

Nursing Professional Burnout Assessment

**Yasmin Muhammad Alanezi¹, Hisham Abid Aldabbagh¹, Hanan Mansour Al Anazi¹,
Abdullah Watani Al Ruwaili¹, Dina Mohmed Hamed Amer¹, Haidelyn Gumatay Castro¹,
Manal Abdulrahman Ajina¹, Ahmad Mohammed Al Anazi¹, Eid Hamood Al Khaldi¹,
Latifa Ibrhim Al Athowi¹, Abdlrhman Hisham Aldabbagh²**

¹Quality and Patient Safety Department, Qurayyat General Hospital, Al Jouf Cluster, Ministry of Health, Qurayyat, KSA

²Faculty of Medicine, Homs University, Homs, Syria

Email: haldabag@moh.gov.sa

How to cite this paper: Alanezi, Y.M., Aldabbagh, H.A., Al Anazi, H.M., Al Ruwaili, A.W., Amer, D.M.H., Castro, H.G., Ajina, M.A., Al Anazi, A.M., Al Khaldi, E.H., Al Athowi, L.I. and Aldabbagh, A.H. (2025) Nursing Professional Burnout Assessment. *Open Journal of Nursing*, 15, 682-709. <https://doi.org/10.4236/ojn.2025.158049>

Received: May 1, 2025

Accepted: August 23, 2025

Published: August 26, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

Professional nursing stress at the workplace puts nurses under extreme pressure and leads to exhaustion and inability to deal with stressful situations which cause burnout. Continuous professional nursing stress at the workplace causes multiple physical as well as psychological manifestations. Due to more demanding job nurses are more prone to burnout syndrome at the workplace. Early assessment and timely interventions to overcome burnout are key for more productive work output. The objective of the present study is to assess burnout syndrome for nurses and consequently suggest the required interventions and procedures to deal with these detected burnout features. **Conclusions:** Nurses with less than 3 years of experience might be more susceptible to burnout. Younger nurses (22 - 28 years) may face unique challenges related to career development and personal life transitions. A high percentage of nurses reported excessive workload, having to work outside of regular hours, and feeling overwhelmed. Many nurses felt they had limited control over their work environment and decisions that impacted them. Nurses expressed feeling undervalued, unappreciated, and that their hard work was not recognized. Balancing personal and professional life was a significant challenge for many nurses.

Keywords

Burnout, Nursing, Manifestation, Assessment, Factor, Type, Tool, Impact, Consequence

1. Introduction

Burnout syndrome is a group of positive or negative reactions of an individual toward forces from the inside or outside world which affects the individual, either

one's emotional or physical well-being, or both. The individual responds to stress in ways that affect the individual, as well as their environment. Due to the overabundance of stress in our modern lives, we usually think of stress as a negative experience, but from a biological point of view, stress can be a neutral, negative, or positive experience [1] [2].

Stress is related to both external and internal factors. External factors include the physical environment, including your job, your relationships with others, your home, and all the situations, challenges, difficulties, and expectations you're confronted with on a daily basis. Stress is a fact of the inherent environment, and it affects every individual either from inside or outside. Every individual responds to stress in a different way. Continuous unresolved stress leads to burnout syndrome [1] [2].

Maslach and her colleague Jackson [3] described it as an inability to use proper coping strategies and cope with emotional stress at the workplace and a person who has feelings of failure and experience exhaustions. Health care personnel, especially nurses, are more prone to develop burnout syndrome due to more demanding jobs and high workloads at the workplace. As per many literatures, the nurses working in the heavy workload and strict long shifts are more prone for burnout syndrome-like critical care nurses, intensive care nurses, and the emergency nurses than the outpatient nurses [4]. In the last few decades, Burnout is a condition that has perceived a greater attention, particularly in critical care nurses as it is highly prevalent in the occupations where professionals are dealing with human services and has more exposure to the chronic stress [5]. Occupational psycho-mental/psycho-social stress factors include pressure of time, overtime, and shift work, as well as mobbing, economic pressures, and multiple work roles in job, family, and in leisure activities. According to stress-strain concept, a high level of strain can result from the cumulating of both psycho-mental/psycho-social stress and a lower level of stress tolerance, which is in context of "negative stress". When "negative stress" becomes chronic and is not dealt with adequately, it leads to adverse effects on the health. According to the "person-environment misfit" concept, an imbalance between psycho-mental/psycho-social stress and individual stress tolerance is the cause of development of burnout syndrome. The risk of burnout is influenced by the extent of the stress factors, deficits in personal resources, all by "social support" systems and "coping" strategies of an individual. Despite many discoveries related to burnout syndrome, many questions about the development of burnout remain unanswered, such as whether burnout syndrome is due to high levels of stress, or the complex interaction between social factors (circumstances) and individual factors (behavior).

2. Research Objectives, Purpose, and Justification

1) Detect and assess all factors, features, manifestations, impacts, and consequences correlating with professional nursing burnout in Qurayyat general hospital.

2) Improve patient safety by minimizing complications and errors correlated with professional nursing care due to burnout syndrome outcomes and improve nursing patient services quality as well as staff productivity in safe, timely, effective, efficient and equitable performance.

3. Brief Description of the Research

This is a prospective descriptive study of the professional nursing burnout syndrome assessment in Qurayyat general hospital from the beginning of January 2024 to the end of March 2024.

One questionnaire about professional nursing burnout was designed for the nursing staff, in English and Arabic languages, containing the most known items of professional nursing burnout syndrome assessment and its impacts on nursing performance and quality of care.

Consequently, there will be effective recommendation to improve patient safety by minimizing complications and errors correlated with professional nursing care due to burnout syndrome outcomes and improving nursing patient services quality as well as staff productivity in safe, timely, effective, efficient and equitable performance.

4. Literature Review/Background

4.1. What Is Nurse Burnout? How to Prevent It? [6] [7]

Nurse burnout is a serious job-related condition that can have major consequences for nurses and their patients. Unfortunately, burnout in nursing is on the rise, making it more important than ever to understand how to manage and prevent this condition. It's important to remember that burnout or compassion fatigue is a result of working conditions—not a failure or a lack of compassion or work ethic on your part.

Nurse burnout is a state of mental, physical, and emotional exhaustion caused by sustained work-related stressors.

Burnout is caused by unmanaged, chronic workplace stress. It can occur in any job or sector and results in the following symptoms according to the World Health Organization (WHO) [8] include: Mental and physical exhaustion, Mental distance from the job, Cynicism about the job, and Reduced efficacy in the workplace.

4.2. What Is the Burnout Rate for Nurses? [6]

Results from a 2020 survey in the U.S [6] indicate that almost two-thirds of nurses (62%) experience burnout. It's especially common among younger nurses, with 69% of nurses under 25 reporting burnout. This issue affects all hospitals and health care systems in the U.S.

4.3. What Leads to Burnout in Nurses? [6]

Some causes are inherent to the job: providing compassionate care, working long hours, changing shift schedules, and being on your feet for hours at a time can all

place serious demands on nurses. Other causes of nurse burnout derive from systemic challenges facing the health care system. A shortage of nurses has, in turn, led to more or longer shifts and placed greater demands on individual nurses during each shift.

The pandemic has increased stress on nurses in other ways, too. Witnessing patient deaths is an emotional burden that often falls on nurses.

Burnout can also be caused by **moral injury** [6] which is a psychological wound that happens when a person feels they must take actions, or witness actions, that violate their deeply held moral beliefs.

4.4. Causes of Nurse Burnout in Nurses [9]

According to the World Health Organization [8], burnout is an occupational phenomenon. It is not specific to nursing: Professionals in any industry, from teaching to engineering, can suffer from this type of exhaustion caused by unrealistic expectations, lack of sleep, and other work-related stressors. However, due to their high-stress work environment, nurses and other medical professionals face a greater risk of burnout due to the following causes:

4.4.1. Long Hours [6] [7]

Another contributing factor is the growing demand for nurses as the Baby Boomer generation ages, and the prevalence of chronic disease increases. The U.S. Bureau of Labor Statistics projects that employment for registered nurses will grow by 12% between 2018 and 2028 [10]. However, the pace of this increase has led to growing pains: understaffed hospitals, overworked nurses, and nurse burnout.

4.4.2. Lack of Sleep [6] [7] [11]

One of the largest burnout risks for professionals in any industry is chronic lack of sleep. This is particularly common for nurses who work long hours and consecutive shifts. In a survey conducted by Kronos [11]; 25% of nurses reported that they were unable to get enough sleep between shifts.

4.4.3. High-Stress Environment [6] [7] [12]

If you work in the emergency department with telemetry or intensive care, you may have to deal with combative patients, traumatic injuries, ethical dilemmas, and a high mortality rate, all of which are linked to high stress levels and an increased risk of burnout. In a study in *Psych oncology*, 30% of oncology nurses reported emotional exhaustion, while 35% reported feelings of low personal performance—both symptoms of burnout syndrome [12].

4.4.4. Lack of Support [6] [7] [13]

If your workplace lacks a culture of good teamwork and collaboration practices, burnout may be more prevalent there [13]. Poor teamwork—which is characterized by conflict, sub-par communication, lack of cooperation, and even peer bullying—makes for an unpleasant work environment and can lead to medical errors.

4.4.5. Emotional Strain from Patient Care [6] [7] [14] [15]

Patient care is one of the most rewarding aspects of nursing, as you make connections with patients and feel the satisfaction of helping them get better. But if you work in critical or end-of-life care, the emotional letdowns of dealing with lower recovery and higher mortality rates can lead to compassion fatigue and increased rates of burnout [15], the number of patients you care for is another factor. Nurses with greater than a 1:4 nurse-to-patient ratio have a higher risk of burnout, with each additional patient raising the risk by 23% [14].

4.5. Development of Burnout [16]

The specific factors within the work environment that lead to stress and subsequent burnout vary across occupations and among individuals within a single occupation. The root of burnout is in the work environment, but because not all individuals working in a single environment will experience burnout, personal risk factors have a role in making an individual vulnerable.

The increased rate of burnout among younger individuals is a function of a “survival of the fittest” concept. Burnout usually occurs early in one’s career (in the first one to five years), and many young, burned-out individuals leave the profession; as a result, the remaining individuals in an occupation are the “survivors” [17].

Rates of burnout are higher among single workers and workers with no children than among married workers and those with children [17]. The emotional resources provided by a family are thought to be the reason for this difference.

Educational status has an effect, with higher levels of burnout among workers with higher levels of education [17].

Gender differences have been found with respect to other demographic variables [17]. For example, a survey of 3424 employees in a Finnish study indicated that a low educational level and low social status increased the risk of burnout for women, whereas marital status (single, divorced, or widowed) increased the risk for men.

4.6. Development of Burnout Syndrome in Non-University Teachers: Influence of Demand and Resource Variables [18]

Psychosocial risks at work are an important occupational problem since they can have an impact on workers’ health, productivity, absenteeism, and company profits. Among their consequences, burnout stands out for its prevalence and associated consequences. In conclusion, demand variables cause an increase in the burnout levels.

4.7. Identification and Measurement of Burnout [19]

Most common physical and psychological symptoms related to stress include the following:

- Physical: Fatigue, Headache, Upset stomach, Muscle tension, Change in appetite, Teeth grinding, Change in sex drive, Dizziness.

- Psychological: Irritability or anger, Nervousness, Lack of energy, Feeling of wanting to cry.

The General Health Questionnaire, developed by Goldberg, is designed to measure common mental health problems (domains of depression, anxiety, somatic symptoms, and social withdrawal) and was developed as a measure to identify individuals who are likely to have or be at risk for the development of psychiatric disorders. The General Health Questionnaire is frequently used in conjunction with the MBI to evaluate psychological morbidity and burnout, as the pathways to both are related.

4.8. Burnout among Nurses

As with physicians, the rate of burnout among nurses is higher than the average rate among other workers. According to the most recent data for nurses, the overall burnout rate is 34% to 43%, with rates varying according to several factors.

As has been reported for physicians, many studies have indicated that the prevalence of burnout among nurses is higher in some specialties, such as oncology, mental health, emergency medicine, and critical care. Factors contributing to stress and burnout may differ according to specialty.

4.9. Signs of Nurse Burnout [6]

Early warning signs to be aware of include the following: You feel constantly overworked, you regularly feel too tired to go to work, you don't look forward to your job, or you feel unappreciated or like your work doesn't matter.

4.10. Burnout Syndrome Assessment

4.10.1. Burnout Syndrome Assessment Scale (BOSAS) for Nurses Working in Intensive Care Units: Development and Validation [2] [20]

Early assessment and timely interventions to overcome burnout are key for more productive work output. Scale Burnout Syndrome for nurses showed that there was a total of 20 items in the final draft. Internal consistency was checked by Cronbach's alpha [21] which was 0.94. The test-retest reliability of scale was found to be 0.93. Pearson's correlation was used to check inter-item correlation which was found between 0.20 and 0.40. The content validity index was 0.93. The current criterion validity of the scale was 0.82. Construct validity was analyzed by factor analysis; all items were loaded in 5 factors and accounted for 64.95% of variance.

Based on these findings, conclusion could be that BOSAS has high reliability and validity values and can be assess the burnout syndrome among nurses in various settings. With increasing the score on tool level burnout syndrome is also increasing.

Scale generated 5 factors/components 1, 2, 3...5. All the items of scale were loaded on factor 1 - 5 with value > 0.30.

These items include the following:

So, all the items were retained on the scale. Principle component analysis with varimax rotation generated a total of 5 factors with eigenvalues more than 1. The

eigenvalues of 5 factors range between 1.113 and 7.230. All factors Factor I; Factor II, Factor III, Factor IV, and Factor V have rotational variance of 16.60, 12.50, 12.38, 12.16, and 11.30 respectively. Cumulative variance accounted for by all five factors is 64.95%.

4.10.2. Personal Development—Test Five—What Is Your Stress Level and Potential for Burnout? [22]

This test is designed to help you identify your potential for burnout. It should take about 5 to 10 minutes to complete.

Stress can be a good thing. It can motivate us to do our best work. But unrelied work stress can lead to burnout. It's characterized by a lack of energy, emotional exhaustion, job dissatisfaction, negativity, reduced resistance to illnesses, increased work absenteeism, poor job performance, and isolation.

4.10.3. The Burnout Assessment Tool (BAT): Validation in the Spanish Population [23]

Burnout has been mainly assessed with the Maslach Burnout Inventory (MBI). Deep changes at work and workers' experience during the last decades have risen, and conceptual and methodological difficulties within the MBI have become apparent. The Burnout Assessment Tool (BAT) has been recently developed to overcome these flaws.

Results showed excellent reliability. Confirmatory factor analysis (CFA) results supported the internal structure of the BAT. Finally, convergent validity was obtained as BAT total score significantly correlated with health, anxiety, work ability, and turnover intention. The present research shows evidence that the BAT can be considered as an adequate tool to measure burnout in Spanish workers.

4.10.4. Burnout Assessment Tool (BAT): Validity Evidence from Brazil and Portugal [24]

The psychometric properties presented the Brazilian and Portuguese versions of the BAT in both the 23-item and 12-item versions. BAT's validity evidence based on the internal structure (dimensionality, reliability, and measurement invariance) and validity evidence based on the relations to other variables are the focus of research. A cross-sectional study was conducted with two non-probabilistic convenience samples from two countries ($N = 3103$) one from Brazil ($n_{Brazil} = 2217$) and one from Portugal ($n_{Portugal} = 886$). BAT's original structure was confirmed, and it achieved measurement invariance across countries. Using both classic test theory and item response theory as frameworks, the BAT presented good validity evidence based on the internal structure. In conclusion, the psychometric properties of the BAT make this freely available instrument a promising way to measure and compare burnout levels of Portuguese and Brazilian workers

4.10.5. Burnout Assessment Tool: A Reliability Generalization Meta-Analysis [25]

The aim of this study was to conduct a reliability generalization meta-analysis

(RGMA) for the Burnout Assessment Tool (BAT) on its original and shortened versions based on Cronbach's alpha [21] [26]. A systematic search was carried out on six databases. Results based on random-effects models show good pooled internal consistency indices for the BAT and its subscales on both its original ($\alpha = 0.798 - 0.948$; $\omega = 0.754 - 0.940$) and shortened versions ($\alpha = 0.763 - 0.907$; $\omega = 0.750 - 0.909$), while showing high heterogeneity overall ($p_Q \leq 0.004$; $I^2 \geq 77.59\%$). Our findings confirm that the BAT is a highly reliable tool for the assessment of burnout across different populations and settings.

4.10.6. Revisiting a Global Burnout Score with the Burnout Assessment Tool (BAT) across Nine Country Samples [27]

A study investigating the construct-relevant multidimensionality of the BAT across many representative samples is warranted to reassess a global burnout factor ($n = 9041$). We implemented bifactor exploratory structural equation modeling to ascertain the relevance of a global burnout factor and specific component factors (bifactor-ESEM). The results showed that the bifactor-ESEM model had a strong global burnout factor with relevant specific factors beyond the global factor. The model also showed measurement invariance across countries and genders. We also present a figure that compares the global burnout mean scores of the countries. All in all, the results of this study reaffirmed that BAT-assessed burnout can be modelled with an equivalent global burnout score across conditions.

4.10.7. The Ultra-Short Version of the Burnout Assessment Tool (BAT4)—Development, Validation, and Measurement Invariance across Countries, Age and Gender [28]

The BAT4 was developed using mixed methods, *i.e.* combining the results from a Rasch analysis, a subject matter analysis and expert judgements. Construct validity was tested on data from national representative samples from eight countries (the Netherlands, Belgium (Flanders), Austria, Czech Republic, Finland, Germany, Ireland, and Japan) and in a pooled sample combining the data from all eight countries. Differential item functioning regarding age, gender and country was investigated. The BAT4 fulfilled all the criteria required by the Rasch measurement model to constitute a valid measure in the pooled and country specific samples, except Austria and Japan. In the pooled sample, measurement invariance between the eight countries as well as between gender and age was found. Analyses within different countries showed occasional gender and age DIF for some items. The results were promising regarding BAT4's construct validity and measurement invariance. The BAT4 can be used as a short screening instrument for burnout complaints at the group or organisational level.

4.10.8. Burnout among Midwives—The Factorial Structure of the Burnout Assessment Tool and an Assessment of Burnout Levels in a Swedish National Sample [29]

This study assesses the construct validity of the Burnout Assessment Tool (BAT) in the context of Swedish midwives, to evaluate whether the item responses can be combined into a single score and differential item functioning regarding age,

and to assess the burnout levels of Swedish midwives.

The Rasch analysis was re-run using the four test lets as input variables which resulted in a good fit. The median burnout level was 2.0 (Q1 = 1.6, Q3 = 2.4). The four subscales differentiated the picture (elevated levels on exhaustion and low levels on the other three subscales).

The construct validity of the BAT for use in the context of Swedish midwives was confirmed. The results indicated a strong general factor, meaning that the responses can be combined into a single burnout score. The results of this study secure access to a validated instrument to be used for accurate assessment of the burnout levels among midwives in Sweden.

4.10.9. Shortening of the Burnout Assessment Tool (BAT)—from 23 to 12 Items Using Content and Rasch Analysis [30]

The aims of this paper are to develop a shorter version of the BAT, including only 12 items (BAT12) and to evaluate its construct validity and differential item functioning regarding age, gender and country.

In an iterative procedure, deleting one item from each subscale at each step, a short version of the BAT - BAT12 was developed. The BAT12 fulfils the measurement criteria according to the Rasch model after accounting for local dependency between items within each subscale. The four subscales can be combined into a single burnout score.

The new BAT12 developed maintains the breath of item content of the original version of the BAT. The new BAT12 has sound psychometric properties. The scale works invariantly for older and younger, women and men and across two countries. A shorter version of the BAT is timesaving compared to the BAT23 and can be used in e.g. employee surveys.

4.10.10. Psychometric Properties of the Burnout Assessment Tool across four Countries [31]

Studies have supported the psychometric properties and cross-cultural measurement invariance of the BAT. The bifactor model showed a large general factor and four small group factors, which suggests calculating and interpreting a general burnout score. This model further shows that the BAT and MBI measure the same burnout construct but that the BAT is a more comprehensive burnout measure.

Our results support the psychometric properties and cross-cultural measurement invariance of the BAT in Australia, the Netherlands, South Africa, and the United States.

4.10.11. The Psychometric Properties of the Burnout Assessment Tool in Norway: A Thorough Investigation into Construct-Relevant Multidimensionality [32]

Findings revealed that the bi-factor exploratory structural equation modelling solution (burnout global factor and four specific burnout component factors) best explained the data for both BAT versions. All factors demonstrated adequate omega coefficients, with the global factor showing exceptional strength. Both BAT

versions correlated highly with each other and with another burnout measure, suggesting convergent validity. Finally, results showed that burnout acts as a mediator in our proposed job demands-resources model as preliminary evidence of predictive validity.

The study validates the Burnout Assessment Tool in the Norwegian context. The study supports the reliability, validity, and unbiased nature of the tool across genders.

4.10.12. Burnout Assessment Tool for Students (BAT-S): Evidence of Validity in a Chilean Sample of Undergraduate University Students [33]

This brief report examines both within-network and between-network construct validity of the Burnout Assessment Tool for Students (BAT-S). The reliability analysis results showed adequate internal consistency for the overall burnout score and for each dimension. In addition, confirmatory factor analysis (CFA) supported a second-order factor (academic burnout) and four first-order factors (exhaustion, mental distance, cognitive impairment, and emotional impairment) solution. Finally, structural equation model (SEM) analysis showed that academic resources and academic demands are associated with academic burnout. Overall, the BAT-S was found to be a reliable and valid tool to assess academic burnout in Chilean sample of undergraduate university students.

4.10.13. How to Assess Severe Burnout? Cut-Off Points for the Burnout Assessment Tool (BAT) Based on Three European Samples [34]

The current study uses a newly developed questionnaire, the Burnout Assessment Tool (BAT) that consists of four subscales (exhaustion, mental distancing, and emotional and cognitive impairment).

In addition to country-specific cut-offs, general cut-offs can be used tentatively in other similar countries, pending future replication studies. It is concluded that the BAT can be used in organizational surveys for identifying employees at risk for burnout and, in clinical treatment settings, for identifying those with severe burnout, keeping in mind the tentativeness of the present cut-offs.

4.10.14. Burnout Assessment Tool (BAT). A Fresh Look at Burnout [35]

In this view, a lack of energy impedes the functional capacity to adequately regulate one's cognitive and emotional processes, whereas mental distancing serves as an ineffective coping strategy to reduce exhaustion by withdrawing from work. Building on this reconceptualization, a novel burnout questionnaire was developed, the Burnout Assessment Tool (BAT). Evidence is presented on the reliability and validity of the BAT, of which also a short version exists. Moreover, the reliability, convergent and divergent of the BAT is demonstrated, and burnout, as assessed with the BAT, fits into the nomological network of the Job-Demands Resources Model. BAT-burnout is positively associated with job demands and negatively with job resources. Furthermore, relationships are found with several outcomes as well as personal resources, including personality traits.

4.10.15. Psychometric Validity of the Shirom-Melamed Burnout Measure and the Burnout Assessment Tool: A Systematic Review [36]

The aim of this study was to extend our 2021 review of the psychometric validity of five PROMs to the Shirom-Melamed Burnout Measure (SMBM) and the Burnout Assessment Tool (BAT). To do that we ran a systematic literature search in the MEDLINE, PsycINFO [37], and Embase databases following our previous methodological framework and the Consensus-based Standards for the selection of health Measurement Instruments (COSMIN). We assessed the level of evidence using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) guideline. We identified 694 publications on SMBM and 421 on BAT, but the final review includes eight papers on SMBM and three on BAT. Of the seven psychometric properties assessed for SMBM, content, structural, and criterion validity were rated as insufficient, whereas the quality of evidence for construct and internal consistency was high and moderate, respectively. Of the nine psychometric properties assessed for BAT, content, structural, criterion, and construct validity was moderate and internal consistency was high. To conclude, BAT is superior to SMBM in terms of psychometric validity, but the quality of evidence for some properties is low or very low, suggesting a need for additional validation studies.

4.10.16. Psychometric Properties of the Burnout Assessment Tool—General Version in Nursing Workers [17] [38]

It was attested the BAT—General version dimensions were positively correlated with depression, anxiety and stress symptoms and negatively correlated with job satisfaction and satisfaction with life. The validity evidence analysis based on response process of the items revealed that BAT—General version works properly both in the group of nursing workers who reported having emotional or psychological health problems and in the group who denied these problems.

The results provided robust validity evidence of the BAT—General version in Brazilian nursing workers.

4.10.17. Burnout Assessment Tool (BAT)—Development, Validity, and Reliability [39]

The results provide initial evidence for a new conceptualization of burnout and an associated measure, the Burnout Assessment Tool. Specifically, evidence is found for the reliability and factorial and construct validity of the BAT. By tackling two essential flaws in the MBI, and providing a starting point for overcoming the third flaw through using a single, composite burnout score, a boost can be given not only to burnout research, but also to the assessment of burnout in practice. Accordingly, the results suggest that the BAT can be seen as a viable, alternative burnout measure, that assesses the burnout syndrome as such (total score), as well as its core components and secondary symptoms.

4.11. Dangers of Nurse Burnout [7] [9]

Nurses themselves are at risk for developing depressive disorders and other men-

tal health conditions and for quitting their job. For institutions, a decrease in the quality of patient care can affect their reputation and bottom line. For patients, nurse burnout can directly impact their health

4.11.1. Turnover [7] [9] [40]

In a study in the *International Journal of Environmental Research and Public Health*, (38) researchers found a correlation between higher rates of burnout syndrome and nurses' intention to leave. This increased turnover puts more stress on an already overworked environment.

4.11.2. Lower Quality of Care [7] [9] [41]

The most dangerous risk associated with burnout is a decrease in the quality of patient care. Mistakes due to exhaustion can lead to patient discomfort, infection, and even (in extreme cases) death. One study found that the patients of nurses experiencing burnout had an increased incidence of urinary tract and surgical site infections [41].

4.11.3. Stress [7]

In a Nurse.com article, unmanageable nurse-to-patient ratios were not only correlated with higher percentages of nursing burnout—but 54% said they experienced prolonged stress over the past two years

4.11.4. Mortality [9] [14]

In a study by Marshall University, nurse-to-patient ratios greater than 1:4 were not only correlated with higher percentages of burnout—but for each patient added to that ratio, there was a 7% increase in hospital mortality

4.12. How Nurses Can Prevent Burnout

Fortunately, it's possible to prevent nurse burnout before it occurs—and treat it immediately when it happens

For medical institutions, preventing burnout protects their employees, patients, and their bottom line. Nurse Managers and nurse leaders can help lower the risk in their workplace. And nurses themselves can take preventive and therapeutic measures for self-care.

4.12.1. Improve Schedules [7] [9]

Whenever possible, nurse managers should create humane schedules for their staff, with shift lengths of 9 hours maximum. If you're a nurse, try to work in a facility that treats its employees well. Avoid working overtime, and advocate for a schedule that lets you live a balanced and healthy life, leaving time and energy for loved ones and your favorite activities.

4.12.2. Take Breaks [7] [9]

Be sure to take your vacation days so you can deeply relax and get a change of scenery. To encourage this, institutions can introduce a mandatory vacation day policy with a quarterly check to make sure their staff is taking the time they need.

This helps to increase job satisfaction and decrease turnover.

4.12.3. Seek Out Support [7] [9]

Support groups and work buddy systems can give you an outlet to vent frustrations and discuss conflicts and challenges so that when you go home or on vacation, you can truly relax. When you and your peers feel heard, this can also improve teamwork and collaboration. If you are feeling hopeless or depressed, be sure to seek out the help of a therapist or a counselor.

4.12.4. Learn Coping Methods [7] [9]

One of the best ways to manage your work stressors is to learn coping skills. Methods such as breathing techniques, restorative exercise, journaling, and a post-work relaxation routine can make a big difference in your physical and mental health and well-being.

4.12.5. Change Specialties or Focus [7] [9]

Finally, if your current specialty is too stressful, consider making a change. Earning your graduate nursing degree, such as your Master of Science in Nursing or Doctor of Nursing Practice, can enable you to switch to a specialty that's a better fit. Becoming a family nurse practitioner could give you more autonomy in your practice, or you might consider mentoring the next generation of clinicians as a nurse educator. If you're a nurse who is noticing signs of burnout, be sure to put up your self-care game. It's important for you, your employer—and your patients.

4.13. Nurses' Burnout: The Influence of Leader Empowering Behaviors, Work Conditions, and Demographic Traits [42]

Leader Empowering Behaviors Scale and the Maslach Burnout Inventory (MBI) were employed to collect data from 407 registered nurses, recruited from 11 hospitals in Jordan. The Jordanian nurses exhibited high levels of burnout as demonstrated by their high scores for Emotional Exhaustion (EE) and Depersonalization (DP) and moderate scores for Personal Accomplishment (PA). Factors related to work conditions, nurses' demographic traits, and LEBs were significantly correlated with the burnout categories. A stepwise regression model—exposed 4 factors predicted EE: hospital type, nurses' work shift, providing autonomy, and fostering participation in decision making. Gender, fostering participation in decision making, and department type were responsible for 5.9% of the DP variance, whereas facilitating goal attainment and nursing experience accounted for 8.3% of the PA variance. This study highlights the importance of the role of nurse leaders in improving work conditions and empowering and motivating nurses to decrease nurses' feelings of burnout, reduce turnover rates, and improve the quality of nursing care.

The results of this study highlight the importance of the leadership role in creating a positive work environment by enhancing the meaningfulness of work, enabling employees to participate in decisions related to their work, expressing confidence in employees' abilities to perform at a high level, facilitating goal attain-

ment, and providing autonomy.

4.14. Burnout: Impact on Nursing and Quality of Care [22]

Maslach emphasizes that burnout is not a problem related to an individual [3]. Instead, her research indicates that burnout is a problem of the social environment in which people work and is a function of how people within that environment interact with one another and perform their jobs [43]. She notes that burnout is more likely when there is a “major mismatch between the nature of the job and the nature of the person who does the job” [9]. These mismatches are at the core of the development of burnout. The term burnout is now usually limited to mean burnout as described by Maslach: a syndrome of emotional exhaustion, depersonalization, and reduced personal accomplishment [44].

4.15. Reasons Given for Leaving a Nurse Job or Position in the 2008 National Sample Survey of Registered Nurses [20]

Specific Work-Related Reasons are: Too many hours, low salary, inadequate staffing, lack of good management/leadership, and lack of advancement opportunities. Increased patient-to-nurse ratios are associated with lower rates of job satisfaction and higher rates of burnout; inadequate staffing was the reason that 21% of nurses gave for changing their position or employer in 2007-2008, and adequate staffing is the second-leading consideration of nurses seeking a new position [10].

A 2017 survey of 600 nurses found that 45% had been verbally harassed by other nurses. The lack of support is important, as nurses have ranked their peers as providing the most support within the hospital community, and higher levels of support from co-workers have been related to lower levels of emotional exhaustion on the MBI.

The emotional demands of the nursing profession are well recognized, and human suffering has been noted to be a stressor for nurses. A 2007 study represented a step forward in that area; the findings of that study indicated that how nurses handle their emotions influences the risk of burnout. Levels of emotional exhaustion on the MBI were higher among nurses who masked their emotions or who pretended to feel “expected” emotions.

4.16. Consequences of Stress and Burnout

One meta-analysis showed higher rates of musculoskeletal disorders and musculoskeletal injuries reported by nurses who also reported dissatisfaction with staffing, scheduling, interpersonal relations, or decision making. In addition, more needle stick injuries occurred among nurses dissatisfied with these same work-related factors.

4.17. The Nursing Shortage/Burnout Cycle

The relationship between burnout and the nursing shortage is cyclical: job dissat-

isfaction leads to burnout, which in turn leads to nursing turnover and subsequent nursing shortage, and inadequate staffing further increases job dissatisfaction.

4.18. Strategies to Prevent and Cope with Stress and Burnout [22]

Maintaining a healthy lifestyle through these habits is vital to avoiding the physical effects of stress [4]. The need for appropriate sleep hygiene is the most essential element for nurses. There is widespread documentation that this lack of sleep is associated with a high risk of fatigue, which is linked to job satisfaction and burnout. In its white paper on nurse fatigue, the Emergency Nurses Association offers several recommendations for nutrition, exercise, and proper sleep:

Avoid unhealthy food, participate in regular exercise, do not eat a heavy meal before going to bed, avoid caffeine for at least five hours before going to bed, don't rely on medications to enhance alertness, eat nutritious foods during your work shift.

Working smarter also means taking time away and organizing time more effectively. A typical response to work overload is to work longer or harder to help make the situation "get better" [3]. The need to take some time away from work must be especially emphasized to nurses, most of whom do not routinely take breaks; in one survey, 37% of nurses said they "usually" took time for a meal and 24% said they "usually" took a break during their shift. Rest breaks are particularly important for nurses working the night shift, to relieve symptoms of fatigue. Facilities must help ensure that nurses take breaks and meals appropriately, as will be discussed later.

Creating a healthy work environment has become a priority for enhancing nurse job satisfaction and retention and improving patient safety and satisfaction. The American Association of Critical-Care Nurses (AACN) developed standards for a healthy work environment, noting that such an environment is necessary for clinical excellence and good patient outcomes. Six components were noted to be essential for establishing and sustaining a healthy work environment: Appropriate staffing, meaningful recognition, true collaboration, skilled communication, effective decision making, and authentic leadership.

The ANA supports the committee's approach. As of 2021, 14 states have passed laws or regulations addressing nurse staffing.

In 2014, the ANA revised its position statement on nurse fatigue and noted the following evidence-based recommendations:

*Employers should include nurse input when designing work schedules and implement a "regular and predictable schedule" that allows nurses to plan for work and personal obligations.

*Nurses should work no more than 40 hours in a seven-day period and limit work shifts to 12 hours in a 24-hour period, including on-call hours worked.

*Employers should:

- stop using mandatory overtime as a "staffing solution".
- encourage "frequent, uninterrupted rest breaks during work shifts".

- adopt an official policy that gives RNs the “right to accept or reject a work assignment” to prevent risks from fatigue.
- encourage nurses to be proactive about managing their health and rest, including getting seven to nine hours of sleep per day; managing stress effectively; developing healthy nutrition and exercise habits; and using naps according to employer policy.

4.19. Nurse Burnout Prevention and Management [7]

The best way to manage nurse burnout is through prevention. Learning to identify the early warning signs is the first step toward avoiding a problem that puts you and your patients at risk.

When there is early warning signs of nurse burnout, a few strategies can resolve it before it becomes a more serious problem. If there is already burnout, these strategies can help to alleviate symptoms:

1) Rest: Getting enough sleep. If your current schedule won't allow you to get enough sleep, talk to your supervisor or whoever plans the shift schedule. Nurse burnout and patient safety go hand in hand, so it's important to be clear with your co-workers when you're experiencing burnout.

2) Ask for help: Emotional support can help with the stress of workplace demands and the mental load of patient care. Make sure you have a sound support system at work, like co-workers to whom you can vent your feelings, and consider contacting a therapist.

3) Get exercise: Physical activity has proven stress-alleviating effects. And improving your strength and cardiovascular fitness can make the physical demands of nursing less strenuous.

4) Eat well: Make sure you get enough to eat before and during shifts and that the food is healthy. It's easy to get caught up in patient care and skip meals or eat junk food to save time.

5) Take a break: Periodically disconnecting from work is important. It gives you a chance to unwind, relax, and recharge your physical and emotional reserves. If the idea of taking time for yourself makes you feel guilty for leaving work or patients behind, remember that avoiding burnout will help you perform better when you are at work.

6) Request training: Speak with your supervisors about training that can help you better cope with the demands of the job. Mindfulness techniques and moral resilience—“the courage and confidence to confront distressful and uncertain situations by following trusting values and beliefs”—will help you keep a healthy perspective on your work. These techniques can prevent or manage burnout by reminding you of what's out of your control and making it easier to maintain a sense of self-worth in the face of challenges or discouragement.

7) Avoiding Burnout Begins with Awareness

Fortunately, there are plenty of warning signs that individuals can spot in themselves and their colleagues. If you suspect that you or a fellow nurse is experiencing

burnout, communicate with your manager so that changes can be made to your work schedule and situation before there's a serious problem.

5. Research Design and Statistical Considerations

This is a prospective descriptive study of the professional nursing burnout syndrome assessment in Qurayyat general hospital from the beginning of January 2024 to the end of March 2024.

One questionnaire about professional nursing burnout was designed (**Table 1**) for the nursing staff, containing the most known items of professional nursing burnout syndrome assessment and its impacts on nursing performance and quality of care.

Consequently, there will be effective recommendation to improve patient safety by minimizing complications and errors correlated with professional nursing care due to burnout syndrome outcomes and improving nursing patient services quality as well as staff productivity in safe, timely, effective, efficient and equitable performance.

6. Research Methods

The questionnaire will be filled by the research team through a direct interview with the nursing staff working in all departments of Qurayyat general hospital.

All filled questionnaires will be collected and prepared for analysis process.

Statistical analysis will be done for the results of all filled questionnaires.

7. Results

A total number of 148 nursing staff working in Qurayyat general hospital was included in this research. The findings will be demonstrated in **Tables 1-4**.

Table 1. Demographic data.

Item	Variance	Number	Percentage
Gender	Females	125	84.46%
	Males	23	15.54%
Nationality	Saudi	83	56.1%
	Non-Saudi	65	43.9%
Age Groups, year	22 - 28	63	4.6%
	29 - 35	46	31.1%
	36 - 45	31	20.9%
	>45	8	5.4%

(Note: the following formula was used for Cronbach's alpha; (6) Where: N = number of items, \bar{c} = mean covariance between items, \bar{v} = mean item variance):

$$\alpha = \frac{N * \bar{c}}{\bar{v} + (N - 1) * \bar{c}}$$

Table 2. Burnout manifestations.

Type	Variance	Number	Percentage	Type	Variance	Number	Percentage
Physical exhaustion	Never	27	15.70%	Lack of interest in current job	Never	95	56.89%
	Rarely	16	9.30%		Rarely	23	13.77%
	Sometimes	80	46.51%		Sometimes	31	18.56%
	Often	37	21.51%		Often	14	8.38%
	Constantly	12	6.98%		Constantly	4	2.40%
Feeling unwell without physical reason	Never	70	40.70%	I feel trapped in my job	Never	81	48.50%
	Rarely	39	22.67%		Rarely	24	14.37%
	Sometimes	47	27.33%		Sometimes	40	23.95%
	Often	15	8.72%		Often	13	7.78%
	Constantly	1	0.58%		Constantly	9	5.39%
Excessive compulsion to prove myself	Never	70	40.23%	I have too much to do and too little time	Never	41	24.40%
	Rarely	31	17.82%		Rarely	21	12.50%
	Sometimes	51	29.31%		Sometimes	60	35.71%
	Often	13	7.47%		Often	30	17.86%
	Constantly	9	5.17%		Constantly	16	9.52%
Depressed in life due to current job	Never	65	38.24%	I am neglecting my own needs	Never	50	29.07%
	Rarely	35	20.59%		Rarely	26	15.12%
	Sometimes	48	28.24%		Sometimes	58	33.72%
	Often	12	7.06%		Often	30	17.44%
	Constantly	10	5.88%		Constantly	8	4.65%
Anxious about going to work	Never	66	39.05%	Cronbach's Alpha = 0.97 - 1.94, N= 45 The scale exhibits high internal consistency reliability. According to psychometric standards, this suggests that the items adequately measure the underlying construct. Research suggests that results within this range are increasingly reliable.			

Table 3. Burnout impacts.

Type	Variance	Number	Percentage	Type	Variance	Number	Percentage
I can't influence decisions that affect me	Never	58	33.5%	My workload is overwhelming	Never	48	28.6%
	Rarely	30	17.3%		Rarely	29	17.3%
	Sometimes	65	37.6%		Sometimes	57	33.9%
	Often	14	8.1%		Often	22	13.1%
	Constantly	6	3.5%		Constantly	12	7.1%

Continued

Reduced commitment towards family, friends, and colleagues	Never	48	28.6%	I have to do work on my own time	Never	47	27.8%
	Rarely	28	16.7%		Rarely	23	13.6%
	Sometimes	54	32.1%		Sometimes	62	36.7%
	Often	26	15.5%		Often	19	11.2%
	Constantly	12	7.1%		Constantly	18	10.7%
I remain with anticipated fear of a mishappening	Never	59	34.1%	Demoralized at Work	Never	64	37.2%
	Rarely	38	21.9%		Rarely	26	15.1%
	Sometimes	54	31.2%		Sometimes	64	37.2%
	Often	16	9.2%		Often	15	8.7%
	Constantly	6	3.5%		Constantly	3	1.7%
I am not able to balance my personal & professional life effectively	Never	69	40.4%	Demotivated at Work	Never	72	42.1%
	Rarely	33	19.3%		Rarely	34	19.9%
	Sometimes	47	27.5%		Sometimes	52	30.4%
	Often	12	7.0%		Often	12	7.0%
	Constantly	10	5.8%		Constantly	1	0.6%
Lack of enthusiasm towards the work	Never	75	43.9%	My manager is very critical of me	Never	101	60.1%
	Rarely	38	22.2%		Rarely	16	15.5%
	Sometimes	43	25.1%		Sometimes	28	16.7%
	Often	9	5.3%		Often	11	6.5%
	Constantly	6	3.5%		Constantly	2	1.2%
I must satisfy conflicting demands	Never	55	32.5%	Cronbach's Alpha = 0.967 - 1.03. N= 55 The scale exhibits high internal consistency reliability. According to psychometric standards, this suggests that the items adequately measure the underlying construct. Research suggests that results within this range are increasingly reliable.			
	Rarely	29	17.2%				
	Sometimes	65	38.5%				
	Often	14	8.3%				
	Constantly	6	3.5%				

Table 4. Consequence effects of burnout.

Type	Variance	Number	Percentage	Type	Variance	Number	Percentage
Reduced commitment towards patient care	Never	110	65.1%	Other people get the credit for my hard work	Never	72	43.1%
	Rarely	26	15.4%		Rarely	24	14.4%
	Sometimes	23	13.6%		Sometimes	53	31.7%
	Often	8	4.7%		Often	12	7.2%
	Constantly	2	1.2%		Constantly	6	3.6%
I work very hard but results are not effective	Never	57	32.9%	My competency is gradually decreasing	Never	98	58.0%
	Rarely	37	21.4%		Rarely	27	16.0%
	Sometimes	53	30.6%		Sometimes	33	19.6%
	Often	20	11.5%		Often	6	3.5%
	Constantly	6	3.5%		Constantly	5	3.0%

Continued

I get blamed for the mistakes of others	Never	82	48.2%	I should change my clinical area of posting	Never	96	55.8%
	Rarely	30	17.6%		Rarely	21	12.2%
	Sometimes	42	24.7%		Sometimes	35	20.3%
	Often	10	5.9%		Often	13	7.6%
	Constantly	6	3.5%		Constantly	7	4.1%
I don't feel respected at work	Never	79	46.5%	I need a break from my duties	Never	43	25.4%
	Rarely	33	19.4%		Rarely	25	14.8%
	Sometimes	38	22.4%		Sometimes	59	34.9%
	Often	13	7.6%		Often	23	13.6%
	Constantly	7	4.1%		Constantly	19	11.2%
My work is unappreciated/unsatisfying	Never	75	44.4%	Detached and insensitive towards patients	Never	107	63.3%
	Rarely	32	18.9%		Rarely	21	12.4%
	Sometimes	43	25.4%		Sometimes	29	17.2%
	Often	15	8.9%		Often	8	4.7%
	Constantly	4	2.4%		Constantly	4	2.4%
My work is unsatisfying	Never	96	57.1%	Cronbach's Alpha = 0.994 - 1.416. N = 55 The scale exhibits high internal consistency reliability. According to psychometric standards, this suggests that the items adequately measure the underlying construct. Research suggests that results within this range are increasingly reliable.			
	Rarely	19	11.3%				
	Sometimes	37	22.0%				
	Often	12	7.1%				
	Constantly	4	2.4%				

8. Discussion

1) Regarding Demographic variances (**Table 5**); more than 4/5 of participants are female, more than half are Saudi and about 3/4 are in young age 22 - 35-year-old.

2) Regarding Burnout Manifestations (**Table 1**):

2.1) Cronbach's Alpha = 0.97 - 1.94, N = 45

The scale exhibits high internal consistency and reliability. According to psychometric standards, this suggests that the items adequately measure the underlying construct. Research suggests that results within this range are more reliable.

2.2) A significant portion of participants reported experiencing some level of burnout; the severity varied across different dimensions.

2.3) Notably, a concerning number of participants reported "Sometimes" to "Often" experiencing.

2.4) More than 1/3 of participants reported physical exhaustion.

2.5) 1/5 of participants reported feeling unwell without physical reason.

2.6) About 1/5 of participants reported excessive compulsion to prove myself.

2.7) About 1/5 of participants reported depression in life due to their current job.

2.8) More than 1/5 of participants reported anxiety about going to work.

Table 5. Questionnaire about nursing professional burnout assessment.

Gender	Male	Female	Age, yr.	22 - 28	29 - 35	36 - 45	>45	Job, yr.	<3	3 - 5	6 - 10	>10	
Dept.	ED	ICU	CCU	NICU	PICU	MMW	FMW	MSW	FSW	OBW	PW	OR	OPD
Nationality			Saudi				Non-Saudi			Rate %, rate statement, burnout category**			
No.	Item			0	<25	25 - <50	50 - 75	>75					
1.	Physically exhausted												
2.	Sick without any physical reason												
3.	Excessive compulsion to prove myself												
4.	Depressed in life due to current job												
5.	Anxious about going to work												
6.	Lack of interest in current job												
7.	I feel trapped in my job												
8.	I have too much to do and too little time												
9.	I am neglecting my own needs												
10.	I can't influence decisions that affect me												
11.	Reduced commitment towards family, friends, & colleagues												
12.	I remain with anticipated fear of a mishappening												
13.	Not able to balance my personal & professional life effectively												
14.	Lack of enthusiasm towards the work												
15.	I must satisfy conflicting demands												
16.	My workload is overwhelming												
17.	I have to do work on my own time												
18.	Demoralized at work												
19.	Demotivated at work												
20.	My manager is very critical of me												
21.	Reduced commitment towards patient care												
22.	Became negligent at work and feels difficulty to accept it												
23.	I work very hard but results are not effective												
24.	I get blamed for the mistakes of others												
25.	I don't feel respected at work												
26.	My work is unappreciated												
27.	My work is unsatisfying												
28.	Other people get the credit for my hard work												
29.	My competency is gradually decreasing												
30.	I should change my clinical area												
31.	I need a break from my duties												
32.	Detached and insensitive towards patient												

**Rate %, statement, category: 0, Never, No| <25%, Rarely, Mild| 25% - <50%, Sometimes, Moderate| 50% - 75%, Often, Severe| >75%, Constantly, Extreme.

2.9) About 1/5 of participants reported lack of interest in their current job.

2.10) More than 2/5 of participants reported I have too much to do and too little time.

3) Regarding Burnout Impacts (**Table 2**):

3.1) Cronbach's Alpha = 0.967 - 1.03. N = 55

The scale exhibits high internal consistency and reliability. According to psychometric standards, this suggests that the items adequately measure the underlying construct. Research suggests that results within this range are more reliable.

3.2) More than 2/3 of participants reported that I am neglecting my own needs.

3.3) More than 2/3 of participants reported that I can't influence decisions that affect me.

3.4) More than 2/3 of participants reported reduced commitment towards family, friends, and colleagues.

3.5) More than 1/5 of participants reported I remain with anticipated fear of a mishappening.

3.6) About 1/5 of participants reported that I cannot balance my personal & professional life effectively.

3.7) More than 1/6 of participants reported a lack of enthusiasm towards the work.

3.8) More than 1/3 of participants reported that I must satisfy conflicting demands.

3.9) More than 1/3 of participants reported my workload is overwhelming.

3.10) More than 1/3 of participants reported that I must do work on my own time.

3.11) More than 1/3 of participants reported being demoralized at work.

3.12) About 1/5 of participants reported being demotivated at work.

4) Regarding Consequence Effects of Burnout (**Table 3**):

4.1) Cronbach's Alpha = 0.994 - 1.416. N = 55

The scale exhibits high internal consistency and reliability. According to psychometric standards, this suggests that the items adequately measure the underlying construct. Research suggests that results within this range are more reliable.

4.2) About 1/10 of participants reported reduced commitment towards patient care.

4.3) 1/4 I work very hard, but the results are not effective.

4.4) About 1/5 of participants reported I don't feel respected at work.

4.5) More than 1/5 of participants reported my work is unappreciated/ unsatisfying.

4.6) About 1/5 of participants reported that other people got credit for my hard work.

4.7) About 1/5 of participants reported I should change my clinical area of posting.

4.8) More than 1/10 of participants reported detached and insensitive towards patients.

9. Study Limitations

- 1) Not all staff was included in this research.
- 2) Relative short time of this research.
- 3) No open questions for staff ideas and suggestions regarding nursing burnout.

10. Management Plan

The features, characteristics, and impacts of the results of this research correlated with professional nursing burnout assessment and its impacts on nursing performance, and quality of care, with its consequent outcomes on patient safety will be defined clearly in the conclusion statement of this research.

The correlated following recommendations will be conducted to the higher authorities and supervisors concerning nursing staff, to be considered seriously in nursing staff duties assignment and work scheduling.

11. Budget/Funding

Nothing; self-funded, in the study design, data collection and analysis or preparation of the manuscript.

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

12. Expected Results Utilization

The correlated following recommendations will be conducted to the higher authorities and supervisors concerning nursing staff, to be considered seriously in nursing staff duties assignment and work scheduling.

13. Conclusion

These are the key items concluded to be correlated with nursing burnout: **Experience:** Nurses with less than 3 years of experience might be more susceptible to burnout due to the initial adjustment period and potential lack of support. **Age:** Younger nurses (22 - 28 years) may face unique challenges related to career development and personal life transitions. **Workload:** A high percentage of nurses reported excessive workload, having to work outside of regular hours, and feeling overwhelmed. **Job Control:** Many nurses felt they had limited control over their work environment and decisions that impacted them. **Lack of Recognition and Support:** Nurses expressed feeling undervalued, unappreciated, and that their hard work was not recognized. **Work-Life Balance:** Balancing personal and professional life was a significant challenge for many nurses.

14. Recommendations

Workload Management: Implement strategies to optimize staffing levels and distribute workload more equitably. Explore flexible work arrangements to improve work-life balance. Prioritize efficient workflow processes to minimize unneces-

sary tasks. **Improve Job Control:** Encourage nurse participation in decision-making processes. Provide opportunities for professional development and advancement. Create a supportive and collaborative work environment. **Enhance Recognition and Support:** Implement formal recognition programs to acknowledge and appreciate nurses' contributions. Provide regular feedback and mentorship to support professional growth. Address concerns and grievances promptly and effectively. **Promote Well-being:** Offer stress management programs and resources, such as mindfulness training and relaxation techniques. Encourage healthy lifestyle habits, such as regular exercise and healthy eating. Provide access to mental health services and support. **Further Analysis for the following concerned subjects: Correlations:** Investigate potential correlations between burnout levels and demographic factors (gender, age, experience, nationality). **Qualitative Data:** Conduct qualitative interviews or focus groups to gain deeper insights into nurses' experiences and perspectives. **Intervention Evaluation:** If interventions are implemented to address burnout, it is crucial to evaluate their effectiveness in reducing burnout levels and improving nurse well-being. **Future Research:** Repeating and expanding Nursing Professional Burnout Assessment research depending on recently introduced and used tools; The Burnout Assessment Tool (BAT), which were applied thought the world.

Acknowledgements

We thank hospital administration, head of quality and patient safety department, and nursing supervisors for their assistance in conducting this research and data collection.

Conflicts of Interest

The authors have no conflicts of interest to declare.

References

- [1] Germany: Institute for Quality and Efficiency in Health Care (IQWiG) (2006) Depression: What Is Burnout? Informed Health Online. <https://www.ncbi.nlm.nih.gov/books/NBK279286/>
- [2] Choudhary, M., Kumar, A., Pandey, V., Choudhary, V. and Patidar, N. (2022) Burnout Syndrome Assessment Scale for Nurses Working in Intensive Care Units: Development and Validation. *International Journal of Applied & Basic Medical Research*, **12**, 82-86. https://doi.org/10.4103/ijabmr.ijabmr_547_21
- [3] Maslach, C., Jackson, S.E. and Leiter, M.P. (1996) Maslach Burnout Inventory Manual. 3rd Edition, Consulting Psychologists Press.
- [4] Embriaco, N., Papazian, L., Kentish-Barnes, N., Pochard, F. and Azoulay, E. (2007) Burnout Syndrome among Critical Care Healthcare Workers. *Current Opinion in Critical Care*, **13**, 482-488. <https://doi.org/10.1097/mcc.0b013e3282efd28a>
- [5] Epp, K. (2012) Burnout in Critical Care Nurses: A Literature Review. *Dynamics*, **23**, 25-31.
- [6] American Nurses Association. <https://www.nursingworld.org>

- [7] American Nurses Association (2024) Nurse Burnout: What Is It & How to Prevent It. <https://www.nursingworld.org>
- [8] World Health Organization (2022) Burn-Out an ‘Occupational Phenomenon’: International Classification of Diseases. <https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases>
- [9] Hoey, J.K. (2020) Nurse Burnout: Risks, Causes, and Precautions for Nurses. Nursing Msn & DNP, University of St. Augustine for Health Sciences.
- [10] U.S. Bureau of Labor Statistics (2021) Registered Nurses. <https://www.bls.gov/OOH/healthcare/registered-nurses.htm>
- [11] Kronos (2018) Wake Up to the Facts About Fatigue. <https://www.kronos.com/resource/download/24266>
- [12] Cañadas-De la Fuente, G.A., Gómez-Urquiza, J.L., Ortega-Campos, E.M., Cañadas, G.R., Albendín-García, L. and De la Fuente-Solana, E.I. (2018) Prevalence of Burnout Syndrome in Oncology Nursing: A Meta-Analytic Study. *Psycho-Oncology*, **27**, 1426-1433. <https://doi.org/10.1002/pon.4632>
- [13] DeKerel, A. (2021) The Biggest Causes of Nurse Burnout and What You Can Do. Well-Being Index Team. <https://www.mywellbeingindex.org/blog/the-biggest-causes-of-nurse-burnout-and-what-you-can-do>
- [14] Ekaterina, G., Patton, J., Willis, W.K. and Coustasse, A. (2018) Burnout syndrome and nurse-to-patient ratio in the workplace. Marshall University.
- [15] LeVec Danielle, DNP, ACNPC-AG, CCNS, CCRN (2018) Nurse Burnout Is Real: 7 Risk Factors and the Top 3 Symptoms. Nurse.org. <https://nurse.org/articles/risks-for-nurse-burnout-symptoms/>
- [16] Weber, A. and Jaekel-Reinhard, A. (2000) Burnout Syndrome: A Disease of Modern Societies? *Occupational Medicine*, **50**, 512-517. <https://doi.org/10.1093/occmmed/50.7.512>
- [17] Santin Júnior, L.J., Martins, B.G., Campos, J.A.D.B., Vazquez, A.C.S., Marziale, M.H.P., Mendes, I.A.C., *et al.* (2025) Psychometric Properties of the Burnout Assessment Tool-General Version in Nursing Workers. *Revista Latino-Americana de Enfermagem*, **33**, e4425. <https://doi.org/10.1590/1518-8345.7367.4425>
- [18] Llorca-Pellicer, M., Soto-Rubio, A. and Gil-Monte, P.R. (2021) Development of Burnout Syndrome in Non-University Teachers: Influence of Demand and Resource Variables. *Frontiers in Psychology*, **12**, Article ID: 644025. <https://doi.org/10.3389/fpsyg.2021.644025>
- [19] Demerouti, E., Bakker, A.B. (2007) The Oldenburg Burnout Inventory: A Good Alternative to Measure Burnout (and Engagement) Measurement of Burnout and Engagement. https://www.academia.edu/2796247/The_Oldenburg_Burnout_Inventory
- [20] Stöppler, M.C. and Dryden-Edwards, R. (2022) What Causes Stress? Stress Management. <https://www.medicinenet.com/stress/article.htm>
- [21] Cogn-IQ Cronbach’s Alpha Calculator. <https://www.cogn-IQ.org>
- [22] Foundation of Nursing Leadership (2015) Test for Stress and Burnout. <http://www.nursingleadership.org.uk>
- [23] Soriano, A., Warsicka, H. and Peiró, J.M. (2025) Burnout Assessment Tool (BAT): Validation in the Spanish Population. *Sage Journals*. <https://orcid.org/0000-0001-5293-0355>

- [24] Sinval, J., Vazquez, A.C.S., Hutz, C.S., Schaufeli, W.B. and Silva, S. (2022) Burnout Assessment Tool (BAT): Validity Evidence from Brazil and Portugal. *International Journal of Environmental Research and Public Health*, **19**, Article 1344. <https://doi.org/10.3390/ijerph19031344>
- [25] Villacura-Herrera, C., Acosta-Antognoni, H., Maldonado, J., Arriaza, F., Cancino-Letelier, N., Nvo-Fernández, M., et al. (2025) Burnout Assessment Tool: A Reliability Generalisation Meta-Analysis. *Work & Stress*, **39**, 169-196. <https://doi.org/10.1080/02678373.2025.2484758>
- [26] Frost, J. (2025) Cronbach's Alpha: Definition, Calculations & Example. Statistics By Jim. <https://statisticsbyjim.com>
- [27] De Beer, L.T., Schaufeli, W.B., De Witte, H., Hakanen, J.J., et al. (2024) Revisiting a Global Burnout Score with the Burnout Assessment Tool (BAT) Across Nine Country Samples. *European Journal of Psychological Assessment*, **34**, 1-6.
- [28] Hadžibajramović, E., Schaufeli, W. and De Witte, H. (2024) The Ultra-Short Version of the Burnout Assessment Tool (BAT4)-Development, Validation, and Measurement Invariance across Countries, Age and Gender. *PLOS ONE*, **19**, e0297843. <https://doi.org/10.1371/journal.pone.0297843>
- [29] Hadžibajramović, E., Hansson, M., Akerstrom, M., Dencker, A. and Hensing, G. (2022) Burnout among Midwives—The Factorial Structure of the Burnout Assessment Tool and an Assessment of Burnout Levels in a Swedish National Sample. *BMC Health Services Research*, **22**, Article No. 1167. <https://doi.org/10.1186/s12913-022-08552-8>
- [30] Hadžibajramović, E., Schaufeli, W. and De Witte, H. (2022) Shortening of the Burnout Assessment Tool (BAT)—From 23 to 12 Items Using Content and Rasch Analysis. *BMC Public Health*, **22**, Article No. 560. <https://doi.org/10.1186/s12889-022-12946-y>
- [31] Redelinghuys, K. and Morgan, B. (2023) Psychometric Properties of the Burnout Assessment Tool across Four Countries. *BMC Public Health*, **23**, Article No. 824. <https://doi.org/10.1186/s12889-023-15604-z>
- [32] De Beer, L.T., Christensen, M., Sørengaard, T.A., Innstrand, S.T. and Schaufeli, W.B. (2023) The Psychometric Properties of the Burnout Assessment Tool in Norway: A Thorough Investigation into Construct-Relevant Multidimensionality. *Scandinavian Journal of Psychology*, **65**, 479-489. <https://doi.org/10.1111/sjop.12996>
- [33] Carmona-Halty, M., Alarcón-Castillo, K., Semir-González, C., Sepúlveda-Páez, G. and Schaufeli, W.B. (2024) Burnout Assessment Tool for Students (BAT-S): Evidence of Validity in a Chilean Sample of Undergraduate University Students. *Frontiers in Psychology*, **15**, Article ID: 1434412. <https://doi.org/10.3389/fpsyg.2024.1434412>
- [34] Schaufeli, W.B., De Witte, H., Hakanen, J.J., Kaltiainen, J. and Kok, R. (2023) How to Assess Severe Burnout? Cutoff Points for the Burnout Assessment Tool (BAT) Based on Three European Samples. *Scandinavian Journal of Work, Environment & Health*, **49**, 293-302. <https://doi.org/10.5271/sjweh.4093>
- [35] Schaufeli, W. and De Witte, H. (2023) Burnout Assessment Tool (BAT). In: Krägeloh, C.U., Alyami, M. and Medvedev, O.N. Eds., *International Handbook of Behavioral Health Assessment*, Springer International Publishing, 1-24. https://doi.org/10.1007/978-3-030-89738-3_54-1
- [36] Shoman, Y., Hostettler, R. and Canu, I.G. (2023) Psychometric Validity of the Shirom-Melamed Burnout Measure and the Burnout Assessment Tool: A Systematic Review. *Archives of Industrial Hygiene and Toxicology*, **74**, 238-245. <https://doi.org/10.2478/aiht-2023-74-3769>

- [37] Kristensen, T.S., Borritz, M., Villadsen, E. and Christensen, K.B. (2005) The Copenhagen Burnout Inventory: A New Tool for the Assessment of Burnout. *Work & Stress*, **19**, 192-207. <https://doi.org/10.1080/02678370500297720>
- [38] Santin Júnior, L.J., Martins, B.G., Campos, J.A.D.B., Vazquez, A.C.S., Marziale, M.H.P., Mendes, I.A.C., et al. (2025) Propriedades psicométricas do *Burnout assessment* Tool-Versão geral em trabalhadores de enfermagem. *Revista Latino-Americana de Enfermagem*, **33**, e4425. <https://doi.org/10.1590/1518-8345.7367.4426>
- [39] Schaufeli, W.B., Desart, S. and De Witte, H. (2020) Burnout Assessment Tool (BAT)—Development, Validity, and Reliability. *International Journal of Environmental Research and Public Health*, **17**, Article 9495. <https://doi.org/10.3390/ijerph17249495>
- [40] Van der Heijden, B., Brown Mahoney, C. and Xu, Y. (2019) Impact of Job Demands and Resources on Nurses' Burnout and Occupational Turnover Intention Towards an Age-Moderated Mediation Model for the Nursing Profession. *International Journal of Environmental Research and Public Health*, **16**, Article 2011. <https://doi.org/10.3390/ijerph16112011>
<https://www.mdpi.com/1660-4601/16/11/2011>
- [41] Cimiotti, J.P., Aiken, L.H., Sloane, D.M. and Wu, E.S. (2012) Nurse Staffing, Burnout, and Health Care-Associated Infection. *American Journal of Infection Control*, **40**, 486-490. <https://doi.org/10.1016/j.ajic.2012.02.029>
- [42] Nurses' Burnout: The Influence of Leader Empowering Behaviors, Work Conditions, and Demographic Traits.
- [43] Kaschka, W.P., Korczak, D. and Broich, K. (2011) Burnout. *Deutsches Ärzteblatt international*, **108**, 781-787. <https://doi.org/10.3238/arztebl.2011.0781>
- [44] Mudallal, R.H., Saleh, M.Y.N., Al-Modallal, H.M. and Abdel-Rahman, R.Y. (2017) Quality of Nursing Care: The Influence of Work Conditions, Nurse Characteristics and Burnout. *International Journal of Africa Nursing Sciences*, **7**, 24-30. <https://doi.org/10.1016/j.ijans.2017.06.002>

Abbreviations and Acronyms

AACN: American Association of Critical-Care Nurses
ANA: American Nurses Association
BAT: Burnout Assessment Tool
BAT4: Ultra-short version of the Burnout Assessment Tool
BAT-S: Burnout Assessment Tool for Students
BAT12: Shortening of the Burnout Assessment Tool, 12 items
BAT23: Shortening of the Burnout Assessment Tool, 23 items
Bifactor-ESEM: Bifactor-Exploratory Structural Equation Modelling
BOSAS: Burnout Syndrome Assessment Scale
CCU: Coronary Care Unit
CFA: Confirmatory Factor Analysis
COSMIN: Consensus-based Standards for the selection of health Measurement Instruments
DP: Depersonalization
ED: Emergency Department
EE: Emotional Exhaustion
FMW: Female Medical Ward
FSW: Female Surgical Ward
GRADE: Grading of Recommendations, Assessment, Development, and Evaluation
ICU: Intensive Care Unit
LEBs: Leader Empowering Behaviors
MMW: Male Medical Ward
MSW: Male Surgical Ward
NICU: Neonatal Intensive Care Unit
OBW: Obstetric Ward
OPD: Out Patient Department
OR: Operation Room
PA: Personal Accomplishment
PW: Pediatric Ward
PICU: Pediatric Intensive Care Unit
PROMs: Patient-Reported Outcome Measures
RGMA: Reliability Generalization Meta-Analysis
RN: Registered Nurse
SEM: Structural Equation Model
SMBM: Shirom-Melamed Burnout Measure
WHO: World Health Organization
U.S.: United States