation in the program, without providing themwith detailed theoretical information about the technique. This was done to prevent any bias that might influence the results of the program. The main objective of the program was to evaluate the effectiveness of the *refresh* activation as a *burnout* coping technique, therefore, participants needed to practice the technique on a daily basis.

To ensure and motivate daily practice, a WhatsApp group chat was created to remind students about the importance of performing the *refresh* activation and encourage them to post when completed. This also fostered motivation among group members. In addition, they were required to attend a weekly one-hour virtual session in which the *refresh* activation was performed as a group. During these sessions, the three key elements of meditation were reinforced: breathing, movement, music and visualization. A minimum attendance threshold of 80% was established for these sessions.

The individual interviews lasted an estimated time 18 minutes and sought to create a calm and trusting environment that allowed the students to share their experience with the *refresh* activation technique and how it had helped them in their daily lives and academic performance. During the in-depth interviews, students were asked about how they felt before and after the 8 weeks of using the *refresh* activation.

To ensure the quality and objectivity of the research, three validity tests were applied: "construct validity, external validity and reliability" [72]. For the first, a review of the preliminary report of the interviews conducted with the students was carried out, thus ensuring the congruence and consistency of the data collected.

4.4 Data analysis

To estimate the dimensions of *burnout*, the mean of each group of items of the MBI-SS was calculated. These items were scored on a scale between 0 (zero) and 6 (six), and the NTP-732 of the "Instituto Nacional de Seguridad e Higiene en el Trabajo" (INSHT) of Spain [73] was implemented, considering that the NTP-732 has a vast implementation history as a reference to interpret the MBI in different contexts [30, 74]. To compare the pairs of data obtained from the MBI-SS, the Wilcoxon test for dependent samples was used.

The satisfaction questionnaire was applied at two points in time, to perform a paired sample analysis and estimate the significant evolution according to self-report. The items of the questionnaire were elaborated on a Likert-type scale from 1 to 10, and the result was the percentage obtained from the sum of the 10 items. The non-parametric Wilcoxon signed-rank test was applied to compare and evaluate the scores at the end of the intervention with those initially obtained.

The interview data were recorded and transcribed. The opinions of the students, who freely expressed their experiences, were taken into account. Emphasis was placed

on preserving the maximum fidelity of the data and the interviews were transcribed as they were spoken. Subsequently, a description of the cases was made.

5. Results

The sample consisted of 36 students who completed the *refresh* activation program, with 47.2% female and 52.8% male. The average age of the students was 22.08 years (SD = 1.66), and they dedicated an average of 19.27 hours (SD = 19.79) to academic activities.

According to the results of the MBI-SS, a favorable evolution was observed in the students. Emotional Exhaustion decreased from a mean of 3.92 to 3.26, showing a p-value of 0.0033 ($p < 0.05$). The Cynicism score experienced a minimal change, going from a mean of 2.06 to 2.02 at the end of the intervention, without showing statistical significance, given that the p-value of 0.4658 is above the accepted alpha (0.05). On the other hand, Academic Efficacy increased significantly, going from a mean of 4.12 to 4.42, with a p-value of 0.0037 ($p < 0.05$). The internal consistency of the MBI-SS questionnaire was good in the Emotional Exhaustion (0.86), Cynicism (0.85) and Academic Efficacy (0.71) dimensions, according to Cronbach's alpha coefficient [75].

For the satisfaction test, students obtained a mean of 47.42 in the first application and 71 in the second. The favorable change in self-report was significant according to the Wilcoxon test, with a p-value below 0.01 (p = 2.944E−05). The reliability of the questionnaire was good, with a Cronbach's alpha coefficient score of 0.87 (**Table 1**).

Table 2 shows the academic impact experienced by the students, who reported feeling more relaxed as they learned to manage their time more effectively. In addition, they emphasized how important it is to allow themselves to experience emotions such as nervousness and the feeling of release when realizing that the nervousness disappeared.

Table 3 shows the positive impact of the *refresh* activation program in the environment of the cases. In case 3, although no significant improvement is observed in comparison with the others, the conscious recognition that this is an area in which he needs to work and learn to express himself better stands out. In case 4, it is also perceived that the technique began to have an effect, given that the participant experienced more closeness with his family members.

Table 4 details the improvements observed in the intrapersonal area of the four cases. It is highlighted that the *refresh* activation program helped them to increase

Dimensions		Emotional exhaustion	Cynicism	Academic efficacy	Satisfaction test
Pretest	M	3.92	2.06	4.12	47.42
	SD	1.27	1.41	0.81	15.5
Postest	M	3.26	2.02	4.42	71
	SD	1.38	1.39	0.77	23.59
Z Wilcoxon		2.71	0.08	2.67	4.01
p value		0.0033	0.4658	0.0037	2.944E−05

Table 1.
Statistical test results.

Cases	Impact on the academic environment
Case 1	We all suffer stress from homework and internships and all that. As for establishing my time, it was something I did not do, before it was like I have to study or I have to do this work and I was lazy. I feel that in terms of my time-taking, my schedules and all that, yes, it helped me. But I feel that it helped me to organize the times of when to do my homework.
Case 2	
Case 3	The more I said "I feel nervous" and repressed myself, I felt like it was accumulating and I said: "Come on! I feel nervous, so feel it, feel that nervousness in your body". And the moment I exposed myself, it went very well... like all that nervousness went away, and I was like "ahh". I was very pleased.
Case 4	

Table 2.
Areas for improvement in the academic environment with refresh activation.

Cases	Impact on the student's environment
Case 1	
Case 2	
Case 3	And... it is very easy when we do exercises like this in the sessions, it is very easy to criticize you or tell you the negative things rather than the positive ones. So I think that, in that aspect, it helps me a lot. So I have gone through many emotions and many moments in which it has helped me a lot, but I feel that yes: I have to keep working... To know how to express myself with others and not to keep everything to myself.
Case 4	I had anxiety attacks... very serious problems. Believe me, I wanted to give up everything when I had the attacks... and that is when I fell flat. And then, now that I'm back with my family, problems came back. But now I am closer to them, I feel that I have changed and that I am changing. And that's when I realized, "Okay, you are changing, you are growing, that's a good thing." And that's when I started to realize that all this is working.

Table 3.
Areas of improvement with their environment with refresh activation.

Cases	Intrapersonal impact
Case 1	*Refresh* is a lot of fun because it tells you to move, to let go... and it relaxes you. I feel that way, it really relaxes your soul. On a personal level, yes, it helped me to believe a little more in myself. And that was what was failing me the most. I did not believe in myself, or I almost always made myself less me.
Case 2	At the beginning of the technique, I let my feelings flow... I learned not to repress things so much.
Case 3	At the beginning it was very difficult for me. It gave me a lot of anxiety. It was so helpful to be told and to let our emotions and feelings be felt... That was very helpful to me.
Case 4	If I had stopped the method, because of all the disorder that came to me I did not feel like anything and that's when I said "this is helping me in some way, so I'm going to take it up again." It did not become a habit as such, but little by little. It's not just that. I'm getting into the habit of studying. I'm taking better care of myself. Starting with the fact that I'm loving myself more, because I did not love myself at all...

Table 4.
Areas of intrapersonal improvement with refresh activation.

their self-confidence, improve their self-esteem and allow their feelings to flow freely. These results indicate a positive impact on their self-perception and emotional well-being.

6. Discussion and conclusions

The findings resulting from the quantitative assessment methods show a significant improvement in the students after participating in the *refresh* activation intervention. In the scores, a significant decrease in Emotional Exhaustion and an increase in Academic Efficacy were observed. However, the Cynicism dimension did not show a significant decrease. These results are supported by the students' reports in the self-report questionnaire, where they manifested an improved self-perception of their emotional intelligence, academic performance, communication and time management. The consistency between the results of both questionnaires suggests that better management of emotions is related to a decrease in emotional exhaustion, and higher academic performance is linked to greater academic efficacy.

In addition, in the interviews conducted, there was an evident coincidence in the impact of the intervention on the intrapersonal aspect. Students considered it important to learn to recognize and cope with emotion, which is in line with what was found by Berra Ruiz et al. [17], where emotion-based coping strategies were identified.

It is clarified that, in previous research with university students [30], variables such as school year and tobacco use have been linked to higher scores in the Cynicism dimension. However, these variables were not addressed in this research, so additional studies exploring vocational attitudes, dropout, motivation and satisfaction, among others, are suggested to better understand the particularities of this dimension.

Finally, considering that academic overload is one of the main stressors that affects the balance between time dedicated to academic activities and other areas of life (family and social), the implementation of coping strategies that promote the integral development of the student and encourage a healthy lifestyle is recommended [76].

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Burnout is a relatively common yet poorly understood phenomenon that often results from relentlessly giving of oneself in the service of others. It has also been known to occur in non-human service work. When this giving of oneself becomes excessive, dysfunctional consequences can develop, such as emotional exhaustion, cynicism, depression, and withdrawal. A range of physical consequences can also develop, including high blood pressure, immune system depletion, and a wide range of physical ailments. This book details our evolving knowledge of burnout syndrome and addresses a variety of proposed interventions. These interventions can take place on individual, group, and organizational levels. The importance of burnout has been recently brought to light by depictions of the plight of healthcare workers who have been brought to the brink of exhaustion by the unrelenting demands made upon them by the COVID-19 pandemic. This book elucidates the nature of burnout and how we can best cope with it as individuals and as a society.

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