MODESTUM

Review Article

Occupational burnout in public health care sector, scales, measures, and education in the frame of period COVID-19 pandemic

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ARTICLE INFO	ABSTRACT
	Background: A study review of literature in occupational burnout measures in public health care sector (PHCS). In the view of authors, a process that applies principles and techniques to create, communicate, and deliver value in order to influence target audience behaviors that benefit employees in PHCS, as well as the intended society. Does not work to exploit turnover rather the aims of PHCS are to change the activities that will support and educate the overall public employees in PHCS of Greece and global to use only competent lighting to preserve the safer and healthier work environment, minimize the burnout syndrome. This study can bear a significant impact of occupational burnout measures scales and education in PHCS during COVID-19 pandemic, and with the help of various reviews we will catch out the positive and negative effects. **Methods:** A review study conducted for the last two-year, published papers along the last one years, perching criteria at Scopus, Web of Science, Science Direct, and Veritas & Elsevier Journals, searched restricted to the title, and with the help of various reviews we will catch out the positive and negative effects. **Conclusions:** Only few papers are published based on the very contemporary title, considered for the article, hence this study identified several articles in the scientific literature, but only few articles were classified as eligible according to the previously established criteria. This study highlights the effects of period COVID-19 pandemic in PHCS association and correlations with occupational burnout. **Keywords:** occupational burnout, measures scales and education, public health care sector, COVID-19 pandemic

INTRODUCTION

Occupational burnout (burnout syndrome) is a psychological situation induced when working, especially in high-risk parts of work, that affects the physical and mental conditions of the employees. Burnout is a syndrome explained as a serious emotional depletion and behavior with a poor adaptation to work due to prolonged occupational stress [1]. WHO [2] describes burnout as an occupational phenomenon according to the definition of ICD-11, as follows: "Burnout is a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. Burnout refers specifically to phenomena in the occupational context and should not be applied to describe experiences in other areas of life." Feelings of exhaustion, mental distance from the job, negative feelings, cynicism, and limited work efficacy are the three main dimensions that express burnout according to ICD-11 [2].

Burnout is a work-related syndrome and is more likely to occur in workers who are employed in emergency departments that are usually experiencing life-threatening conditions. Usually, the staff of these departments face high levels of stress due to many reasons, such as the many tasks, overcrowded departments, difficulty of dealing with task, tight work schedules as also the insufficient number of staff, and their individual characteristics. The term "burnout syndrome" was first described in a scientific article published in 1974 by Herbert Freudenberger [3]. However, it is important to note that Freudenberger [3] did not invent the term burnout. Instead, he described the burnout as a mental state that he observed in some of his colleagues and which he also experienced himself. In this situation his colleagues described that they were "burned out" or they used other words to describe a specific experience and mental state at the

workplace before this situation became a psychological and clinically relevant situation. In his original article of 1974, Freudenberger [3] describes the burnout, as a situation in which the person "burns", as "becoming exhausted by making excessive demands on energy, strength, or resources".

Maslach [4,5] gave the most comprehensive definition, including both physical and mental exhaustion, which is observed in every person, whose job requires constant contact with other people. Maslach suggested that this syndrome does not appear suddenly but is the result of prolonged working under pressure. According to Maslach and Jackson [5], there are three dimensions that describe the phenomenon of professional burnout: emotional exhaustion, depersonalization, and diminished feelings of personal accomplishment.

Emotional exhaustion means that the employee feels tired of his work and has no psychological power to invest in it. Depersonalization, which is the "psychological withdrawal from relationships and the development of negative, cynical and cruel behavior" [6]. As emotional exhaustion and depersonalization increase, the depressed person feels guilty and inadequate in their emotional limitations, leading to a reduced sense of personal fulfillment [7]. Individual perceptions of one's ability to excel and perform valuable work are diminished and the individual has a reduced value for the organization [8].

Conceptual approach, although burnout is a prevalent research subject and is at the heart of a rapidly growing interdisciplinary literature, there is currently not entirely accepted and well-established definition. The various definitions given are mainly aimed at separating the concept of burnout from occupational stress, which is considered a particular form [9]. The term "burnout" is not synonymous with "job stress," "fatigue," "alienation," or "depression," even though abuse of the term in recent decades has led to confusion of terms and definitions.

Freudenberger [3] defined burnout as the inability to perform or burnout due to excessive energy, strength, or capabilities. The individual becomes rigid and inelastic and hinders progress and structural changes because these changes require effort to adapt. At the same time, he argued that those who are dedicated and absorbed in their work, those who feel both an internal pressure to offer and an external one to perform, are more vulnerable to developing burnout. Describe the "dedicated" worker who undertakes too much work, the "overcommitted worker" whose life outside work is unsatisfactory, and the "authoritarian" (authoritarian), who feels that no one but him can do the job with the same efficiency [3].

One of the most accepted definitions of the syndrome is given by Maslach [5], which includes physical and mental, and mental exhaustion, which is observed in every professional whose work requires constant contact with other people. Maslach [5] argued that the loss of interest in the people one works with is characterized by emotional exhaustion, where the professional no longer has any positive feelings of sympathy or respect for clients or patients. It is a syndrome of physical and mental exhaustion in which the employee loses interest and positive feelings for patients while he ceases to be

satisfied with his work, forming a negative image of himself [5].

A complete definition of burnout was formulated by Pines and Aronson [10], who define the phenomenon as a physical, emotional, and mental condition caused by a long-term involvement of the individual in situations that require emotional involvement [10]. According to Costa and Pinto [11], it is a disorder of interest in work that results in an evolving inability to mobilize the strengths and abilities of the employee, with particular emphasis on the occurrence of fatigue and in different areas of life. After its onset, the syndrome is difficult to resolve as the employee, having learned to work automatically and without appropriate motivation, becomes alienated from his job and finds it difficult to recover, even in improved working conditions.

The term is still often used today by employees, as it is a form of response to the pressure they receive, as being closely and intensively involved professionally with other people and their problems during their work. Although burnout was traditionally seen in social service occupations (e.g., nurses, teachers), it is a widespread issue in other occupations and family life itself.

The concept of burnout has been defined in various ways in international research. The various definitions that have been given to date also highlight the difficulties in accurately determining it [8, 12]. It was initially viewed from an emotional perspective [13] and was considered a kind of hypochondriac condition temporarily created in employees and soon disappeared [8]. In addition, there was little agreement among the researchers on the content of the definitions of burnout, which included terms such as emotional exhaustion, low morale, cynicism, depersonalization, insomnia, low productivity, physical exhaustion, and reduced achievement. for customer service [5, 8, 14].

The causes of difficulty in determining burnout vary. An important factor that influenced the identification of the conceptual content of burnout was the fact that the term burnout included a wide range of symptoms [8]. Schaufeli et al. [15] provided a list of over 100 symptoms associated with burnout, resulting in difficulties and/or inability to distinguish between burnout and other problems that employees may have, such as anxiety, depression, stress, and emotional exhaustion.

In their attempt to identify burnout, Pines and Aronson [10] described the syndrome as a predominant state of emotional and mental exhaustion, which finds its causes in long-term contact with situations that require emotional involvement. This definition summarizes much of the overall rationale for interpreting burnout, highlighting primarily that burnout is not an exclusive feature of the work environment but can occur in other aspects and situations that require emotional attachment. In addition, exhaustion has a long-term character, as it is a dynamic process with many involved and interacting factors, which concern both the individual himself (emotional involvement) and his environment.

Other definitions focus on employee stress and / or satisfaction. Burnout reflects the employee's diminished interest and enthusiasm for work, as he does not get the satisfaction, he would like while devoting himself

wholeheartedly to it [10]. It can be seen as a reaction to the stress that people experience when working in areas of high demands [11] due to chronic emotional tension created when conciliating with other people, especially those who have problems. Friganović et al. [9] emphasize the link between stress and burnout, which he describes as a manifestation of a chronic and prolonged occupational stress, where the person progressively weakens, while at the same time feels that his mental reserves are not enough to deal with particularly intense stressors of his work [9].

Despite the many attempts to identify burnout, the various definitions found in the international literature have several points in common. In general, researchers unanimously argue that burnout:

(a) can occur at the level of individuals or organizations,

(b) is experienced as a negative experience by the individual,

(c) is an internal psychological experience that includes emotions, attitudes, expectations, and motivations,

(d) is associated with various problematic health conditions with adverse effects,

(e) can occur in healthy individuals without a severe health history, and

(f) leads to reduced performance and productivity.

The term "burnout" was first used in 1960 to describe the effects of chronic addictive use [16]. The etymology of the syndrome (burnout) in English means "I consume progressively from the inside to the point of charring" [11]. The initial literature report of the syndrome was made in the 1970s, with the beginning of investigating employees' emotions and was the reason for its recording and description. Pioneers in the study of the syndrome are the American psychiatrist Herbert Freudenberger and the social psychologist Christina Maslach, whose name has been associated since the first time she dealt with burnout syndrome.

Freudenberger [3], in his book "Staff burnout," described the symptoms of fatigue he observed not only in himself but also in volunteers and mental health professionals in a program to support young people with addiction problems. He also studied the gradual emotional exhaustion of their strength, frustration, loss of interest, leaving work, and the variety of physical and mental symptoms experienced by many volunteers (Freudenberger, 1974). During the first report of the description of the syndrome, Freudenberger (1974) recorded the physical and mental exhaustion of health care professionals and other specialties. The practice of interpersonal interaction and dependence on other people developed.

Around the same time, Maslach [4] began studying the syndrome. Maslach [4] looked at the defense mechanisms created by employees in service occupations such as distancing or lack of interest in the subject, concluding that a large proportion of employees had negative feelings about their patients or emotional exhaustion [5].

Based on these observations, he formulated one of the most common and accurate definitions of burnout. Burnout was approached as a syndrome caused mainly by stress manifested by emotional exhaustion, depersonalization, and a reduced sense of personal achievement, especially between humanitarian and social contributions (e.g., nurses). However, burnout can be distinguished from stress, as it has a long-term character, while stress is usually considered something more temporary [17].

This three-dimensional perception of burnout has been supported by many studies in the international literature [18]. From its essential point of view, it was identified as a "construction" with a social dimension while maintaining specific clinical repercussions, while it became clear that there were specific elements that appeared regularly in cases of burnout. The emotional difficulty of the health professions, the cynicism that results from employees' efforts to cope with the emotional stress, and the distancing that health workers choose to put in their working relationships were identified. In addition, the high workload, and the negative feedback they often receive from their customers as contributing factors to burnout were recorded. This period was also marked by economic, social, cultural, and historical factors, which also influenced the US health system, making health care a purely professional affair, making it difficult for those who chose to pursue a career in the field to find job satisfaction [19].

From the 1980s onwards, empirical research on burnout began to take a more systematic form, especially after constructing and weighing excellent and reliable tools for measuring the phenomenon. Thus, various models and theories emerged that attempted to analyze the components of burnout syndrome, to identify the factors that contribute to its occurrence, and in general, to give a more global and comprehensive picture of the syndrome.

In addition to the 3D model of Maslach [4], other burnout models were created, which formed the theoretical basis for several studies, while efforts were made to integrate these models [20]. All models attribute a mediating role to burnout in a process that makes stress, along with its interpersonal and work-related causes, a precursor to burnout, resulting in specific changes in employee attitudes and behavior [21]. Contributing to the development of research is the branch of industrial psychology, which considers that burnout syndrome represents the work stress associated with commitment to work, satisfaction, and frustrations arising from work and interpersonal relationships in the workplace and general working conditions [22].

The phenomenon of burnout was the subject of significant research, initially in professionals who provided services in the field of health, because they were considered the most prone to burnout [23]. In the 1990s, other directions on the syndrome were added, and research expanded to other occupations. His measuring tools have evolved methodologically and statistically, and studies have been launched to investigate the long-term effects of work stress to record the effectiveness of his methods of combating it. Since then, burnout syndrome has been studied in people who practiced different support professions such as medical and nursing staff, teachers, social workers, police, lawyers, psychiatric hospital workers, people dealing with young children, prison staff, etc. [9]. These studies were based on the authors' personal experiences [3] or reports based on case studies [10].

In the context of determining burnout, a milestone in the effort of Maslach and Jackson [5], who came up with the development and establishment of a methodological tool for its study, the MBI (Maslach burnout inventory) [24]. Based on extensive empirical research, this standardized burnout tool provided researchers with the methodological tools necessary to study the phenomenon [25].

Maslach and Jackson [5] identified burnout as a syndrome of emotional exhaustion and cynicism, which often occurs in workers whose employment is strongly related to the human factor and, in particular, to the social service professions [5]. It could be said that the definition given by Maslach is quite simple, without the involvement of technical terms. This definition, combined with the successful effort of Maslach and Jackson [5] in developing and documenting a methodological tool for studying and measuring burnout, was a milestone in her empirical study [5]. The burnout scale (MBI) has provided and continues to provide researchers with the methodological tools necessary to study burnout syndrome both in-depth and breadth. It is a widely used scale and evaluates the following three key elements [5]. The MBI scale is still used in most studies. According to Kristensen et al. [26], this research tool has been used in more than 90% of burnout research.

The objectives and the aims of PHCS is to change the activities that will support the overall public employees in PHCS of Greece and global. To use only competent lighting with educate and information's for preventive and protect the employees, to preserve the safer and healthier work environment, minimize the burnout syndrome, also scales measures and education in the frame of period COVID-19 pandemic. Identifying the symptoms of Occupational burnout syndrome so we can catch out the negative effects on employees in PHCS workplace environment.

THEORETICAL BURNOUT MODELS

Most theoretical models attempt to interpret burnout syndrome in terms of a dynamic interaction between the individual and the environment [27]. Many researchers argue that burnout is mainly due to stressful and unfavorable work conditions, such as a busy schedule, lack of autonomy and power, authoritarian management of the organization, and insufficient psychological support [22, 28]. Other researchers point to the importance of individual factors, arguing that burnout depends on the professional's expectations of himself or herself and the area of health in which he or she works [29]. The following are the three most popular models.

Maslach's Three-Dimensional Model

According to the classic definition of Maslach [4], burnout is treated as a syndrome consisting of three main dimensions, which represent different categories of symptoms: emotional exhaustion, depersonalization, and lack of personal achievement of the employee in the workplace [4, 5].

Emotional exhaustion is considered the most important of the three dimensions and is characterized by a decrease in a person's emotional reserves, including feelings of mental and physical fatigue and loss of energy and mood [13]. It refers to mental fatigue and makes the professional unable to concentrate on his work duties. It is about the emotional charge and "drainage" of the emotional world of the employee when he comes in contact with people in his workplace [29]. As emotional exhaustion increases, individuals feel that they are no longer able to give themselves to others or are as responsible in their work as they used to be [23]. Therefore, this dimension is considered a critical component of stress, which governs burnout syndrome [8].

The dimension of depersonalization represents the interpersonal element of exhaustion. Depersonalization typically occurs after emotional exhaustion and refers to the employee's pessimistic, cynical, or overly distant relationship with the people with whom he or she engages in the workplace (e.g., nurse-patient) [8]. Describes the removal and alienation of the employee from his patients/clients and the establishment of impersonal and aggressive relationships with them, as employees in the phase of exhaustion are possessed by a "cold and distant attitude towards their work and the people in their workplace" [23]. According to Cordes and Dougherty [13], depersonalization is characterized by distant feelings and anesthesia towards people. It is seen as a mechanism for dealing with burnout by employees, which "is not only an acceptable reaction but is also professional".

The loss of personal achievement dimension incorporates the employee's level of self-esteem and refers to the feeling he/she acquires of being unable to offer in the workplace and the consequent reduction of his/her performance [2006]. Lack of personal achievement refers to the low level of feelings that the employee has about his skills, productivity, and efficiency [23]. In this phase of burnout, individuals perceive themselves negatively about their ability to perform well at work and maintain positive personal interactions with their work environment [13].

Even if they are successful, they underestimate them; they are possessed by feelings of inadequacy and believe that they cannot change their work data [26], directly affecting their self-esteem and efficiency. For Cordes and Dougherty [13], this type of low self-esteem is at the heart of the personal achievement dimension [13]. For nurses, in particular, the feeling of diminished personal achievement from their work is about their expectations when they enter the profession, based on which they want to help patients, which they ultimately feel they cannot achieve [23].

The Edelwich & Brodsky Model

According to Edelwich and Brodsky [30], burnout refers to a progressive process of depersonalization of reality that does not meet the lofty goals and ideals of the employee. Edelwich and Brodsky [30] described a series of four stages of burnout development that an employee follows from the beginning of his or her career: excitement, doubt and inaction, frustration and frustration, and apathy [30].

At the stage of excitement, the employee is usually at the beginning of his career, as he has just entered the professional arena. He has too high goals, unrealistic and often unrealistic expectations, and invests too much in his work and the relationships he develops with his patients or colleagues. He tries to derive every possible satisfaction from this space, devoting a lot of time and energy to his object [30].

In the stage of doubt and inaction, the employee finds that his work usually does not meet his expectations or needs and is disappointed. Initially, he believes that if he works more intensively, he will fill this gap and thus devotes even more time to his work. Nevertheless, at the same time, he begins to be bothered by things that at first did not concern him and realize that his work cannot fill the gaps of his personal life [30].

In frustration and frustration, the employee feels that he is working in a job that creates much stress and believes that everything he offers is vain. This leads to frustration and questioning of his abilities. However, this phase is transient, as it either revises its unrealistic goals or gets to the point of gradually moving away from the sick and, in general, from its workplace, stressful situations [30].

In the stage of apathy, the employee avoids any responsibility towards others while trying to fight the frustration and frustration caused by his profession. In essence, he maintains his position purely for livelihood reasons while investing minimal energy in his duties, ignoring his patients/clients' needs to cover the inadequacy he feels towards them. The result is that tensions increase in his relationships with influential personalities and his social environment, and at the same time, he does not find a supportive context in such a problematic and dead-end phase of his life [30].

The Interactive Model of Cherniss

According to Cherniss [31], burnout is more of a "process" than an individual "event" and is created by the mismatch between what people believe they get from their work and what they offer to others. The model is based on an overview of the factors that cause burnout and employees' expectations when entering their work environment. It is described as a process that follows three stages (phases): work stress, exhaustion, and defensive ending [31].

The exhaustion stage corresponds to the emotional response to the previous imbalance, which manifests itself in emotional exhaustion, stress, fatigue, boredom, lack of interest, and apathy. The workplace is a source of exhaustion for the employee, while his attention is focused more on bureaucratic aspects than on clinical parameters. The employee is in a state of constant tension, which may lead to frustration and resignation if he fails to manage it properly [31].

The defensive phase concerns the stage where changes are made in the attitude and behavior of the employee, who gradually stops investing in his work emotionally and shows cynicism and apathy for others. These changes help reduce the physical and psychological consequences that occur in the hope that the employee will be able to survive professionally [31].

Cherniss [31] model describes burnout on three levels (individual, social, organic), arguing that employees' work environment and individual characteristics can act as sources of stress. The employee tries to reduce the pressures he receives daily in various ways, such as reducing the goals of the job or adopting a less idealistic approach to his work. If he fails

to achieve this, then this person is experiencing burnout syndrome.

BURNOUT MEASUREMENT SCALES

The systematic study and recording of burnout are based on the use of standard questionnaires. In the majority of studies, the phenomenon is assessed using the MBI, which measures the three characteristic dimensions of burnout, or the burnout scale for health personnel (staff burnout scale for health professionals [SBSHP]), which measures the psychological manifestations, behavioral manifestations, and organic parameters of the syndrome. Through these tools, the degree of burnout is recorded based on specific measurement scales or correlated with other parameters, such as job stress and job satisfaction, indirectly or directly indicating burnout.

Maslach Scale (The Maslach Burnout Inventory–MBI)

It is the most popular and widespread measure of burnout syndrome. The Maslach questionnaire [4, 5, 23] consists of 22 questions that measure the three building blocks of the syndrome.

This tool asks employees to show the frequency of their emotions during the work year. Each question is scored on a seven-point Likert scale, with 0 meaning never showing what is being asked and six meaning feeling every day [8].

The nomenclature of the last two dimensions was later formulated by Maslach [8]. First, depersonalization was called cynicism, describing all the negative attitudes and behaviors (frustration, demystification, lack of trust in people, and situations) that employees manifest in their workplace. Respectively, the reduced personal achievement was renamed reduced efficiency and refers to the employee's feelings related to a personal assessment of his/her efficiency deficit, productivity achievement, and ability to cope with any task assigned to him [29].

The Maslach scale refers mainly to social workers and teachers, as its use in other industries has not had satisfactory results. A new scale was created to fill the gap, the MBI-GS (MBI-General Survey), for research in all occupational categories [24].

Burnout Inventory (BI) Scale

The BI scale was generated by Maslach-Pines [22] and consisted of 21 questions, which are scored on a Likert scale with 0 meaning "never" and six meaning "always." The overall score is the average of the answers. The questions represent the three building blocks of burnout syndrome. Unlike MBI, it does not refer to a specific type of work, and it has reliability and validity [15].

Stuff Burnout Scale–SBS

The staffing scale refers to the staff of health professionals [32]. It consists of 30 questions based on Maslach's theoretical approach and contains questions about behavior and physiology. The last ten questions are a scale of lies to detect trends for "good answers."

SBS assesses the individual's adverse cognitive, emotional, psychological, behavioral, and sociological reactions causing

burnout syndrome. For example, Jones [30] cites four factors: job dissatisfaction, psychological and interpersonal tension, physical illness and risk, and unprofessional relationship with service recipients.

Oldenburg Burnout Inventory–OLBI

The OLBI scale was created relatively recently and included building blocks of burnout, release, cynicism, and diminished personal achievement. Its creation was the bilateral formulation of the questions of the structural elements of the syndrome. While the MBI had only negative wording in its questions, OLBI has half negative and half positive wording to cover the description of the building blocks on both sides. The scale is used for all employees, i.e., for professions in which there are no contacts and provider-customer relations [33].

Copenhagen Burnout Inventory–CBI

The CBI was created by Kristensen et al. [26] during the PUMA study of service workers in Denmark. It is designed after careful research and is based on a set of theoretical assumptions. It contains three different scales: a scale that measures general burnout and is called personal burnout syndrome, a second related to the work part, and a third related to the employee-customer relationship. The first scale questions are inspired by BI, the second by the MBI and MBI-GS sub-scale of emotional exhaustion, while the third scale questions were formulated recently and are new. Nevertheless, existing studies show that measuring the syndrome in different occupations is possible using the CBI.

The Copenhagen Psychosocial Questionnaire, COPSOQ II

The COPSOQ II questionnaire is the evolution of COPSOQ I. It is a complete tool that records some psychological, personal, and organizational factors that contribute to the onset of the syndrome and the occurrence of effects on the employee's physical, psychological, and mental level [26]. Includes 41 subscales with a total of 127 questions. Some of the most recent sub-scales refer to trust, justice, socialization at work, job differentiation, work rhythm, recognition, family-work conflict, and workplace behavior. COPSOQ II is a multifactorial tool for measuring psychosocial factors, including burnout syndrome, in one of its subscales.

CHARACTERISTICS OF BURNOUT SYNDROME

Burnout Components

Burnout syndrome is an issue that has been the subject of much research, especially for certain professions such as health professionals, teachers, and police officers. The key features of burnout syndrome are emotional exhaustion, depersonalization, and a diminished sense of accomplishment [34]. These characteristics are the three main components of burnout and are analyzed in this section.

Emotional Burnout

Emotional exhaustion refers to how one feels when one is emotionally overwhelmed by one's contact with others. As emotional reserves dwindle, the professional feels unable to invest extra energy in his work and others [35]. Levels of emotional exhaustion depend on the physical exhaustion that a professional feel. Too much hard work means physical fatigue and reduced physical endurance. This has the effect of increasing the stress for the professional and consequently the gradual reduction of his psychological reserves [36].

In the work environment, the employee's relationships with his patients-clients-are relationships of constant interaction influenced by the various conditions that prevail. Therefore, when situations of stress and anxiety are created for an employee, his attitude towards others is also affected. The reason is that the employee feels an emotional charge which makes him feel that he does not have the necessary energy and mood to invest emotionally in his work, thus starting to create an attitude of distancing himself from his work and therefore from the clients [37].

Emotional exhaustion is the primary dimension of burnout syndrome, and the other two dimensions of the syndrome are based on it [37].

Depersonalization

Depersonalization is a kind of distancing of the professional from his associates and clients. It is the result of emotional exhaustion and is developed by the body as a defense mechanism. Depersonalization is the process of disengaging the employee from the stress, pressure, and fatigue he experiences [38].

Depersonalization is manifested by the emotional and / or physical removal of the professional from his job. An employee with burnout syndrome is characterized by poor communication and a negative or cynical attitude towards the recipients of his services. It should be noted that when a professional has developed burnout syndrome, he / she has a negative attitude towards his / her patients, and when he / she refers to them, instead of doing it by name, he / she addresses by room number or type of disease [7]. Therefore, depersonalization is the result of emotional exhaustion, while it is the cause for creating feelings of failure [38].

Lack of Personal Achievements

Lack of personal achievement is the third and final component of burnout and is associated with negative self-esteem. Lack of personal achievement, in essence, means a decline in ability and productivity at work, resulting in the sense of failure and the manifestation of effects on the work environment, family, decline in mental and physical well-being, and health effects [39].

The lack of personal achievement is manifested by the employee with a decrease in performance and endurance, with a lack of satisfaction and pleasure from his work, leading to his resignation from trying to handle patients' problems. The employee evaluates himself negatively concerning his work and the services he provides to patients. As a result of all this, he cannot cope with the workload pressure and feels incompetent. He loses his mood for personal development and improvement, self-esteem decreases, and depression gradually begins [7].

In order for the employee to overcome the specific problems, he will need the help of a specialist, in order to

change either his attitude, the way he treats his work, or his expectations and to find his lost interest. Otherwise, the employee may be fired from his job as an escape. In general, the health professional questions his professional activity and experiences feelings of pessimism and disrepute [7].

As a result of these three factors, namely emotional exhaustion, depersonalization, and a reduced sense of personal achievement, the employee loses proper and healthy communication at every level, individual, social, professional with the patient, relatives, and other colleagues [37].

EVOLUTIONARY STAGES OF BURNOUT

As already mentioned, burnout syndrome does not appear suddenly, but it is a syndrome that occurs gradually over time and is due to the work stress experienced by a professional. In intense stress situations, the employee feels that he cannot cope with the pressure, as he does not have the mental and emotional reserves.

According to the literature review and the model of Edelwich and Brodsky [30] burnout syndrome is divided into four main stages, which are the following:

1. Enthusiasm stage.
2. A stage of doubt and inaction.
3. A stage of frustration.
4. Stage of apathy.

However, according to the theory of Freudenberger and North [40], burnout can be divided into 12 sub-phases.

ETIOLOGICAL FACTORS THAT CONTRIBUTE TO THE APPEARANCE OF BURNOUT

Burnout syndrome does not come from an individual event but is the result of chronic work stress accumulated in a professional and leads to exhaustion of his mental and physical condition. In order for a professional to experience chronic work stress situations, various causal factors must be intertwined related to both the environment and working conditions and the individual characteristics of the professional [41].

Therefore, the causal factors that contribute to burnout syndrome are divided into two main categories: environmental and individual factors [15]. The category of environmental factors includes stressful working conditions, which are associated with various problems in the workplace, such as workload, lack of organizational planning, health and safety conditions, adequacy of infrastructure and equipment in the workplace, labor relations, work climate, work content, extended working hours, night shifts, many trips and lack of justice [41].

Regarding the individual factors that have a causal relationship with the appearance of burnout, they include the interpretation of working conditions by the professional himself, his work motivations, and his expectations from his work environment [15]. According to the theory of Maslach-

Pines [22], burnout is due solely to stressful working conditions, while the individual characteristics of the professional determine the time of onset of the syndrome and the intensity of symptoms.

The interpretation of stressful working conditions depends to a large extent on the motivation of the employee himself to choose the specific job, but also his expectations regarding his personal development. In addition, work motivation is part of an employee's expectations associated with his profession. For example, when an employee's job position does not match the size of his or her job offer, stress will likely develop, which can lead to burnout if not addressed in time [22].

In addition, when employees have very high expectations for their job, their development, and themselves, they are very likely to develop burnout syndrome. According to research, overconfidence at work and perfectionism are factors associated with unpleasant situations in employees' personal and professional lives. It should be noted that when a professional sets unrealistic goals for his job, he may undertake a larger volume of work, considering that everything is possible. This will result in a constant tension that can lead to stress and disruption of his physical and mental health, significantly increasing the likelihood of burnout [42].

Expectations that are causal factors of burnout syndrome include demands from the workplace, such as recognition, prestige, remuneration, and the possibility of professional development [43].

Finally, in addition to these critical factors associated with the appearance of burnout, studies have shown that burnout syndrome can also be due to factors such as age, gender, personal experiences of the professional, emotional maturity, marital status, and socioeconomic status [43].

SYMPTOMS OF BURNOUT SYNDROME

The symptoms of burnout syndrome can be classified into three main categories: physical, emotional, cognitive, and behavioral. This section describes the symptoms of the syndrome by category. It is noted that, for the diagnosis of the syndrome, the employee does not need to have manifested all the symptoms, but several of them [44].

1. Physical level [44]
   a. Fatigue/exhaustion.
   b. Sleep disorders (insomnia or excessive sleep).
   c. Overvoltage.
   d. Headaches/migraines.
   e. Gastrointestinal problems/ulcer.
   f. Common illnesses/colds.
   g. Weight fluctuation.
   h. Respiratory problems.
   i. Elevated cholesterol levels.
   j. Speech disorders.
   k. Nail biting.
   l. Cry.
   m. Eating disorders.

n. Myosceletical problems.

o. Sexual dysfunction.

2. Emotional-cognitive level [44]

a. Emotional exhaustion/apathy.

b. Stress.

c. Sadness/depression.

d. Remorse/guilt.

e. Irritability/lack of patience.

f. Lack of interest/boredom.

g. Decreased self-confidence.

h. Loss of humor.

i. Alienation.

j. Depersonalization of patients.

k. Negative/cynical mood.

l. Inability to make decisions.

m. Suspicion.

n. Thoughts of failure.

3. Behavior level [44]

a. Reduced performance at work.

b. Inability to concentrate, set goals, and organize.

c. Frequent accidents.

d. Use of alcohol and drugs.

e. Conflicts with colleagues and/or family.

f. Frequent absences from family.

g. Workaholism.

h. Reduced communication.

i. Lack of enthusiasm for work.

j. Inability to deal with situations.

k. Increased complaints at work.

EFFECTS OF BURNOUT SYNDROME

As already mentioned, burnout syndrome can be caused by physical and mental disorders or cognitive impairments. In addition, the effects of burnout syndrome can be related to feelings of depression, substance abuse, and alcohol, and the possibility of suicidal tendencies for people facing burnout syndrome is not ruled out. The effects of burnout syndrome fall into three sub-categories: effects on mental and physical health, effects on interpersonal relationships, and effects on work behavior [45].

At the level of physical and mental health, people with burnout syndrome show depression, are irritable, do not have patience, are hypersensitive to diseases, have health problems such as hypertension, migraines, headaches, colds, shortness of breath, musculoskeletal problems, diseases cardiovascular system and gastrointestinal problems. In addition, on a cognitive level, they are likely to lack self-concentration, thoughts of rejection, failure, etc. [42].

In terms of their interpersonal relationships, people with burnout are very likely to have a deteriorating relationship with their colleagues and order their relationships with their

family and socially. Finally, people with burnout are more likely to be dissatisfied with their workplace, be absent frequently from work, or even want to change either a job or an occupation [45].

BURNOUT COSTS

Burnout syndrome impacts not only the professional but also on the business in which he works. The cost of burnout is either direct or indirect. The immediate cost of burnout includes cash costs from employees' absence from work, loss of productivity, health insurance, possible accidents at work, illness, or even death on the job. Indirect costs of burnout include factors that do not directly translate into monetary units, but indirectly affect the effective operation of an organization [46].

Typical examples of indirect costs of burnout in an organization are the change in work efficiency in quantity and quality, the difficulty of the production unit in hiring and retaining suitable employees, the difficulty in implementing innovations, the increase in strikes, and the change in the quality of working life. Finally, it has been established that when in a company or organization, the percentage of employees who have shown symptoms of burnout exceeds 40%, then the organization is characterized as unhealthy [46].

PREVENTING AND TREATING BURNOUT

Preventative and Intervention Strategies for Burnout

The preventive management, intervention strategy and policy that plays crucial roles association and correlation with burnout in public health care sector and training needs and quality education during COVID-19 Pandemic is belong summary:

- Minimize the rate of burn out in employees, provide upper levels in job satisfaction and training [47, 48]. When in an organization, the percentage of employees who have shown symptoms of burnout exceeds 40%, then the organization is characterized as unhealthy [46].

- Workplace environment affects the level of burnout for public health inspectors [49].

    • Employees in rural workplaces reported higher scores of burnout in all dimensions (emotional exhaustion, personal accomplishment, and depersonalization). Malakouti et al. [50] indicated that in rural areas high levels of burnout are reported, facilitated by the increasing duties, job ambiguity and conflict, lack of participation in job planning, and lack of interaction with health authorities.

    • Indicated that in rural areas high levels of burnout are reported comparison to urban or semi-urban locations, facilitated by the increasing duties, job ambiguity and conflict, lack of participation in job planning, and lack of interaction with health authorities. Preventive and give new intervention
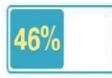
Figure 1. Accountemps survey [51]; Stanford University Graduate School of Business meta-analysis [](2015)

strategy in workplace safety and occupational health in public health sector services and organizations [52].

- Research study of Adamopoulos et al. [49] was the first to report the training needs in Public Health Care Sector (inspectors), and also the first to document the link between burnout and demographic variables to training needs.

Given a report for example how serious and the cost for all the society also in high developed and economically robust country like United States the cost in public health care sector from the Burnout syndrome (**Figure 1**).

- During the COVID-19 pandemic, global financial crisis, job insecurity, decreased salaries and social instability where working conditions changed, risk factors were affected, risk increased and interpersonal working relationships had a particular impact under the period of the pandemic, especially for health professionals who were in the frontline [49].

- In connection to educational needs were raised, showcasing the areas where there is a necessity for further training to facilitate job performance and quality of work provision for the benefit of society as a whole and public health (lifelong learning) [47].

- Public health care sector tasks are completed though several functions such as inspections, assessments, accidents prevention and consultations with various public and private agents, also to control pandemic crisis COVID-19. Targeted in educational training and specialized training and retraining in direct relation to the current developments and knowledge of the scientific community. Explore the total score in employee and eliminated and control the burnout with research tool Maslach Burnout Inventory, example of use in **Table 1**.

- Specialized personal protective equipment during the execution of their duties in the autopsies and

controls that are carried out, should also be provided.

- This information may also lead to the development of a framework at the European level to address specific job risks of the COVID-19 pandemic providing the necessary human resources, equipment, and job training to limit occupational hazards for public health professionals. Also important factors to preventive strategies and policy in services and organizations, is the associations and correlations of job stress, job satisfaction and burn out in public health sector [53].

Occupational Burnout Prevention Measures

Measures to prevent burnout syndrome include actions and programs to manage negative emotions, social and counseling support and coping with work-related stress [54]. Measures to combat burnout are divided into three primary levels of intervention, based on where each stage is focused and its goals. The levels of intervention are the primary, secondary and tertiary level of intervention [56].

At the primary level of intervention, the strategies developed are related to the measures to prevent the syndrome through reducing stressors. The goal in this case is for the employee to be able to control his work, while at the same time, his professional duties will be in line with his skills and ambitions. For this reason, the strategies designed in this direction are the following [56]:

1. Redesign of work and organizational environment. In general, it is proposed to create a guide that will inform young professionals about their work goals, requirements, and problems.

2. Establish resilient work program.

3. Encourage the participation of professionals in the management and decision-making process.

4. Analysis of job roles. Professionals will have to make a limited number of commitments, easily achievable to enjoy the desired satisfaction.

5. Creation of support groups and networks.

Table 1. Example of statistical analysis of burnout syndrome, Item factor loadings for the Maslach Burnout Inventory research study by Adamopoulos et al. [49]

	Component		
	1	2	3
Eigenvalue	8.35	3.44	2.10
Variance (%)	37.92	15.62	9.57
Emotional Exhaustion			
1. I feel emotionally drained from my work	0.869	-0.151	0.105
2. I feel used up at the end of the workday	0.88	-0.147	0.106
3. I feel fatigued when I get up in the morning, and another day on the job	0.884	-0.077	0.15
4. I feel frustrated by my job	0.804	-0.02	0.28
5. Working with people directly puts too much stress on me	0.654	-0.011	0.477
6. I feel very energetic (R)	-0.027	0.742	-0.078
7. I can easily create a relaxed atmosphere with my recipients (R)	0.041	0.781	-0.182
8. I have accomplished many worthwhile things in the job (R)	-0.19	0.774	-0.063
9. I worry that this job is hardening me emotionally	0.806	-0.125	0.234
Personal fulfillment			
10. Working with people all day is really a strain for me	0.563	0.003	0.516
11. I feel I'm working too hard on my job	0.605	-0.417	0.074
12. I feel like I'm at the end of my rope	0.819	-0.107	0.23
13. In my work, I deal with emotional problems very calmly (R)	-0.218	0.672	-0.093
14. In my work, I deal with emotional problems very calmly (R)	-0.057	0.709	-0.129
15. I feel I treat some recipients as if they were impersonal 'objects'	0.268	-0.057	0.814
16. I've become more callous toward people since I took this job	-0.042	-0.589	0.239
17. I don't really care what happens to some recipients	0.217	-0.162	0.732
Depersonalization			
18. I feel burned out from my work	0.795	-0.112	0.148
19. I can easily understand how my recipients feel about things (R)	-0.313	0.508	0.359
20. I deal very effectively with the problems of my recipients (R)	-0.256	0.694	0.343
21. I feel exhilarated after working closely with my recipients (R)	-0.225	0.105	-0.707
22. I feel recipients blame me for some of their problems	0.263	-0.172	0.648

6. Establish fair labor policies.

The secondary level is also focused on the prevention of burnout. At this stage, interventions focus on managing the burnout experienced by the employee [54]. At the secondary level of prevention, prevention strategies are mainly related to strategies such as [56]:

1. Providing counseling to employees, especially in times of intense work stress.
2. Ability to attend training seminars and training programs to enhance professional's knowledge and stimulate their sense of competence and adequacy.
3. It is recommended to use professional measuring tools on the staff to highlight the symptoms in time.
4. Provide preventive training to employees in strategies for managing their emotions, work stress, and time to apply their knowledge when necessary.

Intervention Program

Intervention programs are the third level of treatment for burnout syndrome [57]. At this stage, the people who face the syndrome are identified, and psychological support groups are created. These groups are small and usually consist of six-seven people. Group meetings are usually weekly and are estimated at approximately six sessions [56].

Intervention programs focus on recovery, service, and counseling processes for employees to reintegrate and return to work. The intervention programs developed at the tertiary level for the treatment of burnout syndrome are the following [56]:

1. Providing advisory support, but not in the form of instructions, but advice.
2. Encouraging the individual to express his/her perceptions and empowering him/her to act.
3. Encouraging the person to express their feelings.
4. Develop techniques to boost their confidence.
5. Development of cooperation. The last stage of burnout is the stage of distancing. To return to normal working levels, one must become cooperative with the rest of the staff.
6. It is recommended that the patient who is faced with burnout syndrome develop activities.

Interventions at Individual and Organizational Level

Various interventions have been developed to deal with burnout syndrome, which refers to both individual and organizational level. The efficiency of the interventions depends on two main factors, which are the employment status and the individual characteristics of the employees [57].

At the individual level, some of the key strategies used to treat the syndrome are related to reducing the tension and stress created by the workplace [58]. The strategies that are developed aim at shaping and maintaining a healthy working life on the part of the employees themselves. These strategies can be used to support social contacts or for effective time management [57].

On the other hand, at the organizational level, various techniques are applied to deal with burnout, which is oriented

towards better planning of organizational spaces, work planning, employee participation in decision-making, continuous education, and training of employees, in clarifying their roles, etc. [55]. It is noted that the ongoing research on burnout and the design of strategies to deal with it pays special attention to supporting employees' family life by the organizations themselves. These actions aim to facilitate the relationship between work and family and reduce the conflict between employees' work and family life [58].

CONCLUSIONS

This study can bear a significant impact of occupational burnout measures scales and education in PHCS, and with the help of various reviews we will catch out the positive and negative effects. The aim of PHCS is to change the activities that will support the overall public employees in PHCS of Greece and global to use only competent lighting with educate and information's for preventive and protect the employees, to preserve the safer and healthier work environment, minimize the burnout syndrome, also scales measures and education in the frame of period COVID-19 pandemic. Identifying the symptoms of Occupational burnout syndrome so we can catch out the negative effects on employees in PHCS workplace environment. This study highlights the effects of period COVID-19 pandemic in PHCS association and correlations with occupational burnout.

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