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RESEARCH ARTICLE

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# Risking it for Occupational Burnout: How Job-Related Abuse and Threats Increase Burnout among Nurses of Nigerian Public Hospitals

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## ABSTRACT

Burnout is a critical occupational challenge that erodes the well-being of nurses, weakens their clinical performance, and jeopardizes patient care quality. Although several occupational risk factors associated with burnout have been identified, limited attention has been paid to the role of job-related abuse and threats perpetrated by patients, patients' relatives, and other healthcare workers. This study addressed this gap by examining the extent to which such occupational risks predict burnout among nurses. Participants were 369 nurses (196 females and 173 males) recruited from 25 public hospitals in Lagos State, Nigeria. Data was collected using the Healthcare-Giver Abuse and Threat Scale (HATS) and the Maslach Burnout Inventory (MBI). Hierarchical multiple regression analyses revealed that job-related abuse and threats significantly predicted higher emotional exhaustion, greater depersonalization, lower personal accomplishment, and increased overall burnout, even after controlling for the effects of age, gender, and job tenure. Additional analyses showed that nurses with higher professional qualifications reported lower levels of job-related abuse and threats. Marital status was also associated with emotional exhaustion and personal accomplishment. Specifically, nurses who had never got married reported higher emotional exhaustion, whereas those who were no longer married reported lower personal accomplishment. The findings underscore the importance of implementing workplace policies that protect nurses from abuse and threats, while strengthening stress management, emotional intelligence, and interpersonal communication competencies. Such interventions may reduce burnout, enhance professional effectiveness, and improve the quality of patient care.

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## KEYWORDS

Burnout, Occupational risk, Workplace abuse, Workplace threats, Nurses, Nigeria.

## Introduction

Burnout poses a significant threat to nurses' well-being and professional effectiveness and may consequently compromise patient outcomes. Its adverse effects extend across the psychological, emotional, and occupational domains of nurses' functioning [1]. The magnitude of this problem is highlighted in a systematic review and meta-analysis of 85 studies involving 288,581 nurses conducted by Li et al. [2]. The authors found that, regardless of geographical location, gender, age, or years of experience, nurse burnout was associated with lower patient satisfaction, poorer safety climate ratings, increased patient falls, higher rates of healthcare-associated infections and medication errors, and lower nurse-assessed quality of care. Although burnout may increase occupational vulnerability, nurses are themselves susceptible to burnout because of the physical, interpersonal, and procedural hazards inherent in healthcare settings. For instance, Wang et al. [3] reported that approximately 70% of nurses experience physical or psychological threats, including workplace violence. Exposure to violence and other occupational hazards has been consistently linked to burnout among nurses and other healthcare professionals [4], contributing to reduced job performance and professionalism [5], diminished patient satisfaction, and increased turnover intentions [6].

Studies have identified additional antecedents of burnout among nurses. For instance, Kangarlou et al. [7] found that excessive workload and fear of infection significantly increased burnout level. Similarly, using semi-structured interviews, Luo et al. [8] reported that burnout stemmed largely from intense work demands, strained nurse–patient relationships, job dissatisfaction, psychological strain, and concerns about infection within healthcare environments. Hu et al. [9] observed that perceived stress was positively associated with burnout, whereas job satisfaction served as a protective factor. Likewise, emotional labour and work-related stress exacerbated burnout among nurses [10]. Furthermore, demographic characteristics such as age, gender, educational attainment, income, marital status, number of children, hospital type, and work unit have also been associated with burnout in nurses [11].

Despite growing research attention on the antecedents, consequences, and management of burnout among nurses, relatively little emphasis has been placed on how abuse and

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threats perpetrated by patients, patients' relatives, and co-workers contribute to nurses' safety concerns and burnout. Consequently, empirical evidence on the prevalence and impact of patient- and coworker-initiated physical and psychological threats remains limited, particularly within the Nigerian healthcare context, where severe nurse shortages confound with increasing patient demand to worsen burnout in the hospital environment. Understanding how exposure to physical, biological, and psychological threats in healthcare settings contributes to burnout could identify important intervention targets for improving nurses' well-being and professional functioning. Moreover, examining these relationships may provide valuable insight into the mechanisms through which occupational stressors contribute to diminished compassion, reduced professionalism, and strained interactions with patients, potentially creating a cycle of hostility, burnout, and declining quality of care.

Against this background, the present study investigated the relationship between job-related abuse and threats (including physical violence, psychological aggression, and exposure to contamination arising from patients', relatives', and co-workers' negligence) and burnout among nurses. The findings would contribute to the growing literature on occupational health by providing evidence relevant to healthcare systems, particularly in Nigeria, where increasing patient populations continue to place substantial pressure on a shrinking healthcare workforce.

## Literature review

The Job Demands–Resources (JD–R) Model [12-15] posits that burnout arises from an imbalance between job demands and available job resources. The model distinguishes between two broad categories of work characteristics: job demands and job resources [14]. Job demands cover the physical, cognitive, emotional, and organizational aspects of work that require sustained effort and are therefore associated with physiological and psychological costs, including burnout [16]. In contrast, job resources encompass the physical, psychological, social, and organizational factors that facilitate goal attainment, stimulate personal growth and development, and alleviate the adverse effects of job demands [12]. Supporting the explanatory prowess of the JD–R model, Maniscalco et al. [17] found that job demands significantly increased burnout among healthcare workers, whereas job resources reduced burnout and enhanced well-being.

Beyond organizational resources, personal resources such as resilience, emotional intelligence, and self-efficacy have been identified as important protective factors against burnout [15,18]. These resources enable employees to cope more effectively with workplace challenges and maintain psychological well-being. For example, Lepistö et al. [19] reported that Finnish nurses remained highly engaged in their work despite experiencing substantial job demands. However, when high levels of work engagement are not accompanied by adequate emotional and cognitive resources, the quality of patient care may suffer [16]. Such situations may increase workplace tensions and expose nurses to abuse, threats, or negligence from patients, their relatives, and even fellow healthcare professionals, thereby heightening the risk of burnout.

Although the JD–R model provides a robust framework for understanding occupational stress and burnout, it offers limited insight into how abuse and threats perpetrated by patients, patients' relatives, and co-workers may constitute specific forms of job demands that could intensify burnout among nurses. This limitation can be addressed through the Conservation of Resources (COR) theory [20]. COR proposes that individuals strive to acquire, maintain, and protect valued resources. According to the theory, stress occurs when these resources are threatened, lost, or insufficiently replenished. Consequently, exposure to workplace abuse and threats may deplete nurses' emotional, psychological, and professional resources, thereby increasing vulnerability to burnout [21,22].

Integrating the JD–R model with COR theory provides a useful framework for understanding how occupational risks contribute to burnout among nurses. In the Nigerian healthcare system, where shortage of nurses, heavy workloads, and limited organizational resources are prevalent, abuse and threats from patients, relatives, and other healthcare workers may represent additional job demands that may further deplete the already scarce resources. Such conditions may aggravate the burnout experienced by nurses who remain in the workforce. Therefore, the present study examined the extent to which abuse and threats from patients, patients' relatives, and other healthcare workers, as forms of occupational risk, predict both the dimensions and overall level of burnout among nurses.

### General occupational risks and burnout in nurses

Hayes et al. [23] conceptualized occupational risk as the perceived likelihood of exposure to hazards and unsafe conditions across critical aspects of the work environment, including job tasks, co-workers, supervisors, workplace policies, and safety practices. Therefore, occupational risks encompass biological, chemical, physical, mechanical, and psychosocial hazards that may threaten employees' physical and psychological well-being. Within healthcare settings, nurses are particularly vulnerable to such risks because of the nature of their work and their frequent interactions with patients and other healthcare personnel [3,24,25]. Exposure to occupational hazards has been associated with adverse health outcomes, diminished well-being, and impaired job performance among healthcare workers [26].

The vulnerability of nurses to occupational risks may be particularly pronounced in Nigeria, where healthcare systems continue to face severe workforce shortages and resource constraints [27,28]. Available evidence suggests that many healthcare facilities in Nigeria operate with inadequate safety policies, insufficient protective equipment, and weak implementation of occupational safety procedures [29-31]. Consequently, Nigerian nurses may experience greater exposure to occupational hazards than their counterparts in better-resourced healthcare systems. Such exposure is likely to increase psychological strain and contribute to burnout.

Empirical evidence consistently demonstrates a relationship between workplace hazards and burnout among nurses. For example, Wang et al. [32] found that workplace violence significantly increased burnout among newly recruited nurses. Similarly, Chen et al. [33], in a study involving 934 physicians

and 2,750 nurses in China, reported that burnout was strongly associated with experiences of workplace violence, including threats, verbal abuse, emotional abuse, and sexual harassment. Comparable findings have been reported among community nurses. Zeng, Wang et al. [18] observed that workplace violence intensified burnout among community nurses in China, while Zeng, Xie et al. [34] found that the association was particularly pronounced among nurses with lower resilience and higher emotional labour demands. Furthermore, Tsukamoto et al. [35] and Converso et al. [36] reported that nurses who experienced workplace violence were significantly more likely to exhibit higher levels of emotional exhaustion, depersonalization, and reduced personal accomplishment than those who had not experienced such incidents.

Beyond workplace violence, several studies have identified a broad range of occupational hazards associated with burnout among nurses. Denge and Rakhudu [37], using mixed qualitative and quantitative approaches, identified biological hazards (e.g., infectious diseases), physical and mechanical hazards (e.g., injuries, sharp-object accidents, and musculoskeletal disorders), psychosocial stressors (e.g., work pressure and job stress), and inadequate workplace safety practices as major occupational risks confronting nurses. Similarly, Ogunnaike and Akinwaare [38] reported that physical, chemical, and biological hazards represent the most prevalent sources of occupational risks among Nigerian nurses. The authors further highlighted inadequate safety policies and poor compliance with occupational safety procedures as significant contributors to workplace risk exposure.

Research has also identified specific occupational risk factors associated with burnout and its dimensions. Hu et al. [9] found that perceived stress not only increased burnout but also amplified the impact of workplace violence on burnout among nurses. Luo et al. [8] reported that nurses working in pediatric infectious disease wards experienced high levels of burnout due to negative nurse–patient relationships, increased workload, job frustration, emotional strain, and concerns about infection. Similarly, Petersen et al. [39] found that psychosocial risk factors, including excessive performance demands, low social support, workplace interruptions, poor teamwork, emotional demands, and workplace isolation, significantly increased emotional exhaustion among German nurses. Vargas et al. [40] identified unfavorable work schedules, low job satisfaction, and limited professional experience as important predictors of burnout. Likewise, Samadi et al. [41] found that rotating and demanding work shifts were associated with elevated levels of emotional exhaustion, depersonalization, and reduced personal accomplishment among nurses.

Although existing literature has established the importance of workplace violence and other occupational hazards, less attention has been paid to abuse, threats, and contamination arising from the actions or negligence of patients, patients' relatives, and other healthcare workers. Liu et al. [42] observed that non-physical forms of workplace violence are more prevalent than physical violence among healthcare workers, with verbal abuse and threats being the most common forms. Extending this line of inquiry, Ogungbamila et al. [43] identified work-related abuse, threats, and contamination linked to the actions or negligence of patients, relatives, and co-workers as important but understudied occupational risks. The authors defined work-related abuse and threats as psychological, verbal, physical, and contamination-related harms experienced by healthcare workers because of the actions or inactions of patients, patients' relatives, and fellow healthcare professionals.

Within the Nigerian healthcare context, abuse and threats may be particularly consequential given the high patient-to-nurse ratio and chronic shortage of healthcare personnel [27,28]. Such conditions are likely to intensify work pressure and increase the frequency of negative interactions between nurses and other stakeholders within the healthcare system. Consequently, examining the extent to which work-related abuse and threats predict burnout among Nigerian nurses is both timely and necessary.

Furthermore, exposure to persistent abuse and threats may undermine nurses' emotional well-being, professional conduct, and quality of patient care. Diminished professional performance may, in turn, generate dissatisfaction among patients, relatives, and co-workers, potentially resulting in further hostility and negative workplace interactions [43]. This cyclical process may perpetuate occupational stress and burnout while simultaneously compromising the quality and safety of healthcare delivery. Despite these implications, limited empirical attention has been devoted to examining how abuse and threats originating from patients, their relatives, and other healthcare workers contribute to burnout among nurses. The present study addresses this gap by investigating the extent to which these occupational risks predict both the dimensions and overall level of burnout among Nigerian nurses. Therefore, this study tested the following hypotheses.

### Hypotheses

1. Emotional exhaustion will increase significantly with job-related abuse and threats.
2. Job-related abuse and threats will significantly be related to depersonalization.
3. Job-related abuse and threats will significantly and negatively predict personal achievement.
4. Increasing job-related abuse and threats will significantly predict higher levels of overall burnout.

## Methods

### Design, Participants, and Procedure

This study employed a cross-sectional survey design. Participants were 369 nurses drawn from 25 public hospitals (5 general hospitals and 20 primary healthcare centers) in Lagos State, Nigeria. The participants comprised 196 (53.1%) females and 173 (46.9%) males. Most of the participants were married (n = 217, 58.8%), while 78 (21.1%) were previously married (separated, divorced, or widowed) and 74 (20.1%) had never been married. Regarding professional qualifications, 208 (56.4%) were registered nurses or midwives, and 161 (43.6%) possessed a National Diploma (ND) in Nursing. The participants' ages ranged from 21 to 56 years (M = 37.15, SD = 7.76). Their average job tenure was 8.80 years (SD = 5.37), with a range of 1 to 30 years. The study was approved by the ethical committee of the department with an ethical approval number PSYCH/H/2025/023.

Sampling techniques involved a combination of purposive hospital selection and convenience sampling of nurses. Hospital selection was based on patient population. Only hospitals with a minimum annual patient population of 2,000 in-patients and out-patients were considered eligible for inclusion. This criterion was adopted to ensure that participating nurses worked in environments characterized by substantial patient demands and increased exposure to occupational stressors and workplace hazards. All the ten general hospitals in Lagos State met this criterion; therefore, five (5) were selected using a table of random numbers. Among the 52 primary healthcare centers in the state, 20 facilities that satisfied the inclusion criteria and were geographically accessible were selected.

Following approval from hospital management, the purpose of the study was explained to the heads of the participating hospitals. Nurses were subsequently informed about the objectives of the research, the voluntary nature of participation, confidentiality of responses, and their right to withdraw at any point without penalty. A total of 400 questionnaires were distributed across the participating hospitals, with approximately 16 questionnaires allocated to each facility. Only nurses who expressed willingness to participate were recruited into the study. Out of the 400 questionnaires distributed, 369 were completed correctly and returned, representing a response rate of 92.3%.

## Measures

### Healthcare-Giver Abuse and Threat Scale (HATS)

Job-related abuse and threats were assessed using the 12-item Healthcare-Giver Abuse and Threat Scale (HATS) developed by Ogungbamila et al. [43]. The instrument measures healthcare workers' exposure to verbal abuse, physical aggression, threats, contamination, and other workplace hazards arising from interactions with patients, patients' relatives, and fellow healthcare workers. The HATS was selected because commonly used workplace safety measures, such as the Work Safety Scale [23], did not adequately capture the unique forms of occupational risk associated with abuse, threats, and contamination resulting from the actions or negligence of patients, relatives, and co-workers within healthcare settings [43]. Given the chronic shortage of healthcare personnel and the high workload prevalent in Nigerian healthcare institutions, healthcare workers may be particularly vulnerable to these forms of occupational risk.

Responses were recorded on a 5-point frequency scale ranging from 1 (less than once per month or never) to 5 (several times per day). Sample items include: “How often have you been exposed to abusive words from patients?”, “How often have you been threatened by relatives of patients?”, and “How often have you been exposed to contamination because other healthcare workers failed to comply with safety regulations?” Ogungbamila et al. [43] reported an internal consistency coefficient of α = .96 among Nigerian healthcare workers. In the present study, the scale demonstrated good reliability (α = .84). Higher scores indicated greater exposure to workplace abuse and threats.

### Maslach Burnout Inventory (MBI)

Burnout was measured using the 22-item Maslach Burnout Inventory [44]. The instrument assesses three dimensions of burnout: Emotional Exhaustion (7 items), Depersonalization (7 items), and Personal Accomplishment (8 items). Emotional exhaustion reflects feelings of being emotionally overextended and depleted of emotional resources. Depersonalization refers to the development of detached, cynical, or negative attitudes toward care recipients. Personal accomplishment measures job-related feelings of competence and achievement.

Responses were measured on a 7-point scale ranging from 0 (Never) to 6 (Every day). Sample items include: “It stresses me too much to work in direct contact with people” (Emotional Exhaustion), “I have become more insensitive to people since I started this job” (Depersonalization), and “I deal very effectively with the problems of my patients” (Personal Accomplishment). All the items on the personal accomplishment subscale were reverse scored at the subscale and overall burnout levels.

Evidence supporting the reliability of the MBI in Nigerian samples was reported by Ogungbamila [45], who obtained Cronbach's alpha coefficients of .78, .79, .76, and .81 for emotional exhaustion, depersonalization, personal accomplishment, and overall burnout, respectively. In the present study, reliability coefficients of .71, .75, .80, and .81 were obtained for the emotional exhaustion, depersonalization, personal accomplishment, and overall burnout scales, respectively. Higher scores on emotional exhaustion and depersonalization indicate greater burnout, whereas lower scores on personal accomplishment reflect higher burnout. Higher composite scores indicate greater overall burnout.

## Analyses and Results

### Preliminary analyses

Relationships among the study variables were examined using Pearson product–moment and Spearman rank order correlations. To facilitate the analyses, gender was coded as male = 0 and female = 1, professional qualification as ND in Nursing = 0 and Registered Nurse/Midwife = 1, and marital status as not yet married = 1, married = 2, and no longer married = 3. The means, standard deviations, and intercorrelations among the variables are presented in Table 1.

As shown in Table 1, job-related abuse and threats were positively associated with emotional exhaustion [$r(367) = .23$, $p<.001$], depersonalization [$r(367) = .40$, $p<.001$], and overall burnout [$r(367) = .41$, $p<.001$]. In contrast, job-related abuse and threats were negatively associated with personal accomplishment [$r(367) = -.24$, $p<.001$]. These findings indicate that nurses who reported greater exposure to abuse, threats, and contamination-related risks also reported higher burnout and lower personal accomplishment.

Among the socio-demographic variables, age and gender were not significantly associated with any dimension of burnout or job-related abuse and threats. Marital status was negatively associated with emotional exhaustion [$r(367) = -.16$, $p<.01$], and personal accomplishment [ $r(367) = -.18$, $p<.01$]. Professional qualification was negatively related to job-related abuse and threats [$r(367) = -.16$, $p<.01$], depersonalization [$r(367) = -.15$, $p<.01$], and overall burnout [$r(367) = -.15$, $p<.01$],

but positively related to personal accomplishment [r(367) = .16, p<.01]. As expected, overall burnout was positively associated with emotional exhaustion, [r(367) = .59, p<.001], and depersonalization [r(367) = .60, p<.001], and negatively associated with personal accomplishment [r(367) = −.45, p<.001].

### Evaluation of the hypotheses

Hypotheses 1–4 were tested using four sets of two-step hierarchical multiple regression analyses. In Step 1, age, gender, marital status, professional qualification, and job tenure were entered as control variables. In Step 2, job-related abuse and threats were added as the predictor variable. The results are summarized in Table 2.

### Emotional exhaustion

In Table 2, the control variables accounted for a slight but significant proportion of the variance in emotional exhaustion, [$R^2$ = .03, $F$(5, 363) = 2.55, $p$<.05]. Among the control variables, only marital status emerged as a significant predictor ($\beta$ = −.17, $p$<.01). After controlling for demographic characteristics, job-related abuse and threats significantly predicted emotional exhaustion ($\beta$ = .23, $t$ = 4.49, $p$<.001), accounting for an additional 5% of the variance ($\Delta R^2$ = .05). Hypothesis 1 was therefore supported.

### Depersonalization

Table 2 showed that the demographic variables explained 3% of the variance in depersonalization [$R^2$ = .03, $F$(5, 363) =

**Table 1:** Results of the Inter-variable Correlations.

| Variables | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Age | 1 | | | | | | | | | |
| 2. Gender | -.01 | 1 | | | | | | | | |
| 3. Marital status | .36** | .04 | 1 | | | | | | | |
| 4. Professional qualification | -.07 | -.05 | -.08 | 1 | | | | | | |
| 5. Job tenure | .69** | .01 | .28** | -.08 | 1 | | | | | |
| 6. Job-related abuse and threats | .06 | -.03 | .02 | -.16* | -.03 | 1 | | | | |
| 7. Emotional exhaustion | -.03 | -.03 | -.16* | -.02 | -.08 | .23** | 1 | | | |
| 8. Depersonalization | .08 | .01 | -.04 | -.15* | .07 | .40** | .44** | 1 | | |
| 9. Personal achievement | -.09 | -.07 | -.18* | .16* | -.08 | -.24** | .31** | .02 | 1 | |
| 10. Occupational burnout | .06 | .06 | -.04 | -.15* | .04 | .41** | .59** | .60** | -.45** | 1 |
| 1. Mean | 37.15 | - | - | - | 8.80 | 24.90 | 20.03 | 18.27 | 27.49 | 69.16 |
| Standard deviation | 7.76 | - | - | - | 5.37 | 9.07 | 5.24 | 5.22 | 8.82 | 9.39 |

**Note**: * $p$ < .01. ** $p$ < .001. N = 369.

**Table 2:** Summary of a 2-step Hierarchical Multiple Regression Analyses on Dimensions and Overall Burnout in Nurses.

| Models | Dimensions and overall burnout | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Emotional exhaustion | | Depersonalization | | Personal achievement | | Overall burnout | |
| | *β* | *t* | *B* | *t* | *β* | *T* | *β* | *t* |
| **Step one** | - | - | - | - | - | - | - | - |
| Age | .09 | 1.32 | .08 | 1.11 | -.01 | -.17 | .08 | 1.12 |
| Gender | -.02 | -.46 | .01 | .19 | -.06 | -1.11 | .06 | 1.16 |
| Marital status | -.17** | -3.12** | -.08 | -1.52 | -.16** | -2.93** | -.08 | -1.42 |
| Professional qualification | -.03 | -.59 | -.15** | -2.83** | .14** | 2.74** | -.15** | -2.86** |
| Job tenure | -.10 | -1.32 | .02 | .31 | -.018 | -.249 | -.01 | -.08 |
| ***R*** | **.18** | | **.18** | | **.24** | | **.18** | |
| ***R²*** | **.03** | | **.03** | | **.06** | | **.03** | |
| ***ΔR²*** | **.03** | | **.03** | | **.06** | | **.03** | |
| ***F*** | **2.55*** | | **2.46*** | | **4.49**** | | **2.54*** | |
| ***ΔF*** | **2.55*** | | **2.46*** | | **4.49**** | | **2.54*** | |
| **Step-two** | - | - | - | - | - | - | - | - |
| Age | .06 | .89 | .03 | .39 | .02 | .28 | .03 | .37 |
| Gender | -.02 | -.31 | .02 | .50 | -.07 | -1.31 | .08 | 1.57 |
| Marital status | -.17** | -3.17** | -.08 | -1.59 | -.16** | -3.03** | -.08 | -1.49 |
| Professional qualification | .01 | .13 | -.08 | -1.73 | .10* | 2.06* | -.08 | -1.73 |
| Job tenure | -.06 | -.89 | .08 | 1.16 | -.05 | -.71 | .05 | .76 |
| ***Predictor*** | - | - | - | - | - | - | - | - |
| Job-related abuse and threats | .23*** | 4.49*** | .39*** | 8.06*** | -.23*** | - 4.45*** | .40*** | 8.32*** |
| ***R*** | **.29** | | **.42** | | **.33** | | **.44** | |
| ***R²*** | **.08** | | **.18** | | **.11** | | **.19** | |
| ***ΔR²*** | **.05** | | **.15** | | **.05** | | **.16** | |
| ***F*** | **5.60***** | | **13.24***** | | **7.23***** | | **14.05***** | |
| ***ΔF*** | **20.19***** | | **64.96***** | | **19.76***** | | **69.25***** | |

**Note**: * $p$ < .05. ** $p$ < .01. *** $p$ < .001. N = 369.

2.46, $p<.05$]. Professional qualification was the only significant predictor at Step 1 ($\beta = -.15$, $p<.01$). Following the inclusion of job-related abuse and threats, the model improved significantly, with abuse and threats emerging as a strong positive predictor of depersonalization ($\beta = .39$, $t = 8.06$, $p<.001$), explaining an additional 15% of the variance ($\Delta R^2 = .15$). Thus, Hypothesis 2 was supported.

### Personal Accomplishment

In Table 2, the control variables explained 6% of the variance in personal accomplishment [$R^2 = .06$, $F(5, 363) = 4.49$, $p<.01$]. Marital status ($\beta = -.16$, $p<.01$) and professional qualification ($\beta = .14$, $p<.01$) were significant predictors. When job-related abuse and threats were entered in Step 2, they significantly predicted lower personal accomplishment ($\beta = -.23$, $t = -4.45$, $p<.001$), accounting for an additional 5% of the variance ($\Delta R^2 = .05$). Hypothesis 3 was therefore supported.

### Overall Burnout

Table 2 showed that the control variables accounted for 3% of the variance in overall burnout [$R^2 = .03$, $F(5, 363) = 2.54$, $p<.05$]. Professional qualification emerged as the only significant predictor ($\beta = -.15$, $p<.01$). After the inclusion of job-related abuse and threats, the model improved substantially. Job-related abuse and threats significantly predicted overall burnout ($\beta = .40$, $t = 8.32$, $p<.001$), accounting for an additional 16% of the variance ($\Delta R^2 = .16$). Accordingly, Hypothesis 4 was supported.

### Additional Analyses

Given the significant effects of marital status and professional qualification observed in the regression analyses, a series of 3 × 2 factorial analyses of variance (ANOVAs) were conducted to examine their independent and interactive effects on job-related abuse and threats, emotional exhaustion, depersonalization, personal accomplishment, and overall burnout.

**Table 3:** Summary of a 3 x 2 Factorial Analysis on Job-related Abuse and Threats in Nurses.

| Sources | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Marital status | 23.39 | 2 | 11.69 | 0.14 | > 0.05 |
| Professional qualification | 406.57 | 1 | 406.57 | 5.02 | < 0.01 |
| Marital status x professional qualification | 67.49 | 2 | 33.75 | 0.42 | > 0.05 |
| Error | 29392.33 | 363 | | | |
| Total | 30249.29 | 368 | | | |

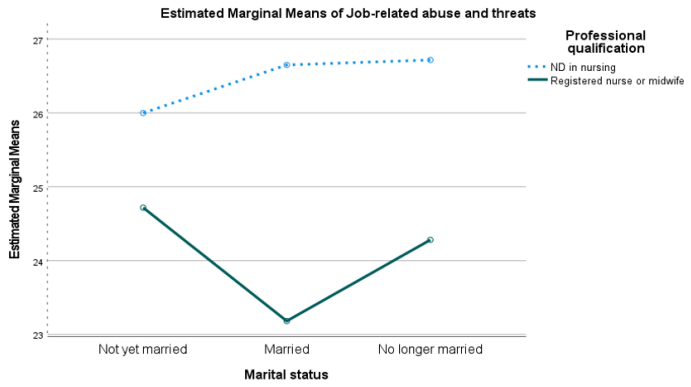



**Figure 1:** Marital Status and Professional Qualification on Job-related Abuse and Threats in Nurses.

As presented in Table 3 and Figure 1, the results indicated that professional qualification significantly influenced exposure to job-related abuse and threats [$F(1, 363) = 5.02$, $p<.05$], with nurses holding National Diplomas reporting higher levels of abuse and threats than Registered Nurses/Midwives. Marital status and the interaction between marital status and professional qualification were not significant.

**Table 4:** Summary of a 3 x 2 Factorial Analysis on Emotional Exhaustion in Nurses.

| Sources | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Marital status | 253.07 | 2 | 126.54 | 4.73 | < 0.01 |
| Professional qualification | 6.42 | 1 | 6.42 | 0.24 | > 0.05 |
| Marital status x professional qualification | 106.21 | 2 | 53.10 | 1.99 | > 0.05 |
| Error | 9710.92 | 363 | 26.75 | | |
| Total | 10109.73 | 368 | | | |

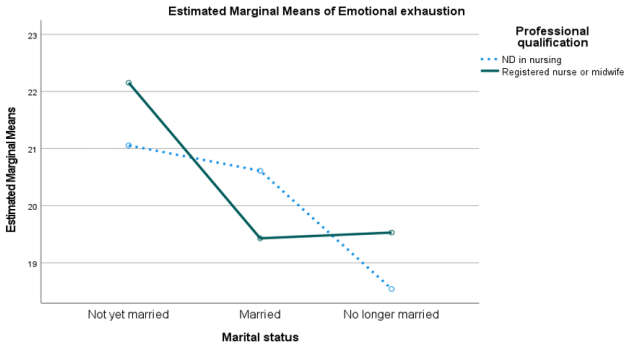



**Figure 2:** Marital Status and Professional qualification on Emotional Exhaustion in Nurses.

For emotional exhaustion, a significant main effect of marital status emerged [$F(2, 363) = 4.73$, $p<.01$]. Nurses who had never married reported the highest level of emotional exhaustion, while those who were no longer married reported the lowest level. Neither professional qualifications nor the interaction term was significant. The above results were presented in Table 4 and Figure 2.

**Table 5:** A 3 x 2 Factorial Analysis on Depersonalization in Nurses.

| Sources | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Marital status | 45.44 | 2 | 22.72 | 0.85 | > 0.05 |
| Professional qualification | 80.73 | 1 | 80.73 | 3.03 | < 0.05 |
| Marital status x professional qualification | 68.98 | 2 | 34.49 | 1.29 | > 0.05 |
| Error | 9681.57 | 363 | 26.67 | | |
| Total | 10032.44 | 368 | | | |

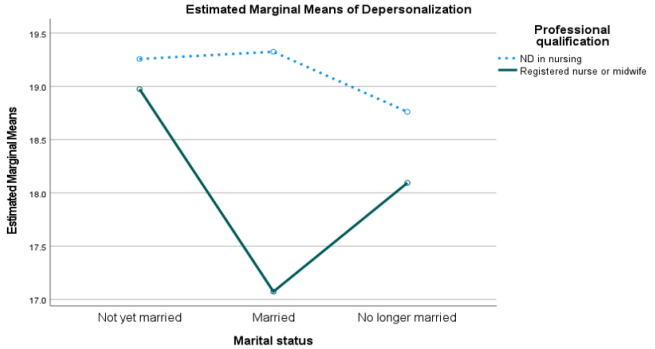



**Figure 3:** Graphical Summary of the Influence of Marital Status and

Professional qualification on Depersonalization in Nurses.

Regarding depersonalization, as shown in Table 5 and Figure 3, professional qualification exerted a significant main effect [$F(1, 363) = 3.03$, $p<.05$], indicating that nurses with National Diplomas reported higher depersonalization scores than Registered Nurses/Midwives. No significant effects were found for marital status or the interaction term.

**Table 6:** Summary of a 3 x 2 Factorial Analysis on Personal Achievement among Nurses.

| Sources | SS | Df | MS | F | P |
|---|---|---|---|---|---|
| Marital status | 1043.72 | 2 | 521.86 | 7.06 | < 0.001 |
| Professional qualification | 389.26 | 1 | 389.26 | 5.27 | < 0.01 |
| Marital status x professional qualification | 16.30 | 2 | 8.15 | 0.11 | > 0.05 |
| Error | 26830.37 | 363 | 73.91 | | |
| Total | 28594.22 | 368 | | | |

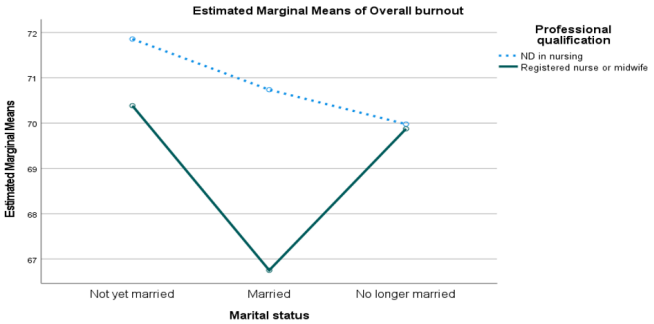



**Figure 4:** Graphics on Marital Status, Professional qualification, and Feelings of Personal Accomplishment among Nurses.

For personal accomplishment, as shown in Table 6 and Figure 4, both marital status [$F(2, 363) = 7.06$, $p<.001$], and professional qualification [$F(1, 363) = 5.27$, $p<.01$] were significant. Nurses who were no longer married reported lower personal accomplishment than those who were married or never married. No interaction effect was observed.

**Table 7:** Summary of a 3 x 2 Factorial on Overall Burnout in Nurses.

| Sources | SS | df | MS | F | P |
|---|---|---|---|---|---|
| Marital status | 322.85 | 2 | 161.43 | 1.89 | > 0.05 |
| Professional qualification | 243.54 | 1 | 243.54 | 2.84 | < 0.05 |
| Marital status x professional qualification | 238.02 | 2 | 119.01 | 1.39 | > 0.05 |
| Error | 31093.04 | 363 | 85.66 | | |
| Total | 32446.88 | 368 | | | |

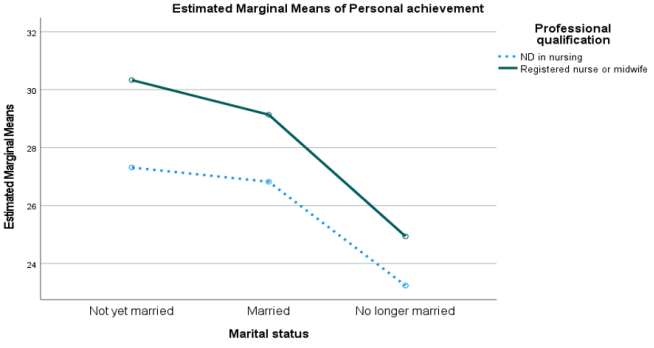



**Figure 5:** Graphical Representation on Marital Status, Professional qualification, and overall Burnout in Nurses.

Finally, Table 7 and figure 5 showed that professional qualification significantly influenced overall burnout [$F(1, 363) = 2.84$, $p<.05$], with National Diploma holders reporting higher burnout than Registered Nurses/Midwives. Neither marital status nor the interaction between marital status and professional qualification significantly affected overall burnout.

Across all analyses, no significant interaction effects were observed between marital status and professional qualification, suggesting that the influence of professional qualification on burnout outcomes was relatively consistent across marital-status groups.

## Discussion

The present study examined the extent to which job-related abuse and threats arising from the actions or negligence of patients, patients' relatives, and other healthcare workers predict burnout among nurses in public hospitals in Lagos State, Nigeria. Although workplace violence and occupational hazards have previously been linked to burnout among nurses, limited empirical attention has been devoted to understanding how abuse and threats initiated by patients, relatives, and co-workers contribute to the dimensions and overall experience of burnout. By addressing this gap, the current study extends the occupational health literature and provides evidence from a healthcare system characterized by workforce shortages, heavy workloads, and substantial occupational risks.

The findings revealed that job-related abuse and threats significantly predicted emotional exhaustion, depersonalization, reduced personal accomplishment, and overall burnout among nurses. Specifically, abuse and threats accounted for additional variance in emotional exhaustion (5%), depersonalization (15%), personal accomplishment (5%), and overall burnout (16%) after controlling for socio-demographic characteristics. These findings support all four hypotheses and suggest that exposure to occupational risks arising from interpersonal interactions within healthcare settings constitutes an important predictor of burnout among nurses.

The results are consistent with previous studies linking workplace violence, verbal abuse, threats, and harassment to increased burnout among healthcare professionals [18,33-36]. The findings also align with research that demonstrated that adverse work conditions, including excessive workload, psychological strain, work pressure, poor interpersonal relationships, inadequate support, and workplace stressors, contribute to burnout among nurses [8,9,39-41]. The present study extends this literature by highlighting abuse, threats, and contamination-related risks from patients, relatives, and co-workers as specific occupational stressors that significantly contribute to burnout within the nursing profession.

The findings can be understood through the Job Demands–Resources (JD–R) Model and Conservation of Resources (COR) theory. The JD–R model posits that burnout emerges when job demands overshadow available job and personal resources [12,14]. Abuse, threats, and contamination-related risks may represent additional job demands that require sustained emotional, cognitive, and behavioral regulation. Similarly, COR

theory argues that individuals strive to acquire, preserve, and protect valued resources; but experience stress when these resources are threatened or depleted [20]. Consequently, exposure to abuse and threats may drain the emotional energy, psychological resilience, sense of safety, and professional efficacy of nurse. Thus, nurses who frequently encounter such experiences may be more likely to report emotional exhaustion, cynical attitudes toward patients, reduced feelings of accomplishment, and heightened burnout.

The findings also suggest that burnout among nurses may be embedded within a broader occupational stress process. In healthcare environments characterized by inadequate staffing, excessive workload, and limited resources, burnout may reduce the emotional availability and professional engagement of nurses, potentially contributing to strained interactions with patients and colleagues. Such strained interactions may, in turn, increase the likelihood of abuse, threats, and hostility directed at nurses, thereby creating a self-reinforcing cycle of occupational stress and burnout. Although this cyclical process was not directly examined in the present study, the findings provide a basis for future investigations into reciprocal relationships between occupational risks and burnout.

### Managerial and practical Implications

The findings of this study have important implications for healthcare administrators, nursing managers, and policymakers. Firstly, interventions aimed at reducing burnout should extend beyond workload management and staffing improvements to include the prevention of workplace abuse, threats, and other forms of interpersonal occupational risk. Healthcare institutions should establish and enforce comprehensive workplace aggression prevention policies that clearly define unacceptable behaviors, reporting procedures, and disciplinary consequences for perpetrators.

Secondly, hospitals should strengthen occupational safety systems by integrating physical, biological, and psychosocial safety measures. This includes improving infection-control practices, ensuring compliance with safety regulations, providing adequate protective equipment, and implementing confidential mechanisms through which nurses can report incidents of abuse, threats, harassment, and unsafe practices without fear of retaliation.

Thirdly, healthcare organizations should invest in resource-enhancement interventions that strengthen the capacity of nurses to cope with workplace demands. Regular training in stress management, emotional regulation, conflict resolution, communication skills, and emotional intelligence may improve the level of resilience and reduce vulnerability of nurses to occupational burnout. Employee assistance programmes, counselling services, peer-support systems, and structured mentoring initiatives may also help nurses replenish depleted psychological resources.

In addition to that, hospital management should prioritize organizational cultures that promote mutual respect among healthcare workers, patients, and patients' families. Educational campaigns that target patients and visitors may help reduce hostility toward healthcare personnel. Leadership training for supervisors may improve support, teamwork, and psychological safety within healthcare units.

Finally, the findings also underscore the importance of addressing Nigeria's persistent nursing workforce shortages. Policies aimed at improving recruitment, retention, work conditions, and career development opportunities for nurses are likely to reduce work pressure and enhance the availability of resources needed to mitigate burnout.

### Theoretical implications

The present study contributes to theory by extending the application of the JD–R and COR frameworks to occupational risks originating from patients, patients' relatives, and co-workers. While previous applications of these theories have largely focused on workload, role stressors, and organizational factors, the current findings demonstrate that interpersonal occupational risks can also function as important job demands and sources of resource depletion. Consequently, abuse, threats, and contamination-related risks should be considered within broader conceptualizations of occupational hazards affecting healthcare workers.

## Conclusion

The present study demonstrates that job-related abuse and threats from patients, their relatives, and other healthcare workers significantly predict emotional exhaustion, depersonalization, reduced personal accomplishment, and overall burnout among nurses. The findings highlight the importance of viewing interpersonal occupational risks as critical workplace stressors capable of depleting nurses' personal and professional resources. Therefore, addressing nurse burnout requires not only improvements in staffing levels and workload management, but also deliberate efforts to reduce workplace abuse, strengthen occupational safety systems, and enhance organizational and personal resources. Such interventions are essential for protecting nurses' well-being, improving the quality of patient care, and promoting healthier and more sustainable healthcare systems.

### Limitations and directions for future research

Though this study made some salient contribution to literature on occupational risks and burnout, some of its limitations are acknowledged. In the first instance, the cross-sectional design limits causal inference and prevents conclusions regarding the direction of the observed relationships. Longitudinal studies are, therefore, needed to establish temporal and causal links between occupational risks and burnout. Secondly, the use of self-report measures may have increased the possibility of common-method bias and social desirability effects. Future studies may benefit from incorporating supervisor ratings, peer evaluations, or objective indicators of workplace incidents.

Additionally, the study focused exclusively on nurses employed in public hospitals in Lagos State, which may limit the generalizability of the findings to private hospitals, other healthcare professionals, or healthcare systems in different regions. Consequently, future studies should replicate the findings across diverse healthcare settings and professional groups.

Lastly, future research should investigate the possibility of a burnout cycle in which occupational risks contribute to burnout, which subsequently influences workplace interactions and further increases exposure to abuse, threats, and hostility. Potential moderating and mediating variables such as emotional intelligence, resilience, social capital, organizational support, psychological safety, and work engagement should also be examined to have a fine grain understanding of the mechanisms through which occupational risks affect burnout.

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