# Nurses' stress, anxiety, depression, and burnout in the workplace: A correlational study

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## ARTICLE INFO

## ABSTRACT

Nursing burnout has been linked to stress, anxiety, and depression. Increased stress and anxiety have been closely related to burnout. This study's major goal has been to determine the association of these variables in the context of nursing practice. This descriptive correlational study aimed at determining the relationship between stress, anxiety, and depression with burnout among the 307 purposive nurse samples from participating government and private hospitals in Manila, Pampanga, and Tarlac, Philippines collected between March and June 2020 using a 21-item Depression Anxiety Stress Scale (DASS-21) and a 16-item Oldenburg Burnout Inventory (OLBI) instruments. Mostly with a normal level of stress, anxiety, and depression, the nurses had been also found to have a moderate level of overall burnout and were moderately disengaged, and exhausted. Using IBM SPSS v.26, the study utilized Pearson product-moment correlation which found that nurses' stress had significant relationships (p=.000) with burnout, disengagement, and exhaustion; anxiety to burnout, disengagement, and exhaustion; and depression with burnout, disengagement, and exhaustion. The degree of stress, anxiety, and depression has significantly shown direct correspondence which calls for a deeper examination of sources and factors. Nurses' experience of burnout is associated with the service-oriented features of the profession. The emphasis is on the need for treatments to guarantee that burnout does not lead to higher staff turnover, degraded health care, decreased productivity, and decreased professional fulfillment. A systems approach to burnout prevention and treatment should investigate the relevant factors that are addressed in the organizational, group, and individual efforts. This study offers a remarkable hypothetical underpinning for nurses' ability to handle stressful workplace situations with resilience and professionalism.

## 1. Introduction

Work-related stress can affect employees in all professions and nurses are no exception as they are put under a great deal of stress due to the nature of the workplace environment (Birhanu et al., 2018). The reported higher level of stress in the health care industry such that in the nursing practice is associated with continuous care contact among patients along with their intense demands for recovery (Kousha et al., 2018; Yao et al., 2018; de Paiva et al., 2017; Chou et al., 2014). An emotional response to stress, anxiety increases when nurses experience a lot of stressors that overwhelm their coping mechanisms and available resources. Stress and anxiety result from the carer and care recipient relationship that turns into an asymmetrical professional relationship where the stress-giver becomes the patient and the stress recipient is the care provider (Mattei et al., 2017). Limitations and uncertainties in healthcare practice, costly medical errors or mistakes, and irreversibility of patient harm are some of the reasons why healthcare professionals are faced with increasing workplace-related stress (Chou et al., 2014). The negative impact of work-related stress among nurses can greatly impact quality and safety care, absenteeism, increased intention to quit, and potentially interrupt the relationship with colleagues (Kousha et al., 2018;

Birhanu et al., 2018; Vandenbroeck et al., 2017; Chou et al., 2014).

Meanwhile, burnout is associated with chronic exposure to stress without having adequate time for recovery in both physical and mental aspects (Elshaer et al., 2018; Chou et al., 2014; Okwaraji and En, 2014). Distinct symptoms of burnout range from emotional exhaustion, depersonalization, and reduced professional development. The personal effect of burnout can be explained by its impact on physical and mental health along with substantial declines in quality-of-life domains (de Paiva et al., 2017). It is in this light that burnout is seen as a predictor of depression or the idea that symptoms of depression can somehow be seen in an individual with burnout.

High work pressure and demands in the face of adverse job characteristics namely shift changes, the experience of violence, low staffing levels, and high expectations of patients and their families are identified as major stressors (Dall'Ora et al., 2020; Akbar et al., 2017). Additionally, nurses who are faced with stressful and demanding settings are at risk for depression which is highly correlated with burnout (Chen and Meier, 2021). Nurses who are in the demanding posts of their work are centered on prevention strategies to significantly reduce stress and burnout due to the capacity to affect patient safety, quality of care, and functioning of nurses (Bakhamis et al., 2019; Friganović and Selič, 2021).

In the face of a significant shortage of nurses in the healthcare system, factors that contribute to burnout are studied due to a relative increase in the turnover of nurses (Bakhamis et al., 2019; Guo et al., 2018). The way nurses deal with stress is linked with such experience of events that also reflect the strategies that they need to apply indicating that their resilience can significantly reflect their ability to experience or prevent burnout (Guo et al., 2018; Akbar et al., 2017). Affecting profiles of healthcare workers, the syndrome of burnout can extensively cause serious problems in the system, and the need for evidence-based public health promotion of their well-being is emphasized at the individual, group, and organizational levels (de Oliveira et al., 2019; Friganović and Selič, 2021).

Cultivating a management system that is effective to alleviate burnout is an essential role of the hospital administrators and leaders to establish a workforce strong enough to meet the demands of the profession through resilience-building and empowerment (Shah et al., 2021; Guo et al., 2018; Mudallal et al., 2017). Organizational problems should examine the way internal and external factors hinder work and influence the job satisfaction of nurses in the case of work-based mismatch, exhaustion, and insufficient job resources (Garcia and Marziale, 2021; Dall'Ora et al., 2020). Recruitment and retention strategies are adopted by hospitals to ensure that the nurses' work environment is conducive to their emotional health, satisfaction, and intention to stay and that it does not interfere with their work-life balance (Alharbi et al.,

2020; Moloney et al., 2018). Healthcare organizations should examine the effectiveness of programs that foster resilience, support, and communication strategies to ensure that burnout does not lead to mental health issues among nurses through policymaking (Chen and Meier, 2021; Lucas et al., 2021).

While literature points to the possibility of nurses' burnout as related to stress, anxiety, and depression, a relationship between these variables have been explored with inconsistencies due to the complexity of human behavior. As increasing stress and anxiety have been strongly linked with burnout and depression, determining the relationship of these variables in the context of nurses' practice of the profession has been the study's primary objective.

## 2. Methods

### 2.1. Study design

A descriptive correlational study was appropriately designed in determining the relationship between nurses' stress, anxiety, and depression towards their burnout.

### 2.2. Sample and setting

Utilizing a G-power analysis v3.2 of 0.5 $\alpha$ err prob priori power type analysis, 0.80 power (1-$\beta$ err prob), a confidence level of 95%, and 0.244 effect size, a total of 307 purposive sample nurses, aged between 28-29 years old (28.33$\pm$5.375) from either private or non-private participating hospitals in Manila, Tarlac, and Pampanga, Philippines, were eligibly participated and considered in the study based on the following inclusive criteria: (1) nurses who are currently in practice regardless of their age, gender, civil status, current position, and assigned area; (2) with at least a year of experience; and (3) agreed to participate in the study voluntarily. Mostly, nurses are female (211 or 68.7%), working either in private (120 or 39.1%) or government hospitals (187 or 60.9%) for 4-5 years (4.01$\pm$4.229) as staff nurses (233 or 75.9%). Meanwhile, nurses have been excluded from the study due to the following criteria: (1) nurses who practice in non-related fields; (2) less than a year of hospital practice; and (3) those who refuse to partake in the study.

### 2.3. Measurement/instrument

The study used two self-administered Likert-typed standardized questionnaires, a 21-item Depression Anxiety Stress Scale (DASS-21) and a 16-item Oldenburg Burnout Inventory (OLBI). The DASS-21 is a set of three (3) self-report scales to measure emotional states of depression, anxiety, and stress. Containing seven (7) items for each scale, each statement is scored depending on how frequent the experience is applied namely, 3 (very much or

most of the time), 2 (considerable degree or a good part of time), 1 (some degree or some of the time), and 0 points (not at all) with the total score multiplied by to get the lowest and highest possible scores of 0 and 42 points respectively. The obtained score for depression, anxiety, and stress is compared against the recommended cut-off scores for conventional severity levels namely, normal, mild, moderate, severe, and extremely severe. Higher scores reflect the increasing experience of these scales.

Meanwhile, the OLBI is divided into two (2) subscales namely, disengagement, and exhaustion with eight (8) statements for each determined as strongly agree (1), agree (2), disagree (3), and strongly disagree (4). Some statements (2, 3, 4, 6, 8, 9, 11, 12) of the scales are reversed. Higher mean scores for each scale and summated OLBI reflect increased experience of burnout. The related study reported that mean scores are compared against interpretation ranges for low (≤1.62), moderate/medium (1.63 to 2.67), and high (≥2.68) (Delgadillo et al., 2018).

## 2.4. Data collection procedure

With the approval of appropriate authorities, data were collected from 15th March to 20th June 2020 with which eligible nurses from both government and non-government participating hospitals voluntarily participated for at least 15-20 minutes. All authors, the principal, and co-principal investigators validated all returned questionnaires for completeness and admissibility for the data process. Authors, the principal, and co-principal investigators dispersed, retrieved, and validated all returned questionnaires for completeness and admissibility for data processing.

## 2.5. Data analysis

Using IBM SPSS v.26, the study utilized Pearson product-moment correlation after satisfying the normality of data through the Shapiro-Wilk test, other than frequency and percentage distribution, to determine the significant relationship between nurses' stress, anxiety, and depression with their burnout. A p-value10 level of statistical significance of <.05 was likewise considered.

## 3. Results

## 3.1. Nurses' stress, anxiety, and depression

Table 1 illustrates nurses' stress, anxiety, and depression. While stress is considered healthy to a considerable degree, the experience of overwhelming stress for prolonged periods can affect overall functioning. In this context, stress is measured by the nurses' inability to relax or to tolerate activities related to work, and the presence of overreaction to situations that require a

significant amount of energy. It is sensitive to levels of chronic non-specific arousal that also assesses being easily upset, agitated, irritable, overreactive, and impatient. As can be seen in Table 1, the mean scores of seven (7) statements under stress are of near equal measurements. Stress, as described by the nurses is when they had difficulty winding down (x̄=0.86, SD=±0.630) and overreacted to situations (x̄=0.83, SD=±0.814) with excessive use of energy (x̄=0.77, SD=±0.773). With a mean score of 10.68 points, nurses experience a normal level of stress.

The subjective emotional response to stress is anxiety which basically relates to the idea that increasing exposure to stressors generally results in an increasing amount of anxiety. This scale is measured by the presence of autonomic arousal, skeletal muscle effects, situational anxiety, and subjective experience of anxious effects. In the same, it reveals that nurses' description of anxiety is when they have awareness of dryness of the mouth (x̄=1.33, SD=±0.794), worry of a panic attack (x̄=0.87, SD=±0.806), unpleasant awareness of heartbeat (x̄=0.74, SD=±0.794), and fear without a valid reason (x̄=0.63, SD=±0.736).

While depression is perceived as a clinical diagnosis, the use of DASS-21 cannot be used as an alternative for the diagnosis of clinical depression. Depression, in this scale, is measured by the presence of dysphoria, hopelessness, devaluation of life, self-deprecation, lack of interest or involvement, anhedonia, and inertia. Out of the seven (7) statements to define nurses' depression, it can be observed that nurses describe it when they feel down (x̄=0.79, SD=±0.844), have a feeling of worthlessness (x̄=0.68, SD=±0.786), anhedonia or loss of positive feeling (x̄=0.67, SD=±0.701), and lack of initiative (x̄=0.66, SD=±0.759) and enthusiasm (x̄=0.66, SD=±0.711) to do things.

## 3.2. Nurses' stress, anxiety, and depression levels

Table 2 presents the distribution of the nurses according to stress, anxiety, and depression levels. Consistent with the scoring guide of the research instrument (normal=0-14; mild=15-18; moderate=19-25; severe=26-33; extremely severe=34 or more), higher scores reflect increasing experience of stress. As seen, most of the nurses have normal (238, 77.5%) and mild (34, 11.1%) stress levels which are also consistent with the mean stress score of 10.68 points in Table 1.

Consistent with the scoring guide of the research instrument (normal=0-7; mild=8-9; moderate=10-14; severe=15-19; extremely severe=20 or more), higher scores reflect increasing experience of anxiety. As seen, most of the nurses have normal (108, 35.2%), mild (56, 18.2%), and moderate (60, 19.5%) stress levels. The combined frequencies of nurses with severe- and extremely severe anxiety levels reach 83 (27.1%). Finally, higher scores indicate more frequent experience of depressive symptoms (normal=0-9; mild=10-13; moderate=14-

20; severe=21-27; extremely severe=28 or more) based on the research instrument's scoring guide.

The low mean scores for each statement to describe depression in Table 1 also support the findings of Table 2 that shows at most, nurses have a normal (169, 55.0%) and mild (61, 19.9%) level of depression. There is a low combined frequency (21, 6.8%) for severe- to extremely severe- depression among nurses.

**Table 1:** Nurses' stress, anxiety, and depression (n=307)

| Statements | Mean | SD (±) |
|---|---|---|
| 1. I found it hard to wind down. | 0.86 | 0.635 |
| 6. I tended to overreact to situations. | 0.83 | 0.814 |
| 8. I felt that I was using a lot of nervous energy. | 0.77 | 0.773 |
| 14. I was intolerant of anything that kept me from getting on with what I was doing. | 0.74 | 0.724 |
| 11. I found myself getting agitated. | 0.72 | 0.698 |
| 18. I felt that I was rather touchy (e.g., irritable) | 0.72 | 0.713 |
| 12. I found it difficult to relax. | 0.69 | 0.712 |
| **Stress score** | **10.68** | **7.603** |
| 2. I was aware of the dryness of my mouth. | 1.33 | 0.936 |
| 9. I was worried about situations in which I might panic and make a fool of myself. | 0.87 | 0.806 |
| 19. I was aware of the action of my heart in the absence of physical exertion (e.g., sense of heart rate increase, heart missing a beat.) | 0.74 | 0.794 |
| 20. I felt scared without any good reason. | 0.63 | 0.736 |
| 7. I experience trembling (e.g., in the hands). | 0.61 | 0.683 |
| 15. I felt I was close to panic. | 0.59 | 0.737 |
| 4. I experienced difficulty breathing (e.g., excessively rapid breathing, breathlessness in the absence of physical exertion). | 0.50 | 0.687 |
| **Anxiety score** | **10.54** | **7.244** |
| 13. I felt downhearted and blue. | 0.79 | 0.844 |
| 17. I felt I wasn't worth much as a person. | 0.68 | 0.786 |
| 3. I couldn't seem to experience any positive feelings at all. | 0.67 | 0.701 |
| 5. I found it difficult to work up the initiative to do things. | 0.66 | 0.759 |
| 16. I was unable to become enthusiastic about anything. | 0.66 | 0.711 |
| 10. I felt that I had nothing to look forward to. | 0.57 | 0.814 |
| 21. I felt that life was meaningless. | 0.49 | 0.849 |
| **Depression score** | **9.03** | **8.417** |

**Table 2**: Nurses' stress, anxiety, and depression levels (n=307)

| Levels | f | % |
|---|---|---|
| **Stress** | | |
| Normal | 238 | 77.5 |
| Mild | 34 | 11.1 |
| Moderate | 14 | 4.6 |
| Severe | 19 | 6.2 |
| Extremely severe | 2 | 0.7 |
| **Anxiety** | | |
| Normal | 108 | 35.2 |
| Mild | 56 | 18.2 |
| Moderate | 60 | 19.5 |
| Severe | 45 | 14.7 |
| Extremely severe | 38 | 12.4 |
| **Depression** | | |
| Normal | 169 | 55.0 |
| Mild | 61 | 19.9 |
| Moderate | 56 | 18.2 |
| Severe | 8 | 2.6 |
| Extremely severe | 13 | 4.2 |

## 3.3. Nurses' burnout and its domains and levels

Table 3 presents the nurses' burnout domains with a reference to the 16-item OLBI's scoring guide, higher mean scores on statements and domains reflect the higher experience of burnout through interpretation ranges namely, low (≤1.62), moderate/medium (1.63 to 2.67), and high (≥2.68). Referring to disengagement as the first domain, it can be observed that nurses' experience of burnout can be evidenced by higher mean scores on feeling sickened by work tasks ($\bar{x}$=2.65, SD=±0.677), less thinking and mechanical job performance ($\bar{x}$=2.57, SD=±0.603), feeling of being disconnected from work ($\bar{x}$=2.53, SD=±0.728) and frequent pessimistic thinking about work ($\bar{x}$=2.51, SD=±0.776).

The composite mean for disengagement is 2.27 (SD=±0.352) which falls under the moderate/medium level of disengagement. Exhaustion, as the second domain illustrates that nurses generally feel tired before arriving for work ($\bar{x}$=3.19, SD=±0.587), and require more time than in the past to relax and feel better ($\bar{x}$=2.95, SD=±0.750), and feel worn out and weary after work ($\bar{x}$=2.70, SD=±0.678). The composite mean scores of exhaustion and overall burnout are 2.46 (SD=±0.365) and ($\bar{x}$=2.36, SD=±0.332) both falling under moderate/medium levels of exhaustion and burnout.

To support the mean scores and interpretation presented in Table 3, the distribution of nurses in Table 4 also indicates that most nurses have a moderate level of disengagement (260, 84.7%), exhaustion (221, 72.0%), and overall burnout (249, 81.1%).

## 3.4. Relationship of nurses' stress, anxiety, and depression to burnout

Consistent with the definition of burnout and its relevant significance to stress, anxiety, and depression, Table 5 further reinforces the presence of a significant relationship between stress, anxiety, and depression to burnout and its respective domains among nurses. More specifically, a Pearson product-moment correlation is run to determine the relationship of these variables that shows a weak,

positive correlation between nurses' stress to burnout (p=.000, 0.325), and its domains namely disengagement (p=.000, 0.299), and exhaustion (p=.000, 0.304). This means that the null hypothesis has been rejected suggesting that a high experience of stress increases the likelihood of being disengaged, exhausted, and burnout at work.

**Table 3:** Nurses' burnout and its domains

| Domains and Statements | Mean | SD ($\pm$) |
|---|---|---|
| **Disengagement** | | |
| 11. Sometimes I feel sickened by my work tasks.* | 2.65 | 0.677 |
| 6. Lately, I tend to think less at work and do my job almost mechanically.* | 2.57 | 0.603 |
| 9. Over time, one can become disconnected from this type of work.* | 2.53 | 0.728 |
| 3. It happens more and more often that I talk about my work in a negative way.* | 2.51 | 0.776 |
| 13. This is the only type of work that I can imagine myself doing. | 2.47 | 0.864 |
| 15. I feel more and more engaged in my work. | 1.92 | 0.574 |
| 7. I find my work to be a positive challenge. | 1.79 | 0.601 |
| 1. I always find new and interesting aspects of my work. | 1.68 | 0.595 |
| **Composite Mean** | **2.27** | **0.352** |
| **Exhaustion** | | |
| 2. There are days when I feel tired before I arrive at work* | 3.19 | 0.587 |
| 4. After work, I tend to need more time than in the past to relax and feel better.* | 2.95 | 0.750 |
| 12. After my work I usually feel worn out and weary.* | 2.70 | 0.678 |
| 10. After working I have enough energy for my leisure activities. | 2.53 | 0.741 |
| 8. During my work, I often feel emotionally drained.* | 2.47 | 0.746 |
| 16. When I work, I usually feel energized. | 2.06 | 0.620 |
| 5. I can tolerate the pressure of my work very well. | 1.91 | 0.566 |
| 14. Usually, I can manage the amount of my work well. | 1.88 | 0.452 |
| **Composite Mean** | **2.46** | **0.365** |
| **Burnout's Overall Mean** | **2.36** | **0.332** |

*Reflective scores applied

**Table 4:** Distribution of nurses according to the levels of disengagement, exhaustion, and overall burnout

| Domain and Levels | f | % |
|---|---|---|
| **Disengagement** | | |
| Mild | 5 | 1.6 |
| Moderate | 260 | 84.7 |
| Severe | 42 | 13.7 |
| **Exhaustion** | | |
| Mild | 0 | 0 |
| Moderate | 221 | 72.0 |
| Severe | 86 | 28.0 |
| **Overall Burnout** | | |
| Mild | 2 | 0.7 |
| Moderate | 249 | 81.1 |
| Severe | 56 | 18.2 |

There is also a weak, positive correlation between nurses' anxiety to burnout (p=.000, 293), disengagement (p=.000, 0.261), and exhaustion (p=.000, 0.282). It also indicates that increasing anxiety also determines the likelihood of burnout. Finally, depression has been also statistically and significantly related to burnout (p=.000, 369), and its domains, disengagement (p=.000, 0.339), and exhaustion (p=.000, 0.344). This also reflects those higher depressive scores are associated with the burnout experience of nurses.

**Table 5:** Relationship of nurses' stress, anxiety, and depression to burnout

| Mean (SD$\pm$) | Disengagement 2.27 (0.352) | Exhaustion 2.46 (0.365) | Overall burnout 2.36 (0.332) |
|---|---|---|---|
| | p (decision) | | |
| | Pearson coefficient (strength of correlation) | | |
| **Stress** 10.68 (7.603) | 0.000 (reject H$_0$) 0.299 (weak correlation) | 0.000 (reject H$_0$) 0.304 (weak correlation) | 0.000 (reject H$_0$) 0.325 (weak correlation) |
| **Anxiety** 10.54 (7.244) | 0.000 (reject H$_0$) 0.261 (weak correlation) | 0.000 (reject H$_0$) 0.282 (weak correlation) | 0.000 (reject H$_0$) 0.293 (weak correlation) |
| **Depression** 9.03 (8.417) | 0.000 (reject H$_0$) 0.339 (weak correlation) | 0.000 (reject H$_0$) 0.344 (weak correlation) | 0.000 (reject H$_0$) 0.369 (weak correlation) |

P-value is significant if <.05

## 4. Discussion

### 4.1. Nurses' experience of stress, anxiety, depression, and burnout

Behavioral responses to stress such as the case of inability to wind down and the use of an excessive amount of energy are indicators that stress has been persistently present. Work-related stress can affect employees in all professions and nurses are no exception as they are put under a great deal of stress due to the nature of the workplace environment (Birhanu et al., 2018). Consistent with the findings, nurses' description of stress has been in line with their inability to relax and overreacting to work situations with the use of a tremendous amount of energy. These result in their inability to tolerate frustration, and avoid agitation. At most, nurses in this study mostly with normal stress levels but it is also essential to address that some have moderate-, severe- and extremely severe experiences. Studies pointed out that nurses' experience of stress is related to the idea that they are expected to be in charge of the patients assigned to their care but are

faced with excessive patient demands. The reported higher level of stress and anxiety in the health care industry such that in the nursing practice is associated with continuous care contact among patients along with their intense demands for recovery (Kousha et al., 2018; Yao et al., 2018; de Paiva et al., 2017; Chou et al., 2014).

The context of anxiety and stress is often overlapping as anxiety refers to the emotional response to stress. As seen in the study, most nurses have normal anxiety levels, consistently related to most nurses who have a normal stress level. It is worth noting, however, that a significant number of nurses also have severe to extremely severe anxiety levels. While anxiety can be perceived as multifactorial, common in the practice of hospital nursing is that medical orders are prescribed by the physician for the nurses to execute. While health care measures cannot provide a perfect assurance of patients' optimal recovery from illness, such uncertainty often becomes source of patients' frustrations which are projected to health care providers. Limitations and uncertainties in health care practice, costly medical errors or mistakes, and irreversibility of patient-harm are some of the reasons as to why health care professionals are faced with increasing workplace-related stress and anxiety (Chou et al., 2014). In long run, nurses who are faced with such adversity in every clinical encounter from a variety of patients in the health care setting are likely to succumb to physical and emotional exhaustion. The negative impact of work-related stress and anxiety among nurses can greatly impact quality and safety care, absenteeism, increased intention to quit, and potentially interrupt relationship with colleagues (Kousha et al., 2018; Birhanu et al., 2018; Vandenbroeck et al., 2017; Chou et al., 2014).

In this study, the context of depression does not offer an alternative to the diagnosis of clinical depression but somehow attempts to describe it as experienced by nurses using the standardized research instrument. Literature has seen depression among nurses in the light of the experience of burnout. Meanwhile, the results indicate that most nurses least experience depressive symptoms. Despite this, around a quarter of the total surveyed nurses must be dealt with as they have been found to have moderate-, severe- and extremely severe levels of depression. Attentional and behavioral disturbances emerge as manifestations of depression associated with burnout implicating that depression impairs social functioning and becomes one of the underlying causes of suicides reported among healthcare professionals (Birhanu et al., 2018; Reith, 2018; de Paiva et al., 2017; Mattei et al., 2017). In this study, nurses mostly perceive it as present through loneliness, worthlessness, anhedonia, and lack of initiative and enthusiasm in the workplace.

A state of chronic stress exposure leads to physical, mental, and psychological exhaustion which can potentially result in disengagement of the individual to the primary stressor. It is not surprising that literature often relates chronic stress exposure to nurses' decreasing productivity, absenteeism, and other work-related conflicts while other review papers also point to burnout as the culprit of nurses' increasing incompetence and decreasing regard for professional conduct and portrayal. Distinct symptoms of burnout range from emotional exhaustion, depersonalization, and reduced professional development. The personal effect of burnout can be explained by its impact on physical and mental health along with substantial declines in quality-of-life domains (de Paiva et al., 2017). In the study, nurses perceive themselves as burnout when they tend to distance themselves to work, show negative attitudes toward work and others (disengagement), demonstrate a lack of energy to work, feel the need for more rest to rejuvenate, and feel excessive tiring after a day's work (exhaustion).

The results of the study are somehow alarming because most nurses have moderate levels of disengagement, exhaustion, and overall burnout. The service-oriented nature of nursing exposes the nurses to a great deal of stress to ensure that quality, safe, and satisfying care has been rendered to assigned patients while also meeting the significant others' expectations of paid service. The presence of job strain, frequent feelings of excessive commitment, and lack of colleague or supervisor support can contribute to burnout (Chou et al., 2014). Not only is burnout detrimental to personal well-being but also detrimental to patient care (Reith, 2018). The severity of the consequences of burnout both on the individual and the health care environment becomes the primary aim of most research (de Paiva et al., 2017). The morbidity associated with the experience of burnout obtains attention in society and the health care scene due to its serious health consequences (Mattei et al., 2017). It is also worth noting that while staff shortage is seen as a contributory factor to burnout secondary to excessive workload, it is in turn also viewed as an outcome of nurses' burnout. The associated manpower shortage and consumer demands in health care compound the stressful situation for nurses and such possibility of burnout experience has serious implications on clinical outcomes (Tay et al., 2014). While staff shortage increases work demands and burnout risk, this, in turn, results in greater job turnover which again contributes to an already existing staff shortage (Reith, 2018).

## 4.2. Relationship of nurses' stress, anxiety, and depression to burnout

A positive correlation of the variables in this study has been found which suggests that increasing nurses' stress, anxiety, and depression are associated with the likelihood of burnout. It is also imperative that to reduce burnout experience, exposure to prolonged stress, anxiety, and depression in the workplace must be approached thoroughly. Consistently, work-related stress consistently

emerges as a significant predictor of burnout such as in the case of emergency situations, low self-efficacy in health care situations, reduced self-esteem, and feelings of low accomplishment (Yao et al., 2018; Mattei et al., 2017). It may also develop when nurses are exposed to stress without having adequate time for recovery physically and mentally (Elshaer et al., 2018; Chou et al., 2014; Okwaraji and En, 2014).

Significant burnout and psychological distress can adversely affect job satisfaction, commitment to organizational goals, and employee retention in the forms of absenteeism, interpersonal conflicts, and staff turnover (Abdo et al., 2016). Additionally, these can also manifest in depression, anxiety, and irritability (Reith, 2018; Okwaraji and En, 2014). In fact, some prefer to choose another profession if they could decide again due to experience of high burnout in health care settings (Vandenbroeck et al., 2017). Predominantly, burnout is reported in professions with a service-oriented feature that is caused by stress. Stress results from the carer and care recipient relationship that turns into an asymmetrical professional relationship where the stress-giver becomes the patient and the stress recipient is the care provider (Mattei et al., 2017).

Assessment of nurses' workplace-related stress and the contributory factors is essential not only for these health care professionals but also for the patients and the organizations (Vandenbroeck et al., 2017). Health policy developers should investigate the identification of sources of stress such as in the presence of staffing shortages, inadequate resources, and excessive work demands (Birhanu et al., 2018; Vandenbroeck et al., 2017; Chou et al., 2014). Predictive factors once determined can help administrators in formulating plans for preventive interventions. Effective strategies may include strengthening social skills, improvement of communication competencies and coping measures, and risk reduction techniques (Zarei et al., 2019). Improving organizational leadership is believed to effectively decrease burnout levels among staff in health care industries.

Meanwhile, a positive correlation between depression and burnout among nurses has also been revealed. While stress and anxiety are consistently seen as precursors of burnout, the study has seen the role of burnout as a predictor of depression among nurses. It is in this essence that increasing burnout may be associated with depressive symptoms among nurses based on a weak, and positive correlation. The seriousness of burnout towards the experience of depression and even suicide has been manifested in the development of psychosomatic symptoms and emotional depletion. On the other hand, literature also shows that symptoms of burnout seem to overlap with those of depressive disorders such in the case of depression-burnout overlap (Reith, 2018; Wurm et al., 2016; Tay et al., 2014). Additionally, psychological distress caused by burnout manifests in moodiness, irritability, and anxiety which in turn can lead to decreased job performance, conflicts with

colleagues, dependence on drugs, and low professional achievement (de Paiva et al., 2017).

With the significant number of nurses who experience moderate burnout levels, acknowledgment of burnout as a systemic problem along with the cultural promotion of employee wellness from top-down level management can be perceived as an effective method. Encouragement of work-life balance among health care workers provides opportunities for replenishing lost energy from the stressful work environment. Engaging employees in activities that they do enjoy and allowing them to improve time management skills to allow more time to be spent at home can potentially provide positive results. Mental health seeking-behaviors among health care workers may be considered a taboo subject and treatment pursuance is affected due to potential shame, income loss, and licensure actions (Reith, 2018). Treating burnout as a public issue is appropriate as essential implications on health care professionals' physical and mental health are at stake (de Paiva et al., 2017).

In the light of the current findings from other studies, it has enumerated significant workplace stressors that emanated from interpersonal conflicts, environmental noise, and inadequate salary with a prevalence that highly varied in different areas of practice (Kaushik et al., 2021). Nurses with chronic medical illness, children to take care of at home, and rotational shifts contributed to increasing stress experiences (Dechasa et al., 2021; Baye et al., 2020). In the face of the current pandemic, depressive symptoms were high among nurses' secondary to the mental effects and concerns about safety (GebreEyesus et al., 2021; Yadeta et al., 2021). The findings of the current study had described the context of stress, anxiety, depression, and burnout in the workplace that serve to provide recommendations for needed action. While the study did not indicate the sources of these constructs, the findings proved to be beneficial in strategy development in ensuring the overall health and wellness of nurses.

## 5. Limitations

The study determined a positive correlation of stress, anxiety, and depression with burnout but has not identified specific adverse job characteristics that may have explained causation with these variables. While it has explained a positive relationship with burnout among hospital nurses, this study has limited its findings in this field of practice of the profession which may provide a recommendation to investigate these variables in the context of nurses who work in other areas namely, academe, community, corporate, and other non-hospital fields.

## 6. Conclusion

Ranging from the multiplicity of roles, nurses, while resilient may be placed in a prolonged state of

anxiety-producing situations and stress-provoking care demands which can contribute to burnout and depression among them. To maintain the expected demands of the service-oriented profession, this study highlights the need for interventions to ensure that burnout does not lead to increased staff turnover, compromised health care, reduced productivity, and diminished professional fulfillment.

## 7. Implications for nursing practice

Centered on patient safety and quality of care, nurses' overall well-being is affected by the experience of adverse job characteristics with demands for ensuring competitiveness and efficiency in the face of a service-oriented feature of the profession. While the nurses' intention to stay in the workplace has been evident in studies as caused by job dissatisfaction, exhaustion, and poor organizational climate, examining the roles of stress, anxiety, and depression in burnout in this study has apportioned insights to strengthen efforts to address vital issues. Relating to the nurses' burnout, the degree of stress, anxiety, and depression has significantly shown direct correspondence which calls for a deeper examination of sources and factors. Management of professional practices in a conducive environment favors highly resilient individuals who are less likely to concede to burnout. A systems approach to burnout prevention and treatment should investigate the relevant factors that are addressed in the organizational, group, and individual efforts specifically through the development of open communication, strong interpersonal relationships, resource availability, and involvement in decision-making in policies.

## Acknowledgment

## Compliance with ethical standards

### Informed consent

Informed consent was obtained with the nurses' right to anonymity, confidentiality, and refusal without being penalized upon study withdrawal.

### Ethical consideration

The protocol of this study was submitted and reviewed by the Institutional Review Board of the University of Hafr Al Batin with approval no. 12 dated 24th February 2020 under a committee registration KACST No. H-05-FT-083. Respondents were informed of the study's purpose and its nature before informed consent is obtained with their right to anonymity, confidentiality, and refusal without being penalized once decided to withdraw at any time in the study.

## Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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