AMERICAN UNIVERSITY OF BEIRUT

EXPLORING AND CONCEPTUALIZING BROWNOUT AMONG NURSES: A SEQUENTIAL QUALITATIVE STUDY USING GROUNDED THEORY AND COGNITIVE INTERVIEWING

by
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ABSTRACT

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In recent years, a less-known form of work-related stress has been recognized by career coaches and organizational psychologists alike: "brownout." The phenomenon is assumed to pose a significant threat to nurses, as it leads to predictable consequences such as fatigue and burnout. Despite its critical impact, the concept of brownout remains undefined in existing literature, highlighting the need for a clear theory. Lebanon, ranked among the lowest country in nursing density in the Eastern Mediterranean Region, faces numerous challenges, including excessive nurse migration, low job satisfaction, poor retention, and high turnover rates. While studies in Lebanon and globally have primarily focused on burnout among nurses, there is a clear gap in exploring brownout. This study addresses this gap by investigating, conceptualizing, and characterizing brownout among nurses, offering a distinction between brownout and burnout.

Using a sequential qualitative design, this study began with developing a grounded theory, guided by Charmaz's framework, to explore nurses' experiences, perceptions, and the meaning of the brownout phenomenon. Findings identified core domains of brownout—job distancing, exertion, psychosomatic indicators, and lifestyle and social disturbances—alongside its antecedents, barriers, and consequences. A substantive theory of brownout emerged, highlighting its attributes and dimensions, supported by participant excerpts. Building upon this theory, the study employed the DeVellis guidelines to develop an instrument measuring brownout, followed by cognitive interviewing to validate its content and structure. Feedback from cognitive interviews led to refinement, enhancing the instrument's clarity, relevance, and applicability. The final instrument consists of 32 items targeting brownout and 16 demographic questions.

This study contributes a robust theoretical and empirical foundation for understanding brownout, distinguishing it from burnout, and developing an operational definition for its measurement. It lays the groundwork for future research to test the instrument's psychometric properties, explore predictors and outcomes of brownout, and design interventions aimed at mitigating its impact. The findings hold significant implications for addressing nurse retention, fostering a healthier healthcare workforce, and ensuring sustainable community care, particularly in Lebanon's challenging healthcare environment.

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ABBREVIATIONS

ICN: International Council of Nurses
ICD: The International Classification of Diseases
WHO: World Health Organization
ONL: Order of Nurses in Lebanon
HPs: Healthcare Professionals
GT: Grounded Theory
CGT: Constructivist Grounded Theory
CI: Cognitive Interviewing

CHAPTER I

INTRODUCTION

In the wake of the COVID-19 pandemic, economic challenges and financial crises, the nursing profession had already been globally facing significant challenges. Policymakers, health care leaders, and human resource specialists have warned of an impending nursing shortage across the world (Martin et al., 2023). A recent report from the International Council of Nurses (ICN) highlights that the global shortage of nurses should be recognized as a health emergency. The report states that worldwide health systems can only begin to recover and rebuild from the pandemic's impact with adequate investment in a well-supported global nursing workforce (ICN, 2023).

A relatively new state named “brownout” - which is not a common term yet- is being recognized among healthcare services employees and assumed to be more prevalent than burnout. Brownout is described as an occupational syndrome that threatens nurses, and results in predictable consequences of fatigue and burnout (Valette, 2018). The concept of brownout has been studied in various non-occupational wellbeing contexts, such as computing systems (Xu & Buyya, 2019), aeromechanics (Syal & Leishman,2013; Tritschler, 2012), and in power and energy (Agarwal & Khandeparkar, 2021; Hordeski, 2020). However, research on brownout conducted in the context of occupational wellbeing and organizational psychology is scarce.

The state of brownout is assumed to be manifested by lack of interest in the job, staff disengagement and fatigue, and when the disengagement and fatigue become chronic, the staff will enter the burnout phase (Bradberry,2016). The brownout phase is expected to be a reversible phase if proper interventions including engaging employees and decreasing factors that contribute to fatigue are implemented (Kibler, 2015). When

applied to the nursing environment, it may contribute to better nurse retention and decreased intent to leave the profession. Retention of nurses is essential for healthcare organizations because it minimizes the cost of turnover and improves nurse-patient relationships and outcomes, and most importantly patient safety. Based on the above, the prevalence of brownout and its effect on the workforce may be as important as those of burnout; however, brownout has not been investigated among nurses in any country.

Contrary to burnout that is highly investigated among health services employees, very little research has been done on brownout. Academic research up till now has neither explored nor measured the existence and/or prevalence of brownout across occupational groups in healthcare services. Therefore, a clear understanding of brownout is likely to benefit healthcare systems in reducing the nursing workforce shortage gap and restoring the nursing workforce, which directly impact patient outcomes that are related to patient safety (Laschinger,2014). A possible reason for, and a result of, the scarcity of studies on brownout is the absence of a clear definition that captures the experience of brownout.

This study described in this thesis delved into the brownout phenomenon among nurses in Lebanon through a grounded theory approach and progressed to the development of an original instrument to measure brownout. The newly developed tool not only helps to examine the current state of brownout among nurses amidst ongoing challenges but also allows distinguishing this condition from burnout in both present and future investigations.

However, presenting the background of both brownout and burnout is crucial to achieve a comprehensive understanding of these two phenomena, identify their

distinguishing characteristics, and establish a clear foundation for exploring their implications on nurses' well-being and the healthcare workforce.

A. Background

1. The Brownout Stage

The process of employee burnout is developed progressively, from the honeymoon stage or “enthusiasm” until the crisis stage when physical and psychological problems can become severe enough to cause illness that is life-threatening (De H2. ert, 2020). Just before reaching the crisis phase where burnout happens, many good employees are thought to be experiencing “brownout” (Kibler, 2015). Brownout is different from burnout because employees who are afflicted by it do not manifest being in obvious crisis; they seem to be performing fine: putting in massive hours in meetings and calls across time zones, grinding out work while leading or contributing to global teams, and saying all the right things in meetings (Kibler, 2015). However, these employees are often operating in a silent state of continual overwhelm, which often results in predictable consequences of fatigue and ultimate burnout (Rigby, 2015).

The brownout stage is reported to be more prevalent than burnout. In one of its reports, the US coaching firm Corporate Balance Concept recently looked at 1,000 executives; it estimated that five per cent of them suffered from burnout while 40 per cent suffered from brownout (Rigby, 2015). Brownout is believed to be a reversible stage if it is appropriately managed by organizations; if not addressed, brownout can develop into burnout (Kibler, 2015). However, the time frame for this change in stages is a question that needs to be answered.

While existing studies generally focus on the concept of burnout among nurses, to our knowledge, no studies have been done on the brownout state, raising a need to distinguish between “brownout” and “burnout”, in order to characterize brownout more clearly as an occupational- related phenomenon.

2. The Burnout Stage

It is essential to explain the concept and evolution of burnout to better understand the transition between brownout and burnout. Burnout is defined as an occupational phenomenon, not a medical condition or disease. The International Classification of Diseases (ICD-11) describes burnout as a reason other than illness for which people contact and use health services and defines it as a syndrome with three dimensions: feelings of energy depletion or exhaustion, feelings of negativism or cynicism and negativism to one’s job, and reduced professional efficacy (World Health Organization, 2019).

Empirical studies worldwide have shown that nurses suffer from emotional exhaustion more than other health practitioners do (Elbejjani et al., 2020). Given the demands of the profession, nurses rank among the occupational groups most vulnerable to experiencing professional burnout (Marczak & Milecka, 2024). Nurses already experience higher levels of burnout than other healthcare professionals (Sanghera et al., 2020). On average, 11% of nurses worldwide experience high burnout symptoms (Woo et al., 2020). This condition is primarily driven by the effects of prolonged and chronic stress. The nursing profession is associated with a range of different demands; these include physical due to high workload, emotional due to issues related to death and

dying, and social demands due to issues such as conflict with colleagues (Broetje, Jenny & Bauer, 2020).

Work environments in nursing involve specific job stressors such as exposure to pain and death, role stress, lack of support from supervisors, interpersonal conflicts and so on. Thus, working in a hospital setting was associated with 80% higher odds of burnout (Shah et al., 2021). Similarly, Dall'Ora et al., (2020) stated that job-related burnout among nurses can result in mental fatigue, anxiety, lack of motivation and absence from work.

On the other hand, what is unique about the brownout phenomenon, and what distinguishes it from other types of job stress, is what needs to be emphasized in future theoretical formulations. This will be an important first step in distinguishing it as a separate phenomenon from burnout. Otherwise, there will be no justification for the claim that it is a separate, meaningful phenomenon. The importance of first exploring brownout as a concept and second investigating its occurrence among nurses, will be of added value to our knowledge of occupational stress. Moreover, this investigation would inform appropriate interventions to reverse brownout and retain this scarce human resource, i.e. nurses, before they drop into chronic burnout.

B. Significance

Despite the frequent calls for help from the WHO and ICN over the years to raise the voice on the shortage of nurses' issue, it was only after the pandemic hit that the shortage of nurses has been greatly noticed (ICN, 2023). ICN's data show that, since the first wave of the pandemic, the proportion of nurses reporting mental health distress has risen from 60% to 80% in many countries. Studies gathered from every region of

the world confirm rising trauma, anxiety, and burnout in the nursing profession (ICN, 2021). COVID-19 has had a dramatic effect on the nursing workforce worldwide (Lopez et al., 2022). The pandemic has certainly caused a global concern about nursing shortage because it increased nurses' fatigue and required long-term mitigation strategies (Al-Masaeed et al., 2020). Therefore, it is crucial to proactively respond to prevent further nursing shortages.

The nursing shortage was worsened in Lebanon after the Beirut Blast on August 4th, 2020, added complexity to the economic crisis caused by the political crisis, followed by the most recent war on Lebanon, which started on September 2024 till present, and had a direct impact on all Lebanese citizens including the healthcare sector, and negatively impacted the nurses' wellbeing. The suffering of nurses from suboptimal well-being is more serious than ever, more than 3,000 nurses have requested documents to help leave the country, according to the Order of Nurses in Lebanon (ONL, 2022). Drastically, it is estimated that 14% (2,500 out of a total of 17,960) of the registered nurses' workforce in Lebanon have migrated to work abroad since 2019 (ONL, 2022). Registered nurses have emigrated at an accelerated pace since the October Revolution in 2019 (Saoud, 2020). Therefore, looking into solutions to retain nurses into the profession in the country, improve their well-being and attract more nurses into the field is now a top priority.

Lebanon has suffered from low nurse density before the pandemic, as it ranked as the eighth lowest country in nursing density in the Eastern Mediterranean Region (El-Jardali et al., 2014), and is believed to be suffering from excessive nurse migration, low job satisfaction, poor retention, and high turnover. In fact, a cross-sectional study on a sample of 1,793 working nurses in 69 different hospitals done by El-Jardali et al.,

(2009), showed that one out of five nurses leave the country within the first to second year of graduation. The most recent report on low density of nurses in Lebanon was revealed in the (2018) World Bank Report, which noted that the ratio of nurses (including midwives) per 1,000 population is 1.9 in Lebanon; whereas the Eastern Mediterranean and North Africa Region ratio is 2.3 per 1,000 population, and the mean global density is 3.7 per 1,000 population. The records of the Order of Nurses in Lebanon (ONL) reveal a growing number of Lebanese nurses leaving the country and working abroad (Alameddine et al., 2017). With the new graduates leaving the country, Lebanon has less access to nurses, which ultimately affects the quality of health care (Alameddine et al., 2020).

For nurses to work effectively, they need to manage the pressures of their everyday work, especially when there are acute staff shortages. Effective nursing work requires more than the facilities and equipment to deliver health services; it requires nurses who can cope with their workload without becoming overly stressed and subsequently be protected from burnout (de Oliveira et al., 2019). Early detection and even prevention of burnout are needed. Brownout, which is assumed to be a precursor of burnout (Kibler,2015), needs to be identified and managed accordingly. The need for a study to explore brownout among nurses in Lebanon aligns with the WHO goals by drawing attention to the need to screen nurses for brownout and prevent them from reaching burnout.

C. Purpose

The purpose of this study was to investigate, conceptualize, and characterize brownout among nurses. While existing studies generally focus on one concept of

burnout among nurses in Lebanon, there is a high need to distinguish between "brownout and "burnout" and investigate brownout levels in a sample of registered nurses. The significance of studying brownout of nurses in Lebanon lies in its potential future benefit of providing the basis to develop interventions to reverse brownout and help retain the nurses; the retention of such important workforce is essential for a healthy healthcare system and community. Our aim was to explore this phenomenon and identify its nature of meaning, its dimensions and attributes and formulate an operational definition that will guide its measurement as a concept.

1. Study Aims

The aims of the study included:

Aim 1: To explore the experiences of nurses during the state that precedes burnout.

Aim 2: To develop a theoretical framework of brownout using a constructivist grounded theory approach.

Aim 3: To develop and test a questionnaire for the assessment of brownout.

CHAPTER II

LITERATURE REVIEW

A comprehensive literature review was conducted to provide an overview of the current knowledge of nurses' brownout and burnout. The review revealed that the majority of research work published has focused on burnout, including its dimensions, measurement tools, predictors, and impact on nurses. However, there is a significant lack of research on brownout. Searching the literature, the term "brownout" is widely recognized in fields such as natural resources for energy and power, rotorcraft aerodynamics, and computing systems (Xu & Buyya, 2019; Agarwal & Khandeparkar, 2021; Hordeski, 2020). Only recently, brownout has been identified as an occupational pathology related to work-induced stress (Kibler, 2015).

Until now, there has been limited published research on brownout. An extensive literature search yielded little to no academic research that has been done on the phenomenon, and no reported studies measured the prevalence of brownout across occupational groups in human services. A possible reason for, and a result of, the scarcity of studies on brownout is the absence of a clear definition that captures the experience of the phenomenon. On the other hand, burnout has been an attractive topic for research globally, resulting in a large amount of theoretical and empirical data that cover the nature of the phenomenon, its dimensions, and associated factors. Nonetheless, since the nursing and healthcare field lacks this kind of rich knowledge on brownout, an overview of theoretical approaches to the study of burnout can help to better understand the nature of the concept and how it evolved over time. This will allow for a better understanding of the difference between brownout and burnout.

One of the fundamental difficulties in exploring the brownout concept is to differentiate it from the burnout concept, especially when it comes to the domains of the concept. From a theoretical perspective, it is postulated that burnout and brownout are related, but at what points do these two concepts meet and/or separate is what we are trying to identify.

A. Brownout

In recent years, a less-known form of work-related stress has been recognized by career coaches and organizational psychologists alike: “brownout.” The term brownout originates from the energy industry, where a drop of voltage in electrical power causes lights to either dim or flicker. In the working world, employees who suffer from this condition experience a similar drop in their energy levels, becoming disengaged and demotivated, and suffering from a complete lack of interest in their job (The Institute of Leadership & Management, 2021). Even though brownout is believed to precede burnout, it is much more prevalent in any workplace (Kibler, 2015).

However, the term “brownout” was used to refer to employees working long hours without any real interest in their job, leading to their disengagement, discontent, and lethargy (Mensura, 2017). More recently, career coaches are increasingly recognizing brownout and referring to it as an emerging sibling of burnout. In an article on career coaching, it was stated that brownout is characterized by the employee not seeing any sense, or any purpose in what he/she works for, so that the staff affected by brownout become disengaged, demotivated, and lose interest in their jobs (Benseghir, 2020). Knani & Gril (2022), illustrated brownout as a stage between the two extremes of burnout and boreout, caused by partial or complete loss of purpose in one's job,

leading to disengagement or even a mental or formal withdrawal from the role. Those affected by brownout begin to question the very reason for going to work each day, feeling disillusioned and overwhelmed by the perceived futility and meaninglessness of their tasks. The term brownout, as outlined in the Harvard Business Review by the US coaching firm Corporate Balance Concepts, is defined as a troublesome low-level fatigue that could indicate a full-blown burnout is on the way. In this report, the coaching firm estimated that 40 per cent of the 1,000 executives studied suffered from brownout, while five per cent suffered from burnout (Kibler, 2015).

Alvesson and Spicer (2016) hypothesized brownout as a severe, long-term condition with detrimental impacts on both organizational effectiveness and the psychological well-being of individuals. Baillant et al (2023) conducted a qualitative study to explore brownout among ICU physicians during COVID-19 in France, the authors stated that brownout indicators include sleep disorders, uncertainty of professional career prospects, feelings of uselessness and weariness, demotivation; disillusionment, loss of commitment; dissatisfaction and work-related malaise. Additionally, they stated that brownout was harder to identify as it stems from a sense of mental resignation and questioning of work values.

For healthcare providers, brownout was described as a phenomenon related to the impairment of the philosophical conception of the purpose of work, and healthcare providers afflicted by brownout lose their goals and become unmotivated, disinvested, tired, and irritable (Valette, 2018). Valette (2018) mentioned that brownout should not be confused with burnout because it is the loss of meaning of care for the caregiver that is responsible for the symptoms and not overwork, concluding that brownout is an

occupational pathology that threatens physicians and nurses, and results in predictable consequences of fatigue and burnout.

Miller and Smith (1993) stated that brownout is the 3rd stage in their Five Stages of Burnout Model. They described brownout as a stage where fatigue and irritability are prominent, work performance and productivity obviously deteriorate. According to Creagan, (1993), the concept of "brownout" is more relevant to a decrease in joy-filled experiences than to a complete lack of enthusiasm. Another depiction of the term described employees who suffer from brownout conditions to experience a drop in their energy levels, becoming disengaged and demotivated and suffering from a complete lack of interest in their job (Lucken, 2017).

Unlike burnout, which is a sudden state of exhaustion, brownout can have long-term lasting effects on a person's professional and personal life (Bradberry, 2016). The primary reason that brownout is so problematic is because workers afflicted by it are not in an obvious crisis. It may not always be noticeable to the naked eye that employees are in this overwhelming and disengaged state. Consequently, many employers may be shocked when their top performers abruptly resign and move to a new employer. However, brownout does not only affect employees, but leaders also who are suffering from brownout can be toxic for the work environment, often negatively infiltrating the company culture by ignoring new ideas, not supporting new talent, or generally becoming withdrawn from their role (Gatens, 2019). As brownout begins, the early enthusiasm and energy give way to low-level exhaustion and irritability. It is a reversible stage that can be appropriately managed by organizations (Kibler, 2015). Unless interrupted, brownout is expected to slide into the next irreversible stages of full-blown burnout.

The lack of theory on brownout reflected the newness of the phenomenon and much remains to be discovered about its parameters before a theoretical model could be developed. Additionally, a different process occurs when one starts with a real-world problem and works back toward a theoretical model, i.e. an inductive approach, rather than vice versa (starting with a theory and then deriving some implications for a particular social issue) or a deductive approach (Maslach & Schaufeli, 1993).

A concept analysis of brownout following the method of Walker and Avant's (2005) was conducted by the investigator to develop an understanding of the phenomenon (manuscript in progress). The attributes of brownout are identified as preliminary two dimensions: a mental distance component (unwillingness to invest energy manifested by loss of interest, disengagement, demotivation) and an energetic component (inability to invest energy manifested by exhaustion). The antecedents of brownout are divided into three factors, personal-related factors (include personality traits and characteristics), job-related factors (include job demands and job resources). and environmental-related factors (economic, social, cultural factors). If brownout was not reversed into well-being, its consequences are burnout, staff turnover and intention to leave.

In a pilot study conducted by the investigator, the concept of brownout was explored among a sample of 142 nurses working in Lebanese hospitals and healthcare facilities. The data were collected between October and December 2019. The mean score of total brownout on a scale of 0 to 222 was 100.8 (SD 44.335), which indicated that the nurses self-reported a moderate level of brownout. Since this tool was the first to measure brownout among nurses, the results could not be compared to other studies. The tool to measure brownout was developed from the Brownout Inventory by

Greenberg (1987) in the prior study, and its content and face validity were tested. However, the tool used was not built on the operational definition of brownout, thus it does not contain all the above-mentioned attributes of the phenomenon. Moreover, in the prior study, mental distance attributes among nurses were not measured. It is hypothesized that unwillingness to invest energy (mental distance) is a major domain in measuring brownout and it is essential to include it in measuring brownout.

B. Theoretical Literature of Burnout

The term burnout was introduced by Freudenberger in 1974 when he observed a loss of motivation and reduced commitment among volunteers at a mental health clinic (Dall'Ora et al., 2020). Freudenberger described burnout as a state of emotional depletion, loss of motivation and commitment accompanied by a variety of physiological and psychological symptoms (Heinemann & Heinemann, 2017). Burnout is also reported as the state of becoming exhausted by making excessive demands on energy strength, or resources in the workplace, he argued that the symptoms of burnout are in the context of work environment, so burnout is job-related and situation specific (Shaufeli, 2018).

By the late 1980s, researchers began to recognize that burnout occurred outside the health services, for example, among managers, entrepreneurs, and white- and blue-collar workers (Schaufeli et al., 2009). The burnout research conducted was mainly to develop interventions and identify predictors rather than produce theory. Therefore, the findings of burnout studies were criticized since there had been no theoretical model to support it (Maslach & Schaufeli, 1993). There was a need to develop a conceptual framework to integrate and evaluate those findings on burnout research. Consequently,

the focus of burnout research shifted to the development of a theoretical framework from the contributions of industrial organizational psychology (Maslach, 2004). The theoretical approaches applied to burnout are divided into three categories, the interpersonal approach, the individual approach and the organizational approach.
The original work on burnout was in human services occupations and was based on individual and interpersonal approaches. According to Schaufeli et al. (2018), the individual approaches are comprised of the following: (a) proposing an action model of burnout by Mattias Burisch (1993), (b) developing a framework of burning out process by Lennart Hallsten, (2010) and (c) applying the conservation of resources theory (COR) to burnout by Stevan E. Hobfoll and John Freedy, (1993).

The interpersonal approaches include (a) defining a multidimensional model of burnout (MBI) by Christina Maslach et al. (1996), (b) describing an existential model of burnout by Ayala M. Pines (1998), and (c) applying the Social Comparison theory to burnout by Bram P. Buunk and Wilmar B. Schaufeli (1993).
The organizational approaches include (a) linking professional self-efficacy and burnout by Cary Cherniss (1993); (b) applying the organizational theory to burnout by Jacques Winnubst (2018); and (c) the Job Demand- Resource Model by Demerouti et al., (2001).

In the 1980s, Maslach and colleagues came across the term burnout when interviewing a variety of human services workers. Based on their interviews and observations, they developed a method for assessing burnout as a multidimensional construct that went beyond mere exhaustion (Maslach & Jackson, 1981). Maslach defined burnout as a syndrome of three dimensions that include emotional exhaustion, depersonalization, and reduced personal accomplishment that can occur among

individuals who work with people in some capacity (Maslach et al., 1996). Based on this operational definition, Maslach developed the Maslach Burnout Inventory and the multidimensional burnout theoretical framework (MBI). This included three dimensions (exhaustion, depersonalization, and personal accomplishment) and it was the very first theoretical framework for burnout, and it is still the most widely used one (Schaufeli, Leiter & Maslach, 2008).

Pines and Aronson (1988) stated that burnout can happen in any occupational field and not only related to the human services field. They defined burnout as a state of physical, emotional, and mental exhaustion caused by long- term involvement in situations that are emotionally demanding (Schaufeli, Leiter & Maslach, 2008). Despite the three dimensions of exhaustion mentioned in their definition, Pines & Aronson (1988) operationalized this definition by developing the 21- item Burnout Measurement (BM) that measures burnout with a cumulative score after computing responses to the 21 questions. Pines & Aronson (1988) studied burnout from an existential perspective, such that employees who did not achieve their existential significance by meeting their expectations will experience burnout (Pine & Aronson, 1988). They developed the Existential Model of Burnout to support their BM tool with a theoretical framework. This BM tool is the second most widely used burnout measure (the first one is the MBI) in research on burnout (Pines & Anderson, 1988). This may be partially because investigators are more attracted to use a scale that yields one score to measure burnout instead of three scores, which is the case of the MBI scale (Enzmann et al., 1998).

Despite being considered the gold standard for research on burnout, the Maslach Burnout Inventory (MBI) has been criticized for many weaknesses, including its underpinning conceptualization. Demerouti et al., (2001) argued that burnout is rather

defined as a state, where both exhaustion and disengagement are simultaneously present and represent the burnout syndrome. An alternative measurement tool, the Oldenburg Burnout Inventory (OLBI; Demerouti,2001) with two dimensions (exhaustion, disengagement) was proposed, Demerouti et al. (2001), adopted the Job Demands-Resources (JD-R) Model of Burnout to support their tool.

The debate around the dimensionality of burnout and its scope continued between scholars. Kristensen et al., (2005) debated that the MBI theoretical model and tool are controversial for use. The primary concerns were that depersonalization is seen as a kind of a coping strategy and not as a part of a burnout syndrome, and reduced personal accomplishment is regarded as being burnout (Kristensen et al., 2005). Therefore, from a theoretical point of view, the original definition of burnout is a mixture of symptoms, coping and consequences. Kristensen et al., (2005) debated that such different phenomena should be defined and measured as distinct entities and not as one construct. Indeed, prior research has revealed that lack of personal accomplishment acts differently from the two other MBI dimensions, suggesting that lack of personal accomplishment might not be part of the burnout construct (Schafeuli & Taris, 2005).

As a result, the Copenhagen Burnout Inventory (CBI) tool was specifically developed for the Burnout, Motivation and Job satisfaction (Danish acronym: PUMA) study held in Denmark. The PUMA is a five-year prospective intervention study on burnout in the human service sector (Kristensen et at, 2005). The CBI focuses on exhaustion as the core of burnout, creating a one-dimension measure in contrast to the three-dimensional MBI scale. Kristensen proposed that the definition of the core of burnout is fatigue and exhaustion. They report that it is person, work and client related (Kristensen et al., 2015). The study and tool were developed based on a theoretical

framework of attribution of symptoms to personal domain, work-related domain, or client-related domain. It is important to note that, if exhaustion is the core criterion to measure burnout but is not sufficient alone, this puts a limitation on the conceptual underpinning of the CBI scale because it equates the burnout with exhaustion, resulting in measuring one construct with two definitions.

Most recently, Schaufeli et al., (2020) introduced a new definition for burnout. A model with four core dimensions: exhaustion, mental distance, and emotional and cognitive impairment, and three secondary dimensions: depressed mood, psychological distress, and psychosomatic complaints emerged. This model constitutes the basis of the new definition and the newly produced tool, the Burnout Assessment Tool (BAT). Schaufeli et al. (2020), defined burnout as "a work-related state of exhaustion that occurs among employees, which is characterized by extreme tiredness, reduced ability to regulate cognitive and emotional processes, and mental distancing. These four core dimensions of burnout are accompanied by depressed mood as well as by non-specific psychological and psychosomatic complaints" (P. 4, Shaufeli et al., 2020).

The chronology of original definitions of occupational burnout are summarized below and illustrated in Figure 1.

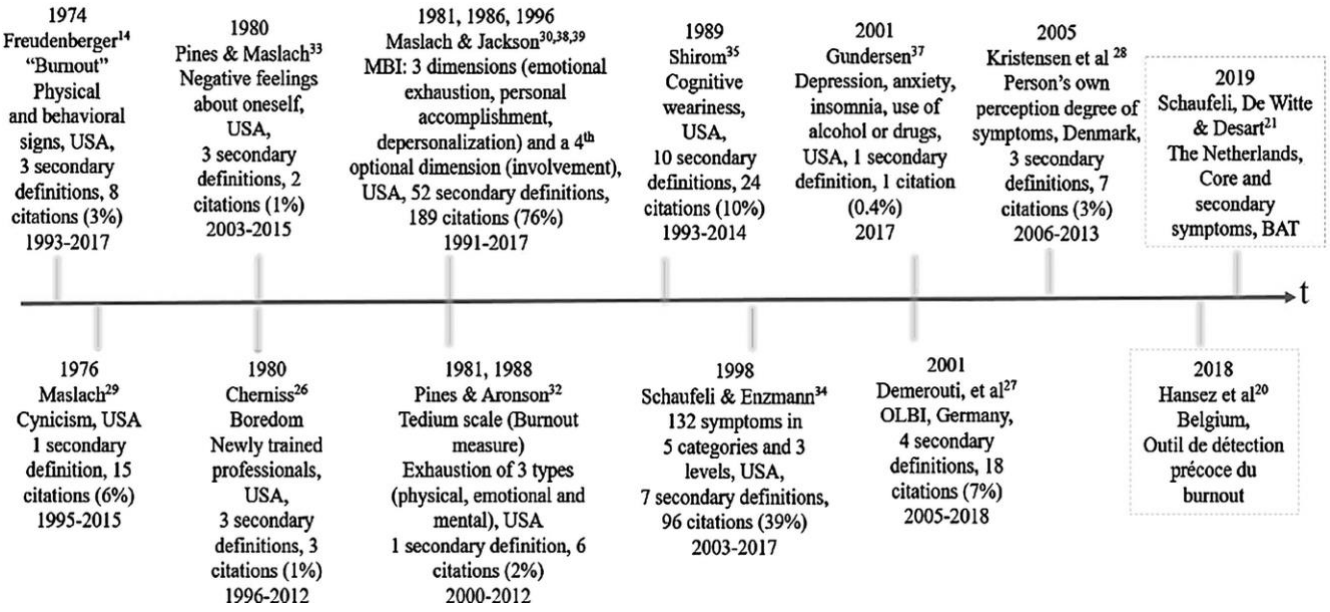

Figure 1. Chronology of original definitions of occupational burnout (Canu et al., 2019)

C. Empirical Literature on Burnout

1. Burnout Among Healthcare Workers

While burnout can occur in any profession, healthcare workers face an elevated risk of experiencing it (De Hert, 2020). Moreover, reports indicate that the burnout among healthcare professionals (HPs) has been increasing globally (National Academies, 2019). It is estimated that up to 20% of HPs experience burnout with variations in the reported figures depending on the cut-off values used to define severe burnout (Lindblom et al, 2006). These figures have definitely exacerbated after the unprecedented impact of the COVID-19 pandemic that started in 2019.

It is worth noting that the reported incidence of burnout among healthcare employees significantly varies worldwide. In Europe, for example, a variation is noted between European Union countries (EU), where the rate averages around 10%, and non-European Union countries, where it rises to 17%. Among EU nations, burnout rates

range from as low as 4.3% in Finland to as high as 20.6% in Slovenia, while non-EU countries report rates varying from 13% in Albania to 25% in Turkey (Schaufeli, 2018).

The World Health Organization (WHO) highlighted burnout as a critical factor affecting the health of HPs during the COVID-19 pandemic. The increased pressures and challenges faced by HPs during this time brought burnout to the forefront as a significant concern impacting their well-being and the overall resilience of healthcare systems (WHO, 2022). In a study conducted to measure the prevalence of burnout among HPs in Macao China three years into the pandemic, moderate to severe levels of burnout were noted: 60.4% for personal burnout, 50.6% for work-related burnout, and 31.5% for patient-related burnout (Zheng et al., 2023).

A systematic review and meta-analysis on burnout among primary HPs in low- and middle-income countries conducted two years into COVID-19 by Wright et al. (2022) revealed that the overall single-point prevalence of burnout ranged from 2.5% to 87.9% in 43 studies out of 60 studies included in the systematic review. Whereas in the meta-analysis of 31 studies out of 60, the pooled prevalence of a high level of emotional exhaustion was 28.1% (95% confidence interval, CI: 21.5–33.5), a high level of depersonalization was 16.4% (95% CI: 10.1–22.9) and a high level of reduced personal accomplishment was 31.9% (95% CI: 21.7–39.1). These findings show a significant exacerbation in burnout prevalence among HPs.

In Summary, burnout poses a severe challenge within the healthcare sector, profoundly impacting the mental and physical well-being of employees and compromising the overall quality of care delivered to patients.

2. Burnout Among Nurses

Nurses are considered the most vulnerable group of workers at risk for burnout (De Hert, 2020). The work nurses do is both physically and mentally demanding, and has a great impact on nurses' health, and on patient safety. Shah et al., (2021) stated that job burnout among nurses can result in mental fatigue, anxiety, lack of motivation and absence from work. Thus, nursing has been considered as a profession at risk for burnout (Garrosa et al.,2010). Studies on burnout among nurses have mainly focused on nursing specialties, which have been considered to hold a high-risk service, such as oncology, intensive care, or palliative care (Hughes & Barton, 2009). Knowing that the increased burnout in these areas can be due to the demanding emotional investment with the patients, nurse managers responsible in these specialties are also faced with a variety of other administrative tasks including motivation, organization, and conflict resolution within their team to achieve the management policy of the hospital, in addition to their work with the patient.

In the Arab region, healthcare workers are also subject to burnout. A systematic review of 19 studies (Elbarazi et al. 2017) in seven Arab countries (Bahrain, Egypt, Jordan, Lebanon, Palestine, Saudi Arabia, and Yemen) showed a moderate-to-high prevalence of burnout, with the highest levels reported among obstetrics and gynecology, family medicine, anesthesia, intensive care, internal medicine, and cardiology specialties. In addition, Ashkar et al. (2010) found that among 155 medical residents in a Lebanese medical center, 80% had a high level of burnout in at least one of the three components, with the highest domain being Emotional Exhaustion.

In Lebanon, studies have been conducted to measure the prevalence of burnout among nurses. A recent study conducted across multiple Lebanese hospitals, among 182 nurses

showed that 43.96% of bedside nurses experienced burnout, with 8.79% at a high level and 35.17% at a moderate level (Saleh et al, 2024). A previous study conducted by Hashem and Zeinoun (2020), measured the prevalence of burnout among healthcare professionals (medical residents, nurses, and physicians) using the MBI measurement tool in Lebanon, nurses constituted 23% of the sample and reported a high level of emotional exhaustion (Mean score =27.18). A relatively older study was conducted by Sabbah et al. (2012) to measure burnout among a sample of 200 Lebanese nurses working in hospitals in the South of Lebanon. The study revealed that three quarters of the sample of nurses who completed the MBI Arabic version experienced severe burnout. A total of 77.5% reported emotional exhaustion, 36.0% reported depersonalization, while almost one third (33.0%) experienced reduced personal accomplishment (Sabbah et al., 2012). Depersonalization was highest among nurses who work in the private sector, and reduced personal accomplishment was highest among nurses in the public sector. Depersonalization was shown to be higher in nurses working night and rotating shifts. Depression, backache, and headache were the reported predictors of burnout

The identified predictors of nurses' burnout include environmental predictors such as the job stress level, specialty area, workload, staffing issues and work environment. Personal predictors include the reason to work, where many studies showed that the reason for working was found to be significantly correlated with nurse job satisfaction and work engagement, and those who loved the job showed significantly higher satisfaction and engagement (Wang, Liu & Wang, 2015). In the same study, self-efficacy as well has been positively correlated with job satisfaction as

an intrinsic factor, where on the other hand lack of self- efficacy clearly predicted higher staff burnout.

D. Critique of Literature

The lack of academic research and theory on brownout reflects the newness of the phenomenon. This warrants additional research aimed at refining its dimensions and propositions before a theoretical framework can be developed. However, the literature review conducted allows for a critical assessment of current knowledge relating to brownout. The identification of gaps in the literature on both brownout and burnout exposed to us the understudied concept of brownout. While the minimal existing literature available only highlights the presence of brownout among employees, studies addressing this phenomenon within the healthcare sector remain sparse. Notably, there appears to be an absence of research that specifically examines brownout among nurses, underscoring the need for this study to focus on exploring brownout within the nursing field.

Kibler (2015) described brownout as the human resources' worst nightmare. While this work defined the state of brownout and described its manifestations and consequences, it did not rely on a theoretical or operational definition of brownout, and the definition proposed to brownout depended solely on Kibler's occupational coaching experience. Moreover, the statistics derived from a study conducted on 1,000 employees showed that forty percent (47%) experiencing brownout and only five percent experience burnout were not shared in detail. The survey and measurement tools that were used in this report are not shared and items of the scale are not known. There were

no reports of conducting any in-depth qualitative studies on brownout to result in the emerging themes for the development of the scale.

Authors that described brownout agreed that lack of purpose and interest, demotivation, disengagement, and exhaustion are characteristics of brownout (Lucken, 2017; Bradberry, 2016; Valette., 2018). However, none of the studies reflect scientific data on the levels of these attributes among employees who experienced brownout. Moreover, the available articles did not elaborate or indicate predictors of brownout and what causes it.

On the other hand, several studies extensively investigated burnout, but limited literature is present on brownout. Although the phenomenon is increasingly being acknowledged in the occupational coaching and leadership platforms, academic research has not yet assessed brownout qualitatively or quantitatively across occupational groups. The scarcity in the research on brownout results in struggling with how to define and capture the experience of brownout scientifically.

The concept analysis paper discussed in the literature review on brownout was conducted by the investigator as work in progress to understand the phenomenon of brownout and conceptualize it. However, testing the operational definition of brownout by developing a corresponding scale to measure it is still to be conducted to verify its appropriateness, validity, and trustworthiness.

In most research on burnout, measurement of the construct has been debated. Despite its appealing theoretical definitions and frameworks mentioned above, the operational definitions of burnout proved to be more troublesome. Various measures have been developed over the years, along with more than 48 definitions of burnout that had been proposed (Schaufeli et al., 2009). The abundance of theoretical frameworks

and definitions of burnout are rather problematic for the reviewer or the researcher than helpful especially to adapt a unified measurement tool of the construct.

In summary, there is insufficient scientific and theoretical literature available on brownout, which necessitates the need to increase our understanding of the concept. An exploration and synthesis of a conceptual framework is needed to develop a more comprehensive understanding of the phenomenon and its role in detecting the nurses who are prone to progress to burnout and thus work on interventions to prevent burnout.

E. Study Conceptual Lens

The conceptualization of brownout is needed to develop a more comprehensive understanding of the phenomenon. Propositions derived from the literature review done so far, are that brownout has more than one dimension.

From a conceptual perspective, following the Job Demand-Resources (JD-R) model (Demerouti et al., 2001) is suitable to adapt for formulating a conceptual framework of brownout. Personal-related factors, job-related factors and environmental-related factors are proposed to be factors affecting the presence of brownout and could be described as predictors of brownout. Personal-related factors include personal characteristics such age, gender, marital status, etc.... Job-related factors include job demands and resources, for example: workload, work environment, specialty, work satisfaction, coping strategies, active employee partnership, etc.... Environmental-related factors include socioeconomic status.

Figure 2 below illustrates the conceptual lens underpinning the study, aimed at developing a comprehensive conceptualization of 'brownout.' Represented as a grey cloud, brownout signifies its current ambiguous and undefined nature. Guided by a

grounded theory approach, expecting that the interaction of personal, job-related, and environmental factors would influence its occurrence. This conceptual foundation facilitates the development of a conceptual framework, ultimately leading to the creation of a brownout instrument,' symbolized also in grey to represent its current absence and our aspiration to develop one.

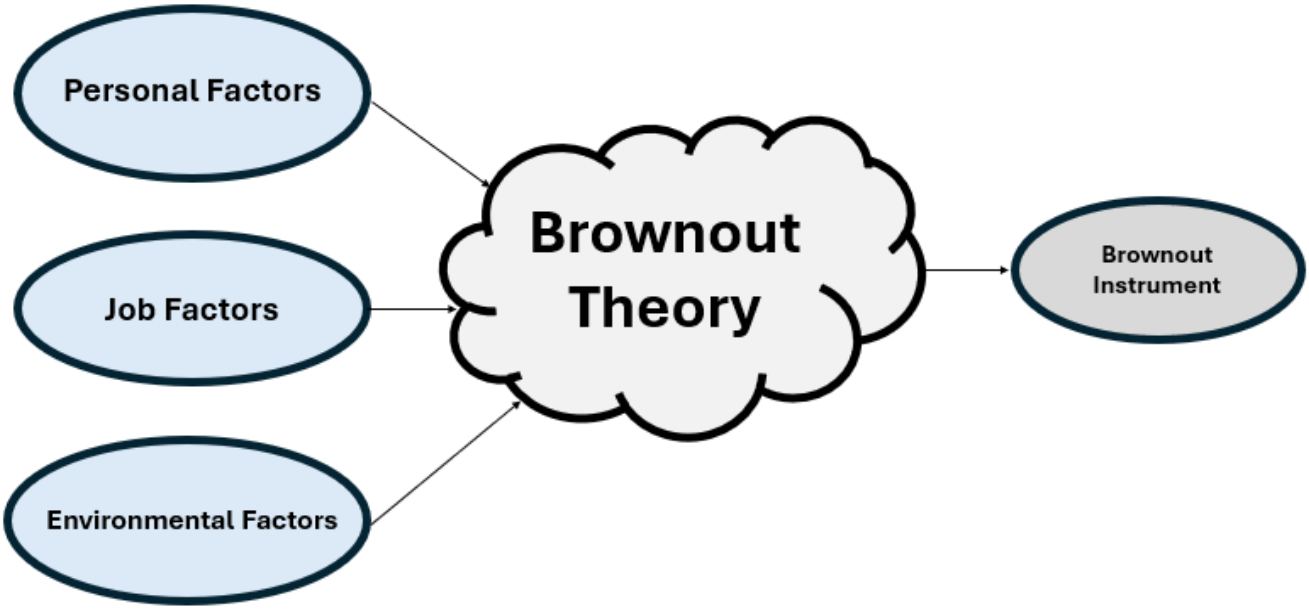

Figure 2. Study Conceptual Lens

CHAPTER III

METHODOLOGY

The philosophical view of pragmatism brought to this study through its aims, guided the selection of the research methodology (Creswell & Poth, 2018). Generally speaking, the philosophical underpinnings of grounded theory (GT) methodologies are associated with pragmatism and symbolic interactionism (Wuest, 2012). This framework emphasizes how individuals derive meaning through interactions with others and themselves within a societal context. The subjective nature of this process aligns with the core assumptions of GT, where individuals construct their understanding of reality based on these social and self-reflective interactions (Glesne, 2011).

Pragmatism

Pragmatism emphasizes prioritizing practical and useful outcomes over theoretical abstractions (Seigfried, 2000). It establishes a close connection between theory and practice, evaluating the development of knowledge based on its ability to drive meaningful change (Alvesson & Sköldberg, 2018; Seigfried, 2000; Wuest, 2012). From a pragmatic perspective, reality is not deduced from theoretical principles but emerges inductively through investigating human experiences using the method of "constant empirical verification" (Wuest, 2012, p. 228). This inductive approach portrays the understanding of human experiences as dynamic, context-dependent, evolving, and imbued with values (Wuest, 2012). Pragmatism also drives the use of research methods suitable to answer the research question.

Symbolic Interactionism

Symbolic interactionism directs the researcher to interpret human behaviors as responses to symbolic meanings. These meanings are continuously shaped and evolve through social interactions and contextual influences (Cutcliffe, 2000; Wuest, 2012). Blumer (1969) outlined three fundamental premises of symbolic interactionism. First, people engage with things according to the meanings those things hold for them; second, these meanings stem from or emerge through social interactions with others; and third, individuals interpret and adjust these meanings through a personal process when responding to the things they encounter. Therefore, in grounded theory research, symbolic interactionism provides a lens for understanding human behaviors as responses to symbolic meanings. These meanings are continuously shaped and evolve through social interactions and contextual influences (Cutcliffe, 2000; Wuest, 2012).

Constructivist grounded theory is based on the ontological view that the social world is created through social constructs. The collaborative relationship between participants who contribute the data, and the researcher who interprets it, fosters the co-creation of knowledge (Markey et al., 2014). In this study, the constructivist grounded theory functioned as both the theoretical framework and the methodology. The purpose of this grounded theory study is to explore, conceptualize and explain the phenomenon of brownout among nurses by describing their experiences in this phase, including their perceived emotional, mental, and physical changes, challenges, and the related coping strategies in their work setting. Additional aims include developing an instrument based on the conceptualization done to be used to assess the level of brownout in a future study.

A. Design

A sequential qualitative design was used to reach the study aims. The pragmatic paradigm serves as a philosophical underpinning for constructivist grounded theory studies. Tashakkori and Teddlie (2010) convey the importance of pragmatic paradigms for focusing attention on the research problem in social science research. A constructivist grounded theory (CGT) approach guided by Charmaz (2014) was chosen to understand nurses' experiences of brownout. Grounded theory methods are helpful when investigating phenomena where current knowledge is limited (Morse, 2001), and when an explanation or understanding of a phenomenon is desired (Varpio et al., 2020). This fully inductive theory approach is thus ideal to understand the unfamiliar and unexplored phenomenon of nurses' experiences of brownout.

In this qualitative sequential instrument development study, the research team began with the first qualitative phase and explored the views of participants using a constructivist grounded theory approach. The data were then analyzed to develop an instrument of brownout, which was followed by a descriptive qualitative study using cognitive interviewing to examine the validity of the developed instrument. Cognitive interviewing (CI) is derived from cognitive and social psychology, and it focuses on the cognitive processes made by respondents while answering survey questions (Rosal, Carbone, & Goins, 2003). It is a qualitative technique that comprises several methods through which researchers can explore the decision-making processes used by the participants while filling a research tool (Soomro, 2018; Collins, 2015; Lenzner et al, 2023).

The design of this study also placed emphasis on the instrument development process by stating it as a distinct phase of the study. The qualitative sequential

instrument development design suits the purpose of this study, by exploring the phenomenon of brownout and understanding it from the nurses' experiences in the context of Lebanon. Thereafter the instrument developed is expected to accurately measure brownout among nurses. The use of grounded theory facilitated the development of the brownout theory and uniquely allowed for the understanding and explanation of the phenomenon through the theoretical development process. Finally, this CGT study aims to add a theory about brownout to our knowledge that might provide an explanation for quantitative results in the future (Howell et al., 2020).

The study explored the phenomenon of brownout among nurses in Lebanon using constructivist grounded theory (CGT) guided by Charmaz (2014) in the first qualitative phase, an instrument of brownout was developed from the emerged theory in a second phase. The framework for developing the brownout instrument followed the DeVellis (2017) guidelines for scale development. The developed instrument was later pre-tested in a third qualitative phase using cognitive interviews to ensure the quality and accuracy of this newly devised tool to assess brownout among nurses in Lebanon.

Cognitive interviewing addresses the limitations of traditional pilot testing by providing deeper insights into how respondents understand and interpret survey questions, ultimately enhancing the quality and reliability of the collected data (Lenzner et al, 2023). Cognitive interviewing is a method for evaluating survey questions to determine whether the true meaning of the question, as intended by the researchers, is conveyed to respondents, and more generally whether the question is functioning as intended (Soomro, 2018). Checking the validity of the questionnaire solely by researchers is not sufficient to ensure high-quality surveys (Lenzner et al, 2023). Several studies have found that cognitive interviewing can help researchers in

identifying sources of response errors and in detecting questions that might yield biased or inaccurate data (Haeger et al. 2012, Drennan 2003, Carbone & Campbell 2002). In addition, creating a novel instrument to accurately assess a new phenomenon that has not been previously empirically measured before, with all items understood the same way by respondents, and understood as planned by instrument developers, poses a challenge for researchers. Therefore, cognitive interview testing can help in pinpointing sources of response or identifying questions that could lead to bias thus decreasing response errors (Buschle et al, 2022; Haeger, 2012; Parsons, 2005).

Most importantly, conducting cognitive interview testing of the brownout instrument with registered nurses as a targeted population enabled the instrument developers to examine the instrument's content and test item validity by evaluating how effectively the instrument fulfils its intended purpose (Collins, 2015, Willis, 2015, Willis et al., 2013).

1. Phase I: Constructivist Grounded Theory

The initial qualitative component of the research design followed the constructive version of grounded theory guided by the work of Charmaz (2014). The grounded theory method itself offers a way of constructing theory; using this method fostered the development of analytic and conceptual constructions of the data (Charmaz, 2014). In this study, the focus of the inquiry was to construct a grounded theory to fill a gap in knowledge about brownout as a phenomenon that precedes burnout and explore the perception of nurses in Lebanon who lived through brownout. Kathy Charmaz (2014) adopted a constructivist perspective, in which “reality” is a function and outcome of interpretation and human interaction around a given phenomenon. As such,

Charmaz embraced an interpretive approach to grounded theory (Singh & Estefan, 2018). Charmaz maintained that the iterative processes of data collection and analysis, and the intimate connection that researchers and participants have with the data and the emerging theory, make grounded theory development a co-constructed endeavor. Charmaz also encouraged researchers to engage in a creative process of theory co-construction and use other analytic tools such as abduction (Charmaz, 2014). Abduction is making a probable conclusion from what is known; it involves engaging intuitive and creative ideas that may explain unanswered or unexpected observations (Bruscaglioni, 2016; Charmaz, 2014). Abductive reasoning is informed by personal and professional knowledge and experiences of the researcher. Charmaz advocated for this type of knowledge, believing that an informed researcher enriches theory construction.

2. Phase II: Instrument Development

The first five steps for developing measurement scales identified by DeVellis (2017) were followed for the brownout instrument development: (1) determine clearly what you want to measure, (2) generate an item pool, (3) determine the format of the measure, (4) have experts review the initial item pool, and (5) consider the inclusion of validation items.

3. Phase III: Cognitive Interviewing

Pretesting of the developed brownout instrument was done using cognitive interviewing. Cognitive interviewing is currently the dominant mode of determining whether questionnaires can be accurately answered (Dillman, Smyth, & Christian, 2016). Cognitive interviewing aims to reveal the question-and-answer process during instrument pre-testing, which in turn unfolds how respondents generate answers to survey questions and examines whether respondents can correctly interpret the words

used in survey items (Beatty & Willis, 2007; Lee, 2014). Figure 3 illustrates the process of instrument development, translation and cognitive interviewing.

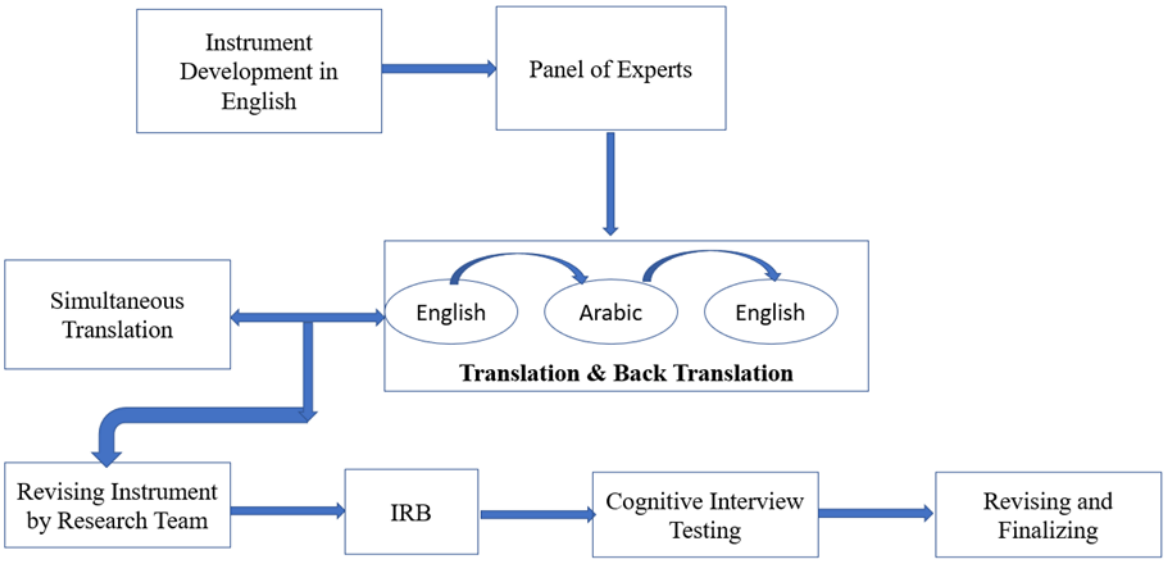

Figure 3. Process of Instrument Development, Translation and Cognitive Interview Testing

In this qualitative sequential study design the focus is on leveraging qualitative methods (grounded theory for theory generation, followed by cognitive interviewing for refining instrument) within a sequential framework. Qualitative data are explored, collected, and analyzed sequentially. Figure 4 shows the structure of the study design

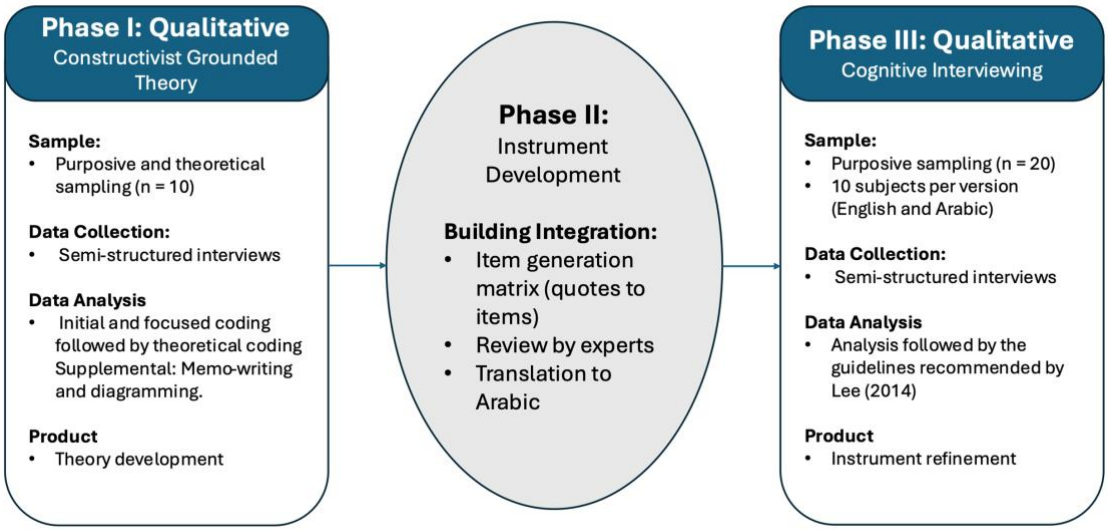

Figure 4. Qualitative Sequential Design

B. Sample

This is a qualitative sequential study design that combines two qualitative studies within a sequential framework.

1. Sampling Design

a. Sampling Design Phase I

The study started with the qualitative component, an initial purposive sampling directed the collection and/or generation of data (Bryant & Charmaz, 2012). The participants were selected purposively to answer the research question and to represent the different contexts of the nurses in Lebanon. Purposeful sampling provided the initial data to be analyzed, theoretical sampling then started from the codes and categories developed from the first data set (Chun Tie, Birks & Francis, 2019). Theoretical sampling was used to identify and follow clues from the analysis, fill gaps, clarify uncertainties, and test interpretations as the study progresses (Charmaz, 2014). For the

purposive sample to be representative of the target population, it was imperative to address the context of nursing work environment of the participants. Lebanon is divided into eight governorates (muhafazat), and in each governorate the healthcare services are divided between public and private hospitals and university hospitals, and which are categorized by size referring to number of beds (less than 100 beds, 100-200 beds, more than 200 beds). In this study, the participants were purposefully recruited to represent the different context of work environments and conditions; the selection of participants ensured the representation of the different governorates, hospital type and size. Nurses from medium (100-200 beds) and larger (more than 200 beds) size hospitals were targeted in the recruitment.

b. Sampling Design Phase II

The selection of the panel recruited to review the item pool includes people who are knowledgeable in the content area (DeVellis, 2017). For that, four experts were selected in consultation with the advisor for this study. The expert panel included: 1) a professor at the nursing faculty who is expert in qualitative research, 2) a researcher and professor who is expert in organizational psychology survey research and psychometric testing, 3) a nursing director and 4) a mental health nurse specialist who works extensively with stress- related disorders. The panel was asked to provide feedback in selecting items that would best resonate with the target population.

c. Sampling Design Phase III

For the pilot testing of the developed brownout instrument, Sousa and Rojjanasrirat (2011) recommended a sample size of 10 to 40 participants per target language. According to Lee (2014), it is recommended to interview five to 15

participants per language of a survey. Moreover, Beatty and Willis (2007) ratified that description of the problems underlying certain question items is more important than the number of respondents reporting the problem. We aimed to recruit a minimum sample of 20 nurses, so that a minimum of 10 nurses were selected for each language version of the questionnaire (Arabic and English).

2. Inclusion and Exclusion Criteria

a. Inclusion/Exclusion Criteria Phase I

In grounded theory, purposive sampling was implemented as discussed above. The targeted participants were selected to represent the different contexts of the Lebanese hospitals and working environments, respecting the geographical distribution, types, and sizes of hospitals to have a sample of participants that best represents the contexts. The inclusion criteria included selecting nurses from public/ private or university hospitals that are of medium (100-200 beds) or big size (more than 200 beds), practicing as either a bedside nurse or nurse manager/nurse administrator, with a minimum of two years of experience at the same position and employer, and age between 20 and 64 years..

b. Inclusion/Exclusion Criteria Phase II

Professionals with expertise in the content area, specifically those with substantial experience in organizational psychology, occupational health, and instrumentation, were selected for invitation to the expert panel. The selected individuals received an invitation by email that included detailed information about the revision process and clear definitions of the concepts within the item pool. Participation was confirmed based on their explicit agreement to contribute to the panel.

c. Inclusion/Exclusion Criteria Phase III

The population of interest for this phase of the study were registered nurses working in private and public hospitals in Lebanon, practicing as either a bedside nurse or nurse manager/nurse administrator. The participants should have a minimum of two years of experience in the same position and employer, and aged between 21 and 64 years.

3. Recruitment

Prior to the start of the study, approval from the Institutional Review Board (IRB) at the American University of Beirut was secured.

a. Recruitment Procedure for Phase I

Two strategies were put into place to recruit participants for the purposive sampling of the grounded theory study. The first strategy was through a one-page e-flyer that described the objectives of the study and invited nurses who met the inclusion criteria to participate in the study. This e-flyer (Appendix A) was posted on the social media platforms of the AUB School of Nursing and nursing societies and/or groups in Lebanon (Facebook, Instagram, WhatsApp, and X) to encourage participation and reach as many nurses as possible, especially from the distant governorates.

Additionally, snowball sampling was also used, the researcher asked the participants to pass the flyer of the study along with the PI contact information to anyone they knew who fit the inclusion criteria of the study. The secondary participants contacted the researcher if they decided to participate in the study. Potential participants who contacted the research team and fit the eligibility criteria were sent the consent

form (Appendix B) to review before the interviews. The final distribution of the participants by recruitment method was as follows: 7 participants were recruited via social media and 3 participants via snowball sampling.

The interviews were conducted individually face-to-face in a place and at a time convenient for the participants. Oral consents (Appendix B) were read by the researcher at the beginning of each interview. Permission to audio record the interviews was secured by the interviewer before each meeting. The audio recordings were saved on a password-protected computer in the primary investigator's locked office at the AUB-School of Nursing.

Selection of the participants was initiated using purposive sampling and afterwards when categories emerge, the researcher used theoretical sampling, in order to complete the categories and concepts created from previous interviews, until data saturation was achieved.

b. Recruitment Procedure for Phase II

To ensure the content validity of the tool under development, a purposeful recruitment strategy was employed to assemble an expert panel. The recruitment process targeted professionals with established expertise and experience in the relevant domains, including organizational psychology, occupational health, and instrumentation. These individuals were identified in consultation of the advisor for this study through academic networks, professional organizations, and publications in the field.

After identifying potential members, an invitation email was sent on behalf of the PhD student conducting the study. The email included a clear explanation of the

study's purpose, the role of the expert panel in reviewing the tool, and the significance of their expertise and feedback in refining the instrument. The experts were invited to participate based on their demonstrated knowledge in the subject area and their ability to provide insightful feedback to ensure the tool's validity.

The review process entailed evaluating the tool's items for relevance, clarity, and conciseness, cultural appropriateness and offering feedback to improve the instrument. Experts who agreed to participate were provided with detailed instructions and materials necessary for the review process (Appendix C).

c. Recruitment procedure for Phase III

Recruitment for the pre-testing of the developed brownout instrument was done through posting an e-flyer (Appendix D) announcing the study on social media platforms of nursing societies and the Hariri School of Nursing pages. The email address of the principal investigator and co- investigator were listed in the e-flyer and so nurses who were interested in participating sent their contact information to the research team who contacted them accordingly. The consent form (Appendix E) was sent to willing participants by email ahead of time and then they were interviewed after reading the consent form with them and making sure they understood their right to withdraw from the interview at any time they wish. The final distribution of the participants by recruitment methods was as follows: a total of 20 participants were recruited for both English and Arabic versions of the instrument (10 participant per language). 14 participants were recruited via social media and 6 participants via snowball sampling.

C. Data Collection

1. Phase I Data Collection

Participant interviewing is a frequent data collection method in grounded theory (Charmaz, Thornberg, & Keane, 2017). Interview data were coded (a label is given to a set of data) and memos (the researcher's notes on interactions with the data) were written to aid ongoing analysis (Singh & Estephan, 2018).

The interviews were conducted on a face-to-face in person basis with each participant alone at a place and time of convenience to the participant. The place of the interview though was intended to be quiet, private, and distraction-free. Each interview lasted for an average of 60 minutes. The researcher followed a semi-structured interview guide (Appendix F) with open-ended questions. All interviews were audio-recorded after granting the approval of the participant.

The researcher designed and developed an interview guide (Appendix C) to follow during the interviews to sustain consistency of exploring and probing across the data collection process (Creswell & Poth, 2018). The guide consisted of open-ended questions that are general but focused on understanding the central phenomenon in the study (Creswell & Poth, 2018). The guide consisted of six broad open-ended questions, opening the space for the researcher to understand how participants experienced the phenomenon. The researcher framed and/or added questions to probe and direct the interview into more specific topics such as what challenges they faced during this time and their views about support systems available during this period. The interviews ended with a concluding question where participants were given a chance to add information that might be of significance to them and was not covered during the interview.

The same researcher conducted all interviews in order to maintain uniformity in the interviewing technique. In addition, prior to conducting the interviews, the research team conducted a practice interview on two volunteers from nurses doing their graduate studies at the Hariri School of Nursing. to determine the clarity of interview questions and to examine the adequacy of content, flow and time span of the interview. Moreover, the Co- PI who conducted the interviews received training in qualitative interviewing from an experienced faculty member in qualitative studies and attended an intensive course in conducting constructivist grounded theory studies.

Prior to the start of each interview, the researcher engaged with the participant in a 5-minute introductory chat to establish rapport and explained the purpose and process of the interview. All interviews were audio recorded and transcribed in a de-identified form. Field notes were collected during the interview to help capture non-verbal cues such as certain behaviors and facial expressions, in addition to noting the environmental context of the interview. Field notes complement the audio recorded interviews and provide a context for the data during the analysis phase (Sutton & Austin, 2015). The field notes were kept in a secure place with the recorded data since they contain private information about the research participants. After the interview, a "cooling down" period with the interviewee was done by asking him/her about any thoughts or feelings regarding the interview. In addition, the researcher asked the participants for their permission to contact them for member checking later.

2. Phase II Data Collection

a. Instrument Development

The groundwork for this study was rooted in the systematic development of the brownout instrument, ensuring a robust foundation for collecting meaningful data. Throughout the instrument development phase, the data were integrated in a literal sense. The grounded theory qualitative data analysis served as the foundation for instrument development. The brownout theoretical model served as a guide for brownout tool development, and the phases of this study "built'' through the process of transforming the brownout theory into quantitative items on the brownout instrument. Therefore, we conceptualized integration as its own unique phase to place an increased emphasis on the process of translating qualitative findings into items of the brownout instrument.

Two of the research team members: Dr. Nuhad Dumit, the thesis advisor and a professor at the American University of Beirut-School of Nursing, and Mrs. Roula Shehadeh the principal investigator and a PhD in Nursing student with training in conducting qualitative design research, carried out the qualitative data analysis and instrument development process. In terms of language, the instrument was first developed in English and then translated to Arabic. The translated version was subsequently back translated to English; the process is described in the next section.

The framework for developing the Brownout Instrument generally followed the first five steps for developing measurement scales identified by DeVellis (2017): (1) determine clearly what you want to measure, (2) generate an item pool, (3) determine the format of the measure, (4) have experts review the initial item pool, and (5) consider the inclusion of validation items.

The initial phases of instrument development were pivotal in bridging the theoretical framework with practical application, preparing the tool for its critical role in this study and in future studies. A detailed narrative of the tool development process, guided by these five steps, is provided in the next sections. This detailed explanation highlights the translation of the theoretical framework into a robust and practical measurement instrument.

Step 1: Determine Clearly What You Want to Measure.

The development of the brownout instrument was informed by the constructivist grounded theory model, which shaped both its content and structure. This instrument evaluates the extent of brownout among nurses, functioning both as a reflective first-order construct—where individual items directly measure the construct—and as a composite multidimensional construct. In the latter, items representing specific elements of the theoretical model are aggregated to produce a comprehensive total score (Edwards, 2011).

Step 2: Generate an Item Pool.

A meticulous approach was adopted to translate the theoretical model into measurable items. A joint display matrix (Appendix G) was created to align constructs and subconstructs with representative in-vivo quotes from qualitative data, bridging the gap between theory and measurement. This process resulted in the identification of four key constructs: Job Distancing, Exertion, Psychosomatic Complaints, and Lifestyle and Social Impairments, each with distinct subconstructs that were operationalized into potential items. This step concluded with a total of 108 items, all of which were rigorously reviewed by the study researchers during several sessions and refined to ensure clarity, relevance, and readability. Hence, the matrix served as a bridge,

providing an explicit connection from the qualitative grounded theory to the instrument development from the theory. Table 1 provides a sample of the joint display for items generation matrix. Through this process, we identified four constructs that each had distinct subconstructs embedded within them:

1- Job distancing included demotivation, disengagement, decreased interest, lack of belonging, decreased passion and autopilot mode as subconstructs.

2- Exertion included emotional, cognitive and physical exertion as subconstructs.

3- Psychosomatic complaints included physical and psychological symptoms as subconstructs

4- Lifestyle and social impairments include lifestyle changes and social withdrawal as subconstructs.

Table 1. Sample of the Joint Display for Item Generation Matrix

Categories & subcategories	**Quotes**	**Scale items**
Job Distancing: Demotivation	"You feel that you have **no motive for work**. just **don't feel like it**…the **quality of work declined**" Nina-2 "I **perform tasks at least within the accepted performance**, but it is not like before I am motivated to excel." Jad -1 "Yes of course**, less and less motivation** because I **feel like every day is the same day on the repeat**,	1. I don't feel like going to work 2. I feel that I am not motivated at my work 3. I perform the tasks within least accepted performance 4. I am not motivated to excel at my job 5. I feel that every day is the same on repeat 6. I feel that I don't want to continue at my job

	but with a different let's say problem" Rayan-1 "I **did not want to continue**. I tried to resign several times. On many occasions, when you are devoted to work and have enthusiasm to accomplish … and then you see reactions of others, not as I expected or not in how I believe things should be done, regardless… For example, reactions on a very big incident is so cold…this is something that caused me **dissatisfaction**" Fai- 2	7. I think about resignation 8. I do an effort to find motivation at my work 9. I am only motivated to do important tasks 10. I get demotivated when I receive negative comments

Step 3: Determine the Format of the Measure.

We selected Lime Survey, an online survey platform, to administer the instrument. Items related to the theoretical constructs were all formatted with 7-points Likert-type response options from 0 to 6 (0 = Strongly Disagree and 6 = Strongly Agree).

Step 4: Have Experts Review the Initial Item Pool.

Once the items were developed, the research team in consultation with an experienced faculty member in instrument development solicited feedback from a variety of experts to maximize content validity. The expert panel recruited included a professor at the nursing faculty who is an expert in qualitative research, a researcher and professor who is expert in organizational psychology survey research and psychometric testing, a nursing director, and a mental health nurse specialist to provide feedback in selecting items that would best resonate with the target population.

Step 5: Consider the Inclusion of Validation Items.

Given the length of the pilot instrument, the researchers decided against including additional validation items at this point.

While the initial phases of instrument development are integral to the data collection process, the refinement and validation of the brownout instrument represent critical outcomes of this research, as detailed in the results section.

b. Instrument Translation

The first step in testing the research instruments shall include adaptation following the WHO guidelines for the translation and adaptation of instruments using forward-translations and back-translations with the help of experts and a translator.

The instrument was translated from English to Arabic by two people independently. One person was a health professional, and the other was a skilled translator. Then an expert panel was convened to identify and resolve the inadequate expressions/concepts of the translation, as well as any discrepancies between the forward translation and the existing or comparable previous versions of the questions if any. The panel included the original translators, experts in the research area (workforce research), as well as experts with experience in instrument development and translation. The result of this process produced a complete translated version of the tool. The Arabic tool was then back translated to English by another bilingual translator, whose mother tongue is English and who has no knowledge of the questionnaire or the study. Pilot-testing of the pre-final version of the instrument in both languages was later done using cognitive interviewing.

3. Phase III Data Collection

Pre-testing of the brownout questionnaire was conducted right after the development of the brownout instrument. Approval of the IRB was sought to conduct this pilot study. Data were collected through face-to-face interviews with participants, and each interview took approximately 60-90 minutes. All interviews were transcribed, and each transcription was coded (a label is given to a set of data) and memos (the researcher's notes on interactions with the data) were written to aid with the ongoing analysis. The interviews were conducted on a face-to-face in person basis with each participant alone at a place and time of convenience to the participant and outside his/her working hours. The place of the interview was quiet, private, and distraction-free.

Participants were provided with a tablet to access the brownout instrument (Appendix I) through clicking on a Lime Survey link. Afterwards, the researcher followed an interview guide (Appendix J). The guide consisted of a combination of two main procedures used in cognitive interviewing: think-aloud protocol and verbal probing and paraphrasing. Each cognitive interview entailed four steps that each participant performed when answering the instrument questions: demonstrate understanding of each question and interpret it, show ability to retrieve information, accordingly judge the relevance and accuracy of each question, and respond to the questions. All interviews were audio-recorded after granting the approval of the participant.

Measurement issues that ought to be considered in testing the instrument included: readability [clarity of words and terms used]; accessibility [understanding the intent of the question]; usability [instrument format acceptable and easy to use];

applicability [instrument terms and concepts apply to the nurse work context]; relevance [instrument content relevant to nurses' practice and work context]; and cross-cultural equivalence [instrument terms and constructs represent the same ideas across work settings]. Moreover, the interviewer posed further inquiries to gather information on participants' confidence levels while answering the questions, measured the response latency, and even observed behaviors that may reflect their thinking processes of the question (Appendix F).

The interviews ended with a concluding question about where participants will be given a chance to add information that might be of significance to them or the topic and was not covered during the instrument testing.

All interviews were conducted by two members of the research team (RS and ZH) who are trained in conducting cognitive interviews by an experienced faculty member in conducting cognitive interviewing. Prior to the start of each interview, the interviewer engaged with the participant in a 5-minute introductory chat to establish a rapport and explain the purpose and process of the interview. All interviews were audio recorded and transcribed in a de-identified form. Field notes were collected during the interview to help capture non-verbal cues such as certain behaviors and facial expressions, in addition to noting the environmental context of the interview. Field notes complement the audio recorded interviews and provide a context for the data during the analysis phase (Sutton & Austin, 2015). The field notes were kept in a secure place with the recorded data since they contained private information about the research participants. After the interview, a "cooling down" period with the interviewee was done by asking him/her about any thoughts or feelings regarding the interview.

D. Data Management

Data confidentiality was strictly maintained throughout the data collection process in all three phases of the study. All participants were assigned alias names to protect their identities. The log sheet containing the alias names was kept separately from the data transcription file and securely stored in a locked cupboard in the principal investigator's office at the AUB Hariri School of Nursing (HSON). Audio recordings of the interviews were saved on a password-protected computer within the same locked office. Access to all study data was restricted to the research team only, specifically the principal investigator (PI) and co-principal investigator (Co-PI).

The transcription of the interviews was conducted by the researchers immediately following each interview. This timely transcription ensured that audio recordings can be securely destroyed soon after use. The collected data were analyzed on a password-protected computer located at AUB HSON. Data analysis was conducted anonymously, as all data were de-identified and alias names were used. All data records were securely discarded three years after the completion of the study, following ethical standards and institutional guidelines.

E. Ethical Considerations

It is essential to note that ethical issues were addressed during the process of planning, designing and during each step of the study. Approval from the Institutional Review Board (IRB) at the American University of Beirut was sought prior to the conduct of the study. Throughout the phases of the study, participants were provided with a copy of the consent form ahead of time, which outlined the research goals and purpose, participant selection, types of data collected, collected,

collection procedures, potential risks and benefits of participation, length of the study, participant time commitment, how the data will be used, as well as the researcher's contact information. Privacy and confidentiality of the participants data were ensured throughout the study phases. Confidentiality of data was maintained all throughout the study and no identifying information was reported with the data. Participants were also notified of the risks associated with participation in this study, which in this case were no greater than the minimal risk to which a person gets exposed in daily life.

During the face-to-face interviews, the researcher read the consent form to the participants and once they agreed to participate, she took their consent. The researcher answered any questions or concerns the participants had regarding the study. Participants were informed through the consent form that their participation is voluntary, that they can skip answering any questions that make them feel uncomfortable, and that they can withdraw from the study at any time and for any reason. This was reiterated at all study stages.

During data collection of the qualitative study, the researcher maintained the privacy of the participants by choosing a private place for the interviews with minimal interruptions. In addition, names were not recorded anywhere, the researcher assigned an alias name for the participants who were interviewed for the qualitative part of the study. The alias names sheet was locked away in a cupboard in the office of the principal investigator at the AUB Hariri School of Nursing.

Data analysis was done anonymously, as all data were de-identified and coded. As for data management, all the data was used only for the purposes specified in the study consent form. In addition, all audiotapes, transcripts, and

survey data were kept in a password protected computer that is kept secure. Data access was limited to the principal investigator.

All data will be destroyed responsibly after three years by the principal investigator. Participants' privacy will be maintained in all published and written data resulting from this study.

F. Data Analysis

1. Phase I Data Analysis

After each interview, the recordings of the interviews were transcribed verbatim. Then each transcription was checked for accuracy by listening to the audio-records while reading the transcripts.

Constant comparative analysis is an analytical process used in grounded theory (GT) for coding and category development. This process commences with the first data generated or collected and pervades the research process (Chun Tie, Birks & Francis, 2019). Data collection and analysis in the research process occurred simultaneously (Corbin & Strauss, 2007). The constant comparative process required review of transcriptions to accurately understand the participants' perspectives and to identify common themes from different points of view.

Charmaz' constructivist grounded theory maintained that the iterative processes of data collection and analysis, and the intimate connection that researchers and participants have with the data and the emerging theory, makes grounded theory development a co-constructed endeavor (Charmaz, 2014). Abductive reasoning enriches theory construction by facilitating reexamination of data or prompting collection of more data to explain unanswered or unexpected observations (Charmaz, 2014). During

the process, the researcher utilized memo writing. Memo writing (memoing) is an analytic process considered essential 'in ensuring quality in grounded theory' (Briks & Mills, 2015). The researcher memoings are reflective interpretive pieces that build a historic audit trail to document ideas, events, and the thought processes inherent in the research process and developing thinking of the analyst (Briks & Mills, 2015). Memos detail why and how decisions are made related to sampling, coding, collapsing of codes, making new codes, separating codes, producing a category, and identifying relationships abstracted to a higher level of analysis (Creswell & Poth, 2018). Thus, memos are informal analytic notes about the data and the theoretical connections between categories (Glaser & Holton, 2004).

The coding process was the major practical endeavor in grounded theory approach. Codes are "the building blocks" in a grounded theory (Glaser, 1978, p. 55). Coding is the pivotal link between collecting or generating data and developing a theory that explains the data. Constructivist grounded theorists refer to coding phases as initial, focused, and theoretical coding phases (Mills, Birks & Hoare, 2014).

Initial coding of data is the preliminary step in GT data analysis (Mills, Birks & Hoare, 2014). The purpose of initial coding is to start the process of fracturing the data to compare incident to incident and to look for similarities and differences in beginning patterns in the data. In initial coding, the researcher inductively generates as many codes as possible from early data (Charmaz, 2006). Important words or groups of words are identified and labeled. Charmaz (2006) emphasizes keeping codes as similar to the data as possible and advocates embedding actions in the codes in an iterative coding process. Initial coding assigns meaning to the data, comparing incident-to-incident, labeling beginning patterns and beginning to look for comparisons between the codes. Early

coding assists the researcher to identify the direction for further data gathering. The emerging concepts and categories of a developing theory guide the researcher to begin theoretical sampling, looking for data that may be pertinent to and further inform the emerging categories (Charmaz, 2014). (Appendix K)

After initial analysis, theoretical sampling is employed to direct collection of additional data that will inform the 'developing theory'. Initial coding advances into intermediate coding once categories begin to develop. Charmaz claimed that moving to focused coding is spontaneous when the researcher begins to "synthesize, analyze and conceptualize larger segments of [line-by-line] data" of the open coding phase (Charmaz, 2014, p. 138). Frequently occurring codes that conceptually merge into each other begin to emerge as core or central categories and provide direction for further theoretical sampling.

Theoretical sampling is used to allow the researcher to follow leads in the data by sampling new participants or material that provides relevant information. Birks and Mills (2015), define theoretical sampling as 'the process of identifying and pursuing clues that arise during analysis in a grounded theory study' (p. 68). The researcher sought additional information based on concepts developed from initial data analysis to saturate categories under development. The analysis identifies relationships, highlights gaps in the existing data set and may reveal insight into what is not yet known. Thus, theoretical sampling was used to focus and generate data to feed the iterative process of continual comparative analysis of the data (Briks & Mills, 2015).

An iterative process of coding continued until the developing theory took shape, data saturation occurred, and all data fit. Figure 5 illustrates the grounded theory process according to Charmaz. To ensure clarity and validity, a codebook was

developed to include definitions and examples of conceptual components to guide the analytical process.

The second step included testing the coding framework to determine the applicability of the codes to the raw data. This was done by two coders to independently code two interview transcripts. Results of the coding were compared. This process allowed triangulation of analysis, which is considered an agreement on interpretations between researchers (Creswell & Poth, 2018).

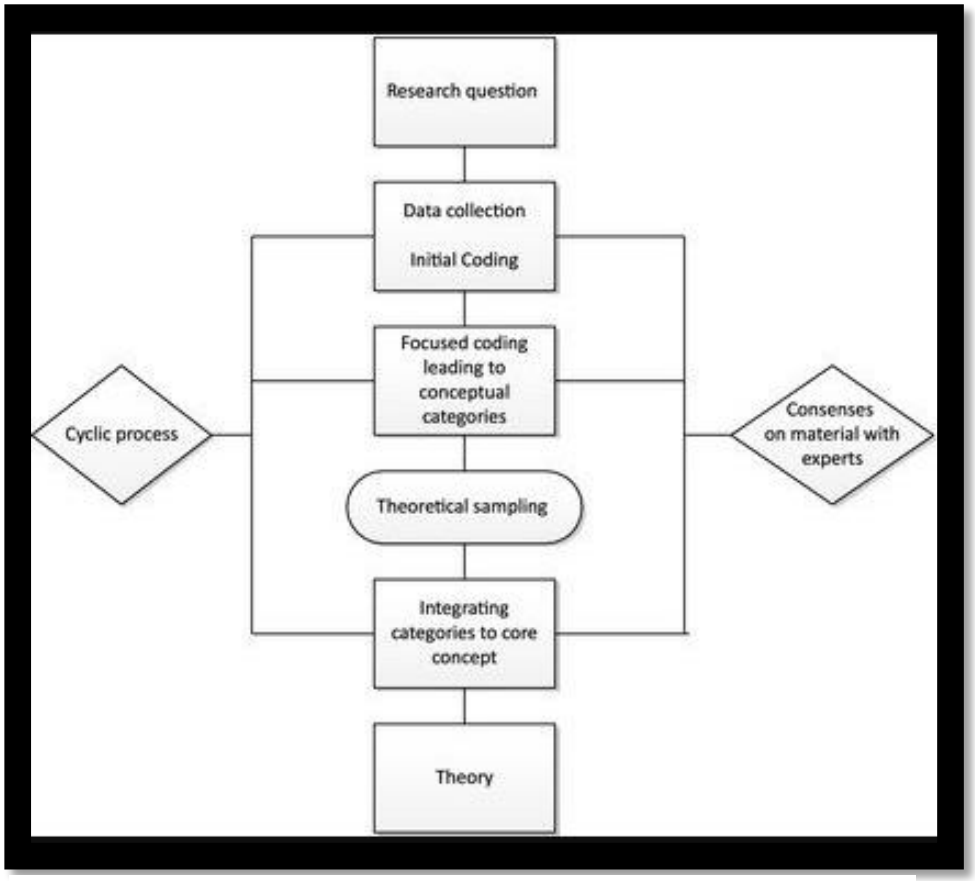

Figure 5. Constructivist Grounded Theory Process (Charmaz, 2014)

a. Reflexivity

Reflexivity is essential to be maintained throughout the study to identify possible threats to the "truth value" that are influenced by the researcher's own beliefs

or biases. The issue of reflexivity is an important step that all researchers need to address in a comprehensive and rigorous manner while conducting qualitative research (Rae & Green, 2016). In this study the research team members (RS) and (ND) addressed reflexivity of the researcher (RS) prior to and throughout the research process by writing a reflexive journal during the study. From the early stages of the study, the researcher performed periodically critical reflection of her position and values with regards to the research, by explicitly acknowledging personal biases, values, and judgements in a diary that was discussed during the study. Therefore, even at the earliest stages, the potential effect of researchers' bias and any ethical considerations were acknowledged and addressed. The researcher did as well bracket herself, by setting aside her potential prejudices and biases regarding any aspect of the study phenomenon throughout the research.

b. Rigor

The interpretive and subjective nature of qualitative research makes it crucial that researchers establish rigor and trustworthiness of its findings. Validity and reliability of qualitative studies can be achieved by demonstrating high levels of rigor throughout the research process (Denzin & Lincoln, 2018). To establish trustworthiness, the following strategies were used to check the accuracy of the findings through ensuring credibility, transferability, dependability, and confirmability of the study.

To ensure dependability and confirmability of the study, an audit trail was maintained throughout the study. This audit trail describes the step-by-step processes and decision-making done throughout the study by the authors. All transcripts, notes,

audiotapes, notes, etc., were maintained and preserved in a safe and locked place at the HSON.

Moreover, rigorous peer review during study implementation and the data analysis were conducted by inviting an independent experienced researcher in grounded theory studies (faculty of the HSON) to do debriefing. The peer was asked to analyze the detailed audit trail created by the study authors and was asked to offer a critique on the study methods and validation of the conclusions drawn by the authors as an exhaustive check on researcher bias.

Member checking was used to determine the accuracy of the findings through taking the final report or specific descriptions or themes back to participants to determine accuracy (Creswell, 2009). The participants were asked to validate the wholeness and precision of an interview transcript to ensure the transcript truthfully reflected the meaning and intent of the participants' contributions. Each participant was to agree with his or her transcript and send their input to the authors for confirmation or corrections.

To ensure credibility of the study, the author conducted the data analysis through a process of reflecting, scrutinizing, exploring, judging its relevance and meaning, and eventually developing themes and essences that precisely describe the experience. Additionally, to ensure transferability, purposeful sampling in this study was used to increase in-depth understanding of the meanings by selecting information rich experiences from participants who have experienced and lived the phenomenon. Data saturation was determined when no new information emerged from data collection, new coding was not feasible, and/or no new themes were emerging.

In addition, authenticity was ensured by reporting each participant's experience in a way that preserved respect for the context of the data provided and presented all perceptions equally. Data reliability and interrater reliability of the research was ensured by holding training for the researcher on conducting interviews by an experienced qualitative researcher, the codebook that was developed, including all definitions, responses, and examples of each item and codes for all possible responses (Morse, 2002).

2. Phase II Data Analysis

The analysis of the instrument development phase was guided by DeVellis's (2017) framework. The item pool was sent to a carefully recruited expert panel, composed of professionals with diverse and relevant expertise to enhance the tool's validity. Experts assessed the relevance of each item, item clarity and conciseness and cultural appropriateness to the constructs and subconstructs being measured. A working definition of each construct and subconstruct was provided to ensure clarity. Panel members rated each item on a scale of High, Moderate, or Low relevance and provided comments to further refine the items. The research team discussed feedback provided from the panel and agreed on the changes to be made based on this feedback. The re-wording of items to use more familiar terms for the field, deleting or merging items that were redundant or unclear to obtain a reasonable length for an instrument, shortening items to make them more direct and readable for the nurses, adding items that addressed important constructs but were missing in the original item pool, and improving layout and formatting.

Following this iterative process, the item pool was reduced from the initial pool of 101 items to 40 items then to 36 items, resulting in a more streamlined and robust scale ready for subsequent validation steps

3. Phase III Data Analysis

After each interview, transcription of the recordings verbatim was done. Then, each transcription was checked for accuracy by listening to the audio-records while reading the transcripts. Data analysis followed the guidelines recommended by Lee (2014). Those guidelines focus on the number of problems identified in and across items, nature of the identified problems, the percentage of items having one or more than one problem, possible solutions to identified problems, the percentage of specific problems shown across the items, and general comments on the questionnaire. Data was then grouped into categories such as questions ‘understanding, wording, ordering, and item format problems, recall techniques, decision-making behaviors, response period problems, and item redundancy and general comments on the questionnaire.

G. Chapter Summary

This chapter presented the research design and methods employed to explore the study's central objectives using a sequential qualitative approach. The study commenced with CGT to explore and conceptualize the phenomenon of brownout. As a product of this exploratory phase, the methodology transitioned to the development of an original instrument tailored to measure brownout. To enhance the instrument validity, cognitive interviewing was conducted to evaluate the newly devised instrument, refine its content, and assess its clarity and relevance. This methodological progression, from conceptual

exploration to instrument development and validation, reflects a systematic approach designed to provide valuable insights for understanding and addressing brownout.

CHAPTER IV

RESULTS

The purpose of this study was to explore, characterize and conceptualize the phenomenon of brownout among nurses by describing their experiences in this phase. Additional aims included developing an instrument to assess the level of brownout in this population. In the grounded theory study component, the focus of the inquiry was to construct a grounded theory to fill the gap in knowledge about brownout as a phenomenon that precedes burnout and explore the perception of nurses in Lebanon who lived through brownout.

This section addresses the qualitative findings of the constructivist grounded theory study followed by findings of the cognitive interview testing study. The chapter first describes the data obtained from the ten nurses practicing across Lebanon who participated in the CGT study between January 2024 and June 2024 and data obtained from 20 nurses who participated in the CI study between February and March 2025. Data was collected during face-to-face interviews that were audio-taped and transcribed.

A. Results of Phase I: CGT Study

The CGT guided by the work of Charmaz (2014), constant comparison and iterative analysis were used to develop categories from the data. The data analysis process began with word-for-word review and in-vivo coding (using the words of the participants), progressing to coding with gerunds, focused coding, conceptual diagrams, and analytical memo writing. Finally, the data obtained was used to co-construct a theory that was grounded in the experiences of the participants to represent how nurses experienced brownout. Initial (in vivo) coding analysis resulted in 466 codes, which

were reduced to 52 saturated codes during the focused coding phase. Some text was double-coded, appearing in more than one category.

The final theoretical coding phase resulted in four saturated and interrelated categories illustrated in Figure 6.

This chapter addresses the descriptive and the qualitative findings of this constructivist grounded theory study. The qualitative findings are presented as the *Theory of Brownout Process* illustrated in Figure 12, and answer the following research questions:

1) What is the experience of nurses living with brownout in a Lebanese sample of nurses?
2) What are the concepts and elements that describe the phenomenon of brownout and how it is structured?

1. Demographic Findings

As shown in Table 2 below, the participants had a median age of 34 (IQR, 30-34) years, with 40% between 25 and 29 years of age, 10% between 30 and 34 years, 30% between 35 and 39 and 20% between 40 and 45 years. The majority were females (70%) and single (60%). As for the highest degree attained, the majority of the sample (60%) had a master's degree in nursing (MS) or other sciences (60%), whereas 30% had a bachelor's in nursing (BSN) and 10% have a technical degree in nursing (LT). Forty percent (n=4) of the participants worked in Beirut governorate, 20% (n=2) in North, 20% in South (n=2), 10% (n=1) in Nabatiyeh and 10% (n=1in Mount Lebanon. The majority (80%) of the participants worked at big hospitals (number of beds>200) and

20% in medium size hospitals (number of beds between 100 and 200). Regarding the area of specialty, 30% worked at medical-surgical units, 10 % in intensive care, 10% in pediatrics, 20% in neonatal intensive care, 20% in oncology and 10% in geriatrics. The majority (60%) of the sample were registered nurses working as RNs and 40% were nurse managers. The median years of experience were 12 (IQR, 11-15) years, with the majority (60%) having more than 10 years of experience. Whereas, the median years of the current position was 6.5 (IQR, 6-10) years, the majority of the participants (70%) had been at the same position for less than 10 years and 30% between 11 and 20 years.

Table 2. Descriptive Statistics of Demographic Characteristics

Characteristic	**N**	**%**
Age, Mdn (IQR)	**34 (30-34)**	
Age by category		
25-29	4	40
30-34	1	10
35-39	3	30
40-45	2	20
Gender		
Male	3	30
Female	7	70
Marital Status		
Single	6	60
Engaged	1	10
Married	3	30
Highest Degree		
LT	1	10
BSN	3	30
Masters	6	60
Specialty		
Medical/Surgical	3	30
Intensive Care	1	10
Pediatrics	1	10
Neonatal Intensive Care	2	20
Oncology	2	20

Geriatric	1	10
Position		
RN	6	60
NM	4	40
Years of experience, Mdn (IQR)	**12 (11-15)**	
Years of experience in categories		
2-5	2	20
6-10	2	20
11-15	3	30
16-20	3	30
Years at current position Mdn (IQR)	**6.5 (6-10)**	
Years at current position by category		
2-5	4	40
6-10	3	30
11-15	2	20
16-20	1	10
Governorate		
Beirut	4	40
North	2	20
South	2	20
Nabatiyeh	1	10
Mount Lebanon	1	10
Hospital size		
Medium	2	20
Big	8	80

Note. N = 10. Categorical variables are presented by numbers and percentages, non-normally distributed continuous variables are presented by median and IQR.

2. Qualitative Findings: The Theory of Brownout

a. Overview of the Theory

This qualitative study aimed to inductively derive a theory that was co-constructed by the participants and the investigator to describe nurses' brownout experience, the processes that occurred during brownout, and the challenges and facilitators they experienced. Through continual analysis, memo-writing and diagramming (Charmaz 2014), constant comparison and iterative analysis of the codes,

it became apparent that a number of emergent sub-categories relating to participants' experiences and behaviors could be conceptualized as the journey of brownout. The final theoretical coding phase resulted in four saturated and interrelated categories demonstrating the brownout theory: *"Job Distancing"*, *"Exertion"*, *"Psycho-Somatic Indicators"* and *"Lifestyle and Social Impairments"*. Figure 6 illustrates the brownout categories.

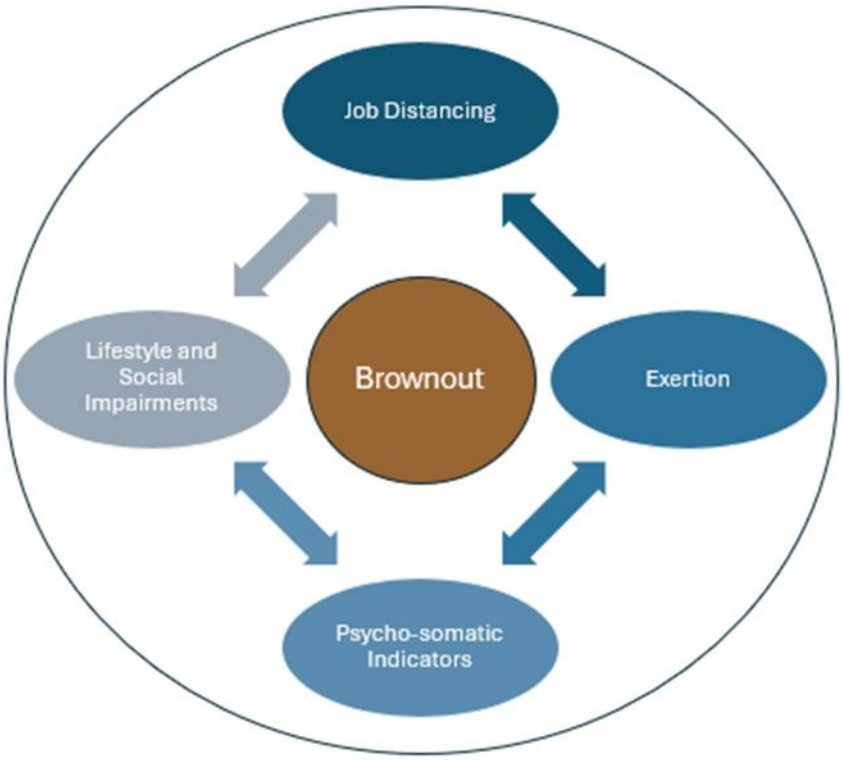

Figure 6. Brownout Categories

Associated categories that act as antecedents, barriers, facilitators, and consequences of brownout emerged throughout the analysis process, including *work demands*, *coping strategies, intention to stay, intention to leave* and *perceived value of nursing*. Using the responses of the participants, the core categories were found to

center around the process of brownout. Participants shared their experiences with the investigator revealing the antecedents (work demands, personal factors, economic factors), adapting (coping strategies, perceived value of nursing and intention) and consequences including burnout and intention to leave to their brownout experience.

B. The Brownout Theory Categories

1. Core Category: Job Distancing

Job distancing emerged as a core concept while participants described their own changes during periods of brownout. Distancing can be described as a deliberate movement away from something that is perceived as different to oneself, or from something from which one seeks to differentiate oneself (Keane, 2011). We defined job distancing as a decreased connection to one's job due to a loss of meaning in the work performed. This can manifest as doing the bare minimum, lacking enthusiasm and motivation, and feeling uninterested in work. Distancing was seen as an active process involving the behavior and performance of nurses within their professional lives, as they moved further from their job and workplace. This distancing led to a desire for a change in role or environment, and prompted individuals to seek positions that might offer a renewed sense of purpose and engagement. This category emerged early in the analysis through continuous iterative comparison between codes and data, as well as through memo-writing and diagramming. Through initial coding, several sub-categories were identified as components of how nurses distanced themselves from the job in the process of brownout, including (a) demotivation, (b) disengagement, (c) decreased interest, (d) lack of belonging. (e) decreased passion, (f) autopilot mode. These sub-categories were interconnected with participants' descriptions of their experiences and

illustrated how nurses distanced themselves from their jobs. Figure 7 represents *Job Distancing* and the sub-categories that emerged with exemplary quotes.

Participants voluntarily discussed how their own experiences of job distancing occurred. While the picture and the severity of the experiences of individuals varied during this category, its commonalities were evident to be captured under one overarching category.

2. Description of Job Distancing sub-categories:

a. Demotivation

This subcategory reflects the decline in enthusiasm and drive towards the job. Participants experiencing brownout often felt a lack of purpose and meaning in their work, leading to reduced productivity and devotion. Interviews revealed that the motivation affected was evident when participants explained how and when their motivation declined. Demotivation, common among participants, was also expressed as a general indifference to previously fulfilling tasks, such as bedside work.

> "I perform tasks at least within the accepted performance, but it is not like before I am motivated to excel…." (Jad -1)

> "… less and less motivation because I feel like every day is the same day on the repeat, but with a different let's say problem…" (Rayan 1)

b. Disengagement:

It was evident during the brownout phase that participants experienced a decreased commitment and lack of pursuit towards their job. "Doing the minimum" during this phase, as verbalized by the nurses, was manifested by avoiding responsibilities of additional tasks, not taking initiatives, reduced interaction, divesting self from tasks and workplace activities. Another property of disengagement

experienced by the participants was “searching for a way out” silently, where nurses reported feeling trapped in their current roles, leading to a desire to escape or find a more fulfilling path. Some of the nurses described this by seeking new job opportunities or considering a career shift, thoughts of leaving, exploring options, actively searching for a way out.

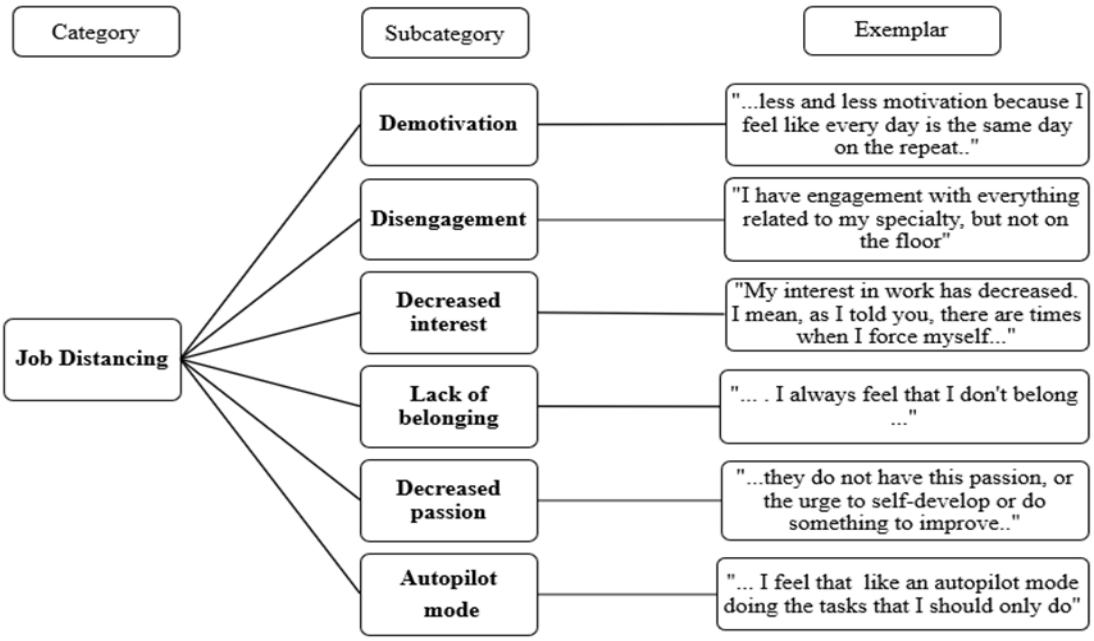

Figure 7. Job Distancing Core Category and its sub-categories

Participants related disengagement to demanding work conditions, negative work environment, lack of resources and lack of rewards, failure to advance in career or be recognized for one’s actions. Also, the low salaries added to the severity of the situation and led nurses to lose their engagement and reflected by distancing themselves from the job.

> “I have engagement with everything related to my specialty, …but not on the floor…I'm searching for a way out.” (Rayan-1)

> "Engagement with colleagues and relationships changed…" (Jad- 1)

> "I want to evolve in my job. And I just I think that it's been 13 years now and I did my master's degree 4 years ago I finished it. So, I want to advance in my career. OK, I'm good at what I do. But then what? I don't want to stay at that side nurse forever." (Mira-2)

c. Decreased interest:

This subcategory refers to the gradual loss of interest in work, distinct from demotivation and disengagement. Nurses described feeling a lack of interest in tasks that were once enjoyable, procrastination, and general apathy towards work. A main characteristic among bedside nurses was the desire for a different job, driven by lack of interest in their current roles. This desire to distancing from bedside care was manifested by emotional and physical detachment from patients and routine daily tasks, characterized by reduced empathy towards patient care.

Factors contributing to this rising disinterest in the job include dissatisfaction with work conditions, such as a demanding workload, lack of resources, decreased salaries, negative organizational culture, and lack of incentives.

> "…My interest in work has decreased. I mean, as I told you, there are times when I force myself." (Mika-2)

> "…I am not interested anymore in IV insertion… more interested in talking with patients who are newly diagnosed and support them or explain to them their treatment plan." (Jad-1)

> "...for example, correcting the prescriptions I used to ask the residents to fix now I care less... unless it is life threating for the patient" (Jad-1)

d. Lack of belonging:

This subcategory addressed nurses feeling disconnected and alienated from their work environment and colleagues. This sense of "not belonging" was strongly felt by some nurses during the brownout phase. The migration of nurses and their replacement

by junior, less experienced staff left those who remained feeling lonely and missing their long-term team and friends. Similarly, nurses who relocated due to staff shortages experienced the same sense of "not fitting in" in their new units, leading to a sense of detachment from their job.

Participants also attributed their lack of belonging to "feelings of disappointment" in the professional reality, exacerbated by the deteriorating economic situation since 2019. This economic downturn severely impacted the healthcare sector, causing a shortage of resources and worsening work conditions for nurses. These disturbed work environments have significantly affected nurses' sense of belonging, leading to further detachment from their jobs.

> "...I always feel that I don't belong…I feel that I'm a stranger on the unit. I told you I don't fit " (Noura-1)
>
> "Ok, I had the feeling that I did not belong to the unit anymore… started detaching a bit, because they know, and I know that I am leaving soon. I felt the change…" (Nina-2)
>
> "I did not feel that I belonged. I did not see myself or feel it's me anymore…" (Fai-2)

e. Decreased passion:

Decreased passion is a subcategory that emerged in the early stages of coding, as nurses described their decreasing passion to work as an early sign of distancing from the job. Their love for nursing might remain not changed, but their passion for their current job started decreasing. This was manifested as "doing the bare minimum", "feeling indifferent" about work, and "missing the drive". Fading passion was a strong property that appeared in the two rounds of data collection to strongly describe the dimming of the light in the relation between nurses and their jobs.

> "...they [referring to nurses] do not have this passion, or the urge to self-develop or do something to improve..." (Fai-2)
>
> "I kept doing all the requirements on point but with less passion just for the sake of doing the tasks." (Fai-2)
>
> "Many times, I thought why I am doing this job…. (Dina-1)

f. Autopilot mode:

Working on autopilot mode is a subcategory that emerged at a later stage of analysis. Participants described themselves as performing daily tasks without much thought. Characteristics of this behavior include routine execution of actions towards patients, lack of creativity in providing care, minimal interaction with patients and their families, emotional detachment, and reduced initiative.

Demanding and worsening work conditions, decreased salaries, lack of appreciation from the administration, and delayed promotions drove nurses into working in autopilot mode. Prolonged demotivation and disengagement at work led to this state, where nurses operated like robots, merely completing tasks without putting their heart into it. This feeling was particularly noted among participants with more years of experience, likely due to prolonged exposure to stressors and chronic demotivation, resulting in detachment and distancing from the job.

> "... I feel that like an autopilot mode doing the tasks that I should only do" (Jad-1)
>
> "…I work in autopilot mode on... Like a robot [laughing]…Off course I will do them responsibly…" (Mika-2)
>
> "I only do my tasks and if my break time comes, I leave everything lagging and take my break…" (Jad-1

Summary of Category 1. *Job Distancing* describes the experience of nurses during brownout, where they feel a decreased connection to their work, often due to a

loss of meaning in their roles. This was manifested as doing the bare minimum, lacking enthusiasm, and feeling uninterested in tasks. It's an active process where nurses may find themselves demotivated, disengaged, and operate in autopilot mode, leading to a desire for a change in role or environment. This distancing was driven by a lack of passion and sense of belonging, prompting individuals to seek positions that offer renewed purpose and engagement.

2. Core Category: Exertion

Exertion emerged as a main category referring to depleting energy that resulted in both mental and physical fatigue. This state is often caused by prolonged stress or overwork, leaving individuals feeling drained, weak, and quickly tired even after a short period of work. Through initial coding, three sub-categories were identified as components of how nurses experienced exertion during the process of brownout, (a) *Physical Exertion*, (b) *Emotional Exertion,* and (c) *Cognitive Exertion*. While this level of exertion didn't prevent them from going to work, it left them feeling worn-out during or after their shifts. Fortunately, unlike burnout, this tiredness could be alleviated with small breaks or vacations, allowing individuals to restore their energy levels and resume their duties more effectively. Figure 8 represents Exertion and the sub-categories that emerged with exemplary quotes.

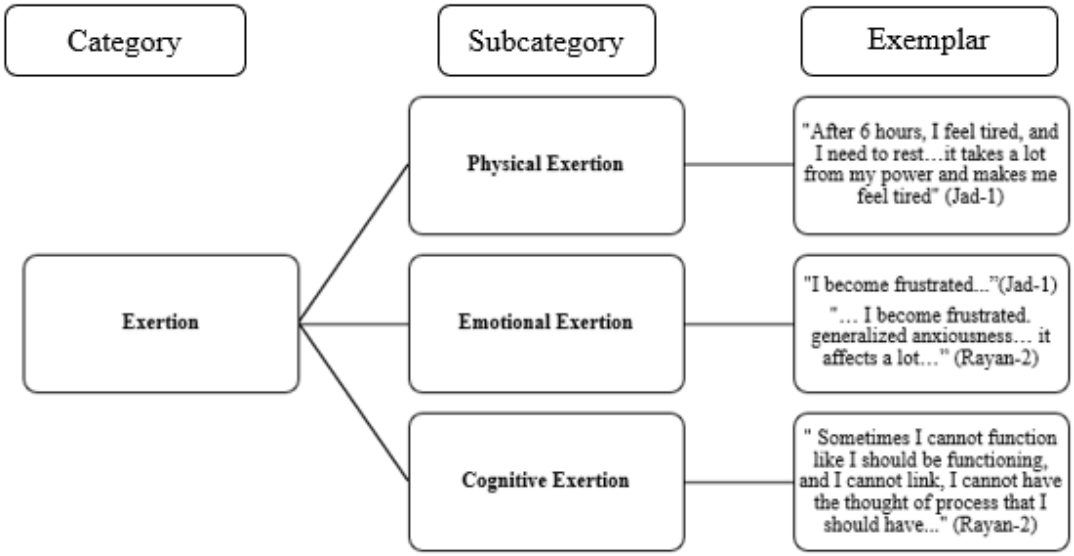

Figure 8. Exertion Category and its sub-categories

3. Description of Exertion sub-categories:

a. Physical Exertion

This subcategory specifically refers to the physical state of tiredness. This subcategory emerged in initial analyses, where participants frequently reported "feeling fatigued", "lacking power", "feeling tired" and "drained" due to several factors associated with their job.

> "At the end of the day, I'm dead tired." (Noura -1)
> "I live tired." (Dina- 1)
>
> "After 6 hours, I feel tired, and I need to rest…it takes a lot from my power and makes me feel tired." (Jad-1)
>
> "Physically I am tired sometimes I can't do it. You don't have energy I feel drained." (Mira-2)
>
> "I started to feel that I was really getting tired…" (Mai-2)

b. Emotional Exertion

Participants described their emotional changes during the phase of brownout profoundly during the interviews. Most of the participants acknowledged the emotional burdens they experienced during this process. While emotional exertion during this phase is comparable to emotional exhaustion experienced during burnout, it is generally less severe and does not reach the level of dysfunction. Properties that emerged from the initial analysis were “feeling overwhelmed”, “feeling sad”, “crying”, and “feeling frustrated” during this period. Feelings of frustration and anger at work, increased irritability and anxiety levels, a tendency to overreact and episodes of crying, persistent feelings of sadness and being upset, and difficulty in controlling emotions at work are all manifestations of this subcategory.

> “I become frustrated. generalized anxiousness… it affects a lot…” (Rayan-1)
>
> “I feel like my day is starting to feel very uncomfortable…” (Mai-2)
>
> “I cried three times during my shift. I prayed I said dua to encourage myself, to empower myself and stay strong.” (Noura-2)
>
> “Usually, I feel anxious all the time…I don’t want to go to work… usually this is before the workday.” (Rayan-1)
>
> “… I become frustrated” (Jad-1)

c. Cognitive Exertion

Cognitive exertion emerged as a distinct subcategory within the broader category of exhaustion. This subcategory highlights the impaired cognitive performance experienced by nurses during the brownout phase. Participants reported specific symptoms such as “difficulty staying focused” at work, “memory problems”, and being absent-minded or forgetful. “Lacking focus” was a prominent initial code, identified early in the interviews and consistently mentioned. Participants attributed their lack of

focus to two main causes: feeling tired due to overwork and being deeply dissociated from their work due to drained energy. Factors that helped alleviate cognitive impairment included engaging in interesting tasks, such as patient advocacy or education, where nurses felt more connected to their work. Additionally, working in safe conditions with an adjusted workload relative to the number of nurses helped mitigate cognitive disturbances.

> "Sometimes I cannot function like I should be functioning, and I cannot link, I cannot have the thought of process that I should have…So, it affects my performance" (Rayan- 2)

> "I feel physically tired after 4 hours. Then Cognitively I feel not focused." (Jad-1)

Summary of Category 2. *Exertion* emerged as a category of brownout, it is described as a severe draining of energy resulting in both mental and physical fatigue, often caused by stress or overwork. It is manifested in three main subcategories: Physical Exertion, Emotional Exertion, and Cognitive Exertion. Physical exertion referred to extreme tiredness, where individuals feel drained and lack power. Emotional exertion involves emotional changes such as feeling overwhelmed, sad, frustrated, and experiencing increased irritability and anxiety. Cognitive exertion highlighted impaired cognitive performance, including difficulty focusing, memory problems, and being absent-minded. Unlike burnout, this level of exertion can be alleviated with small breaks or vacations, allowing individuals to restore their energy levels and resume their duties more effectively.

3. Core Category: Psycho-somatic Indicators

When participants were asked about the symptoms they were experiencing, psycho-somatic indicators emerged as a significant category. These indicators were described as symptoms that were experienced during the process of brownout but were not explained by physical disorder, and psychological manifestations. Symptoms worsened by or resulted from psychological stress or emotional distress mainly from work. Examples are palpitations and chest pain, stomach and intestinal problems, headaches, muscle pains, sleeping problems and getting sick often. Two sub-categories were identified as "*Physical symptoms*" and "*Psychological symptoms*". Figure 9 illustrates Psycho-somatic indicators category and the sub-categories that emerged with exemplar quotes.

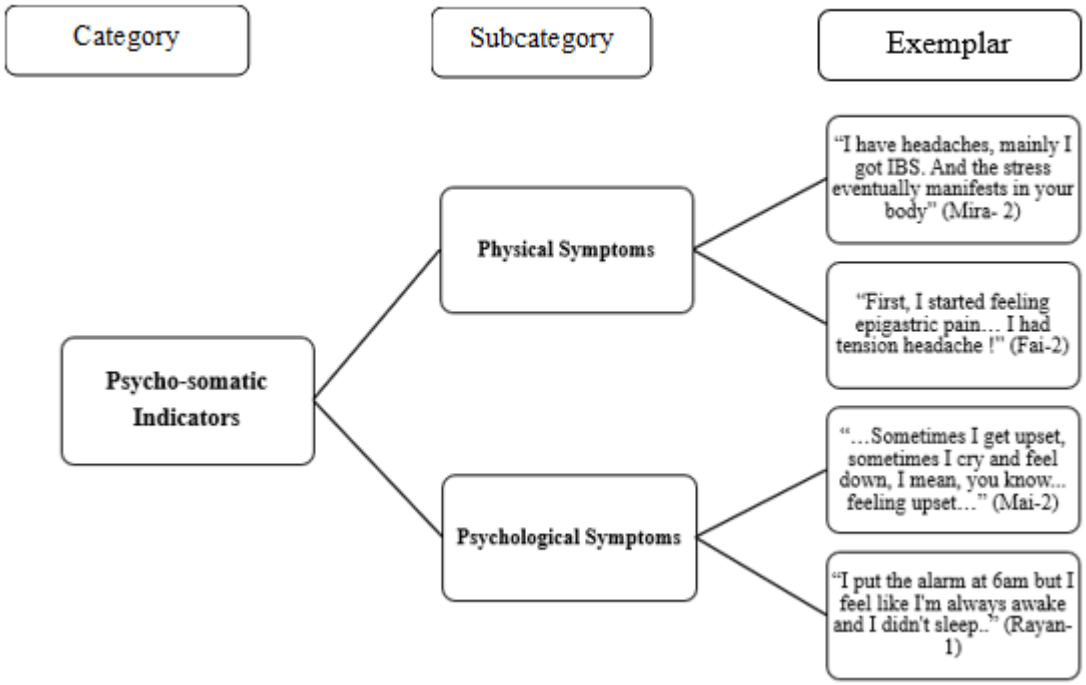

Figure 9. Psycho-somatic Indicators Category

a. Physical Symptoms

These are physical manifestations that were repeatedly reported by participants. Common symptoms include palpitations, chest pain, clenching teeth, headaches, physical fatigue, and gastrointestinal issues. Even though they originated from psychological rather than purely physiological causes, these symptoms were real and significantly impacted the participants' quality of life. The high demands of their job played a significant role in the onset of these symptoms, while the stressful environment further exacerbated these issues.

> "…I started to have symptoms I did not have before…so I did not have GERD before, it happened to me… I did not have stress ulcers, then I did., also I started having palpitations and sleeping problems … each symptom came after the other…" (Fai-2)

> "Something related to my health, I got psoriasis, so when I went to the dermatologist. She told me it is from stress, and she wrote me a medical report…" (Mai-2)

> "I have headaches, mainly I got IBS. And the stress eventually manifests in your body" (Mira- 2)

> "First, I started feeling epigastric pain, then I started having feelings of something stuck in my throat... I did a lot of investigations. Also, I had tension headaches, from time to time. Lastly, I started clenching my teeth … When I did the investigations, and it came normal they tell me its stress!" (Fai-2)

Participants noted that these symptoms were temporary, fluctuating in severity, and often related to periods of high stress. They typically appeared on the morning of work or the night before, directly linking them to work-related stress.

> "On the working day usually, I have through the shift. Mumm… I sometimes get headaches because I cannot sleep, I can't eat and palpitations… the usual stress symptoms." (Rayan-1)

> "So usually, the symptoms start one day before work." (Rayan-1)

b. Psychological Symptoms

These are the mental or emotional manifestations that were reported by the participants and related to psychological distress, and they impacted their wellbeing, such as sleeping problems, irritability, mood swings and feeling sad.

> "I'm getting old. I feel I'm 25 years old, but I'm getting old in this hospital I feel so old…" (Noura-1)

> "…Sometimes I get upset, sometimes I cry and feel down, I mean, you know... feeling upset…" (Mai-2)

> "…I know people that they have one year experience as they cry every day before coming to work. They cry during work…" (Rayan-1)

> "I put the alarm at 6am but I feel like I'm always awake and I didn't sleep at all I don't have the good night's sleep because I am thinking about tomorrow, the assignment, the work..." (Rayan-1)

Summary of Category 3. *Psycho-somatic complaints* emerged as a category of brownout. It described the symptoms experienced by participants during brownout but not explained by physical disorders, instead worsened by psychological stress from work. The symptoms were categorized into physical symptoms and psychological symptoms. Examples include palpitations, chest pain, stomach and intestinal problems, headaches, muscle pains, sleeping problems, and frequent illnesses.

4. Core Category: Lifestyle and Social Impairments

Lifestyle and social impairments as a category emerged in the initial interviews and continued to be a persistent theme in subsequent interviews and throughout the analysis. Participants described how their interpersonal relationships and lifestyle were affected during this period. This category includes properties such as avoiding people, maintaining distant relationships with colleagues and patients, withdrawal from

activities and hobbies that were once enjoyable. Two sub-categories were identified under this category, *Lifestyle Disruptions* and *Social Withdrawal.* Figure 10 illustrates the Lifestyle and Social Impairments category and sub-categories that emerged with exemplar quotes.

a. Lifestyle Disruptions

Participants reported considerable changes in their daily routines and habits, such as reduced physical activity outside work, skipping gym, stopping volunteer work and minimal involvement in selfcare activities.

> "I used to go to gym to see my friends more. My eating habits changed, no breakfast or lunch. My sleeping is affected, I feel fatigued after night shifts a lot... I sleep for 2 days after my night shifts to compensate. And the night we don't get more paid… no incentives. This affected my daily life." (Jad-1)
>
> "...I used to be part of the Civil Defense. I had to leave this volunteering activity that I really love to do." (Noura-1)
>
> "I never ever could go to gym because I'm always tired." (Noura-1)
>
> " I mean, for four months now I say that at the beginning of this month I want to go and register at the gym , pay my fees, force myself once or twice a week, do gym, because I am also done physically, I can no longer stand myself, and I pass by the gym and I see it and continue my way there… why? I do not know…" (Mika-2)
>
> "Though I am still young I don't have any time for my personal life." (Noura-1)

b. Social Withdrawal

Initially described as avoiding people and maintaining distant relationships with colleagues and patients, this subcategory also includes withdrawal from previously enjoyable friendships. Participants experienced reduced social interactions and isolation from friends and family. They found themselves unable to engage in events or social activities, preferring to rest at home due to drained energy. This withdrawal was a direct

reflection of the mental and emotional strain caused by the brownout, affecting their social life and relationships.

> "I preferred to stay at home... Not to see anyone or talk to people. Even friends from the hospital I used to contact I avoided." (Nina-2)
>
> "I'm avoiding people. So, before every Thursday we used to meet with my friends, now it's been a long time since I saw them. (Noura-1)
>
> "As well I feel that my social relationships also decreased or diminished…" (Mai-2)
>
> "I don't like it [current state]. From time to time, I open Instagram and look at the posts and pictures from a long time ago, how I was going places every day where I used to celebrate with the girls, and like that, I miss times like those days…" (Mai-2)

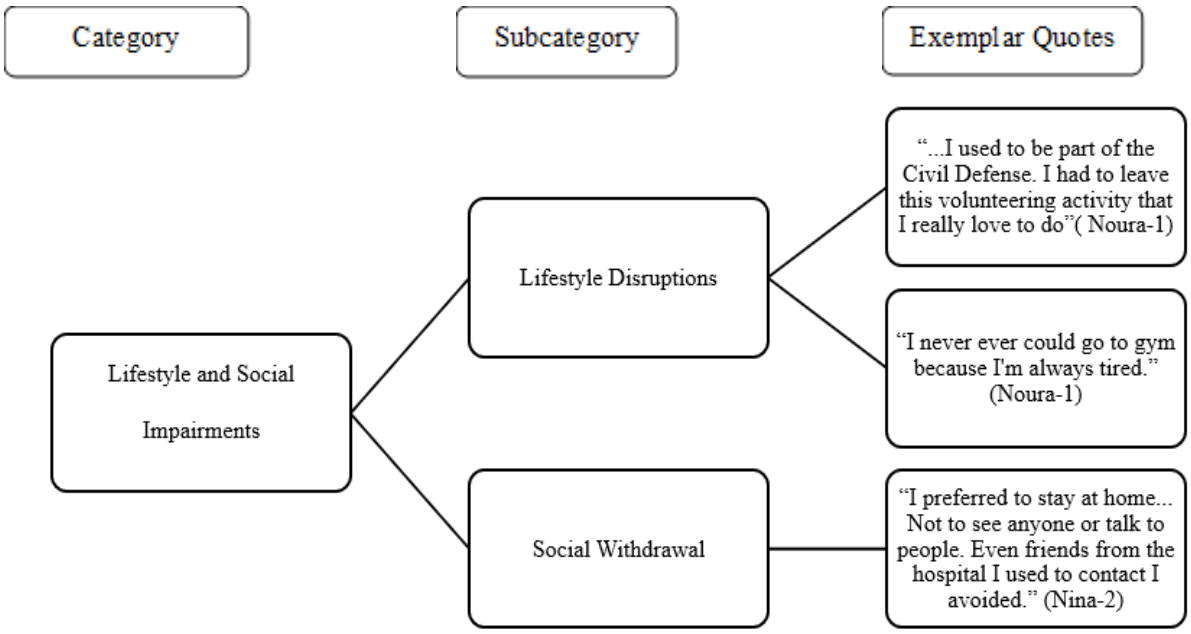

Figure 10. Lifestyle and Social Impairments category and its subcategories

Summary of category 4. *Lifestyle and social impairments* emerged as a significant category, highlighting how participants' interpersonal relationships and lifestyles were affected during this period of brownout. This category includes two subcategories, lifestyle changes that caused changes in daily routines, such as reduced

physical activity and minimal self-care, alongside social withdrawal, avoiding people and distancing themselves from previously enjoyable friendships and activities.

5. Antecedents, Barriers and Consequences

Participants shared insights from their personal and professional lives during this period. Throughout their journeys, they encountered various antecedents, barriers, and consequences. Antecedents caused the brownout process, while barriers, such as coping strategies, slowed brownout progression. Ultimately, the consequences were the outcomes of it, leading to potential burnout.

6. Associated Category: Antecedents

Participants identified several factors contributing to brownout during their experiences. These included personal factors, demanding work conditions, and a negative work environment, which were categorized as subcategories under antecedents. Figure 11 illustrates the Antecedents category and the emerged sub-categories with exemplar quotes.

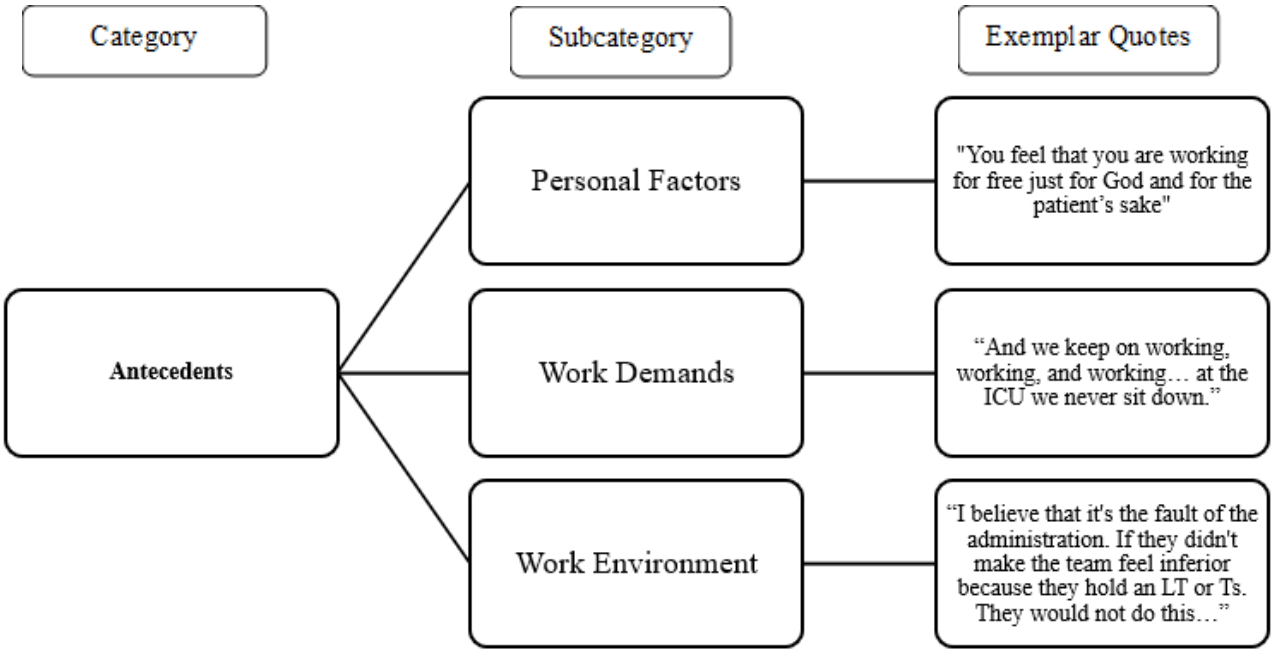

Figure 11. Antecedents Category and its subcategories

a. Personal Factors

Participants described factors such as age, marital status, highest attained degree, years of experience, and specialty area, position and socioeconomic status, playing a role in the occurrence of brownout. Married participants who had children and financial responsibilities were subject to greater stress from the deteriorating economic situation in the country, their socioeconomic status was also affected, and their salaries were not enough to meet ends. Younger nurses were affected by work stress more than older and more experienced nurses. These factors are expected to play a role in predicting brownout.

> "You feel that you are working for free just for God and for the patient's sake" (Noura-1)
>
> "…they [nurses] are not being fairly paid of what they deserve. Because the salary depreciation was huge, it did not differ mildly… it differed severely..." (Mai-2).

b. Work Demands

Work demands were identified as a key factor leading to brownout, with participants highlighting various causes and factors that triggered their brownout experiences. These demands encompass a range of job-related stresses, both physical and organizational, that can affect nurses' wellbeing and enthusiasm.

During initial coding, numerous codes related to work demands or conditions that initiated the brownout phase were identified. These included the work unit being understaffed, working overtime, skipping breaks, working continuously, taking on extra responsibilities, doing more with less, lacking resources, working while sick, and being underpaid. These codes were consistently mentioned throughout the interviews.

> "The shortage of staff. This is the first thing I know because each RN is working for two RN." (Rayan-2)
>
> "Because we were very short staffed. Very short staffed and we were overwhelmed." (Noura-1)
>
> "The old staff is very tired because they are putting extra efforts with the new staff." (Dina-1)
>
> "…Then I go back to my desk we don't have a resident at the unit an ICU all the responsibilities on the nurses." (Noura-1)
>
> "…We don't have any time to do or to take a break." (Rayan-1)

Through data analysis and constant comparative analysis, these codes were grouped and refined during focus coding, resulting in subcategories under the broader category of work demands. Work demands are believed to be the primary cause of brownout.

The properties of work demands were categorized based on the nature of the demands. For example, workload included codes related to higher workload, working in an understaffed unit, and stretching responsibilities. Financial burdens emerged as a

subcategory under work conditions, as they represent a negative resource at work. It is important to note that not all nurses experienced the same work demands, as these varied between organizations across Lebanon.

c. Work Environment

Work environment emerged as a distinct subcategory highlighting the significant impact of the social and cultural settings that affected nurses and impacted their wellbeing. Throughout the analysis, this subcategory encompassed various elements that contribute to the overall atmosphere and conditions of the workplace, including interpersonal relationships, communication, organizational culture and work-life balance. These factors played a role in impacting participants' satisfaction at their jobs and increased their commitment to their workplace.

> "We didn't take our vacations or our annual vacations holiday. I have many holidays. were gone like this." (Rayan-1)

> "Even when you do want to take a sick leave. It will be burden on the other nurses, and you will feel shamed because you are sick." (Jad-1)

> "…Many times, I thought why I am doing this job and people are not appreciating. Sometimes they treat us nicely. Sometimes they decide not to treat us nice." (Dina- 2)

> "I always say, that's it, when you leave the hospital, what happened here keep it here...But the problem is that what happens here is following me because of the phone" (Mika- 2)

> "…nurses came to work unhappy, as if its despite their will. But they can't leave, or they don't have a better work opportunity. Because they think they are not being fairly paid what they deserve. Because the salary depreciation was huge, it did not differ mildly… it differed severely..." (Mai- 2)

> "...They come, and they start criticizing us… if they see what we are doing and how we are working and the conditions we are working at no one should say any word to us..." (Noura-1)

7. Associated Category: Barriers

Barriers emerged as a category in understanding the factors that can slow down or mitigate the onset and progress of brownout among nurses. Participants shared various coping strategies and resources from their personal and professional lives that they utilized during this challenging phase. These barriers played a significant role in decelerating the progress of brownout. Coping strategies (practicing mindfulness, selfcare activities, sports, hobbies, religious activities, spending time with family and friends, positive mindset and taking a vacation), perceived value of nursing (loving the profession, self-image, feeling valued and respected, serving the community) and intention to stay (career commitment, organization commitment and financial obligations) are subcategories which mitigated the effect of brownout and its progression to burnout.

> "…As well I am trying to resume the relationship with the staff, for example if there is a birthday event on the unit, we celebrate it in a way that makes the atmosphere like this, but we go back to having a little life in it. For example, during the holidays, they are simple initiatives, very simple." (Mai-2)

> "Support from my husband also helped, my family and especially my sister helped me" (Mai-2)

> "So, talking to my mom is something that really helps me and makes me feel better." (Nina- 2)

> "Listening to music, walking, meeting with friends... talking to them. [listing coping strategies]" (Jad-1)

> "I go out with friends or something but now like I'm staying at home, watching TVs or games or something and I'm reading." (Rayan-1)

> "Here the spiritual part plays a role. It's my coping mechanism to stress I don't take any medications." (Mira-2)

> "When I started exercising the symptoms started to decrease. so, the more I am angry the more hours I work out… until I go home physically exhausted but psychological I let out everything and I am fine." (Fai- 2)

> "Yes, now for sure much less [feeling stressed] … I am doing Meditation, I tried Yoga, I tried a lot of things ... I go to gym more to reduce the pressure on myself." (Fai-2)

> "I decide to stay here because I am serving my community, and I have my respect." (Jad-1)

> "…I try to stay positive and try to think positive." (Noura-1)

> "But when I go on vacation or holiday, I charge myself with positive thoughts." (Noura-1)

> "I started searching for other jobs. but I did not take any serious steps…. I am attached to my workplace … 12 years is not a short time; I am attached to the place." (Fai-2)

8. Associated Category: Consequences

Participants' responses to brownout varied depending on their living context. A common response that emerged was the intention to leave—whether it be leaving the profession, the current workplace, or their current position. Ultimately, two participants revealed that this state led them to burnout, rendering them unable to continue in their jobs. One resigned, and the other shifted away from bedside nursing. Intention to leave and burnout are two sub-categories within the consequences category.

a. Intention to Leave

When participants were asked about the outcomes of living through brownout, their intention to leave appeared as a subcategory. The intention to leave referred to a participants' expressed desires or plans to leave their current job, shift positions within the same institution or outside of it or leave the nursing profession. Adjusting work conditions and implementing coping strategies helped mitigate the intention to leave. However, our collected data indicate that nurses experiencing brownout often contemplate changing their position or unit, if not leaving the profession entirely. This

intention to leave can be broken down into several dimensions: leaving for a less stressful job, searching for a better opportunity, thinking about quitting, and leaving the bedside.

> "I thought at some time to change the position, not that I want to drift away from nursing I still want to be in the field with less responsibilities from these tasks and give it from my heart, just as I love to give it from my heart." (Mika-2)
> "If next year things will continue the same and the situation is not better at the unit level, I will quit." (Jad-1)

> "Even if I get more physically tired. But psychologically, it is less stressful, and the time is more appropriate. For my children, I don't care about the salary or the physical fatigue." (Mai-2)

> "Honestly, since I finished my graduate studies, I was looking to a step forwards, I look for opportunities … I want to go for something better…" (Jad-1)

> "I feel that I want to quit when I think about it. I always think of quitting, quitting… quitting! Last week, I cried three times during my shift" (Noura-1)

b. Burnout:

Burnout is a metaphor that refers to a state of complete mental, physical, and emotional exhaustion. Through the study participants responses emphasized their witnessing of colleagues affected by burnout or their own experiences as a consequence of the prolonged exposure to stress and work demands. Ultimately, burnout eventually happened when coping mechanisms failed to rescue nurses because of their struggles with their exhaustion levels.

> "Recently I know someone who experienced burnout, she is an excellent nurse, RN ICU with three years of experience and she was always the most engaged one, super good at her work, she decided to leave suddenly. She went to work at an NGO. She says that she is tired from the bedside work." (Nina- 2)

> "I would say yes, I'm burnt out… I feel that I am in a state in between burn out and regular life. I'm surviving and I am resilient, I'm resisting." (Noura-1)

> "I reached places near burnout and came back." (Fai-2)

> "…the manager is quitting and he's a very good manager, but he's fed up and he told them that if you don't change my position to something away from the unit, I want to leave… this is the manager that we considered a rock. He's a role model. Now he's burnt out and he has lost all his energy. What about me?" (Noura-1)

Summary of Antecedents, Barriers and Consequences. Participants reflected on their personal and professional experiences, identifying various factors that contributed to brownout. They encountered antecedents that initiated the brownout process, barriers like coping strategies that slowed its progression, and ultimately faced consequences that could lead to potential burnout and intention to leave.

C. CGT Results Summary

A substantive theory was presented and illustrated in Figure 12 below, with four concepts: job distancing, exhaustion, psycho-somatic impairments and lifestyle and social disturbances. The associated antecedents and barriers factors were addressed as well as the consequences.

The theory of brownout was the yield product of this grounded theory study, in which the experiences that the nurses had during this period, the facilitators, barriers and consequences of brownout are described. The core categories and subcategories are supported by excerpts from the participants.

The participants explained how they experienced brownout and their perceptions about this experience. On the basis of theoretical considerations, four categories emerged as the core of brownout phenomenon. Distancing from the job appeared to be the most important category of brownout including changes such as "no motivation", "disengagement", "lack of passion", "decreased interest" and "working on autopilot mode".

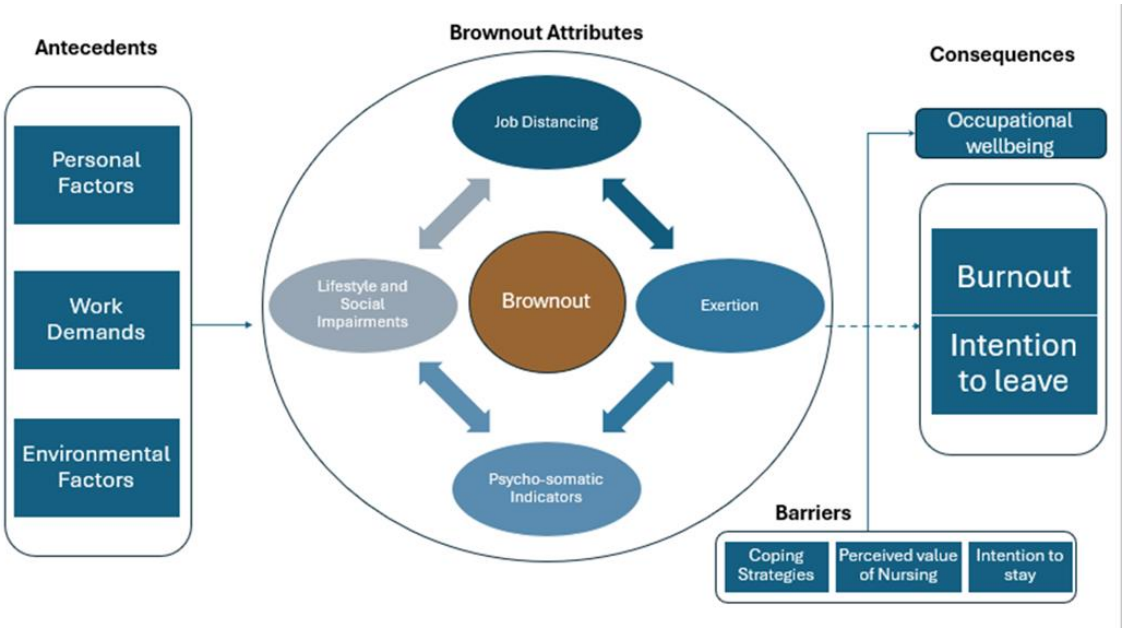

Figure 12.The Brownout Theory

Not surprisingly, exertion was mentioned consistently as a prominent attribute including physical exhaustion including “fatigue”, “tiredness”, cognitive exertion for example “lack of focus and “forgetfulness” and emotional exertion examples are

“sadness”, “anxiety”, “irritability” and “mood swings”. In addition, a third category emerged as psycho-somatic complaints such as “headache”, “palpitations”, muscle pain”, and "stomachaches".

Finally, lifestyle and social disturbances emerged as a fourth category that reflected the response of the participants to brownout on their personal lives, for example “avoiding people”, “distant relationships with colleagues and patients”, “withdrawal from activities”, “withdrawal from practicing hobbies”, and “reduced self-care”. Table 3 below elaborates the categories, subcategories, and dimensions that emerged.

Table 3. The Categories, Sub-categories, Dimensions and Descriptions

Categories (Themes)	Sub-categories (Sub-themes)	Dimensions (Properties)	Description
1. Job distancing	1.1. Demotivation	1.1. Decreased connection and drive to work	1.1. The significant decline in motivation and drive towards work.
	1.2. Disengagement	1.2. Reduced enthusiasm for work and environment, doing the minimum	1.2. The decreased commitment and lack of enthusiasm towards the job
	1.3. Decreased interest	1.3. Reduced excitement at work, apathy towards work.	1.3. The gradual loss of interest in work. Reduced excitement, procrastination, and a sense of apathy towards work.
	1.4. Lack of belonging	1.4. Not fitting, not belonging to unit/ workplace	1.4. The feeling of being disconnected or alienated from work.
	1.5. Decreased passion	1.5. Reduced passion to job, loss of meaning	1.5. The decreased affection towards engaging in the work.
	1.6. Autopilot mode	1.6. Routine execution, lack of creativity, reduced initiative	1.6. The condition of operating daily tasks and responsibilities without much thought, enthusiasm, or engagement.
2. Exertion	2.1. Physical Exertion	2.1. Feeling fatigued, lacking power, feeling tired and drained.	2.1. The physical state of tiredness.
	2.2. Emotional Exertion	2.2. At work and in personal life. Feeling overwhelmed, anxiety, feeling sad, crying, and feeling frustrated.	2.2. The impaired emotional responses. The inability to control one's emotions at work.
	2.3. Cognitive Exertion	2.3. Lacking focus, having memory problems, and being absent-minded or forgetful.	2.3. The state of affected cognitive performance.

3.	***Psycho-somatic Disturbances***	3.1. Physical symptoms	3.1. Palpitations, chest pain, clenching teeth, headaches, physical fatigue, and gastrointestinal issues.	3.1. These are physical manifestations that were repeatedly reported by participants and not related to physical distress.
		3.2. Psychological symptoms	3.2. Sleeping problems, irritability, mood swings and feeling sad.	3.2. The mental manifestations that were reported by the participants and related to psychological distress.
4.	***Lifestyle and social impairments***	4.1. Lifestyle changes	4.1. Outside work, reduced physical activity, skipping gym, stopping volunteer work and minimal involvement in selfcare activities.	4.1. The changes in the daily routines and habits.
		4.2. Social withdrawal	4.2. At work and outside work, reduced social interactions.	4.2. The withdrawal from social relationships.
5.	***Antecedents***	5.1. Personal factors	5.1. Age, marital status, highest attained degree, years of experience, specialty, position and socioeconomic status.	5.1. The personal factors that play a role in predicting brownout.
		5.2. Work demands	5.2. Job-related: high workload, understaffing, working overtime, omitting breaks, stretching responsibilities, doing more with less, lacking resources, sickness presence, losing vacations.	5.2. The job- related factors, both physical and organizational, can lead to brownout.
		5.3. Work environment	5.3. Interpersonal relationships, communication, organizational culture and work-life balance.	5.3. The social and cultural settings that affect nurses and impact their wellbeing.
6.	***Barriers***	6.1. Coping	6.1. Practicing mindfulness, selfcare activities, sports, hobbies, religious activities.	6.1. The methods or techniques participants use to manage stress.
		6.2. Perceived value of nursing	6.2. Loving the profession, self-image, feeling valued, feeling respected, serving the community.	6.2. The merit of nurses as viewed by self and various stakeholders, including

			patients, healthcare professionals, and society at large.
	6.3. Intention to stay	6.3. Career commitment, organization commitment and financial obligations.	6.3. The commitment or decision to remain at current job even when experiencing stress.
7. Consequences	7.1. Intention to leave	7.1. Leaving for a less stressful job, searching for a better opportunity, thinking about quitting, and leaving the bedside.	7.1. The expressed desires or plans to leave the current job, shift positions within the same institution or outside of it or leave the nursing profession
	7.2. Burnout	7.2. Experiencing burnout, feeling burnout, suffering.	7.3. The state of complete mental, physical, and emotional exhaustion.

D. Results of Phase II: Instrument Development

Building on the preparatory work detailed in phase II above, the following section presents and elaborates on the results of the refinement and validation processes solicited from the expert panel and changes adopted by the research team.

1. Expert Panel Review and Feedback Process

Following the consultations with faculty members experienced in instrumentation research, a panel of experts was assembled to evaluate the initial item pool and ensure the instrument's content validity. This multidisciplinary panel was carefully selected for their expertise in areas relevant to the study's topic and the tool development process. The panel included a professor with expertise in qualitative research, a researcher specializing in psychometric testing and organizational psychology, as well as nursing professionals with specialized knowledge in mental health and workforce concerns. The panel's collective insights were critical to the

refinement of the instrument. The panel members were formally invited via an official email, which provided a concise summary of the instrument development process rooted in grounded theory, along with operational definitions for the constructs and subconstructs to ensure clarity about the content under validation. A two-week timeframe period was given to the panel members to respond and were tasked with assessing each item using a three-point scale (Low, Moderate, High) across the following criteria:

1. Item relevance: The panel was asked to rate how relevant they think each item is to what construct or subconstruct we intend to measure. A working definition of each construct and subconstruct was provided to the expert panel. The panel members were asked to rate each item with respect to its relevance vis-à-vis the construct as we defined it and comment on each item as they see fit.
2. Item clarity and conscience: The panel was asked to point out awkward or confusing items and suggest alternative wording if they are so inclined.
3. Cultural Appropriateness: The panel were asked to rate how culturally fit is each item and rate it for its appropriateness in relation to the context of nursing in Lebanon.

Additionally, the panel members were invited to provide detailed feedback and comments on individual items and the overall instrument.

The expert panel's evaluation of item relevance resulted as the following: 80% of the items were rated as having high relevance, 12.5% as moderate relevance, and 7.5% as low relevance. As for the panel's assessment of conciseness and clarity indicated that 85% of the items were rated as highly clear and concise, 15% as moderately clear and concise, and 10% as having low clarity and conciseness. As for

the evaluation of cultural appropriateness, it was found that 82.5% of the items were rated as highly culturally appropriate by the panel, 12.5% as moderately appropriate, and 5% as having low cultural appropriateness.

The panel's feedback and comments formed the basis for subsequent refinements, ensuring the instrument's rigor and alignment with the study's objectives as detailed in the following section, which presents the outcomes of the panel's review and the resulting modifications to the instrument.

2. Changes based on expert review

The thorough evaluation of the instrument and recommendations sent by the expert panel members reshaped the instrument significantly. The research team discussed feedback provided from the panel and agreed on the changes to be made based on this feedback. The changes related to the following categories: rewording items to use more familiar terms for the field, deleting or merging items that were redundant or unclear to obtain a reasonable length for an instrument, adding items that addressed important constructs but were missing from the original item pool, and improving layout and formatting. Table 4 illustrates key changes made to the items during the refinement process.

Table 4- Example of Item Changes

Changes	Original Item	Reviewed Item
Rewording Items	I feel that I am not motivated at my work. I feel that every workday is the same on repeat.	I do the bare minimum at my work. I often feel stuck in a routine at work.

	I have decreased engagement at my work.	I find it hard to be engaged at my work.
	I struggle to take the initiative at work	I find it hard to take initiative at my work
Deleting or Merging Items	I feel that I don't belong to my work.	*Redundant meaning with the item:* I feel disconnected from my work.
	I question myself why I am doing this	*Redundant with item:* I ask myself why I am doing this job.
	I feel like I function on autopilot mode	Repeated meaning with other items
Adding Missing Items		I cry before, during or after work.

In all, the scale went from 40 items at the outset of this process and ended with 36 items, striking a balance between comprehensiveness and practicality, furthermore, resulting in a more streamlined and robust scale ready for subsequent validation steps (Appendix I).

E. Results of Phase III: Cognitive Interviewing

Based on the responses of the interviewed nurses, the instrument was generally regarded as well-constructed and consistently well-received across most items and categories. However, issues were identified in 5 out of 14 demographic items (35.7%) and 14 out of 36 items of the brownout instrument (38.9%). In total, 19 out of 50 items (38%) presented problems. Among these, issues with vocabulary were the most prevalent, identified in 10 out of the 19 problematic items (52.6%). In contrast, problems related to item format were the least common, reported in just 2 out of 19

problematic items (10.5%). Issues related to response categories were identified in 4 out of the 19 items (21.05%). Additionally, task performance issues, such as memory or retrieval difficulties, delays in response, decision-making challenges, and refusal to answer, were identified in 5 out of the 19 items (26.3%). Moreover, participants found 5 items in the brownout instrument (26.3%) to be redundant, as they conveyed similar meanings. Table 5 below demonstrates the frequency of issues across items.

Table 5. Frequency and Categories of Identified Problems Across Instrument Items

Problem Category	**Frequency** (n=19)	**Percentages** (%)
Vocabulary (Awkward/ uncommon, unclear/confusing, multiple meanings, lengthy/ complex, culturally inappropriate)	10	52.6%
Item Format Problems (Poorly matched with response category, unclear or confusing)	2	10.5%
Response Category Problems Illogical order, ambiguous terms, missing responses	4	21.05%
Task Performance Problems Memory or retrieval problems, response period problems, decision making problems, too challenging, refused to answer	5	26.3%
Redundancy Items with overlapping meanings	5	26.3%

The changes primarily involved re-writing 19 questions (38%) to ensure better comprehension and relevance for the targeted population. Additionally, adjustments were made to 7 responses (14%) by modifying, removing, or reformatting response options. One question was simplified by reformatting its responses into categories rather than free-text answers. Furthermore, 6 items (12%) were removed from the questionnaire: 2 items were deleted outright, and 4 were merged into 2 items, as the majority of respondents found them redundant or overlapping in meaning. To address

issues deemed important but overlooked by the original questionnaire, 3 new items were added as considered important by the majority of the respondents. To improve the questionnaire's overall flow, 3 questions were re-ordered for better coherence. Therefore, the final count of items in the questionnaire has been adjusted. The brownout instrument now includes 32 items instead of the original 36, while the demographics section has been expanded to 16 items from the initial 14. This brings the total number of items in the questionnaire to 48, reduced from the initial 50. Table 6 below demonstrates the findings of the cognitive interview testing of the brownout questionnaire.

Table 6. Findings of the Cognitive Interview Testing of the Brownout Questionnaire

Questionnaire Section & Q #	**Recommended changes**
Demographic section (14 questions):	
Q 2	***Re-writing responses:*** Change age group 18-29 years to 21-29 years
Q 3	***Adding responses:*** Add "Other" category in responses
Q 5	***Re-order question***: Place the question under Marital Status
Q 6	***Re-writing question***: Reword "Work Specialty" to "Work Department" ***Adding / re- writing responses:*** Add "Psychiatry" and "Oncology", also add a free text next to others Re-write "Operation Theater" to "Operation Room"
Q 7	***Re-writing question***: Reword "Years of Experience" to "Total Years of Experience"
Q 8	***Re-writing question***: Reword "Years at Curren Job" to "Years of Experience at Current Position"
Q 9	***Adding responses:*** Add "Practical Nurse"

	Add "Others" with a free text box ***Re-order question:*** Move to under Q 6 "Work Department"
Q 11	***Adding question:*** Work overtime (Yes/No) If yes, is the overtime compensated (Yes/No)
Q 13	***Re-writing question***: Reword question: please indicate the number of dependents in your household ***Re-order question:*** Move under Q.5 "Number of Children" ***Re-formatting responses:*** Reformatting response to categories instead of a free text: none, 1-3 persons, 3-5 persons and > 5 persons
Q 14	***Re-writing question:*** Reword question: Monthly Net Salary ***Re-writing responses*** Re-arrange monthly income categories in ascending order with categories 400-600, 600-800, 800$- 1000$, 1000-1200, >1200$
Brownout questions (36 items):	
Q 1	***Re-writing question***: Reword question "I don't feel like going to work" (remove my)
Q 2	***Re-writing question:*** Reword question "I do my best at work" (positively worded)
Q 3	***Re-writing question***: Reword question "I feel stuck in a routine at work" (remove often)
Q 4	***Re-writing question:*** Reword question to "I don't feel dedicated to work"
Q 5	***Deleting question:*** Item deleted since it has an overlapping meaning with another item
Q 7	***Re-writing question:*** Reword question to "I am not interested in my current job"
Q 11	***Re-writing question:*** Reword question to "I feel that I don't belong to my workplace"
Q 12	***Deleting question:*** Item deleted since it has an overlapping meaning with another item
Q 13	***Re-writing question:*** Reword question to "I don't find meaning in my current job"

Q 16	***Re-writing question:*** Reword question to "Sometimes I am not able to control my emotions at work"
Q 19	***Re-writing question:*** Reword question to "I feel tired performing tasks expected from me at work"
Q 20	***Re-writing question:*** Reword question to "I feel my energy is depleted from work"
Q 21	***Re-writing question:*** Reword question to "I feel that I need more than one break during a shift"
Q 23	***Re-writing question:*** Reword question to "I often suffer from stomach problems on a workday" ***Adding question:*** "I often suffer from leg and/or leg pain on a workday"
Q 28 and Q 29	***Deleting / Adding questions:*** Items deleted and combined under one new item added "I feel stressed at work"
Q 30	***Re-writing question:*** Reword question to "I get sad at work" (remove the term upset)
Q 31, 32 and 33	***Deleting / Adding questions:*** Items deleted and combined under one new item added "I am too tired from work to practice other activities (such as selfcare activities, exercise and hobbies)"

Additional measurement issues examined during the cognitive interviews included readability, accessibility, usability, and applicability of the questionnaire. Among the respondents, 18 participants (90%) from both English- and Arabic-speaking groups affirmed that the questionnaire was clear in terms of the vocabulary and terminology used. Furthermore, all 20 respondents (100%) agreed that the questionnaire was accessible, both in understanding the intent behind the questions and in providing responses. All respondents also unanimously endorsed the questionnaire's relevance to the nursing workforce in Lebanon, emphasizing its applicability to their professional context. Moreover, all participants (100%) agreed on the usability of the questionnaire, noting its clear format and user-friendly nature, since the questionnaire was

administered via LimeSurvey, respondents were allowed to navigate and provide answers seamlessly using a tablet device approving its usability.

Further features examined in the cognitive interviews included the questionnaire's length, font style, participants' willingness to complete it, and the organization of its sections. The majority of respondents (95%) found the number of items and the overall length of the questionnaire to be reasonable, with only one participant suggesting a shorter version. All interviewed nurses (100%) agreed that Times New Roman font size 12 was appropriate for both Arabic and English versions of the questionnaire. Moreover, they expressed confidence that fellow nurses would be willing to complete the questionnaire. Nineteen participants (95%) recommended placing the demographic section at the beginning, rather than at the end, as they were more accustomed to addressing this section first and preferred to do so.

F. Chapter Summary

This chapter presented the findings of the study's sequential qualitative methodology, providing critical insights into the phenomenon of brownout. In the initial exploratory grounded theory phase, categories that emerged as attributes of brownout were job distancing, exertion, lifestyle and social impairments and psycho-somatic indicators. Moreover, the interplay of personal, job-related, and environmental factors contributing to brownout along with its consequences was highlighted. These findings informed the construction of the brownout theory. Building upon this theory, the results detailed the development of the brownout instrument. The chapter also presented the outcomes of the cognitive interviewing study, which was conducted to validate the

instrument's content and structure. Feedback gathered during this phase led to refinement that enhanced the instrument's clarity, relevance, and applicability.

CHAPTER V

DISCUSSION AND CONCLUSION

This chapter presents a discussion of the study findings in relation to the research aims, theoretical framework, and empirical literature. It also addresses the study's limitations, explores implications for practice, and offers recommendations for future research. The chapter concludes with a summary that encapsulates the key takeaways.

A. Discussion

This study delved into the brownout phenomenon among nurses in Lebanon using a constructivist grounded theory approach, yielding substantial insights that advance the understanding of nursing occupational well-being. Additionally, our study is the first to report on the experiences of nurses during the period that precedes burnout. The findings revealed a new substantive theory called the “Brownout Theory” and a cognitively validated instrument to measure the phenomenon. The developed tool not only evaluates the current state of brownout among nurses amid ongoing challenges but also serves to clearly differentiate brownout from burnout in both contemporary and future research contexts. Crucially, this study addressed a significant gap in literature, offering fresh perspectives on nurses' occupational well-being.

These findings pave the way for further exploration of the defining characteristics of brownout and its distinction from burnout. Moreover, the study outcomes serve as the basic grounds for devising targeted interventions aimed at mitigating brownout and supporting nurse retention - a critical factor for maintaining a resilient healthcare system and fostering a healthier community.

1. Phase I: The Brownout Theory

The existing literature on the lived experiences of brownout is sparse, with no studies specifically examining brownout among nurses. Consequently, the theory of brownout developed in this study will be contextualized by comparing it with the limited existing literature on brownout and its sibling phenomenon- burnout, to further clarify the distinctions between the two phenomena.

a. Job Distancing

The findings from this study identified *Job Distancing* as the core concept of the constructed brownout theory. Job Distancing emerged as an active and dominant category characterized by nurses' behavior and performance within their professional lives, as they progressively distanced themselves from their roles and workplaces. This phenomenon comprises six interconnected sub-categories: demotivation, disengagement, decreased interest, lack of belonging, decreased passion, and operating in autopilot mode. These sub-categories were closely linked to participants' narratives, offering a vivid portrayal of how nurses experienced and manifested job distancing in their daily work lives. This finding aligns with Knani and Gril (2022), who described that employees experiencing brownout often exhibit disengagement or even a mental or formal withdrawal from their roles. Similarly, Benseghir (2020) described brownout as a state in which employees struggle to find meaning or purpose in their work. As a result, those affected by brownout become increasingly disengaged, demotivated, and lose interest in their jobs. Additionally, Baillant et al (2023) stated that brownout was

harder to identify as it stems from a sense of mental resignation rather than emotional and physical exhaustion.

The findings related to the job distancing category of brownout align with the existing literature on burnout, particularly regarding disengagement as a critical component. A review of burnout definitions and measures reveals that several established instruments include disengagement—a subcategory of job distancing—as a key subscale in assessing burnout.

For instance, the Maslach Burnout Inventory (MBI) conceptualizes burnout as a combination of vital exhaustion, cynicism, and diminished personal accomplishment (Maslach et al., 1997). Within this framework, cynicism is characterized by emotional disengagement from work, reflecting a dimension of detachment closely related to the job distancing construct observed in our study. Similarly, the Oldenburg Burnout Inventory (OLBI; Demerouti et al., 2001) identifies disengagement as one of its core dimensions. Demerouti et al. (2001) emphasize that burnout manifests when both exhaustion and disengagement are present simultaneously, with disengagement serving as a hallmark of the burnout syndrome.

In line with our findings on job distancing in brownout, the Burnout Assessment Tool (BAT; Schaufeli et al., 2020) incorporates "mental distancing" as a core symptom of burnout. Mental distancing, as defined in the BAT, represents a psychological withdrawal from work, marked by indifference, a cynical attitude, and a lack of enthusiasm or interest. Notably, Schaufeli (2020) further argues that mental distancing involves an unwillingness to perform one’s job duties, which closely mirrors the behaviors associated with job distancing observed in brownout.

Overall, these parallels highlight the centrality of disengagement and mental withdrawal in understanding both burnout and brownout. The consistency of these findings across various instruments underscores the relevance of job distancing as a dimension of brownout and its conceptual overlap with established burnout frameworks.

b. Exertion

Our findings demonstrated a clear distinction between exertion and exhaustion within the brownout experience. Exertion emerged as a core category, encompassing the effects of job demands such as overwork, which led to both mental and physical fatigue. Importantly, this fatigue was not severe enough to reach the level of exhaustion described and present in burnout or impair individuals' ability to function. Instead, exertion reflected a transient state of energy depletion that nurses encountered during or after their shifts.

This finding aligns with Kibler's (2015) definition of brownout, which characterizes the condition as a state of diminished energy levels, manifesting as troublesome low-level fatigue. Similar to the exertion observed in our study, Kibler (2015) described this fatigue as temporary and responsive to restorative actions. Thus, our findings further emphasize the distinction between the enduring exhaustion of burnout and the recoverable fatigue associated with exertion in brownout. Unlike burnout, where exhaustion dominates as a core dimension of the syndrome, brownout presents exertion as a less dominant feature whereas job distancing emerged as the core dimension of brownout in our study. This distinction underscores the unique

characteristics of brownout compared to burnout, providing further clarity on the differences between these two phenomena.

c. Psycho-somatic Indicators

Participants experienced both physical manifestations and psychological symptoms, such as anxiety and sleep disturbances, which highlighted the profound interplay between mental and physical health during brownout. Similar findings were reported by Baillant et al. (2023), who identified sleep disorders and work-related malaise as key brownout indicators. Miller and Smith (1993) also described brownout as a stage marked by fatigue and irritability. However, compared to the broader literature on burnout, such as Schaufeli et al. (2020), frequently reports physical and psychological complaints, further bridging the overlap between burnout and brownout symptoms in this area.

d. Lifestyle and Social Impairments

Participants reported impacts on their interpersonal relationships and lifestyle during brownout, including avoiding social interactions, maintaining distant relationships with colleagues and patients, and withdrawing from previously enjoyable activities. These findings highlight the emotional and social toll of brownout, aligning with previous studies (Knani & Gril, 2022; Benseghir, 2020; Valette, 2018). Notably, similar behaviors are observed in burnout, where withdrawal can be mental and even physical, affecting interactions with customers, clients, and colleagues (Schaufeli et al., 2020). However, while both conditions share these manifestations, the impairments are

more severe in burnout, with pronounced depressive symptoms and profound social isolation.

e. Antecedents, Barriers and Consequences

Throughout their journeys, participants encountered various antecedents, barriers, and consequences to brownout. Our findings indicated that several factors contributed to brownout, these included personal factors, demanding work conditions, and a negative work environment. Barriers to brownout represent the factors that can slow down or mitigate the onset and progress of brownout among nurses. Participants shared various coping strategies and resources from their personal and professional lives that they utilized during this challenging phase. Intentions to leave and burnout were found to emerge as consequence or a response to burnout. We are not able to know if similar findings are present in other studies due to the absence of qualitative and quantitative literature on brownout to accurately identify its predictors and outcomes. Contrary to burnout, the massive literature present repeatedly reported that personal, work and environmental factors highly play a role in causing burnout (Shah et al., 2021; Hughes & Barton, 2009, Hashem and Zeinoun 2020).

Our findings fit well the a-priori conceptual lens inspired from the Job Demand-Resources (JD-R) model by (Demerouti et al., 2001) where the personal factors, the job demands and resources, and the environmental stressors are directly associated with the presence of brownout as predicted.

2. Phase II: Instrument Development

The purpose of this study was to explore how nurses experience brownout and to formulate a robust theory that could guide the development of an instrument to accurately measure this phenomenon, an area where no prior tools were identified in the literature. The lack of an existing instrument motivated the use of grounded theory methodology, which provided a structured framework for both understanding and explaining the phenomenon of brownout.

Through the theoretical development process, our findings from the grounded theory approach facilitated the creation of a detailed brownout model that served as the foundation for instrument development. To emphasize the importance of this translation process, we conceptualize integration of the theory categories into the instrument items as a distinct and unique phase. This deliberate approach emphasized the rigor involved in converting rich qualitative insights into measurable items for future research. In this phase, instrument items were developed directly from the theoretical model following the DeVellis guidelines for scale development (2017). This approach highlighted the significance of theory-driven instrument development and its potential contribution to advancing the measurement and understanding of brownout among nurses.

DeVellis' guidelines provide a robust structure for creating reliable and valid measurement tools from grounded theory, which has been extensively applied in the literature (Howell et al., 2020). For example, instruments like the Flourishing Scale (FS) and the Exploring Engineering Interest Inventory (EEII) have utilized the Devellis guideline to ensure the validity and cultural adaptability of their instruments (Xu & Cheung, 2024; Howell et al., 2020).

In this study, DeVellis' framework served as the guideline for the transformation of qualitative findings from the grounded theory model into instrument items. By adhering to its 5 steps process, the instrument reflects the nuanced complexity of brownout experiences, while maintaining methodological rigor. Specifically, the focus was placed on defining the construct of brownout clearly, generating items grounded in qualitative insights, and preparing the instrument for future validation through psychometric testing. This ensures that the instrument is not only grounded in theory but also prepared for empirical validation. The use of exploratory and confirmatory factor analyses in future phases of this research is directly aligned with DeVellis' principles, ensuring the reliability and validity of the instrument while contributing a novel tool to the field.

3. Phase III: Cognitive Interviewing

In recent decades, cognitive interviewing has gained prominence as a rigorous and systematic method for pre-testing survey instruments, offering an effective alternative to traditional pilot testing approaches. By addressing common flaws, this method ensures that items are clearly understood, contextually appropriate, and aligned with the intended theoretical framework (Haeger, Lambert, Kinzie, & Gieser, 2012). In this study, cognitive interviewing played a pivotal role in refining the brownout instrument. It facilitated the identification and resolution of issues related to item clarity, contextual relevance, and the alignment of survey items with the grounded theory model developed earlier in the research process.

This phase illustratedthe iterative nature of scale development, bridging theoretical insights and practical applications. The incorporation of cognitive interviewing not only strengthened the validity of the brownout instrument but also

highlighted the methodological rigor applied throughout the study. These adjustments, grounded in participant feedback, highlight the significant contribution of cognitive interviewing to ensure that the final instrument is both theoretically sound and practically effective. The process of revising the brownout instrument based on insights from cognitive interviewing has significantly reinforced the alignment between the theoretical model and the final survey items.

Through cognitive interviews, covert ambiguities or misinterpretations of items were addressed, helping to ensure that each question is not just theoretically sound but also practical and comprehensible to respondents. For example, items that represented specific dimensions of brownout such as job distancing, exertion, and lifestyle and social impairments were revised based on participant feedback to ensure clarity, relatability, and contextual appropriateness. This iterative process bridged any gaps between theoretical abstraction and real-world applicability, ensuring that the instrument captures the lived experiences of nurses with precision and fidelity.

Consistent with several studies (Carbone & Campbell, 2002; Drennan, 2003; Haeger et al., 2012), the cognitive interviewing process used for pre-testing the brownout instrument proved invaluable in identifying sources of response errors and uncovering items that could yield inaccurate data. This rigorous approach revealed covert problems in the questionnaire by analyzing the cognitive processes participants engaged in while completing the survey. Respondents were tasked with interpreting survey items, retrieving relevant information from memory, judging the relevance of their responses, and providing feedback on factors influencing their answers. These insights guided necessary modifications to the instrument.

While cognitive interviewing identified issues with 19 items, the majority of the items (50 items) were well comprehended by respondents. This highlights the dual role of cognitive interviewing—not merely as a tool to pinpoint flaws but also as a technique to confirm the cohesiveness and overall quality of the survey. Such dual utility highlights its importance as a pre-testing method in instrument development.

Furthermore, inviting respondents to propose alternative structures or terminologies was highly valued by the participating nurses. Many expressed gratitude for being actively involved in shaping the questionnaire, which fostered a sense of ownership and collaboration beyond mere testing.

Finally, the strengthened link between the theoretical model and the revised items directly enhances the instrument's validity. The revisions ensure that the items collectively encapsulate the multi-dimensional nature of brownout, improving the instrument's ability to differentiate between varying manifestations of the phenomenon. This alignment also lays the foundation for reliable and interpretable results in future quantitative studies, such as exploratory and confirmatory factor analyses, by ensuring that the data collected accurately reflects the theoretical constructs.

B. Study Strengths and Limitations

1. Strengths

This study holds several strengths that highlight its significance and contribution to the field. To the best of our knowledge, it is the first study to explore the phenomenon of brownout using grounded theory both in general and specifically within the nursing profession. Addressing an underexamined topic, this research fills a critical

gap in the understanding of the occupational stress spectrum and introduces a new concept that has the potential to introduce new perspectives on nurse well-being.

The utilization of grounded theory as the methodological approach is another strength of the study. Grounded theory enabled a comprehensive investigation of the brownout phenomenon, facilitating the development of a nuanced theoretical framework that captures its complexity. This approach was particularly valuable given the lack of prior research on brownout, providing both depth and structure to the exploration and theoretical formulation.

The study also demonstrated methodological rigor through the use of cognitive interviewing as part of the instrument validation process. This phase provided critical insights into how respondents interpret and engage with the survey items, ensuring that the instrument is both clear and relevant. Cognitive interviewing revealed covert issues, clarified terminology, and enhanced the cultural and contextual appropriateness of the instrument. By validating the survey in this way, the study strengthened the link between the theoretical model and the instrument, enhancing its potential to accurately capture the phenomenon of brownout. Additionally, the instrument was developed and tested in two languages: Arabic and English. This bilingual approach reflects the cultural and linguistic diversity of the population and enhances the instrument's accessibility and applicability. By ensuring that the survey is comprehensible and relevant across both languages, the study addressed potential language barriers and reinforced its inclusivity.

Moreover, the goals of this study align seamlessly with global objectives aimed at restoring nurse well-being and addressing the growing concerns of occupational stress and burnout in the healthcare profession. This alignment highlights the relevance

and potential impact of research within both national and international contexts. The study not only identifies brownout as an urgent issue but also sets the stage for future research and practical applications.

This study's innovative focus on a new phenomenon, the integration of cognitive interviewing for validation, methodological rigor, and alignment with global priorities position it as a foundation for advancing the understanding and mitigation of brownout, making it a significant contribution to nursing science and occupational health research.

2. Limitations

Several limitations and challenges were identified during the course of this study. A significant challenge was the extended time required to complete the overall study, particularly during the grounded theory phase. Grounded theory demands a rigorous process involving constant comparison, iterative analysis, and extensive data collection. This method tends to produce large volumes of data that require exhaustive coding and analysis, necessitating practice and skill from the researcher. The principal investigator underwent specialized training in grounded theory methodology and was mentored by a faculty expert in the field. Despite the challenges, this approach proved particularly suitable for investigating the phenomenon of brownout, which has received little prior research attention. The lack of breadth and depth in existing studies on occupational stress issues underscores the need for new perspectives, as noted by Milliken (2010).

Recruitment posed another significant challenge. Nurses were often reluctant to dedicate time to interviews for research purposes despite the incentives given, leading

to delays in data collection. While the social media recruitment strategy proved successful, the purposive sampling design required selecting nurses from all governorates in Lebanon. On multiple occasions, participants canceled or postponed scheduled interviews, necessitating repeated rescheduling. Additionally, the small sample size (n=10) is a potential limitation. While consistent with constructivist grounded theory methodology and qualitative research in occupational stress studies, the small sample size restricts the breadth of representation. Nonetheless, qualitative standards were upheld, and data collection continued until theoretical saturation was achieved.

In the cognitive interviewing phase, sampling limitations were evident. Participants were recruited through convenience sampling methods, including social media and snowballing. Although efforts were made to include participants from diverse governorates, social and educational backgrounds, the majority shared similar levels of education and experience. This homogeneity may limit the generalizability of the findings. Moreover, the sample may not fully represent the diverse population of nurses in Lebanon, considering multifaceted factors such as religion, and varied educational backgrounds were not randomized.

Social desirability bias is another potential limitation that needs consideration. Although none of the interviewees in both qualitative phases of the study had prior relationships with the interviewers, respondents may have shaped their answers to present themselves in a more favorable light. Addressing these limitations will be essential in future research to enhance the validity and applicability of the findings.

Finally, this study was conducted during an unprecedented and exceptionally challenging period marked by multiple crises in Lebanon. The economic crisis

significantly affected the mental and physical well-being of nurses across the country, without exception. This was compounded by a brutal war on Lebanon, which forced the study to be put on hold for over three months during the second phase, as conducting interviews became unfeasible. Despite these extraordinary challenges, the resilience and commitment of Lebanese nurses stood out as they continued to demonstrate unwavering dedication to serving their communities.

C. Implications for Knowledge, Practice, and Research

Brownout is an underexplored form of work-related stress that is often more prevalent and difficult to detect among nurses. It can emerge at any stage of a nursing career, posing serious consequences for nurses' well-being, their intent to remain in the profession, and ultimately, patient outcomes. This study has implications on various areas, including knowledge advancement, practice and policy making, and research.

The study introduces brownout as a new and unique form of occupational stress and provides a theory-driven framework and measurement tool to understand its dimensions and impact. By exploring brownout specifically among nurses, this research builds foundational knowledge that paves the way for future investigations into occupational stress in other professions as well. The findings contribute to expanding the academic discourse on brownout in the nursing sector, creating opportunities to fill gaps in current literature.

Additionally, the study highlights the importance of identifying and detecting brownout among nurses to prevent its progression into burnout. Healthcare organizations and policymakers can use these insights to design interventions aimed at improving workplace environments, fostering resilience, and enhancing nurse well-

being. This research highlights the critical need for proactive measures, such as workload management, staffing, mental health support programs, and team-based strategies, to reverse brownout and promote sustainable careers for nurses. Furthermore, findings from this study may inspire policies centered around safeguarding nurse retention and consequently optimizing patient care quality.

Most importantly, the study lays the groundwork for future research on brownout, opening critical avenues for exploration and practical application. A pivotal next step involves conducting a national quantitative study aimed at identifying predictors of brownout and the various outcomes it affects. Predictors may include workplace factors such as workload, work environment, leadership styles, team dynamics, and personal attributes like resilience or coping strategies. Investigating these variables will help illuminate the pathways leading to brownout, enabling targeted strategies to mitigate its onset. Outcomes of brownout, such as nurses' intent to stay in the profession, job satisfaction, and patient outcomes, should also be explored to fully understand its broader implications in healthcare systems.

Additionally, an important next step involves testing the brownout instrument for its psychometric properties. Conducting rigorous evaluations, including an exploratory factor analysis (EFA), will be essential in examining the underlying structure of the instrument and identifying its key dimensions. This process will validate whether the theoretical constructs derived from the grounded theory model are effectively captured in the instrument's items, ensuring that it measures brownout accurately and comprehensively. An EFA study can also refine the tool by eliminating redundant or ambiguous items, thereby increasing its precision and usability in future research. Further research might also include a confirmatory factor analysis (CFA) to

validate the factor structure identified in the EFA and assess the tool's reliability, construct validity, and internal consistency. These psychometric evaluations will not only solidify the instrument's credibility but also enable its application across diverse populations and settings. By developing a reliable and validated tool, researchers will gain the means to systematically detect and quantify brownout, which could serve as a foundation for interventions and policy changes.

This study also highlights the potential for brownout to serve as a precursor to burnout, suggesting new directions for preventative research. Future longitudinal studies could examine the progression from brownout to burnout and identify the early warning signs that signal the need for timely intervention. Understanding this trajectory could facilitate the development of targeted measures to halt the progression and preserve nurse well-being.

Future research could focus on creating and testing intervention strategies designed to reverse brownout based on the insights from this study. Tailored interventions could address organizational, team, and individual factors contributing to brownout, ultimately fostering a healthier and more sustainable work environment for nurses. Moreover, these interventions could be evaluated for their effectiveness in reducing occupational stress, improving nurse retention, and enhancing overall healthcare delivery.

Lastly, this study encourages future research to explore how brownout manifests across diverse nursing contexts and populations. Comparative studies could examine variations in brownout experiences across different specialties, geographic regions, and healthcare systems. Research in this area would not only enhance the generalizability of the findings but also provide actionable insights for cultural and contextually

appropriate interventions. In summary, this study promotes a multifaceted research agenda to better understand, measure, and address brownout.

D. Conclusion

The integrated findings of this sequential qualitative study significantly enhanced the understanding of the complexity and uniqueness of the brownout phenomenon. Through the grounded theory approach, this research provided a comprehensive, in-depth explanation of brownout's defining characteristics, including its core domains, antecedents, barriers, and consequences. This theoretical foundation was seamlessly translated into the development of a specialized instrument, ensuring that the qualitative findings were effectively integrated into measurable survey items. Furthermore, the cognitive testing phase rigorously validated the instrument, confirming its ability to accurately measure the intended constructs. This iterative process not only bridged qualitative insights with tool development but also demonstrated the methodological rigor central to this study.

The initial grounded theory phase of the study identified key categories that characterize the brownout phenomenon, including job distancing, excretion, lifestyle and social impairments, and psychosomatic indicators. This phase also revealed the dynamic interplay between personal, job-related, and environmental factors that contribute to brownout, as well as its profound consequences as intention to leave and burnout. These insights led to the formulation of the brownout theory, providing a comprehensive framework for understanding the phenomenon.

Building upon this theoretical foundation, the study proceeded with the development of the brownout instrument. This tool was designed to translate the

qualitative findings into survey items, enabling a systematic evaluation of brownout. Further validation of the instrument was achieved through cognitive interviewing, where participants provided valuable feedback on its content and structure. This iterative process facilitated refinements that enhanced the instrument's clarity, ensured its relevance, and improved its applicability across diverse contexts.

This study highlighted significant distinctions and overlaps between the domains of brownout and burnout, emphasizing the thin yet critical line separating these two phenomena. Among the domains, job distancing stood out as a defining feature of brownout, reflecting nurses' gradual disengagement from their work responsibilities and environment. In contrast, burnout is dominated by exhaustion and more severe physiological and depressive symptoms, emphasizing the deeper toll it takes on individuals. These findings emphasize the nuanced relationship between the two forms of occupational stress, illustrating the importance of distinguishing them in research and practice.

Notably, recovery pathways also differ significantly between brownout and burnout. In cases of brownout, nurses often regain their functionality through rediscovering a sense of purpose and meaning in their work and short breaks, offering opportunities for relatively straightforward interventions. Burnout, however, frequently requires more complex and multifaceted approaches, with rehabilitation being vital for restoring nurses' well-being. This contrast highlights the urgency of early detection and intervention for brownout, not only to prevent its progression to burnout but also to protect nurse well-being and ensure optimal patient care outcomes. These insights contribute to a deeper understanding of occupational stress and opens door for proactive strategies to support nurses and healthcare systems.

In conclusion, this study represents a significant step forward in understanding the phenomenon of brownout, particularly within the nursing profession. The findings gain even greater importance in the context of Lebanon's healthcare system, which is currently grappling with unprecedented challenges. Nurses in Lebanon face the compounded burden of economic crises, political instability, and resource shortages that strain their ability to deliver proper care, yet they are resilient to serve the community. These factors exacerbate occupational stress, making it critical to address phenomena like brownout to safeguard nurses' well-being and sustain healthcare delivery in such a fragile and complex environment.

APPENDIX A
Grounded Theory Flyer

AMERICAN UNIVERSITY OF BEIRUT

الجامعة الأميركية في بيروت
هذا الاعلام يعود لدراسة بحث موافق عليه من قبل الجامعة الاميركية في بيروت – مجلس المراجعة المؤسساتية تقوم بها كل من : دكتورة نهاد ضومط والسيدة رولا شحادة جودي

ليست رسالة رسمية من الجامعة "الاميركية في بيروت

اهداف الدراسة

تهدف هذه الدراسة الى استكشاف وتوصيف وتصوّر BROWNOUT بين الممرضين والممرضات.

فوائد المشاركة

يمكن لهذه الدراسة ان تأسس لانطلاقة تدخل مبكر مع الموظفين لمنع وصولهم الى حالة الانهاك

هل انت ممرض(ة) مجاز(ة)؟

يرجى المشاركة في مقابلة قصيرة وجها لوجه تستغرق ما بين 40-60 دقيقة

استكشاف، توصيف وتصوّر ظاهرة BROWNOUT بين الممرضين-الممرضات

تجريها كل من:
الدكتورة نهاد ضومط
و رولا شحادة جودي
اذا كنتم مهتمين بالمشاركة،
الرجاء التواصل مع الدكتورة نهاد ضومط على
ny00@aub.edu.lb
او رولا شحادة جودي على
rms55@mail.aub.edu
اذا لديكم أي سؤال حول حقوقكم كمشاركين في هذا البحث، يمكنكم أيضا الاتصال بمجلس المراجعة المؤسساتية في الجامعة الأميركية في بيروت:
irb@aub.edu.lb

ستحصلون على مبلغ /10/ دولار أميركي كتعويض عن المشاركة في هذه الدراسة.
ليس هناك مخاطر معروفة لهذه الدراسة

AMERICAN UNIVERSITY OF BEIRUT
RAFIC HARIRI SCHOOL OF NURSING

الاهلية

أنتم مؤهلين للمشاركة في هذه الدراسة اذا كنتم

- تعملون في لبنان في مستشفيات بحجم متوسط (100-200 سرير) او كبرى (اكثر من 200 سرير).
- عمركم ما بين 20/64 سنة
- تمارسون حاليا الرعاية للمرضى او في مناصب إدارية لمدة حدها الأدنى سنتين من الخبرة في المنصب ذاته ولدى رب العمل ذاته.

APPENDIX B

Consent to participate in a Research Study

This notice is for an AUB-IRB Approved Research Study

for Dr. Nuhad Dumit ny00@aub.edu.ln

Mrs. Roula Shehadeh Joudi rms55@mail.aub.edu

Rafic Hariri School of Nursing

American University of Beirut

Hello. My name is Roula Shehadeh Joudi, I am a PhD candidate at the Hariri School of Nursing at AUB. I would like to invite you to participate in a research study designed to Exploring, Characterizing and Conceptualizing Brownout Among Nurses Using Grounded Theory.

The purpose of the study is to explore the brownout phenomenon among nurses, understand what the nature of brownout is about and define its characteristics, thus, to be able to study its prevalence among registered nurses working in Lebanon during the current circumstances, and in future studies differentiate it from burnout.

The conduct of this study will adhere to the IRB approved protocol.

The IRB approved method for approaching subjects is an Expedited Research Study.

The purpose of the study is to explore, characterize and conceptualize brownout among nurses.

PROCEDURES

This message invites you to:

1. **Read the consent document and consider whether you want to be involved in the study.**

And to note:

- ***Participation is completely voluntary.***
- ***Completing the interview will take around 40-60minutes.***
- ***Only the data you provide in the interview will be collected and analyzed. The research team will not have access to your name or contact details.***
- ***The results of the interview will be published in a –research article and thesis report in an aggregate form available in printed from and electronically from AUB Libraries.***
- ***You are invited because we are targeting registered nurses in Lebanon. You are eligible to participate in this study if you work in Lebanon in a medium size (100-200 beds) or big size (more than 200 beds) hospital, aged between 20 and 64 years old, currently practicing, at bed side or in managerial positions with minimum of 2 years of experience at the same position and employer***.

Participation in this study will involve an interview that will last around 40-60 minutes and will be communicated in Arabic or English language based on your preference. The interview will be scheduled at your convenience in person. Please note that this study is purely for research purposes, and approval has been secured by the Institutional Review Board at AUB.

Participation is on a **purely voluntary basis**. You can also decide to **withdraw** from the study at any time without any penalty. To obtain the best possible data and to maintain information and data objectivity, it is preferred to audio record the interview, with your permission. You will be asked to complete **an in person face-to-face interview** at a private place and time of your convenience.

All data collected is treated as confidential information. Your name or any identifiers will not be included in the research analysis and will be treated as **anonymous**. During the interview, you will not be asked to mention any names of employing organizations, employers, managers, and coworkers, etc. to ensure the anonymity of your identity. Such information will not be asked for and thus will not be collected by the research team.

During the interview, if you do not wish to answer any specific question, you may request **skipping the question**.

Please do not indicate the name of the hospital you are working at. Please do not mention specific names of people in the interview.

Your participation in this study does not involve any physical or emotional risk to you beyond the risks of daily life. You have the right to refuse to participate, withdraw your consent, or discontinue participation at any time during or after the interview and for any reason. Your decision to withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation in no way affects your relationship with the American University of Beirut.

I would like to tape record this interview so as to make sure that I remember accurately all the information you provide. I will keep these tapes in a locked computer in my office. They will only be used by me and the principal investigator. The interview recordings will not be shared with my collaborators. Only the aggregated data from the interviews (which will have no identifiers) will be shared. You may still participate in the interview if you do not want to be taped.

You will receive 10$ for transportation fees for participation in this study.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

There will be no direct benefits to you.

However, based on the results of the study, an intervention study may be planned in the future, which is thought to help decrease staff burnout and increase staff satisfaction and retention rates of nurses.

POTENTIAL RISKS TO SUBJECTS AND/OR SOCIETY

The risks of the study are minimal. To the best of our knowledge, the things you will be doing have no more risk of harm than you would have in everyday life.

In case you feel that you are suffering from severe work-related stress, or you are in need of psychological support due to work related stress., we encourage you to reach for support from one of the below contacts:

American University of Beirut Medical Center Clinics, Psychiatry Outpatients Clinics (Regular Charge Fees)

- Location: Halim and Aida Daniel Academic and Clinical Center (Daniel ACC), fourth floor
- Phone: 9611759620 or 9611350000, extension 5650

Psychiatry Outpatients Clinics at the American University of Beirut Medical Center (discounted charge fees)

- Place: Psychiatry Outpatients Department, AUBMC Building, Phase One/ 5th floor
- Phone: 961350000, extension 5720

Embrace Lifeline (Free of charge)

- Phone: 1564

Restart center

- Location: Beirut Mount Lebanon, Furn El-Chebbak Main Street, Bou Chedid Center- 4th floor
- Phone: 9611291066

CONFIDENTIALITY

The collected data will remain confidential and anonymous.

PARTICIPATION AND WITHDRAWAL

If you voluntarily consent to take part in this study, you can change your mind and withdraw at any time without consequences of any kind.

QUESTIONS ABOUT THE STUDY

If you have any questions about the study, can contact the research team at:
Roula Shehadeh Joudi, e-mail: rms55@mail.aub.edu; phone number: +961-71-228686.
Dr. Nuhad Dumit, e-mail: ny00@aub.edu.lb; phone number: +961-1-1-374374 Ext: 5950

CONCERNS OR QUESTIONS ABOUT YOUR RIGHTS

If you have concerns about the study or questions about your rights as a participant, you can contact the **AUB IRB Office**:
e-mail: irb@aub.edu.lb
Phone number: +961 1 374374, Ext: 5445

Consent to Participation in an interview

☐ Do you voluntarily consent to take part of the study?

Consent to Record Interview

☐ May I record this interview?

Consent to Quote from Interview

I may wish to quote from this interview either in the presentations or articles resulting from this work. A made-up name will be used in order to protect your identity.

 Do you agree to allow me to quote from this interview?

I _____ confirm that participant # _____ voluntarily agreed to participate in this study as indicated by the ticks the check-boxes above. Consent was taken from this participant at _____am/pm, on ___/___/ 2023.

A copy of this consent document given to the participant.

الموافقة على المشاركة في دراسة بحث

هذا البيان وضع لدراسة بحث موافق عليه من قبل الجامعة الأميركية في بيروت – ومجلس المراجعة المؤسساتية تجريه كل من:

الدكتورة نهاد ضومط (ny00@aub.edu.lb)
والسيدة رولا شحادة جودي (rms55@mail.aub.edu)
كلية رفيق الحريري للتمريض
الجامعة الأميركية في بيروت

مرحبا. اسمي رولا شحادة جودي؛ انا مرشحة للحصول على درجة دكتوراه في كلية رفيق الحريري للتمريض في الجامعة الأميركية في بيروت. ارغب في دعوتكم للمشاركة في دراسة بحثية مصممة لاستكشاف وتوصيف وتصوّر لحالات Brownout فيما بين الممرضين/الممرضات

تهدف الدراسة الى استكشاف ظاهرة Brownout المنتشرة فيما بين الممرضين/الممرضات، وفهم ماهية طبيعة Brownout ووضع تعريفات لخصائصها وتاليا التمكن من دراسة انتشارهاين الممرضين/الممرضات المجازين العاملين في لبنان خلال الظروف الحالية السائدة وكذلك تمييزها في الدراسات المستقبلية عن حالات الانهاك (Burnout).

اجراء هذه الدراسة سيتلازم مع بروتوكول مجلس المراجعة المؤسساتية الموافق عليه.

طريقة مجلس المراجعة المؤسساتية الموافق عليها لمقاربة المواضيع هي "دراسة بحثية سريعة".

تهدف الدراسة الى استكشاف وتوصيف ~~وتصوّر~~ حالات Brownout بين الممرضين/الممرضات.

الإجراءات

تدعوكم هذه الرسالة الى:

1 – قراءة وثيقة الموافقة والتفكير في ما اذا كنتم تريدون المشاركة في الدراسة.

يرجى الانتباه إلى أن:

- المشاركة هي طوعية بشكل كامل
- يستغرق إتمام المقابلة ما بين 40-60 دقيقة
- سيتم جمع المعلومات التي تزودونا بها خلال المقابلة فقط وسيتم تحليلها. لن يتمكن فريق البحث من الوصول الى معرفة اسمكم او تفاصيل التواصل معكم.
- سيتم نشر النتائج الحاصلة من المقابلة في مقالة البحث وتقرير الاطروحة المتوفرة بشكل مطبوع والكتروني في مكتبات الجامعة الأميركية في بيروت دون الإشارة إلى ما يُعرف عن الأشخاص.
- ندعوكم لأننا نستهدف الممرضين/الممرضات في لبنان. انتم مؤهلين للمشاركة في هذه الدراسة اذا كنتم تعملون في لبنان في مستشفيات متوسطة الحجم (100-200 سرير) او كبيرة الحجم (اكثر من 200 سرير)، ويبلغ عمركم ما بين 20 و 64 سنة وحاليا تمارسون العمل، اما في خدمة المرضى او في مناصب إدارية مع ما لا يقل عن سنتين من الخبرة في المنصب ذاته ومع رب العمل ذاته.

ستشمل المشاركة في هذه الدراسة مقابلة ستدوم ما يقارب 40-60 دقيقة وستجرى باللغة العربية او الإنكليزية حسبما تفضلون. سيتم تعيين موعد المقابلة حسب الوقت الذي يلائمكم شخصيا.

رجاء الملاحظة ان هذه الدراسة هي لأهداف بحثية بحتة، وتم تأمين الموافقة من قبل مجلس المراجعة المؤسساتية في الجامعة الأميركية في بيروت.
المشاركة مبنية على أساس تطوعي بحت. يمكنكم أيضا **الانسحاب** من الدراسة في أي وقت بدون أي عقوبة. للحصول على افضل ما يمكن من المعلومات وللحفاظ على موضوعية المعلومات يفضل تسجيل المقابلة صوتيا بعد اخذ الاذن منكم. سيطلب منكم أيضا انجاز **مقابلة وجها لوجه** في المكان والزمان الذي يناسبكم.
سيتم اعتبار كافة المعلومات المجمّعة على انها معلومات سرّية. لن يتم شمول اسمكم او أي تعريفات عنكم في تحليل البحث وسيتم التعامل معها على انها **"مجهولة"**. خلال المقابلة، لن يوجه لكم سؤال لذكر أي أسماء عن المؤسسات التي توظفكم او ارباب العمل او المدراء او زملاء العمل الخ .... للتأكد من إبقاء هويتكم مجهولة. لن نسألكم عن هكذا معلومات وبالتالي لن يتم جمعها من قبل فريق البحث.
خلال المقابلة، اذا لم ترغبوا بالإجابة عن أي سؤال محدد، يمكنكم طلب **الانتقال الى السؤال التالي**.

خلال المقابلة يرجى عدم ذكراسم المستشفى التي تعملون بها. ايضا يرجى عدم ذكر اسماء اي من الاشخاص خلال المقابلة.

لا تشمل مشاركتكم في هذه الدراسة أي مخاطر جسدية او عاطفية بخلاف مخاطر الحياة اليومية. يحق لكم رفض المشاركة، سحب موافقتكم او عدم الاستمرار في المشاركة في أي وقت خلال او بعد المقابلة ولأي سبب كان. لن يشمل قراركم بالانسحاب أي عقوبات او خسارة لمنافع انتم مخولون لها. لن يؤثر عدم الاستمرار في المشاركة باي شكل كان على علاقتكم مع الجامعة الأميركية في بيروت.
ارغب في تسجيل شريطا للمقابلة وذلك لأتأكد من تذكري بكل دقة لكافة المعلومات التي تعطوني إياها. سأحتفظ بهذه الأشرطة في جهاز كومبيوتر مغلق عليه في مكتبي. انا الوحيدة التي استعملها مع الباحث الرئيسي. لن يتم مشاركة تسجيلات المقابلة مع المتعاونين معي في الدراسة. سيتم مشاركة المعلومات المجمّعة من المقابلات (التي لا تشمل معرّفات) فقط لا غير. يمكنكم مع ذلك المشاركة في المقابلة إذا لم ترغبوا بتسجيلها على اشرطة.
ستتلقون مبلغ /10$ عن رسوم الانتقال بهدف المشاركة في الدراسة.

الفوائد المحتملة للمشاركين و/او المجتمع
لن تستفيد مباشرة من المشاركة.
على أي حال، وبناء على نتائج الدراسة، يمكن التخطيط لدراسة تدخّل في المستقبل، والتي نعتقد انها ستساعد في التقليل من حالات الانهاك لدى الموظفين وزيادة رضاهم ومعدلات استبقاء الممرضين /الممرضات.

المخاطر المحتملة للمشاركين و/او المجتمع
ان المخاطر الناتجة عن الدراسة هي في حدها الأدنى. وافضل ما نعلمه هو ان الأشياء التي ستقومون بها ليس لها مخاطر اكثر مما تواجهونه في حياتكم اليومية.
في حال شعوركم انكم تعانون من ضغط حاد متعلق بالعمل، او انكم بحاجة لدعم نفسي ناتج عن ضغط متعلق بالعمل، نشجعكم طلب الدعم من أحد جهات الاتصال الواردة ادناه:

- عيادات المركز الطبي للجامعة الاميركية في بيروت- العيادات الخارجية للطب النفسي (رسوم معاينة نظامية)
- العنوان: المركز العيادي والأكاديمي حليم وعايدة دانيال (Daniel ACC)، الطابق الرابع.
- هاتف: 9611759620 او 9611350000- المقسّم: 5650.

- عيادات الطب النفسي الخارجية في الجامعة الأميركية في بيروت – المركز الطبي (رسوم معاينة مع حسم)
- العنوان: قسم الطب النفسي للعيادات الخارجية – بناية ABUBMC – المبنى واحد/الطابق 5.
- هاتف: 9611350000 – المقسّم 5720.

- امبرايس خط الحياة (مجانا)
- هاتف: 1564

- مركز ريستارت
- العنوان: بيروت- جبل لبنان- فرن الشباك الشارع الرئيسي - سنتر ابو شديد- الطابق الرابع
- هاتف: 9611291066

السريّة
تبقى المعلومات المجمّعة سريّة ومجهولة الهوية.

المشاركة والانسحاب
اذا وافقتم طوعيا على المشاركة في هذه الدراسة، يمكنكم تغيير رأيكم والانسحاب في أي وقت دون ان يتسبب ذلك باي عواقب من أي نوع كانت.

أسئلة حول الدراسة
اذا كان لديكم أي أسئلة حول الدراسة، يمكنكم الاتصال بفريق البحث كالتالي:
رولا شحادة جودي، بريد الكتروني: rms55@mail.aub.edu هاتف: 961-71-228686+
دكتورة نهى ضومط، بريد الكتروني: ny00@aub.edu.lb هاتف: 961-1-374374+
المقسّم: 5950

مخاوف واسئلة حول حقوقكم
اذا كان لديكم مخاوف حول الدراسة او أسئلة حول حقوقكم لمشاركين، يمكنكم الاتصال بمكتب الجامعة الأميركية في بيروت- مجلس المراجعة المؤسساتية على:
Email: irb@aub.edu.lb
رقم الهاتف: 961 1 374374 + مقسّم: 5445

الموافقة على المشاركة في اجراء مقابلة:
□ هل توافقون طوعيا على المشاركة في هذه المؤسسة؟

الموافقة على تسجيل المقابلة

□ هل يمكنني ان اسجل هذه المقابلة؟
الموافقة على الاقتباس من المقابلة

APPENDIX C
EXPERT PANEL SCALE REVIEW FORM

Scoring: 7 points Likert scale will be used for scoring the scale.

Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
0	1	2	3	4	5	6

Construct and sub-constructs	**Items**	**Conceptual Relevance** (High/Moderate/Low)	**Clarity & Conciseness** (High/Moderate/Low)	**Cultural Appropriateness** (High/Moderate/Low)	**Comments**
A. Job distancing	*Definition: Decreased connection to one's job due to a loss of meaning in the work performed. This can manifest as doing the bare minimum, lacking enthusiasm and motivation, and feeling uninterested in work.*				
I. Demotivation	1. I feel that I am not motivated at my work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	2. I don't feel like going to work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	3. I perform the tasks within least accepted performance	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	4. I feel that every day is the same on repeat	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
II. Disengagement	5. I have decreased	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	

	engagement at my work				
	6. I am searching for a way out	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
III. Decreased interest	7. I ask myself why I am doing this job	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	8. I do not find any interest in my job	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	9. I have no intention to advance in my career	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	10. I struggle to take initiative at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	11. I look forward to changing my position	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
IV. Lack of belonging	12. I feel that I am detached from my work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	13. I feel that I don't belong to my work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
V. Decreased passion	14. I struggle to make an effort at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	

	15. I question myself why I am doing this	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	16. I am indifferent about my career	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
VI. Autopilot mode	17. I feel like I function on autopilot mode	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
B. Exertion	*Definition: The depleting energy that can result in mental, emotional and physical fatigue*.				
I. Emotional exertion	18. I feel anxious at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	19. I feel overwhelmed at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	20. I am not able to control my emotions at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
II. Cognitive exertion	21. I have trouble staying focused at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	22. My performance is affected because I have trouble thinking clearly	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
III. Physical exertion	23. I feel tired at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	

	24. I feel my energy is depleted at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	25. I feel that I need frequent breaks at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
C. Psycho-somatic indicators	*Definition: The psychological and somatic symptoms that cannot be explained by a physical disorder but are exacerbated by or result from some psychological problem. Examples are palpitations and chest pain, stomach and intestinal problems, headaches, muscle pains, sleeping disorder and getting sick often.*				
I. Physical symptoms	26.I suffer from headaches	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	27. I suffer from intestinal problems	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	28. I suffer from changes in my appetite	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	29.I suffer from palpitations	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
II. Psychological symptoms	30. I suffer from sleeping problems	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	31. I cry at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	32. I feel irritable at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	

	33. I feel tense at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	34. I get upset or sad at work	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
D. Lifestyle and social impairments	*Definition: The negative effects on interpersonal relationships and lifestyle due to work related stress.*				
I. Lifestyle distributions	35. I stopped practicing my hobbies	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	36. I am too tired to exercise	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	37. I am not able to practice selfcare activities	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	38. My eating habits changed	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
II. Social withdrawal	39. I am distant from my colleagues	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	
	40. I feel I am avoiding people	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	[ ] High [ ] Moderate [ ] Low	

التقييم: سيتم استخدام مقياس ليكرت من سبع نقاط لتقييم المقياس

أوافق بشدة	أوافق	أوافق جزئيا	حيادي	لا أوافق جزئيا"	لا أوافق	لا أوافق بشدة
6	5	4	3	2	1	0

Comments	Cultural Appropriateness (High/Moderate/Low	Clarity& Conciseness (High/Moderate/Low)	Conceptual Relevance (High/Moderate/Low)		
الابتعاد عن العمل					
				1. أشعر بأنه ليس لديّ حافز في عملي.	**1- فقدان الدافع**
				2. أقوم بالمهام بأدنى مس	

	ت وى أداء مق بول				
	3. لا أشعر بالرغبة في الذهاب إلى .العمل				
	4. أشعر أن كل يوم يتكرر بنفس .الطريقة				
2 –انعدام المشاركة	5.لدي انخفاض في مستوى المشاركة في عملي. 6. أبح ث عن وس				

	يلة للخروج من الوضع الحالي.				
3- انخفاض الاهتمام	7. اسال نفسي لماذا أقوم بهذا العمل.				
	8. لا أجد أي اهتمام بعمل				

	9. ليس لدي ني للتقدم في مسيرتي المهنية				
	10.أج د صعوبة في أخذ المبادرة في العمل				
	11.أتط لع الى تغيير مركزي في العمل				
4- غياب الشعور بالانتماء:	12.أش عر أنني من ف ص ل عن عم لي.				

	13. أشعر أنني لا أنتمي إلى عملي.				
5- انخفاض الشغف:	14. أجد صعوبة في بذل الجهد في العمل				
	15. لا أبالي بمسيرتي المهنية.				
	16. أسأل نفسي لماذا ما زلت أعمل				
6- نمط التفكير التلقائي:	17. أشعر أنني أعمل على نمط التفكير التلقائي				

الجهد					
1- الجهد العاط في:	18.أشعر بالقلق في العمل.				
	19.أشعر بالإرهاق في العمل				
	20.لا أستطيع التحكم بمشاعري أثناء العمل.				
الجهد العقلي/ الادراكي	21.أواجه صعوبة في التركيز أثناء العمل.				
	22.يتأثر أدائي لأنني أواجه صعوبة في التفكير بوضوح				
الجهد الجسدي	23. أشعر بالتعب أثناء العمل.				
المؤشرات النفسية والجسدية					
1- الأعراض الجسدية:	24. أعاني من ال				

	صد اع.				
	25.أعاني من مشاكل معوية.				
	26.أعاني من خفقان القلب.				
	27. أعاني من تغيرات في شهيتي.				
	28. أشعر بأن طاقتي مستنفدة في العمل.				
	29. أحتاج إلى فترات راحة متكررة أثناء العمل				
2- الأعراض النفسية:	30.أعاني من مشاكل في النوم.				
	31.أبكي أثناء العمل.				
	32.أشعر بالعصبية أثناء العمل.				

	33. أشعر بالتوتر في العمل.				
	34. أشعر بالحزن أو الضيق أثناء العمل.				
التأثير على نمط الحياة والعلاقات الاجتماعية					
1- اضطرابات نمط الحياة:	35.توقفت عن ممارسة هواياتي.				
	36.أشعر بأنني مرهق للغاية لممارسة الرياضة.				
	37.لا أستطيع ممارسة أنشطة العناية الذاتية.				
	38. تغيرت عاداتي الغذائي				
2- الانسحاب الاجتماعي:	39. أنا بعيد عن زملائي.				

	40.أشعر أنني أتجنب الناس				

APPENDIX D
RECRUITMENT FLYER FOR COGNITIVE INTERVIEW TESTING STUDY

AMERICAN UNIVERSITY OF BEIRUT

الجامعة الأميركية في بيروت
هذا الاعلام يعود لدراسة بحث موافق عليه من قبل الجامعة الاميركية في بيروت – مجلس المراجعة المؤسساتية تقوم بها كل من : دكتورة نهاد ضومط والسيدة رولا شحادة جودي
Protocol ID SOBS-2025-0065

ليست رسالة رسمية من الجامعة" الاميركية في بيروت

اهداف الدراسة

تهدف هذه الدراسة الى اختبار أداة *BROWNOUT* المطورة حديثا من خلال المقابلات الذهنية.

فوائد المشاركة

يمكن لهذه الدراسة تعزيز صلاحية محتوى أداة BROWNOUT المطورة حديثا" و بالتالي قياس مدى هذه الظاهرة بين الممرضات و الممرضين.

هل انت ممرض(ة) مجاز(ة)؟

يرجى المشاركة في مقابلة وجها لوجه تستغرق ما بين *60-90* دقيقة

تعزيز صلاحية محتوى أداة *BROWNOUT* من خلال المقابلات الذهنية

تجريها كل من:
الدكتورة نهاد ضومط
و رولا شحادة جودي
اذا كنتم مهتمين بالمشاركة،
الرجاء التواصل مع الدكتورة نهاد ضومط على
ny00@aub.edu.lb
او رولا شحادة جودي على
rms55@mail.aub.edu

اذا لديكم أي سؤال حول حقوقكم كمشاركين في هذا البحث، يمكنكم أيضا الاتصال بمجلس المراجعة المؤسساتية في الجامعة الأميركية في بيروت:
irb@aub.edu.lb

ستحصلون على مبلغ /10/ دولار أميركي كتعويض عن المشاركة في هذه الدراسة.
ليس هناك مخاطر معروفة لهذه الدراسة

AMERICAN UNIVERSITY OF BEIRUT
RAFIC HARIRI SCHOOL OF NURSING

أنتم مؤهلين للمشاركة في هذه الدراسة اذا كنتم

- تعملون في لبنان في مستشفيات بحجم متوسط (100-200 سرير) او كبرى (اكثر من 200 سرير).
- عمركم ما بين 20/64 سنة
- تمارسون حاليا الرعاية للمرضى او في مناصب إدارية لمدة حدها الأدنى سنتين من الخبرة في المنصب ذاته ولدى رب العمل ذاته.

American University of Beirut
Institutional Review Board
28 February 2025
APPROVED

APPENDIX E

Consent to participate in a Research Study

This notice is for an AUB-IRB Approved Research Study

for Dr. Nuhad Dumit ny00@aub.edu.ln

Mrs. Roula Shehadeh Joudi rms55@mail.aub.edu

Rafic Hariri School of Nursing

American University of Beirut

Hello. My name is Roula Shehadeh Joudi, I am a PhD candidate at the Hariri School of Nursing at AUB. I would like to invite you to participate in a research study designed to study designed to develop a research questionnaire to measure "brownout" in registered nurses in Lebanon. "Brownout" is the stage that precedes "burnout" in occupational stress spectrum.

The purpose of the study is to use the information obtained to evaluate and revise the developed instrument that can be used to measure "brownout". The instrument will be used in a national study of Lebanese nurses to explore the brownout phenomenon among nurses, thus, to be able to study its prevalence among registered nurses working in Lebanon during the current circumstances, and in future studies differentiate it from burnout. The results of that study will be published in my thesis and in articles in refereed journals. Your individual privacy and the confidentiality of the information you provide will be maintained. Nothing you say will be published except as items in the questionnaire, and your name will not appear in any publications or conference presentations.

The conduct of this study will adhere to the IRB approved protocol.

The IRB approved method for approaching subjects is an Exempt Research Study.

The purpose of the study is to evaluate and revise the newly developed brownout instrument through cognitive interviewing. Participants will be asked to read each item, demonstrate their understanding of each item and interpret it, show ability to retrieve information, judge the clarity, relevance and accuracy of each item, and respond to the items accordingly As well, participants' behaviors will be observed while answering questions. Participants will be asked to score their confidence in their answers on a scale (1 to 5). Also, participants' time to response for each item, will be tracked using manual recording. .Participants will be provided with a tablet to access the brownout instrument through clicking on a Lime Survey link.

PROCEDURES

This message invites you to:

2. **Read the consent document and consider whether you want to be involved in the study.**

And to note:

- ***Participation is completely voluntary.***
- ***Completing the interview will take around 60-90 minutes.***
- ***Only the data you provide in the interview will be collected and analyzed. The research team will not have access to your name or contact details.***
- ***The results of the interview will be published in a –research article and thesis report in an aggregate form available in printed form and electronically from AUB Libraries.***
- ***You are invited because we are targeting registered nurses in Lebanon. You are eligible to participate in this study if you work in Lebanon in a medium size (100-200 beds) or big size (more than 200 beds) hospital, aged between 20 and 64 years old, currently practicing, at bed side or in managerial positions with minimum of 2 years of experience at the same position and employer***.

Participation in this study will involve an interview that will last around 60-90 minutes and will be communicated in Arabic or English language based on your preference. The interview will be scheduled at your convenience in person. Please note that this study is purely for research purposes, and approval has been secured by the Institutional Review Board at AUB.

Participation is on a **purely voluntary basis**. You can also decide to **withdraw** from the study at any time without any penalty. To obtain the best possible data and to maintain information and data objectivity, it is preferred to audio record the interview, with your permission. You will be asked to complete **an in person face-to-face interview** at a private place and time of your convenience outside your working hours.

All data collected is treated as confidential information. Your name or any identifiers will not be included in the research analysis and will be treated as **anonymous**. During the interview, you will not be asked to mention any names of employing organizations, employers, managers, and coworkers, etc. to ensure the anonymity of your identity. Such information will not be asked for and thus will not be collected by the research team.

During the interview, if you do not wish to answer any specific question, you may request **skipping the question**.

Please do not indicate the name of the hospital you are working at. Please do not mention specific names of people in the interview.

Your participation in this study does not involve any physical or emotional risk to you beyond the risks of daily life. You have the right to refuse to participate, withdraw your consent, or discontinue participation at any time during or after the interview and for any reason. Your decision to withdraw will not involve any penalty or loss of benefits to which you are entitled. Discontinuing participation in no way affects your relationship with the American University of Beirut.

I would like to tape record this interview so as to make sure that I remember accurately all the information you provide. I will keep these tapes in a locked computer in my office. They will only be used by me and the principal investigator. The interview recordings will not be shared with my collaborators. Only the aggregated data from the interviews (which will have no identifiers) will be shared. You may still participate in the interview if you do not want to be taped.

You will receive 10$ for transportation fees for participation in this study.

POTENTIAL BENEFITS TO SUBJECTS AND/OR TO SOCIETY

There will be no direct benefits to you.

However, based on the results of the study, an intervention study may be planned in the future, which is thought to help decrease staff burnout and increase staff satisfaction and retention rates of nurses.

POTENTIAL RISKS TO SUBJECTS AND/OR SOCIETY

The risks of this study are minimal. To the best of our knowledge, the things you will be doing have no more risk of harm than you would have in everyday life.

In case you feel that you are suffering from severe work-related stress, or you are in need of psychological support due to work related stress., we encourage you to reach for support from one of the below contacts:

American University of Beirut Medical Center Clinics, Psychiatry Outpatients Clinics (Regular Charge Fees)

- Location: Halim and Aida Daniel Academic and Clinical Center (Daniel ACC), fourth floor

- Phone: 9611759620 or 9611350000, extension 5650

Psychiatry Outpatients Clinics at the American University of Beirut Medical Center (discounted charge fees)

- Place: Psychiatry Outpatients Department, AUBMC Building, Phase One/ 5th floor

- Phone: 961350000, extension 5720

Embrace Lifeline (Free of charge)

- Phone: 1564

Restart center

- Location: Beirut Mount Lebanon, Furn El-Chebbak Main Street, Bou Chedid Center- 4th floor

- Phone: 9611291066

CONFIDENTIALITY

The data collected will remain confidential and anonymous.

PARTICIPATION AND WITHDRAWAL

If you voluntarily consent to take part in this study, you can change your mind and withdraw at any time without consequences of any kind.

QUESTIONS ABOUT THE STUDY

If you have any questions about the study, can contact the research team at:
Roula Shehadeh Joudi, e-mail: rms55@mail.aub.edu; phone number: +961-71-228686.
Dr. Nuhad Dumit, e-mail: ny00@aub.edu.lb; phone number: +961-1-1-374374 Ext: 5950

CONCERNS OR QUESTIONS ABOUT YOUR RIGHTS

If you have concerns about the study or questions about your rights as a participant, you can contact the **AUB IRB Office**:
e-mail: irb@aub.edu.lb
Phone number: +961 1 374374, Ext: 5445

Consent to Participation in an interview

☐ Do you voluntarily consent to take part of the study?

Consent to Record Interview

☐ May I record this interview?

Consent to Quote from Interview

I may wish to quote from this interview either in the presentations or articles resulting from this work. A made-up name will be used in order to protect your identity.

☐ Do you agree to allow me to quote from this interview?

I _____ confirm that participant # _____ voluntarily agreed to participate in this study as indicated by the ticks the check-boxes above. Consent was taken from this participant at _____am/pm, on ___/___/ 2025.

A copy of this consent document given to the participant.

الموافقة على المشاركة في دراسة بحث

هذا البيان وضع لدراسة بحث موافق عليه من قبل الجامعة الأميركية في بيروت – ومجلس المراجعة المؤسساتية تجريه كل من:

الدكتورة نهاد ضومط (ny00@aub.edu.lb)
والسيدة رولا شحادة جودي (rms55@mail.aub.edu)

كلية رفيق الحريري للتمريض

الجامعة الأميركية في بيروت

مرحبا. اسمي رولا شحادة جودي؛ انا مرشحة للحصول على درجة دكتوراه في كلية رفيق الحريري للتمريض في الجامعة الأميركية في بيروت.أود أن أدعوكم للمشاركة في دراسة بحثية مصممة لدراسة و تطوير استبانة بحثية لقياس حالات Brownout لدى الممرضين و الممرضات المسجلين في لبنان. Brownout هي المرحلة التي تسبق حالات الإنهاك في نطاق الضغط المهني.

ما هو هذا البحث العلمي؟

هدف هذا البحث هو استعمال المعلومات التي سوف يتم الحصول عليها لتقييم ومراجعة الأداة المطورة التي يمكن استخدامها لقياس Brownout.
سوف يتم استخدام الأداة لاحقا في دراسة وطنية للممرضين و الممرضات اللبنانيين لاستكشاف ظاهرة Brownout لديهم، وذلك لدراسة مدى تواجده بين الممرضين و الممرضات المسجلين في لبنان خلال الوضع الحالي في لبنان و تميزه عن Burnout في دراسات مقبلة.
أن نتائج هذه الدراسة البحثية سوف تنشر في أطروحتي و في المجلات العلمية.
سوف يتم الحفاظ على الخصوصية الشخصية والسرية للمعلومات التي يقدمها المشترك. لن يتم نشر أي تقوله الا كعناصر في الاستبانة و أسمك لن يظهر بأي منشورات أو أي عرض تقديمي في المؤتمرات.

تمت الموافقة على هذه الدراسة من قبل لجنة الأخلاقية.
أن الطريقة الموافق عليها من قبل لجنة الأخلاقيات هي "دراسة بحثية معفاة".

أن هدف هذا البحث هو لتقييم و مراجعة الأداة المطورة حديثاً من خلال المقابلات الذهنية Cognitive Interviewing . سيطلب من المشاركين قراءة كل بيان وإظهار فهمهم لكل بيان و تفسيره، و إظهار القدرة على استرجاع المعلومات، و الحكم على وضوحها ومدى ملائمة و دقة كل بيان و الإجابة عليهم وفقاً لذلك. كما سيتم ملاحظة سلوكيات المشاركين أثناء الإجابة على الأسئلة. سيُطلب من المشاركين تقييم ثقتهم في إجاباتهم على مقياس (من 1 إلى 5). كما سيتم تتبع وقت استجابة المشاركين لكل عنصر باستخدام التسجيل اليدوي. سيتم تزويد المشاركين بجهاز لوحي للوصول إلى أداة انقطاع التيار الكهربائي من خلال النقر على رابط Lime Survey

الإجراءات

تدعوكم هذه الرسالة إلى:

1 – قراءة وثيقة الموافقة و أخذ القرار بما إذا كنتم تريدون المشاركة في الدراسة.

و تحديد الإشارة إلى:

- أن المشاركة هي طوعية بشكل كامل
- أن وقت المقابلة يستغرق ما بين٦٠-٩٠ دقيقة
- فقط المعلومات التي تزودنا بها خلال المقابلة سوف تجمع و سيتم تحليلها. أن الفريق المولج بالبحث من يكون عنده الوصول للمعلومات حول إسمك أو أي وسيلة تواصل معك.
- أن نتيجة هذه المقابلة سيتم نشرها في مقالة البحث وتقرير الأطروحة المتوفرة بشكل مطبوع الكتروني في مكتبات الجامعة الأميركية في بيروت دون الإشارة إلى ما يُعرف عن الأشخاص.
- أنت مدعو لأننا نستهدف الممرضين/الممرضات في لبنان. انتم مؤهلين للمشاركة في هذه الدراسة إذا كنتم تعملون في لبنان في مستشفيات متوسطة الحجم (100-200 سرير) او كبيرة الحجم (أكثر من 200 سرير)، ويبلغ عمركم ما بين 20 و 64 سنة وحاليا يمارسون العمل، اما في خدمة المرضى أو في مناصب إدارية مع ما لا يقل عن سنتين من الخبرة في المنصب ذاته ومع رب العمل ذاته.

أن المشاركة في هذه الدراسة سوف تشمل مقابلة تستغرق ما بين ٦٠-٩٠ دقيقة و ستجرى باللغة العربية أو الإنجليزية حسب تفضيل المشارك. سوف يتم التحديد وقت و موعد المقابلة حسب الوقت المحدد من المشارك. الرجاء الملاحظة ان هذه الدراسة هي لأهداف بحثية بحتة، وتم تأمين الموافقة من قبل مجلس المراجعة المؤسساتية في الجامعة الأميركية في بيروت.

المشاركة مبنية على أساس تطوعي بحت. يمكنكم أيضا الانسحاب من الدراسة في أي وقت بدون أي عقوبة. للحصول على أفضل ما يمكن من المعلومات والحفاظ على موضوعية المعلومات يفضل تسجيل المقابلة صوتيا بعد اخذ الاذن منكم. سوف تسألون عن إتمام المقابلة وجهاً لوجه في مكان مخصص في الوقت الذي يناسبكم خارج ساعات العمل الخاصة بك .

سيتم اعتبار كافة المعلومات المجمّعة على انها معلومات سرّية. لن يتم ذكر اسمكم او أي تعريفات عنكم في تحليل البحث وسيتم التعامل معها على أنها "مجهولة". خلال المقابلة، لن يوجه لكم سؤال لذكر أي أسماء عن المؤسسات التي توظفكم أو ارباب العمل او المدراء او

زملاء العمل الخ .... للتأكد من إبقاء هويتكم مجهولة. لن نسألكم عن هكذا معلومات وبالتالي لن يتم جمعها من قبل فريق البحث.
خلال المقابلة، إذا لم ترغبوا بالإجابة عن أي سؤال محدد، يمكنكم طلب الانتقال الى السؤال التالي.

خلال المقابلة يرجى عدم ذكر اسم المستشفى التي تعملون بها. ايضا يرجى عدم ذكر اسماء اي من الاشخاص خلال المقابلة.

لا تشمل مشاركتكم في هذه الدراسة أي مخاطر جسدية او عاطفية بخلاف مخاطر الحياة اليومية. يحق لكم رفض المشاركة، سحب موافقتكم أو عدم الاستمرار في المشاركة في أي وقت خلال أو بعد المقابلة ولأي سبب كان. لن يشمل قراركم بالانسحاب أي عقوبات أو خسارة لمنافع انتم مخولون لها. لن يؤثر عدم الاستمرار في المشاركة بأي شكل كان على علاقتكم مع الجامعة الأميركية في بيروت.

ارغب في تسجيل هذه المقابلة على شريط وذلك للتأكد من تذكري بكل دقة لكافة المعلومات التي تعطوني إياها. سأحتفظ بهذه الأشرطة في جهاز كمبيوتر مغلق عليه في مكتبي. انا الوحيدة التي استعملها مع الباحث الرئيسي. لن يتم مشاركة تسجيلات المقابلة مع المتعاونين معي في الدراسة. سيتم مشاركة المعلومات المجمّعة من المقابلات (التي لا تشمل معرّفات) فقط لا غير. يمكنكم مع ذلك المشاركة في المقابلة إذا لم ترغبوا تسجيلها على أشرطة.

ستلتقون مبلغ /10$ عن رسوم الانتقال بهدف المشاركة في الدراسة.

<u>الفوائد المحتملة للمشاركين و/أو المجتمع</u>
لن تستفيد مباشرة من المشاركة.
على أي حال، وبناء على نتائج الدراسة، يمكن التخطيط للدراسة تدخّل في المستقبل، والتي نعتقد أنها ستساعد في التقليل من حالات الإنهاك لدى الموظفين وزيادة رضاهم ومعدلات استبقاء الممرضين /الممرضات.

<u>المخاطر المحتملة للمشاركين و/او المجتمع</u>
إن المخاطر الناتجة عن الدراسة هي في حدها الأدنى. وافضل ما نعلمه هو أن الأشياء التي ستقومون بها ليس لها مخاطر أكثر مما تواجهون في حياتكم اليومية.

في حال شعوركم انكم تعانون من ضغط حاد متعلق بالعمل، او انكم بحاجة لدعم نفسي ناتج عن ضغط متعلق بالعمل، نشجعكم طلب الدعم من أحد جهات الاتصال الواردة ادناه:
- عيادات المركز الطبي للجامعة الاميركية في بيروت- العيادات الخارجية للطب النفسي (رسوم معاينة نظامية)
العنوان: المركز العيادي والأكاديمي حليم وعايدة دانيال (Daniel ACC الطابق الرابع.،
هاتف: 9611759620 او 9611350000- المقسّم: 5650.

- عيادات الطب النفسي الخارجية في الجامعة الأميركية في بيروت – المركز الطبي (رسوم - معاينة مع حسم)
المبنى – AUBMC العنوان: قسم الطب النفسي للعيادات الخارجية – بناية
.واحد/الطابق 5
.هاتف: 9611350000 – المقسّم 5720

امبرايس خط الحياة (مجانا)-
هاتف: 1564

مركز ريستارت -
العنوان: بيروت- جبل لبنان- فرن الشباك الشارع الرئيسي - سنتر ابو شديد- الطابق الرابع
هاتف: 9611291066

السريّة
تبقى المعلومات المجمّعة سريّة ومجهولة الهوية.

المشاركة والانسحاب
إذا وافقتم طوعيا على المشاركة في هذه الدراسة، يمكنكم تغيير رأيكم والانسحاب في أي وقت دون أن يتسبب ذلك بأي عواقب من أي نوع كانت.

أسئلة حول الدراسة
اذا كان لديكم أي أسئلة حول الدراسة، يمكنكم الاتصال بفريق البحث كالتالي:
رولا شحادة جودي، بريد إلكتروني :rms55@mail.aub.edu هاتف: 228686-71-961+
دكتورة نهى ضومط، بريد إلكتروني: ny00@aub.edu.lb هاتف: 374374-1-961+
المقسّم: 5950

مخاوف وأسئلة حول حقوقكم
اذا كان لديكم مخاوف حول الدراسة او أسئلة حول حقوقكم المشتركين، يمكنكم الاتصال بمكتب الجامعة الأميركية في بيروت- مجلس المراجعة المؤسساتية على:
Email: irb@aub.edu.lb
رقم الهاتف: 374374 1 961 + مقسّم: 5445

الموافقة على المشاركة في اجراء مقابلة:
□ هل توافقون طوعيا على المشاركة في هذه المؤسسة؟
الموافقة على تسجيل المقابلة

□ هل يمكنني ان اسجل هذه المقابلة؟
الموافقة على الاقتباس من المقابلة

او ان اقتبس من المقابلة أما في العروضات أو المقالات الناتجة عن هذا العمل.
سيتم وضع اسم مستعار بهدف حماية هويتكم.
□ هل توافقون على السماح لي بالاقتباس من هذه المقابلة؟

انا: _____ أؤكد على أن المشارك(ة) تطوعيا يوافق (توافق) على المشاركة في هذه الدراسة كما هو مشار اليه في العلامات × في مربعات التشييك الواردة أعلاه. تم اخذ الموافقة من المشارك(ة) عند الساعة _____ ق ظ / ب ظ بتاريخ _____/_____/2025.

اعطي المشارك(ة) نسخة عن وثيقة الموافقة هذه.

APPENDIX F
INTERVIEW GUIDE

1- Can you describe a typical day for you at work.

2- When, if at all, did you first experience or notice that you are less interested in your job?

3- When, if at all, did you first experience or notice that you are less motivated in your job?

4- When if at all, did you first experience or notice that you are less engaged in your job?

5- When, if at all, did you experience or notice that you are physically exhausted in your job?

6- [If so], Can you describe more about what you felt during this period?

7- [If so], what was it like? If you recall, what were you thinking then?

8- In your opinion, what are the events that would lead nurses to that feeling or perception, can you describe some?

9- What contributed to feelings?

10- What happened next?

11- Please tell me more about coping strategies during this phase.

Probes can include:
Who? Why? When/In what circumstances? How did it feel?
(Physically, emotionally)? Severity? How do you feel now? How often were.
you experiencing it? How much did it impact your daily life?

دليل الأسئلة المقترحة للمقابلة

1- هل يمكنك وصف يوم عادي لك في العمل؟
2- متى اختبرتم، اذا حصل ذلك، لأول مرة او لاحظتم ان اهتمامكم بعملكم قد اصبح اقل من ذي قبل؟
3- متى اختبرتم، اذا حصل ذلك، لأول مرة او لاحظتم انكم اقل تحفيزا للعمل؟
4- متى اختبرتم، اذا حصل ذلك، لأول مرة او لاحظتم انكم اقل ارتباطا بوظيفتكم؟
5- متى اختبرتم، اذا حصل ذلك، او لاحظتم انكم منهكون جسديا اثناء العمل؟
6- اذا كان هذا هو الحال، كيف كانت الحالة؟ اذا كنتم تتذكرون، بماذا فكرتم في ذلك الوقت؟
7- هل يمكنكم إعطاء المزيد من الوصف لما شعرتم به خلال هذه الفترة؟
8- برايك ما هي الأحداث التي من شأنها أن تقود الممرضات إلى ذلك الشعور أو التصور، هل يمكنك وصف بعضها؟
9- ما الذي ساهم في الوصول على هذه المرحلة؟
10- ماذا حصل بعد ذلك؟
11- رجاء اعطائي المزيد حول استراتيجية تكيفكم خلال هذه المرحلة؟

قد تشمل الاستجوابات:
من؟ لماذا؟ في اي ظرف؟ كيف كان الشعور؟ (جسديا، عاطفيا)؟ مدى المدة؟ كيف تشعرون الان؟ مدى تكرار مروركم بهكذا تجربة؟ مدة تأثير ذلك على حياتكم اليومية؟

APPENDIX G

JOINT DISPLAY OF QUOTES INITIAL ITEM GENERATION MATRIX

Categories & subcategories	Quotes	Scale items
Job Distancing: Demotivation Disengagement Decreased interest Lack of belonging Decreased passion Autopilot mode	"You feel that you have **no motive for work**. just **don't feel like it**…the **quality of work declined**" Nina-2 "I **perform tasks at least within the accepted performance**, but it is not like before I am motivated to excel." Jad -1 "Yes of course**, less and less motivation** because I **feel like every day is the same day on the repeat**, but with a different let's say problem" Rayan-1 "I **did not want to continue**. I tried to resign several times. On many occasions, when you are devoted to work and have enthusiasm to accomplish … and then you see reactions of others, not as I expected or not in how I believe things should be done, regardless… For example, reactions on a very big incident is so cold…this is something that caused me **dissatisfaction**" Fai- 2 "There are specific things I am motivated for. But many more things related to my job; **I am demotivated** for. If it is a minor complaint and I know it is not important actually it will not	1. I don't feel like going to work 2. I feel that I am not motivated at my work 3. I perform the tasks within least accepted performance 4. I am not motivated to excel at my job 5. I feel that every day is the same on repeat 6. I feel that I don't want to continue at my job 7. I think about resignation 8. I do effort to find motivation at my work 9. I am only motivated to do important tasks 10. I get demotivated when I receive negative comments 11. I feel demotivated at work

	make a difference. I feel that I am demotivated to do it." Jad-1 "Often things happen, and I feel that it's unfair to you or maybe I get upset, and I cannot express myself or it could be that it is actually a mistake I did but sure unintentionally… these things might happen and might lead to the feeling of **getting less motivated."** Mai- 2 "I felt **demotivated**. I cannot say depressed. You're not depressed. OK. Down, upset." Mira-2 "I have engagement with everything related to my specialty, but not on the floor." Rayan-1 "**Engagement** with colleagues and relationships **changed**." Jad- 1 "**I'm searching for a way out**." Rayan-1 "I used to work harder and stay extra time, now **I only do my tasks** and if my break time comes, I leave everything lagging and take my break."- Jad-1 "They are doing the work with **caring less** about the quality of work... so they would think or feel that why I have to care... there is a statement that they repeatedly say: this is how much they are paying me, this is how much I will give in return (meaning less salary results in less care in work)" Nina- 2	12. I have decreased engagement at my work 13. I feel engaged to tasks related to my specialty 14. I feel engagement with my unit has changed 15. I am searching for a way out 16. I ask myself why I am doing this job 17. I only do tasks requested from me 18. I struggle to take initiative at work 19. Lately, I care less about the quality of my work 20. I do not find any interest in my job 21. I lost interest in certain tasks related to my job 22. I have more interest in other jobs related to my domain 23. I am indifferent about my career 24. I have no intention to evolve in my job 25. I have no intention advance in my career 26. I look forward to changing my position 27. I look forward to leaving the bedside

	"Depends when and where, on another unit maybe outpatient in my domain I would like it more. I am **not interested** anymore in IV insertion… more interested in talking with patients who are newly diagnosed and support them or explain to them their treatment plan. Sorry to say… if the things will be like, I am strong let's put more tasks on him, I don't want to do it." Jad- 1 "I want to evolve in my job. And I just I think that it's been 13 years now and I did my master's degree 4 years ago I finished it. So, I want to advance in my career. OK, I'm good at what I do. But then what? I don't want to stay at that side nurse forever" Mira- 2 "My **interest in work has decreased**. I mean, as I told you, there are times when I force myself. For example, I want to do these things. Whatever happens during the day, I don't leave my job. I don't leave the floor forcing self to take a break" Mika-2 "Many times, **I thought why I am doing this job**…" Rayan-2 "Sometimes I feel that during the tough days, yes, I feel this, and I say this to myself **why I'm still here**" Noura-1 "I always feel that **I'm a stranger on the unit**. I told you **I don't fit. I don't think that I fit the unit.** I always feel that **I don't belong** ...I want to tell you something that since I	28. I feel that my interest in work has decreased 29. I often think why I am doing this job 30. I feel cynical about my job 31. I often ask myself why I am still in my job 32. I feel that I am a stranger on my unit 33. I feel that I do not fit to my unit 34. I feel that I don't belong to my unit 35. I feel that I am detached from my work 36. I feel that my colleagues and I are not on the same track 37. I don't see myself at my job 38. I don't see myself in my job 39. I lack passion to work 40. I struggle to develop at my job 41. I struggle to make an effort at work

	started working, I felt discriminated against in the environment." Noura- 2 "I **felt that I do not belong**… Though now when I am back to the unit it feels better than before, however **I feel that I am still not back.** it varies among persons…" Nina- 2 "I has the feeling **that I did not belong to the unit anymore**… started detaching a bit." Nina- 2 "I sometimes reach the point that my colleagues who I consider to be my backbone. **I am in a valley, and they are in another valley**. in everything I am saying at work. The way I think is different from how they think." Mika- 2 "**I did not feel that I belonged**. **I did not see myself or feel it's me**..." Fai- 2 "They **do not have this passion**, or **the urge to self-develop** or do something to improve." Fai-2 **"**I sense that **they do not want to make any big effort**. For example, I tell them that you should do efforts to develop, if there is a procedure that doesn't happen a lot.… they start losing their motivation with time and eventually their performance will decline" Fai-2 **"**Many times, I thought **why I am doing this job…. (Dina-1)** "... I feel that like an **autopilot mode doing the tasks that I should only do**" (Jad-1)	42. I question myself why I am doing this job 43. I feel like I function on autopilot mode 44. I do not think much about what I am doing 45. I feel that I function like a robot 46. At work, I only do my tasks 47. I leave everything lagging when my duty ends 48. I leave everything lagging on break time

	"…I work in autopilot mode on**... Like a robot** [laughing]…Off course I will do them responsibly…" (Mika-2) "I **only do my tasks and** if my break time comes, I leave everything lagging and take my break…" (Jad-1)	
Exertion: Emotional, cognitive and physical exertion	"That I cannot, **I cannot breathe, and I cannot have any time for myself**. So even know when I take a holiday or vacation, they might call me. They might need me and oh please come help. us. We are in crisis we are … we are … we are... so continuous work." Rayan-1 "Usually**, I feel anxious** all the time." Rayan-1 "There are times when **I feel overwhelmed** with the amount of work I have to do, I don't catch up" Mai-2 "**I cried** three times during my shift. I prayed I said dua to encourage myself, to empower myself and stay strong." Noura-2 "**I don't want to go to work**… usually this is before the workday." Rayan-1 "I… **I become frustrated**" Jad-1 "I feel that I am in a state in between burn out and regular life. I'm surviving and I am	49. I have trouble breathing 50. I feel that I cannot breathe 51. I feel anxious at work 52. I feel anxious everyday 53. I feel anxious on my way to work 54. I feel overwhelmed at work 55. I feel overwhelmed after work 56. I feel overwhelmed on my way to work 57. I cry at work 58. I cry on my way to work 59. I cry afterwork 60. I feel like I don't want to go to work 61. I get upset or sad at work 62. I get frustrated at work 63. I am becoming more irritable at work 64. I am not able to control my emotions at work 65. I am not able to control my reactions at work 66. I feel comfortable at work 67. I do not feel comfortable at work

	resilient, **I'm resisting**." Noura-2 "I… I **become frustrated**. **generalized anxiousness**… it affects a lot…" Rayan-2 "I feel like my day is starting **to feel very uncomfortable**…" Mai-2	
	"Sometimes… sometimes **I cannot function like I should be functioning**, **and I cannot link**, I cannot have **the thought of process that I should have** because I didn't eat, or I didn't have time to drink water. I didn't go to the bathroom in time. So, it **affects my performance**" Rayan- 2 "I feel physically tired after 4 hours. **Then Cognitively I feel not focused**." Jad-1	68. I have trouble staying focused at work 69. I struggle to function at work 70. When I'm working, I have trouble staying focused 71. My performance is affected because I am not able to think clearly
	"At the end of the day, I'm **dead tired."** Noura -1 "I live **tired**." Dina- 1 "After 6 hours, **I feel tired**, and I need to rest…it takes a lot from my power and makes me feel tired." Jad-1 "I feel that I have **no power, fatigued**. No power to walk and do the hourly rounds. ……. It takes a lot from my power and makes me feel tired." Jad-1 "Physically **I am tired** sometimes I can't do it. You	72. I feel tired at the end of the day 73. I feel tired at work 74. I feel tired during work 75. I need to take more frequent breaks 76. I need to recover my energy at work more frequently 77. My work take a lot of my energy 78. I feel my energy is depleted at work 79. I feel that I have no enough power at work 80. I feel fatigued at work 81. Work consumes a lot of my power 82. When I exert myself at work, I get tired quickly 83. I feel drained at the end of my working day

	don't have energy **I feel drained**." Mira-2	84. I feel physically tired at work
Psycho-somatic Complaints: Physical and psychological symptoms	"I have some **headache**s, mainly I have **IBS.** And the **stress eventually manifests in your body**" Mira- 2 "Sometimes I have **headaches**. After 6 hours, I feel tired, and I need to rest. **I feel hungry, my appetite is affected**."Jad-1 "On the working day usually, I have through the shift. Mumm… I sometimes **get headaches because I cannot sleep**, I **can't eat and palpitations**, anxiousness. the usual stress symptoms." Rayan-1 "One after the other, every month I had something new. No way, each month I have to visit the occupational health clinic and get assessed and do investigations based on my symptoms." Fai-2 "Something related to my health, I got psoriasis, so when I went to the dermatologist. She told me it is from stress, and she wrote me a medical report…" Mai-2 "I put the alarm at 6am but I feel like **I'm always awake** and **I didn't sleep** at all I don't **have the good night's sleep** because I am thinking about tomorrow, the assignment, the work..." Jad-1 "So usually, the symptoms start one day before work." Rayan-1	85. I suffer from headaches 86. I suffer from intestinal problems 87. I suffer from changes in my appetite 88. I suffer from palpitations 89. I visit the occupational clinic frequently 90. I visit the occupational clinic at least once every month 91. I suffer from stress related diseases for example psoriasis 92. Stress from work worsened my medical condition 93. I suffer from sleeping problems 94. I suffer from physical symptoms on my way to work 95. I suffer from physical symptoms the night before my shift 96. I feel I am getting old 97. I often get sick 98. I suffer from muscle pain (back, neck, shoulder…)

	"Ahhh it first started when I first became a manager two years ago..." Fai-2 "Even physically I started to have symptoms I did not have before…so I did not **have GERD** before, it happened to me… I did not **have stress ulcers**, then I did., also I started **having palpitations and sleeping problems** … each symptom came after the other… then eventually I adapted… now the situation is better. I became used to these things." Fai-2 "**I'm getting old. I feel** I'm 25 years old, but I'm getting old in this hospital I feel so old…" Noura-1	
Lifestyle and social impairments: Lifestyle changes and social withdrawal	"I had one friend that I used to talk to, so we used to talk. It is because all my friends are nurses who work in different hospitals, so **I don't feel comfortable to talk** about what I was passing through." Nina-2 "**I preferred to stay at home**... Not to see anyone or talk to people. Even friends from the hospital I used to contact **I avoided**." Nina-2 "Now... Yes, **I'm avoiding people**. So, before every Thursday we used to meet with my friends, now it's been a long time since I saw them." Noura-1 "Eh, so there is such aversion, if you want. If we still talk and joke, but it's not like before. I mean, every time that happens, time increases. I, as a manager,	99. I avoid talking to my friends or family 100. I avoid going out 101. I prefer to stay alone after work 102. I feel I am avoiding people 103. I feel I am more distant from my colleagues 104. I am distant from my colleagues 105. I am not practicing my hobbies 106. I am too tired to exercise

	have become **more distant** since then" Mai-2 "I do **not have time for hobbies**. Now honestly the most thing I'm doing right now to comfort myself is that I'm going on a diet because it makes me feel content about myself." Mai-2 "I **never ever could go to gym** because I'm always tired." Noura-1 "One of the things that is really making me sad is that I used to be part of the Civil Defense. And I was the coordinator of the area. I had to leave this volunteering activity that I really love to do because I'm not allowed to use my phone or follow up on the calls during the day." Noura-1 "As well I feel that **my social relationships also decreased or diminished**…" (Mai-2) "I don't like it [current state]. From time to time, I open Instagram and look at the posts and pictures from a long time ago, how I was going places every day where I used to celebrate with the girls, and like that, I miss times like those days…" (Mai-2)	107. My social relationships are diminished 108. I avoid attending events with family and fiends

APPENDIX H
BROWNOUT INSTRUMENT ITEMS

Construct and sub-constructs	Chosen items
A. Job distancing	
1-Demotivation	1- I don't feel like going to my work 2- I do the bare minimum at my work 3- I often feel stuck in a routine at work
2- Disengagement	4- I find it hard to be engaged at my work 5- I am searching for a way out
3- Decreased interest	6- I question myself why I am doing this work 7- I do not find any interest in my job 8- I have no intention to advance in my nursing career 9- I find it hard to take initiative at my work 10- I look forward to changing my current job
4- Lack of belonging	11- I feel that I am disconnected from my work
5- Decreased passion	12- I find it hard to make an effort at work 13- I am indifferent about my current job
B. Exertion	
1-Emotional exertion	14- I feel anxious at work 15- I feel overwhelmed at work 16- I am not able to control my emotions at work
2-Cognitive exertion	17- I have trouble staying focused at work 18- My performance is affected because I have trouble thinking clearly
3-Physical exertion	19- I feel tired at work 20- I feel my energy is depleted at work 21- I feel that I need frequent breaks at work
C. Psycho-somatic Complaints	
1-Physical symptoms	22- I suffer from headaches 23- I suffer from intestinal problems 24- I suffer from changes in my appetite 25- I suffer from palpitations
2- Psychological symptoms	26- I suffer from sleeping problems 27- I cry at work 28- I feel irritable at work 29- I feel tense at work

	30- I get upset or sad at work
D. **Lifestyle and social impairments**	
1-Lifestyle distributions	31. I no longer engage in hobbies/ activities I used to enjoy. 32. I am too tired to exercise 33. I am not able to practice selfcare activities 34. My eating habits changed
2-Social withdrawal	35. I am distant from my colleagues 36. I feel I am avoiding people

APPENDIX I
BROWNOUT INSTRUMENT

The following questionnaire is related to your work situation and how you experience this situation. Please state how often each statement applies to you.

Demographic Section: Please choose one answer for each question

1. Gender:

☐ Male

☐ Female

2. Age:

☐ 18 - 29 years

☐30 – 39 years

☐ 40 – 49 years

☐ 50 – 59 years

☐ 60 – 64 years

☐ 65 and more

3. Martial Status:

☐ Single

☐ Married

☐ Widowed

☐ Divorced

4. Highest Nursing Qualifications:

☐ Technical Baccalaureate (BT)

☐ Technical Superior (TS)

☐ License Technique (LT)

☐ Bachelor Science in Nursing (BSN)

☐ Master Science in Nursing (MSN)

5. Number of Children:

☐ None

☐ 1 – 3

☐ 3 – 6

☐ More than 6

6. Work Specialty:

☐ Medical/ Surgical Unit

☐ Outpatient/ Same day Unit

☐ Operation Theater

☐ Critical Care Unit

☐ Obstetrics and Gynecology Unit

☐ Pediatrics Unit

☐ Others

7. Years of Experience:

☐ Less than 1 year

☐ 1 – 3 years

☐ 3 – 5 years

☐ 5 – 8 years

☐ 8 – 10 years

☐ More than 10 years

8. Years at Current Job:

☐ Less than 1 year

☐ 1 – 3 years

☐ 3 – 5 years

☐ 5 – 8 years

☐ 8 – 10 years

☐ More than 10 years

9. Job Position:

☐ Nurse Aid

☐ Registered Nurse

☐ In charge Nurse

☐ Nurse Manager

☐ Nurse Supervisor

☐ Clinical Educator

☐ Nurse Specialist

10. Work Contract:

☐ Full time

☐ Part-time

11. Working hours per shift:

☐ 8 hours

☐ 12 hours

12. Working hours per week:

☐ 11 – 20 hours

☐ 21 – 30 hours

☐ 31 – 40 hours

☐ 41 – 50 hours

☐ 51 – 60 hours

☐ More than 60 hours

13. Please indicate the number of dependents in your house:

14 **Monthly salary:**

☐ Less than $1,200

☐ $1,200

☐ More than $1,200

Brownout Tool Section: For each of the following questions, please choose the response that characterizes how you feel about the statement in relation to your work experience.

	Strongly Disagree	Disagree	Slightly Disagree	Neutral	Slightly Agree	Agree	Strongly Agree
1. I don't feel like going to my work	0	1	2	3	4	5	6
2. I do the bare minimum at my work	0	1	2	3	4	5	6
3. I often feel stuck in a routine at work	0	1	2	3	4	5	6
4. I find it hard to be engaged at my work	0	1	2	3	4	5	6
5. I am searching for a way out	0	1	2	3	4	5	6
6. I question myself why I am doing this work	0	1	2	3	4	5	6
7. I don't find interest in my job	0	1	2	3	4	5	6
8. I have no intention to advance in my nursing career	0	1	2	3	4	5	6
9. I find it hard to take initiative at my work	0	1	2	3	4	5	6
10. I look forward to changing my current job	0	1	2	3	4	5	6
11. I feel that I am disconnected from my work	0	1	2	3	4	5	6
12. I find it hard to make an effort at work	0	1	2	3	4	5	6

13. I am indifferent about my current job	0	1	2	3	4	5	6
14. I feel anxious at work	0	1	2	3	4	5	6
15. I feel overwhelmed at work	0	1	2	3	4	5	6
16. I am not able to control my emotions at work	0	1	2	3	4	5	6
17. I have trouble staying focused at work	0	1	2	3	4	5	6
18. My performance is affected because I have trouble thinking clearly	0	1	2	3	4	5	6
19. I feel tired at work	0	1	2	3	4	5	6
20. I feel my energy is depleted at work	0	1	2	3	4	5	6
21. I feel that I need frequent breaks at work	0	1	2	3	4	5	6
22. I often suffer from headaches on a workday	0	1	2	3	4	5	6
23. I often suffer from intestinal problems on a workday	0	1	2	3	4	5	6
24. I often suffer from changes in my appetite on a workday	0	1	2	3	4	5	6
25. I often suffer from palpitations on a workday	0	1	2	3	4	5	6
26. I suffer from sleeping problems the night before my shift	0	1	2	3	4	5	6
27. I cry before, during or after work	0	1	2	3	4	5	6
28. I feel irritable at work	0	1	2	3	4	5	6
29. I feel tense at work	0	1	2	3	4	5	6
30. I get upset or sad at work	0	1	2	3	4	5	6
31. I no longer engage in hobbies/ activities I used to enjoy	0	1	2	3	4	5	6

32. I am often too tired from work to exercise	0	1	2	3	4	5	6
33. I am too tired from work to practice selfcare activities	0	1	2	3	4	5	6
34. My eating habits changed	0	1	2	3	4	5	6
35. I am distant from my colleagues	0	1	2	3	4	5	6
36. I feel I am avoiding people at work	0	1	2	3	4	5	6

الاستمارة التالية تتعلق بوضع عملكي/ك و كيف تؤثر هذه الحالة عليكي/ك. من فضلكي/ك اذكري/ك مدى تطابق كل بيان عليكي/كز

الملومات الديموغرافية: يرجى اختيار إجابة واحدة لكل سؤال

1. الجنس:

☐ ذكر

☐ أنثى

2. العمر:

☐ ١٧ ـ ٢٩ سنة

☐ ٣٠ ـ ٣٩ سنة

☐ ٤٠ ـ ٤٩ سنة

☐ ٥٠ ـ ٥٩ سنة

☐٦٠ ـ ٦٤ سنة

☐ ٦٥ و ما فوق

3. الوضع العائلي:

☐ أعزب/ عزباء

☐ متزوج(ة)

☐ أرمل(ة)

☐ مطلق(ة)

4. أعلى شهادة في التمريض:

☐ البكالوريا التقنية (BT)

☐ الامتياز الجامعي (TS)

☐ الإجازة الفنية (LT)

☐ بكالوريوس العلوم في التمريض

☐ ماجستير العلوم في التمريض

5. عدد الأولاد

☐ لا يوجد

☐ ١ ـ ٣

☐ ٣ ـ ٦

☐ ٦ و ما فوق

6. اختصاص العمل:

☐ قسم الباطنية/ الجراحة

☐ قسم العيادات الخارجية/ العلاج النهاري

☐ قسم غرف العمليات

☐ قسم العناية المركزة

☐ قسم الأمراض النسائية و التوليد

☐ قسم الأطفال

☐ اقسام أخرى

7. سنوات الخبرة:

☐ أقل من سنة

☐ ١ـ٣ سنوات

☐٣ـ٥ سنوات

☐٥ـ٨ سنوات

☐ ٨ ـ ١٠ سنوات

☐ أكثر من ١٠ سنوات

8. عدد السنوات في الوظيفة الحالية:

☐ أقل من سنة

☐ ١ ـ ٣ سنوات

☐ ٣ـ٥ سنوات

☐ ٥-٨ سنوات

☐٨ - ١٠ سنوات

☐ أكثر من١٠ سنوات

9. المنصب:

☐ مساعد(ة) ممرض

☐ ممرض(ة) مجاز(ة)

☐ممرض(ة) مسؤول

☐ مدير(ة) قسم

☐مشرف(ة) التمريض

☐مدرب(ة) تمريض

☐ممرض(ة) مختص(ة)

10. عقد العمل:

☐دوام كامل

☐دوام جزئي

11. ساعات العمل لكل مناوبة:

☐ ٨ ساعات

☐ ١٢ ساعة

12. ساعات العمل خلال الأسبوع:

☐١١-٢٠ ساعة

☐٢١- ٣٠ ساعة

☐٣١ -٤٠ ساعة

☐٤١ -٥٠ ساعة

☐٥١- ٦٠ ساعة

☐أكثر من ٦٠ ساعة

13. الرجاء ذكر عدد المعالين في منزلك:

14. الراتب الشهري:

☐ أقل من ١٢٠٠$

☐ ١٢٠٠$

☐ أكثر من ١٢٠٠$

لكل من الأسئلة التالية، الرجاء اختيار الجواب الذي يصف كيف تشعر حيال هذا البيان فيما يتعلق بتجربتك العملية

	لا أوافق بشدة	لا أوافق	لا أوافق بشكل طفيف	محايد	أوافق بشكل طفيف	أوافف	أوافق بشدة
1. . لا أشعر برغبة في الذهاب الى عملي	0	1	2	3	4	5	6
2. أفعل الحد الادنى في عملي	0	1	2	3	4	5	6
3. غالبا ما أشعر أنني عالق بنفس الروتين في العمل	0	1	2	3	4	5	6
4. أشعر بصعوبة بالاندماج في عملي	0	1	2	3	4	5	6
5. أبحث عن مخرج من عملي	0	1	2	3	4	5	6

6. اسال نفسي لماذا أقوم بهذا العمل	0	1	2	3	4	5	6
7. لا أجد أي اهتمام بعملي	0	1	2	3	4	5	6
8. ليس لدي نية للتقدم في مسيرتي التمريضية	0	1	2	3	4	5	6
9. أجد صعوبة في أخذ المبادرة في عملي	0	1	2	3	4	5	6
10. أتطلع الى تغيير وظيفتي الحالية	0	1	2	3	4	5	6
11. أشعر أنني منقطع عن عملي	0	1	2	3	4	5	6
12. أجد صعوبة في بذل الجهد في العمل	0	1	2	3	4	5	6
13. أنا غير مبال بوظيفتي الحالية	0	1	2	3	4	5	6
14. أشعر بالقلق أثناء العمل	0	1	2	3	4	5	6
15. أشعر بالإرهاق أثناء العمل	0	1	2	3	4	5	6

16. لا أستطيع التحكم بمشاعري أثناء العمل	0	1	2	3	4	5	6
17. أواجه صعوبة في التركيز أثناء العمل	0	1	2	3	4	5	6
18. يتأثر أدائي لأنني غالبا ما أواجه صعوبة في التفكير بوضوح	0	1	2	3	4	5	6
19. أشعر بالتعب أثناء العمل	0	1	2	3	4	5	6
20. أشعر بأن طاقتي مستنفدة اثناء العمل	0	1	2	3	4	5	6
21. أحتاج الى فترات راحة متكررة أثناء العمل	0	1	2	3	4	5	6
22. غالبا ما أعاني من الصداع اثناء يوم العمل	0	1	2	3	4	5	6
23. غالبا ما أعاني من مشاكل معوية اثناء يوم العمل	0	1	2	3	4	5	6

24. غالبا ما أعاني من تغيرات في شهيتي اثناء يوم العمل	0	1	2	3	4	5	6
25. غالبا ما أعاني من خفقان في القلب اثناء يوم العمل	0	1	2	3	4	5	6
26. غالبا ما أعاني من مشاكل في النوم في الليلة التي تسبق مناوبتي	0	1	2	3	4	5	6
27.غالبا ما أبكي قبل , أثناء أو بعد العمل	0	1	2	3	4	5	6
28. أشعر بالعصبية أثناء العمل	0	1	2	3	4	5	6
29. أشعر بالتوتر أثناء العمل	0	1	2	3	4	5	6
30. أشعر بالحزن أو الضيق أثناء العمل	0	1	2	3	4	5	6
31. لم أعد أشارك في الهوايات والنشاطات التي كنت أستمتع بها	0	1	2	3	4	5	6
32. أشعر بأنني مرهق للغاية من العمل لممارسة الرياضة	0	1	2	3	4	5	6

33. أشعر بأنني مرهق للغاية من العمل لممارسة أنشطة العناية بالذات	0	1	2	3	4	5	6
34. تغيرت عاداتي الغذائية	0	1	2	3	4	5	6
35. انا منعزل عن زملائي	0	1	2	3	4	5	6
36. أشعر أنني أتجنب الاشخاص في العمل	0	1	2	3	4	5	6

APPENDIX J

COGNITIVE INTERVIEWING PROTOCOL

Think-Out-Loud Protocol Script

I am going to ask you to think out loud as you work through this questionnaire. Let me explain what I mean by "Think-Out-Loud" It means that I would like you to tell me everything you think about as you work through each test question.

You will do this one test question at a time. When I say tell me everything, I really mean every thought you have from the moment you read the problem to the end when you have a solution or even if you do not have a solution.

Please do not worry about planning how to say things or clarifying your thoughts. What I really want is to hear your thoughts constantly as you try to solve the problem—uninterrupted and unedited.

Sometimes you may need time to think quietly through something—if so, this is okay but please tell me what you thought through as soon as possible after you are finished.

I realize it can feel awkward to Think-Out-Loud but try to imagine you are alone in the room. If you become silent for too long, I will say "Keep talking" to remind you to think out loud.

Please note, that this part of our research is highly exploratory. My intention is not to evaluate your thinking or explanations while you speak. The purpose of the study is to learn about the thoughts as you—and other people—answer each question.

Cognitive Interview Script

For this next part, I will ask you a series of questions about each question

Type of questions	Proactive Probes
Comprehension	• What does this question mean to you? • How would you put that question in your own words? What do you think this question is asking you to do and why?

Recall / Retrieval	• How did you arrive at your answer? • How did you work that out? • What do you remember now? • Is there anything specific that the item reminded you of?
Judgment	• What made you choose that response? • How sure are you of your answer? • Do the answer choices make sense to you? • (If no) Can you tell me why they don't make sense? • How could the answer choices be better?
Response	• How difficult was it for you to pick a response? • Do you think that response describes you well? • How sure are you of your answer? • How easy or difficult was it for you to come up with your answer? • Was there wording about this question that influenced your response?
Additional reactive prompts	• I can see that you were in doubt, what went through your mind?" • What questions do you feel were easiest to answer and why? • What questions do you feel were difficult to answer and why? • What are your suggestions for changing some of the questions and why?

Additional Observations:

Confidence Scale: Using a confidence scale (1 to 5) for participants to rate their confidence in their answers. This can help quantify confidence levels and make it easier to analyze the data.

Response Time Tracking: track response times for each item through manual recording. This data can be useful in understanding how easy and straightforward the question is.

Behavioral Cues: Pay attention to non-verbal cues such as body language, facial expressions, and eye movements. Write down as field notes.

نص بروتوكول التفكير بصوت عال

سأطلب منك التفكير بصوت عال أثناء القيام بهذه الاستمارة.

أسمحوا لي أن أشرح لكم ماذا أعني ب " التفكير بصوت عال". يعني انني أود منكم أن تخبروني بأي شيء تفكرون به أثناء أجابتكم على كل سؤل من أسئلة الاختبار.

سوف تقوم بالإجابة على كل سؤال في كل مرة. عندما أقول لك أخبرني بكل شيء فأنني أعني بأنه عليك أن تخبرني بكل فكرة تخطر في بالك منذ بدء قراءتك للسؤال وحتى النهاية سواء توصلت الى جواب أم لم تتوصل.

الرجاء عدم القلق بشأن التخطيط لكيفية قول الأشياء أو توضيح أفكارك. ما أريده حقا أن أسمع أفكرك بشكل مستمر عند محاولتك حل الأسئلة أو المشكلة دون مقاطعة أو تعديل.

في بعض الأحيان يمكن أن تحتاج بعض الوقت للتفكير بهدوء بشيْ ما. أذا كان الأمر كذلك فلا بأس بذلك ولكن الرجاء أن تخبرني بما فكرت به بعد أن تنتهي.

أدرك بأنك يمكن أن تشعر بإحساس غريب أو حرج أثناء التفكير بصوت عال ولكن تخيل بأنك تجلس وحيدا في الغرفة. إذا بقيت صامتا لوقت طويل سوف أقول لك أستمر بالكلام لكي أذكرك بأن تفكر بصوت عال.

يرجى الانتباه بأن هذا الجزء من البحث هو استكشافي لحد كبير. نيتي ليست تقييم طريقة تفكيرك وشرحك أثناء التكلم. أن هدف هذه الدراسة هو معرفة الأفكار التي تراودك وتراود الأخرين أثناء الإجابة على الأسئلة.

نص المقابلات المعرفية:

في هذا الجزء سوف أطرح عليك مجموعة من الأسئلة حول كل سؤال

نوع السؤال	الاستفسارات الاستباقية
الفهم	ماذا يعني لك هذا السؤال؟ كيف يمكنك أعادة صياغة هذا السؤال بكلماتك الخاصة؟ ماذا تعتقد بأن هذا السؤال يطلب منك أن تفعل ولماذا؟
الاسترجاع	كيف توصلت لهذه الإجابة؟ كيف حللت ذلك؟ ماذا تتذكر الان؟ هل هناك أي شيء معين ذكرك به هذا العنصر؟
الحكم	ما الذي جعلك تختار هذا الجواب؟ ما مدى تأكدك من أجابتك؟ هل خيارات الأجوبة منطقية بالنسبة لك؟ أذا أجبت بكلا هل يمكنك أن تخبرنا لماذا ليست منطقية؟ كيف يمكن أن تكون خيارات الأجوبة أفضل؟

الإجابة	ما مدى صعوبة اختيارك للإجابة؟ هل تعتقد بأن هذه الإجابة تصفك بشكل جيد؟ كم أنت متأكد من أجابتك؟ ما مدى سهولة أو صعوبة توصلك للإجابة؟ هل أثرت صياغة السؤال على أجابتك؟
محفزات إضافية تفاعلية	أرى أنك كنت مترددا، ما الذي خطر ببالك؟ ما هي الأسئلة التي شعرت بأنها أسهل بالإجابة ولماذا؟ ما هي الأسئلة التي شعرت بأنها أصعب بالإجابة ولماذا؟ ما هي اقتراحاتك لتغيير بعض الأسئلة ولماذا؟

ملاحظات إضافية:

مقياس الثقة: استخدام مقياس الثقة (1 إلى 5) للمشاركين لتقييم ثقتهم في إجاباتهم. يمكن أن يساعد ذلك في تحديد مستويات الثقة وتسهيل تحليل البيانات.

تتبع وقت الاستجابة: تتبع أوقات الاستجابة لكل عنصر من خلال التسجيل اليدوي. يمكن أن تكون هذه البيانات مفيدة في فهم مدى سهولة السؤال ومباشرته.

الإشارات السلوكية: انتبه إلى الإشارات غير اللفظية مثل لغة الجسد، وتعبيرات الوجه، وحركات العين. اكتب كملاحظات ميدانية.

APPENDIX K
CODEBOOK

In Vivo & Process Codes	Focused Codes (Subthemes)	Provisional Categories	**Definitions:** "*Exemplar quotes*"
"Less motivation" "No motive for work" "Feeling every day is the same" "Doing the minimum"	**Demotivation (23)**	***Job Distancing***	**Job Distancing: Decreased connection to one's job due to a loss of meaning in the work performed. This can manifest as doing the bare minimum, lacking enthusiasm and motivation, and feeling uninterested in work.** **Demotivation: Refers to a significant decline in enthusiasm and drive towards one's job. Nurses experiencing brownout often feel a lack of purpose and meaning in their work, leading to reduced productivity and engagement. This demotivation can manifest as a general disinterest in tasks that were once fulfilled**. *"You feel that you have **no motive for work**. just **don't feel like it**…the **quality of work declined**" Nina-2* *"I **perform tasks at least within the accepted performance**, but it is not like before I am motivated to excel." Jad -1* *"Yes of course**, less and less motivation** because I **feel like every day is the same day on the repeat**, but with a different let's say problem" Rayan-1* *"I **did not want to continue**. I tried to resign several times. On many occasions, when you are devoted to work and have enthusiasm to accomplish … and then you see reactions of others, not as I expected or not in how I believe things should be done, regardless… For example, reactions on a very big incident is so cold…this is something that caused me **dissatisfaction**" Fai- 2* *"There are specific things I am motivated for. Burt many more things related to my job; **I am demotivated** for. If it is a minor complaint and I know it is not important actually it will not make a difference. I feel that I am demotivated to do it." Jad-1* *"Often things happen, and I feel that it's unfair to you or maybe I get upset, and I cannot express myself or it could be that it is actually a mistake I did but sure unintentionally… these things might happen and might lead to the feeling of **getting less motivated."** Mai- 2*
"Decreased engagement" "Searching for a way out" "Doing minimum"	**Disengagement (5)**		
"Not interested"	**Decreased interest (27)**		*"I felt **demotivated**. I cannot say depressed. You're not depressed. OK. Down, upset." Mira-2* **Disengagement: a condition of decreased commitment and lack of enthusiasm towards the job** *"I have engagement with everything related to my specialty, but not on the floor." Rayan-1* *"**Engagement** with colleagues and relationships **changed**." Jad- 1* *"**I'm searching for a way out**." Rayan-1* *"I used to work harder and stay extra time, now **I only do my tasks** and if my break time comes, I*

		leave everything lagging and take my break."- Jad-1 *"They are doing the work with **caring less** about the quality of work... so they would think or feel that why I have to care... there is a statement that they repeatedly say: this is how much they are paying me, this is how much I will give in return (meaning less salary results in less care in work)" Nina- 2*
"Not belonging" "Not fitting in"	**Lack of belonging (10)**	**<u>Lack of belonging:</u> Refers to nurses feeling disconnected or alienated from work environment and colleagues.** *"I always feel that **I'm a stranger on the unit**. I told you **I don't fit. I don't think that I fit the unit.** I always feel that **I don't belong** ...I want to tell you something that since I started working, I felt discriminated against in the environment." Noura- 2* *"I **felt that I do not belong**... Though now when I am back to the unit it feels better than before, however **I feel that I am still not back.** it varies among persons…" Nina- 2* *"I has the feeling **that I did not belong to the unit anymore**… started detaching a bit." Nina- 2* *"I sometimes reach the point that my colleagues who I consider to be my backbone. **I am in a valley, and they are in another valley**. in everything I am saying at work. The way I think is different from how they think." Mika- 2*
"Decreasing passion" "Working with less passion" "Feeling indifferent" "Missing the urge" "Working on autopilot mode"	**Decreased passion (9)**	**<u>Decreased interest:</u> Refers to a gradual loss of interest in work. This can manifest as a lack of excitement about tasks that were once enjoyable, procrastination, or a general sense of apathy towards work.** *"Depends when and where, on another unit maybe outpatient in my domain I would like it more. I am **not interested** anymore in IV insertion… more interested in talking with patients who are newly diagnosed and support them or explain to them their treatment plan. Sorry to say… if the things will be like, I am strong let's put more tasks on him, I don't want to do it." Jad- 1* *"I want to evolve in my job. And I just I think that it's been 13 years now and I did my master's degree 4 years ago I finished it. So, I want to advance in my career. OK, I'm good at what I do. But then what? I don't want to stay at that side nurse forever" Mira- 2* *"My **interest in work has decreased**. I mean, as I told you, there are times when I force myself. For example, I want to do these things. Whatever happens during the day, I don't leave my job. I don't leave the floor forcing self to take a break" Mika-2*
	Autopilot mode (6)	*"Many times, **I thought why I am doing this job**…" Rayan-2* *"Sometimes I feel that during the tough days, yes, I feel this, and I say this to myself **while I'm still here**" Noura-1*

			*"**I did not feel that I belonged**. **I did not see myself or feel it's me**..." Fai- 2* **<u>Decreased passion:</u> This can manifest as doing the bare minimum, feeling indifferent about the work, or lacking excitement and motivation** *"They **do not have this passion**, or **the urge to self-develop** or do something to improve." Fai-2* ***"**I sense that **they do not want to make any big effort**. For example, I tell them that you should do efforts to develop, if there is a procedure that doesn't happen a lot.... they start losing their motivation with time and eventually their performance will decline" Fai-2* ***"**Many times, I thought **why I am doing this job…. (Dina-1)*** **<u>Autopilot mode:</u> Refers to operating daily tasks and responsibilities without much thought, enthusiasm, or engagement. Properties of working on autopilot mode: routine execution, lack of creativity, minimal interaction, emotional detachment, reduced initiative.** *"... I feel that like an **autopilot mode doing the tasks that I should only do"** (Jad-1)* *"...I work in autopilot mode on**... Like a robot** [laughing] ...Off course I will do them responsibly..." (Mika-2)* *"I **only do my tasks and** if my break time comes, I leave everything lagging and take my break..." (Jad-1)*
"Feeling anxious" (8) "Feeling overwhelmed" (45) "Crying" (6) "Resisting" (1) "Feeling frustrated" (4)	**Emotional Exertion (65)**	***Exertion***	***<u>Emotional exertion:</u>* Refers to emotional reactions and feeling overwhelmed by one's emotions. Specific symptoms include feeling frustrated and angry at work, irritability, anxiety, overreacting, feeling upset or sad without knowing why, and feeling unable to control one's emotions at work.** **<u>Exertion:</u> Refers to depleting energy that can result in both mental and physical fatigue.** *"That I cannot, **I cannot breathe, and I cannot have any time for myself**. So even know when I take a holiday or vacation, they might call me. They might need me and oh please come help. us. We are in crisis we are ... we are ... we are... so continuous work." Rayan-1* *"Usually**, I feel anxious** all the time." Rayan-1* *"There are times when **I feel overwhelmed** with the amount of work I have to do, I don't catch up"Mai-2* *"**I cried** three times during my shift. I prayed I said dua to encourage myself, to empower myself and stay strong." Noura-2*

"Feeling unpleasant" (4)			*"**I don't want to go to work**… usually this is before the workday." Rayan-1* *"I… **I become frustrated**" Jad-1* *"I feel that I am in a state in between burn out and regular life. I'm surviving and I am resilient, **I'm resisting**." Noura-2* *"I… I **become frustrated**. **generalized anxiousness**… it affects a lot…" Rayan-2* *"I feel like my day is starting **to feel very uncomfortable**…" Mai-2*
"Lacking focus" (3)	***Cognitive Exertion (3)***		**<u>Cognitive Exertion</u>: Refers to affected cognitive performance. Specific properties could be difficulty staying focused at work, memory problems, being absent-minded or forgetful.** ***"**Sometimes… sometimes **I cannot function like I should be functioning**, **and I cannot link**, I cannot have **the thought of process that I should have** because I didn't eat, or I didn't have time to drink water. I didn't go to the bathroom in time. So, it affects my performance" Rayan- 2* *"I feel physically tired after 4 hours. **Then Cognitively I feel not focused**." Jad-1*
"Lacking power" "Feeling physically tired" "Feeling fatigue"	**Physical Exertion (37)**		**<u>Physical Exertion</u>: Refers to depleting energy and feeling of tiredness, often resulting from hard work, physical exertion, or mental strain.** *"At the end of the day, I'm **dead tired."** Noura -1* *"I live **tired**." Dina- 1* *"After 6 hours, **I feel tired**, and I need to rest…it takes a lot from my power and makes me feel tired." Jad-1* *"I feel that I have **no power, fatigued**. No power to walk and do the hourly rounds. ……. It takes a lot from my power and makes me feel tired." Jad-1* *"Physically **I am tired** sometimes I can't do it. You don't have energy **I feel drained**." Mira-2*
"Having headaches" "Having stomachaches" "Affected appetite" "GERD" "Generalized pain"	**Physical symptoms (22)**	***Psycho-somatic Complaints***	**<u>Psycho- somatic complaints</u> refer to psychological and somatic complaints that cannot be explained by a physical disorder but are exacerbated by or result from some psychological problem. Examples are palpitations and chest pain, stomach and intestinal problems, headaches, muscle pains, sleeping disorder and getting sick often..** *"I have some **headache**s, mainly I have **IBS.** And the **stress eventually manifests in your body**" Mira- 2* *"Sometimes I have **headaches**. After 6 hours, I feel tired, and I need to rest. **I feel hungry, my appetite is affected**."Jad-1*

"Sleeping problems" "Clenching teeth" "Palpitations" "Feeling old"	**Psychological symptoms (9)**		*"On the working day usually, I have through the shift. Mumm… I sometimes **get headaches because I cannot sleep**, I **can't eat and palpitations**, anxiousness. the usual stress symptoms." Rayan-1* *"One after the other, every month I had something new. No way, each month I have to visit the occupational health clinic and get assessed and do investigations based on my symptoms." Fai-2* *"Something related to my health, I got psoriasis, so when I went to the dermatologist. She told me it is from stress, and she wrote me a medical report…" Mai-2* *"I put the alarm at 6am but I feel like **I'm always awake** and **I didn't sleep** at all I don't **have the good night's sleep** because I am thinking about tomorrow, the assignment, the work..." Jad-1* *"So usually, the symptoms start one day before work." Rayan-1* *"Ahhh it first started when I first became a manager two years ago..." Fai-2* *"Even physically I started to have symptoms I did not have before…so I did not **have GERD** before, it happened to me… I did not **have stress ulcers**, then I did., also I started **having palpitations and sleeping problems** … each symptom came after the other… then eventually I adapted… now the situation is better. I became used to these things." Fai-2* *"**I'm getting old. I feel** I'm 25 years old, but I'm getting old in this hospital I feel so old…" Noura-1*
"Avoiding people" "Changing relation with colleagues" "Not having time for hobbies"	**Lifestyle changes (7)** **Social withdrawal (26)**	***Lifestyle and social impairments***	**Lifestyle and social impairments: Refer to negative effects on interpersonal relationships and lifestyle due to work related stress.** **Lifestyle changes: refers to changes in daily routines and habits, such as reduced physical activity outside work, skipping gym, stopping volunteer work and minimal involvement in selfcare activities.** **Social withdrawal: refers to reduced social interactions and isolation from friends and family** *"I had one friend that I used to talk to, so we used to talk. It is because all my friends are nurses who work in different hospitals, so **I don't feel comfortable to talk** about what I was passing through." Nina-2* *"**I preferred to stay at home**... Not to see anyone or talk to people. Even friends from the hospital I used to contact **I avoided**." Nina-2* *"Now... Yes, **I'm avoiding people**. So, before every Thursday we used to meet with my friends, now it's been a long time since I saw them." Noura-1* *"Eh, so there is such aversion, if you want. If we still talk and joke, but it's not like before. I mean, every time that happens, time increases. I, as a*

*manager, have become **more distant** since then" Mai-2*

*"I do **not have time for hobbies**. Now honestly the most thing I'm doing right now to comfort myself is that I'm going on a diet because it makes me feel content about myself." Mai-2*

*"I **never ever could go to gym** because I'm always tired." Noura-1*

"One of the things that is really making me sad is that I used to be part of the Civil Defense. And I was the coordinator of the area. I had to leave this volunteering activity that I really love to do because I'm not allowed to use my phone or follow up on the calls during the day." Noura-1

*"As well I feel that **my social relationships also decreased or diminished**…" (Mai-2)*

"I don't like it [current state]. From time to time, I open Instagram and look at the posts and pictures from a long time ago, how I was going places every day where I used to celebrate with the girls, and like that, I miss times like those days…" (Mai-2)

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