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Burnout among Psychiatric Nurses and its Relation to their Emotional Intelligence and Patients' Aggression

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Abstract
Background: Burnout is prevalent among psychiatric nurses and has a great effect on their well-being and the quality of patients' care. **Aim**:to assess burnout level among psychiatric nurses and its relation to their emotional intelligence and patients' aggression. **Research design**: A cross-sectional design was utilized to conduct the current study. **Setting**: The present study was performed at El Azazi hospital for mental health in Abo Hamad City, Alsharkia Governorate. **Sample**: A purposive sample of 140 psychiatric nurses. **Tools**: Socio-demographic datasheet,Maslach Burnout scale, Modified Overt Aggression Scale, and Emotional-Social intelligence scale. **Results**: The current study demonstrated that the mean score of total burnout for the studied sample was 43.5±21.7 and there was a significant negative correlation between emotional intelligence and burnout. On the other hand, there was a significant positive correlation between burnout and the severity of patients' aggression. **Conclusion**: Emotional intelligence was a negative predictor for burnout; however, Patients' aggression was a positive predictor for it. **Recommendation**: Implementing longitudinal studies to establish the causality between patients' aggression and burnout. Developing training and educational programs for nurses to enhance their emotional intelligence and manage burnout.
Keywords: Burnout, Emotional intelligence, Aggression, Psychiatric nurses.

Introduction

In the psychiatric sector, where patients show a variety of symptoms with behavioral problems specifically; aggressive episodes, and suicidal ideation on admission to hospital that in turn considered stressful for the healthcare team,persistent exposure to this stressful work environment affecting psychiatric nurses and depressed this; (Wang et al., 2015). So, the high rate of turnover, workplace frustration, and desire to quit are all correlated with burnout. Last but not least, burnout affects patient care. It is linked to poorer quality of care, an uptick in neglectful attitudes against patients, and an increase in adverse health consequences as medication mistakes (Tisga,Panagopoulou, & Montgomery, 2017).Burnout is a well-known occupational hazard that has been extensively researched, reported, and cited as a major health issue. It has received a lot of coverage in recent years. It is the last stage of persistent occupational fatigue (Schaufeli, 2017). Burnout is a condition induced by chronic job stress that has not been adequately controlled. It has three dimensions: emotions of exhaustion, greater emotional detachment from one's work, or sentiments of negativism or cynicism about one's employment, and diminished professional efficiency. The definition is more explicit in the International Classification of Diseases, 11th revision (ICD-11): "burnout refers particularly to events in the working environment and should not be extended to other aspects of life" (Kobayashi et al., 2020).Although the emotional intelligence concept attracts researchers over the world, only lately its significance and efficiency in people's work have been identified. Emotional intelligence is defined as a blend of capabilities to recognize emotions, incorporates emotional information into problem-solving processes, distinguishes

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and deals with the complexity of emotions and the arrangement of emotions of oneself.Emotions impact thinking and are necessary to make the correct choices, to overcome challenges, to deal with change, and to succeed. So emotional intelligence is extremely related to effective functioning; it's necessary to provide and sustain a caring and empathic environment, to interact with patients, control their feelings, and empathize with patients. As a result, nurses must develop their emotional intelligence skills to deal with the emotional pressures of working in a health care setting which can be exhausting, crippling, and often contribute to burnout (Ayala &Keren, 2020).As a result, there is a great deal of concern about how it leads to burnout syndrome. Burnout and emotional Intelligence have also been widely studied as separate variables.However, the probability of the relation between them is a novel concept that has only recently come to the attention of the scientific community (Moraes et al., 2015).Emotionally intelligent people are aware of their own and others' feelings and regulate their emotions in the workplace to elicit desired behavior from others (Guy and Lee, 2015). Because they have better leadership qualities and the ability to tolerate emotional pressure, they are less likely to burn out and more likely to enhance work success. Emotionally intelligent people frequently have better self-esteem and more positive moods, which can help to minimize negative affective sensations and increase job satisfaction(Lee, 2018).Aggression is a set of behaviors or acts that have the probability to damage, or threaten an individual, either physically or verbally, regardless of whether the injury is incurred or the intent is apparent (Pekurinen et al., 2017). Aggression is classified into two types, physical and psychological aggression, which denotes the deliberate usage of influence toward anindividual or a group and involves the threat of physical coercion against another person or group that may impair somatic, emotional, spiritual, legal, or social growth (WHO, 2012). Aggression toward nurses may occur from a variety of outlets, including patients, another nurse, and doctor/allied health professional(Edward et al., 2014).Aggression toward nursing workers is a serious and widespread problem (Ramacciati et al., 2018).Psychiatric nurses, in particular, have a 20-fold greater prevalence of physical aggressiveness than public health nurses and face all forms of patient hostility at a higher rate than medical-surgical nurses. Abuse of psychiatric nurses in the workplace has been a serious occupational safety concern for health care institutions worldwide (Abu Baker &Alshdefat, 2020).Furthermore, verbal and physical aggression towards nurses was prevalent in Egypt at 69.5 percent and 9.3 percent, respectively (Abdellah&Salama, 2017). Researchers studying social service workers and psychiatric care providers (e.g., nurses, psychologists, or social workers) discovered a significantly high prevalence of verbal and physical aggression, with as many as 50–92 percent experiencing verbal abuse, 39–68 percent experiencing threats, and 23–70 percent experiencing physical attacks (Enosh&Tzafrir, 2015).Overall, Previous research has shown that aggressive events are exacerbated by staff members' emotional responses such as fear, rage, and frustration, which are frequently caused by staff fatigue and burnout, so emotional intelligence (EI) development can improve nurses' emotional and behavioral reactions to aggression (Shead, Scott, & Rose, 2016).

Significanceofthestudy

Psychiatric nurses particularly are a group of professionals that experience stress and burnout frequently compared to other professions (Dåderman&Basinska, 2016). In Egypt, a study was conducted among the nursing staff and physicians in the emergency hospital of Tanta University showed that 66.0 percent of the respondents had a moderate degree of burnout and 24.9 percent had a high level of burnout (Anwar &Elareed, 2017).The nursing staff is subjected to workplace aggression that may risk their health and safety; they may be abused, threatened, or attacked. These violent occurrences are most frequently documented in emergency departments and inpatient mental settings. Aggression has physiological and

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psychological consequences, such as burnout (Viotti et al., 2015).Emotionally intelligent nurses are less prone to develop burnout. According to research, persons with high trait EI are more likely to perceive difficult events as an opportunity rather than a danger, and they are more confident in their capacity to deal with them. As a consequence, they are less reactive to adversity, which protects them against burnout (Szczygiel&Mikolajczak, 2018). Despite the importance of emotions in nursing practice, little emphasis has been devoted to the link between emotional intelligence and burnout(Hanafi, 2016). So this study was conducted to assessburnout among psychiatric nurses and its relation to their emotional intelligence and patients' aggression.Thus, it is hoped that the current study would add value to the practice and expand the body of knowledge of psychiatric nurses about the relevance of emotional intelligence and its relationship to decreasing burnout and controlling violent behavior in mental patients.

Aim of the Study

The current study aimed toassess burnout among psychiatric nurses and its relation to their emotional intelligence and patients' aggression.

Objectives

- To identify burnout level among psychiatric nurses
- To determine psychiatric patients' aggression toward nurses
- To examine the relation between nurses' burnout, emotional intelligence, and patients' aggression.

Research Questions

What are burnout symptoms encountered by psychiatric nurses?
What is the relation between burnout and emotional intelligence?
What is the relation between psychiatric nurses' burnout and patients' aggression?

Subjectsandmethods

Research design

A cross-sectional design was utilized in this study.

Study Setting

This study was performed at El-Azazi hospital for mental health in Abo Hamad City.

Subjects: A sample of 140 psychiatric nurses was drawn from the above-mentioned setting who met the following inclusion criteria: psychiatric nurses who care directly for mentally ill patients for at least 1 year, both genders, agree to participate in the study, and all educational levels.

Sample size

Supposing that the number of nurses at El-Azazi hospital for mental health is 150 nurses, the prevalence of emotional exhaustion among nurses exposed to physical aggression from patients is 33.8% **(Roldan et al, 2013)**, the sample size is calculated to be 140 nurses, using open EPI, at confidence level 95%.

Tools of data collection

Four tools were utilized for data gathering:

Tool I: Socio-demographic datasheet: It was developed by the researcher to document the socio-demographic characteristics of the participant nurses. It included items such as age, gender, marital status, residence, and educational level, and work department, number of family members, income, and years of experience.

Tool II: MaslachBurnoutScale

This scale was developed by **Maslach, Jackson, &Leiter, (1996)** to assess burnout level.It

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contains 22 items divided into three subscales: emotional exhaustion (9 items), depersonalization (5 items), and personal accomplishment (8 items). Scoring systemItems are rated on a seven-point Likert-type scale ranging from 0 (never) to 6 (every day) respectively. The scores of the 22 statements are summed- up for a maximum score of 132. The level of burnout is categorized as follows:

- Low (at or below the first quartile): total score ≤33
- Moderate (in the Interquartile range): total score 34-≤99
- High (above the third quartile): total score >99

Tool III: Emotional – Social Intelligence Scale (ESI): This scale was developed by **Bar-On's (1997)**. It is a self-report assessment scale to measure emotional-social intelligence. It is composed of 53 items grouped under five factors which include:-

1) Intrapersonal competencies (16 items) are grouped under five subscales: self-esteem (4 items), self-awareness (4 items), assertiveness (3 items), independence (2 items), and self – actualization (3 items).

2) Interpersonal competencies (13 items) are grouped under three subscales: empathy (4 items), social responsibility (3 items), and personal relationships (6 items).

3) Adaptability (9 items) grouped under three subscales: reality testing (3 items), flexibility (3 items), and problem-solving (3 items).

4) Stress management (8 items) grouped under two subscales: stress tolerance (4 items) and impulse control (4 items).

5) The general mood (7 items) is grouped under two subscales: optimism (3 items), and happiness (4 items).

Scoring system: The responses were scored on a five-point Likert scale rating from 1 (not true for me) to 5 (true for me). The total score for each nurse was calculated and converted into a percent score by dividing the nurses' total score by the maximum possible score. The score of each participant was categorized into "unsatisfactory" that had a score of less than 60 % and "satisfactory" that had a score of 60 % or more.

Tool IV: Modified Overt Aggression Scale: This scale was developed by **Crocker et al (2006).** It consists of 20 items divided into five subscales 4 items for each which include: verbal aggression toward others, verbal aggression toward self, physical aggression against other people, physical aggression against objects, and physical aggression against self. This scale assesses both frequency and intensity of patients' aggression as they were experienced by psychiatric nurses during the last 6 months. The frequency and intensity of a patient's aggression are summed to determine its severity.

Scoring system

Frequency of patients' aggressive behavior: For each item, nurses were asked to report the number of times they were exposed to aggression from patients ranging from 0 (never) to 3 (often). The scores of the 20 statements were summed- up for a maximum total of 60.

Intensity of patients' aggressive behavior: The items were scored from 0 to 3 for the responses from "not intense" to "very intense," respectively. The scores of the 20 statements were summed- up for a maximum total of 60. The severity of patients' aggression score is the sum of frequency and intensity scores.

The levels of frequency and intensity of aggressive behavior are categorized as follows:

- Low (at or below the first quartile): total score ≤15
- Moderate (in the Interquartile range): total score 16-≤45
- High (above the third quartile): total score >45

Content Validity and Reliability

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A panel of three experts from Zagazig University's faculties of nursing and medicine assessed the tools for clarity, application, relevance, comprehensiveness, understanding, and simplicity of implementation.

Reliability:

The reliability of the tools was assessed by Cronbach's Alpha in a statistical package of social science (SPSS). They show good level of reliability as follows:Maslach burnout scale (a= 0.881), Emotional-Social Intelligence scale (a= 0.95), Modified overt aggression scale; Frequency (a=0.81), and intensity (a= 0.88).

Pilot study

A pilot study involving 14 psychiatric nurses was carried out (10 percent of the sample). Selected at random to check the practicality and clarity of the tools, as well as to estimate the time required to complete the data collection forms. According to the findings of the pilot study, the average time to complete the tool was 40-45 minutes. The nurses who engaged in the pilot study were included in the full study sample since no changes to the instruments were needed.

Fieldwork:

Once permission to proceed with the study was obtained, the researcher described the study's aim and procedures, as well as information assortment forms to the administrators of El-Azazi hospital for mental health then the researcher introduced herself to psychiatric nurses, to whom the purpose and the nature of the study were explained, voluntary participation and confidentiality were ensured. The nurses were asked to fill within the form sheet beneath the guidance of the researcher once taken their written approval. The nurses took approximately 40 to 45 minutes for answering the queries. The researcher went to El-Azazi hospital four days per week to collect data. The fieldwork of this study lasted for two months from the beginning of July 2020 to the end of August 2020.

Administrative and ethical consideration

Official authorization to conduct the study was acquired through the submission of an official letter from the Dean of the Faculty of Nursing at Zagazig University to the director of El-Azazi hospital for mental health. As a result, permission to perform the study was acquired from El-Azazi hospital's hospital director and nursing director for mental health. The study proposal was accepted by the Ethical Committee at Zagazig University's Faculty of Nursing under the code M.DZU.NUR/110/14/4/2020.

Statistical analysis

SPSS 23.0 for Windows (SPSS Inc., Chicago, IL, USA)was used to gather, tabulate, and statistically analyze all data. The mean, standard deviation, and range were used to represent quantitative data, whereas absolute frequencies (number) and relative frequencies were used to represent qualitative data (percentage). When applicable, percentages of categorical variables were compared using the Chi-square test or the Fisher exact test. Spearman's rank correlation coefficient was calculated to evaluate the relationship between various study variables; the (+) sign indicates a direct correlation and the (-) sign indicates inverse correlation; values close to 1 indicate strong correlation and values close to 0 indicate weak correlation. All of the tests were two-sided. P-values less than 0.05 were considered statistically significant (S), whereas p-values more than 0.05 were considered statistically insignificant (NS).

Results

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Considering the Socio-demographic features of studied nurses, **Table 1** displays that, about three-fourth of studied nurses were females (73.6%), from rural areas (75.0%), were less than 30 years old (75.0%), and are currently married (77.1%). Near two-third, (63.6%) of them had technical institute level of education, and more than half of them (54.3%) had more or equal to 5 years experience in their work,in addition, near three-fourths (72.9%) of them worked in the male department. Slightly more than two-thirds (67.9%) of them had less than five members in their family and having sufficient income (67.1%). **Table (2)** displays that the mean score of total burnout for the studied sample was 43.5±21.7, ranged from 1to 99 andthe highest mean score among its subscales were emotional exhaustion 21.4±14.1. Regarding total emotional intelligence,the mean score of the studied sample was 219.9±30 and ranged from 104 to 265.The intrapersonal competencies subscale had the highest meanscore among other EI subscales; however, the general mood subscale had the lowest one. Additionally, more than half of the studied nurses (59.3) exposed to moderate level of patients' aggression with a mean ± SD (36.7±20.9).**Table (3)** clarifies that there was no statistically significant relationship between Sociodemographic characteristics of studied psychiatric nurses and burnout nor emotional intelligence ($p>0.05$). However, it indicates a statistically significant relationship between Sociodemographic characteristics of studied nurses and severity of patients' aggression; the significant relations were with marital status ($p=0.014$), and with years of experience ($p=0.017$). It is evident that married nurses with work experience equal to or more than five years are exposed to a higher severity level of patients' aggression compared to single nurses with work experience less than five years.**Table (4)** illustrates that there was a statistically significant negative correlation between nurses' emotional intelligence and both; burnout and severity of patients' aggression $p<0.05$. Burnout had a statistically significant positive correlation with the severity of patients' aggression.In multivariate analysis (**Table 5**), psychiatric nurses' emotional intelligence score was a statistically significant negative predictor for burnout. Conversely, aggressive behavior score was a statistically significant positive predictor of it.

Discussion

Burnout is recognized as a major health issue and is classified as a "job-related phenomenon" in the International Classification of Diseases 11th revision (ICD-11), which states that burnout is a condition resulting from "persistent working tension that has not been effectively managed" (WHO, 2019). As psychiatric and mental health nurses (PMHNs) deal with feelings of rage, pity, dread, annoyance, and impatience, they are at a high risk of burnout. Besides being exposed to violence from mental patients suffering from anxiety, delusions, resistance, despair, suicide, self-harm, and mistrust. Emotional intelligence (EI) is an important component in coping with the strong emotional circumstances that occur in the routine work of PMHNs (Van Dusseldorp, van Meijel, &Derksen, 2011) and has a protective role in the experience of stress and burnout and is negatively associated with burnout (Zysberg et al., 2017). Thus, the current study aimed to assess burnout among psychiatric nurses and its relation to their emotional intelligence and patients' aggression.Regarding Sociodemographic data, the current study was carried out on 140 psychiatric nurses at El Azazi hospital for mental health. It revealed that three-fourth of studied psychiatric nurses were less than 30 years old. Also, nearly three-fourth of them was females. This may be explained by the larger number of female nursing schools than male nursing schools in Egypt. Also, the common concept of our Egyptian community that the nursing profession is considered the profession of women leading to an increasing number of females admitted to the nursing profession than males. Concerning residence, three-fourth of them resides in rural areas. This may be due to the hospital's location which is surrounded by rural areas,also, slightly lower than three-fourth of them worked in the male department. This is because male

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patients' number is more than female patients' number. Regarding experience' year, more than half of them had more or equal 5 years' experience. This is because of the study inclusion criterion of 1 year of caring for psychiatric and mental patients. Furthermore, more than three-fourth of them were married, slightly lower than two-third of them had technical institutes of education. In addition, slightly more than two-thirds of them had less than five family members and sufficient income. This may be because technical nurses' start their working life early because of the shorter educational period compared with baccalaureate nurses and subsequently start their social life early.This result to some extent in agreement with the study performed byHussein, and Mohamed (2020), in Egypt which found that the nurses' age ranged between 26-49 years with a mean age of 38±6.5years. All of them were females with more than two-thirds of them reside rural areas, the majority of them were married, and more than one-third of them had from one to ten years of experience in psychiatric nursing. Also, a study conducted byAlqahtani, Al-Otaibi, and Zafar (2020),revealed that the average age of the respondents was 35.43 ± 7.04. The average of experience' years was 8.62 ± 5.79 years, 69% were married, and the majority had lower levels of education, less than a bachelor's or master's degree. Concerning nurses' burnout, this study result showed that the mean score of studied nurses' total burnout was 43.5± 21.7. The highest mean score among its subscales was emotional exhaustion 21.4±14.1, which is lower than that was reported in the study of Choi et al., (2018) who reported that the mean score of emotional exhaustion was 24.90. However, the lowest mean score was depersonalization (4.9±6.2) and these results answered the first research question. This might be because of the educational workshops that the hospital organizes for psychiatric nurses about respecting psychiatric patients,treating them in a good and humane manner, keeping their rights, and eliminating the stigma of working in a psychiatric hospital. Also, it can be attributed to the larger number of females than males in this study whereby; depersonalization is higher among male nurses than female nurses. This was confirmed by the findings of Ortega et al., (2018), who found that male nurses had a stronger propensity to exhibit pessimistic attitudes toward patients and peers at work. As regards emotional intelligence among psychiatric nurses, the current study results revealed that the intrapersonal competencies subscale had the highest mean score among other EI subscales; this means that the studied PMHNs can accurately perceive, understand, and accept themselves, able to understand and express their emotions, and can strive to achieve their personal goals This finding is in line with Vahidi, NamdarAreshtanab, and ArshadiBostanabad (2016), who found that the level of emotional intelligence was highest for intrapersonal competencies subscale. On the other hand, this finding is in contrast with Mohamed (2015), who reported that the interpersonal domain had the highest mean score.Moreover, the present study showed that the general mood subscale had the lowest mean score among other EI subscales. This result is in harmony with that of Naiem (2014), who found that general mood had the lowest mean score. However, this result is dissimilar to Albagawi (2018), who demonstrated that the level of emotional intelligence was lowest for the stress management subscale.Concerning patients' Aggression, the current study results indicated that nearly two-thirds of studied nurses sometimes (several times a month to several times a week) exposed to patients' aggression, with a mean score of 21.4±12.5, and more than half of the studied sample exposed to a moderate level of patients' aggression with a mean score 15.3±10.3. Totally, for the severity level of patients' aggression, more than half of them exposed to a moderate severity level of patients' aggression with a mean score of 36.7±20.9. This is because PMHNs are exposed to aggression from psychiatric patients.These results are to some extent in harmony with the study of Kobayashi et al., (2020) which demonstrated that more than 40% of participants wereexposed to aggression. Also, the mean score of frequent aggression behavior level in this study is consistent with the mean score of aggression in the study by Galian et al., (2019) which was 24.2±11.72. Additionally, the study result of Al-

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Azzam et al., (2017) revealed that 80% of the studied nurses were subjected to patient violence.In comparison to the present study findings, Tomagová et al., (2016) study revealed that 98.58% of psychiatric nurses wereexposed to different types of patients' aggression.The present study results demonstrated that the severity of patients' aggression was statistically significantly related to marital status.It is evident that married nurses exposed to a more severe level of aggression from psychiatric patients compared to single nurses. This may be attributed to multiple roles that married nurses are responsible for; workload on one hand and home duties on the other hand which increases their risk of experiencing burnout, stress, and exposure to aggression compared with single nurses. This is consistent with Itzhaki et al., (2015) studywhich found that 74.8% of studied nurses who were exposed to violence were married. This study'sresultsdenoted that the severity level of patients' aggression was statistically significant related to experience years. This result means that nurses with experience equal to or more than five years are exposed to a more severe level of aggression from psychiatric patients compared with nurses of less than five experience years. This may be because the more experienced nurses had a higher position of authority and responsibilities which makes them stressed and burnt-out and more susceptible to aggression compared with those with fewer experience years. This finding is similar to the findings ofChen et al., (2018) who determined that 6-10 years of work experience is an independent risk factor for physical violence among nurses. Furthermore, the study of Niu et al., (2019) demonstrated that nurses with 5–10 years of experience were at a higher risk of psychological violence.Moreover, these results are in harmony with Pekurinen et al., (2019) study which revealed that patient aggression was related to the employment duration of nurses.On the other hand, these study results are different from the Lebanese study by Alameddine, Mourad, &Dimassi, (2015) which showed that those single and inexperienced nurses were more likely to be subjected to aggression.This was explained by younger nurses' inexperience in dealing with aggressive conditions, as well as the "good worker impact," in which nurses that have not been exposed to aggression or are more prepared to deflect violent events might be more likely to stay in the active workforce.Additionally, Llor-Esteban et al., (2017) revealed that single inexperienced nurses subjected to higher levels of non-physical aggression than married, and more experienced ones. This was explained by the concept of an occupational excess youth and consequently treating single, younger, and less experienced nurses less respectfully than married, older, and more experienced ones.The present study revealed that there were statistically significant negative correlations between nurses' burnout and emotional intelligence and this result answered the second research question. This is attributed to emotional intelligence play a protective role against burnout.Emotional intelligence is useful in conducting emotional labor because it enables nurses to manage the stressful emotional situations that emerge in their daily work as mental health nurses and use feelingsin problem-solving and decision-making, besides living a fulfilled life (Van Dusseldorp, van Meijel, &Derksen, 2011).This result is similar to the foregoing, study conducted in Indonesia by Hanafi (2016), which clarified that emotional intelligence negatively affects burnout meaning that the higher the emotional intelligence,the lower burnout level. In the same context, the study conducted by Szczygiel and Mikolajczak (2018), confirmed the protective role of emotional intelligence against burnout where they found that emotional intelligence reduces burnout symptoms among nurses.The present study's findings revealed a statistically significant positive association between burnout and the severity of patients' aggression, which answered the third research question. This might bebecause psychiatric nurses with poor stress management skills and subjected to patients' aggression experience burnout and psychological overload as a maladaptation to aggression. This result is consistent with the study conducted byde Looff et al., (2019) revealed a positive association between aggression especially physical aggression, and burnout symptoms particularly emotional exhaustion and

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depersonalization.The current study result is conformed to the result of a study conducted by Viotti et al., (2015) which revealed strong associations between aggression and job burnout. However, this differs from the study conducted in Israel on mental health nurses byItzhaki et al., (2018) which revealed that nurses who are exposed to aggression have a low level of burnout. They demonstrated that mental nurses consider exposure to violenceas an integral part of their job, and the low burnout level may be an adjusted response to their work environment.Moreover, this study showed that there was a statistically significant negative correlation between emotional intelligence and patients' aggression. This is because low emotional intelligence nurses can't deal with negative feelings as anger, anxiety, and frustrations resulted from dealing with psychiatric patients which subsequently increases their exposure to aggression from patients. On the other hand, the high emotionally intelligent nurses can regulate their emotions, manage and control not only their feelings but also patients' feelings, better appreciate patients and their emotional responses which subsequently decrease patients' aggression towards them. This study result is in agreement with preceding studies which showed that emotional intelligence had a statistically significant negative relation with aggressive behavior (Schokman, et al., 2014; García-Sancho, Salguero, &Fernández-Berrocal, 2014). Finally, in multivariate analysis, the current study result showed that psychiatric nurses' emotional intelligence score was a statistically significant negative predictor for burnout. Conversely, aggressive behavior score was a statistically significant positive predictor of it.This means that the high emotional intelligence score of psychiatric nurses can predict and tell us that they are less likely to have burnout than nurses with a low level of emotional intelligence. Also, the more aggression they are exposed to, the more likely they are to get burnout.This study finding was consistentwith a study conducted by Liu, et al., (2019)which referred to the relation between aggression and burnout; an increase in aggression was attributed to increased burnout. Additionally, a systematic review study performed by Valavanis, (2019) found that EI acts as a significant negative predictor of burnout among nursing staff. This study finding was in partial agreement with a study conducted by Aguglia et al., (2020) whichshowed that burnout score was positively associated with exposure to verbal aggression in psychiatric inpatient units only among women. Also, a study conducted by Vincent-Höper et al., (2020) revealed that aggression was related to burnout. Furthermore, a study conducted by Soto-Rubio, Giménez-Espert, & Prado-Gascó, (2020) demonstrated that emotional intelligence a significant negative predictor of burnout among nurses.

Conclusion

The mean score of total burnout for the studied nurses was 43.5±21.7and the highest mean score among its subscales was emotional exhaustion 21.4±14.1. Regarding total emotional intelligence, the mean score of the studied nurses'EI was 219.9±30.While the intrapersonal competences subscale had the highest mean score among other EI subscales, the general mood subscale had the lowest mean score among other EI subscales. Additionally, more than half of the studied nurses (59.3) exposed to a moderate severity level of patients' aggression with mean ± SD (36.7±20.9). Psychiatric nurses' emotional intelligence score was a statistically significant negative predictor for burnout. Conversely, aggressive behavior score was a statistically significant positive predictor of it.

Recommendations

Based on the current study findings, the following recommendations are suggested

- Providing legal protection for nurses from lawsuits harming nurses and establishing an ethical team that can protect nurses' rights and patients' rights.

- Developing training and educational programs for nurses to enhance their emotional intelligence and learning how to apply emotional intelligence skills in social and work life.
- Psychiatric and mental illness hospitals should develop a protection and insurance program for nurses to address physical, psychological, verbal, and sexual violence and aid nurses when they request assistance from the security team or when patients are in noisy, nervous conditions that endanger their life and environment.

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Table 1: Socio-demographic Characteristics of Studied Nurses (n=140)

Demographic Characteristics	No.	%
Age per years		
< 30	105	75.0
≥ 30	35	25.0
Gender		
Males	37	26.4
Females	103	73.6
Residence		
Rural	105	75.0
Urban	35	25.0
Marital status		
Single	32	22.9
Married	108	77.1
Educational level		
Secondary Nursing School	18	12.8
Technical institute	89	63.6
Bachelors	29	20.7
Master degree	4	2.9
Work department		

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female department	38	27.1
male department	102	72.9
Years of Experience		
1-<5	64	45.7
≥5-	76	54.3
No. of Family members		
<5	95	67.9
≥5	45	32.1
Income		
Sufficient	94	67.1
In-sufficient	46	32.9

Table (2): Mean score of Burnout, Emotional Intelligence and patients' aggression of Studied Nurses (n=140)

Items	Mean ±SD	Range
− Emotional Exhaustion − Depersonalization − Personal Accomplishment Total burnout	21.4±14.1 4.9±6.2 17.1±13.3 43.5±21.7	00-53 .00-30 .00-48 1-99
− Intrapersonal Competences − Interpersonal Competences − Adaptability − Stress Management − General Mood Total Emotional intelligence	68.6±9.4 55.2±8.8 36.8±5.9 30.2±5.9 29.1±4.9 219.9±30	40-80 26-65 12-45 14-40 12-35 104-265
Frequency of patients' Aggression	21.4±12.5	00-50
	No (%) Never/ rarely 48 (34.3%) Sometimes 84 (60.0%) Often 8 (5.7)	
intensity of patients' Aggression	15.3±10.3	.00-40
	No (%) Mild 77 (55.0%) Moderate 63(45.0%)	
Severity of patients' Aggression	36.7±20.9	.00-90
	No (%) Mild 57(40.7%) Moderate 83(59.3%)	

Table (3): Relation between Burnout, Severity of Patients' Aggression, and Emotional Intelligence Levels of Studied Nurses and Their Sociodemographic Characteristics (n=140)

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Items	n.	Burnout level				The severity level of patients' aggression				Emotional intelligence level			
		Mild		Moderate		Mild		Moderate		Unsatisfactory		Satisfactory	
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Age per years													
< 30	105	35	33.3	70	66.7	46	43.8	59	56.2	9	8.6	96	91.4
≥ 30	35	12	34.3	23	65.7	11	31.4	24	68.6	4	11.4	31	88.6
χ^2 (p-value)		0.01 (0.92)				1.7 (0.2)				f (0.74)			
Gender													
Males	37	17	45.9	20	54.1	20	54.1	17	45.9	4	10.8	33	89.2
Females	103	30	29.1	73	70.9	37	35.9	66	64.1	9	8.7	94	91.3
χ^2 (p-value)		3.4 (0.063)				5.4 (0.054)				f (0.75)			
Residence													
Rural	105	39	37.1	66	62.9	45	42.9	60	57.1	8	7.6	97	92.4
Urban	35	8	22.9	27	77.1	12	34.3	23	65.7	5	14.3	30	85.7
χ^2 (p-value)		2.4 (0.12)				0.8 (0.37)				f (0.31)			
Marital status													
Single	32	14	43.8	18	56.3	19	59.4	13	40.6	3	9.4	29	90.6
Married	108	33	30.6	75	69.4	38	35.2	70	64.8	10	9.3	98	90.7
χ^2 (p-value)		1.9 (0.17)				6 (0.014) (S)				f (0.99)			
Educational level													
Secondary nursing school	18	5	27.8	13	72.2	7	38.9	11	61.1	1	5.6	17	94.4
Technical institute	89	33	37.1	56	62.9	40	44.9	49	55.1	8	9.0	81	91.0
Bachelors	29	6	20.7	23	79.3	10	34.5	19	65.5	4	13.8	25	68.2
Master degree	4	3	75.0	1	25.0	0	.0	4	100.0	0	.0	4	100.0
χ^2 (p-value)		6 (0.11)				3.9 (0.27)				1.4 (0.7)			
Work department													
Female department	38	10	26.3	28	73.7	11	28.9	27	71.1	4	10.5	34	89.5
Male department	102	37	36.3	65	63.7	46	45.1	56	54.9	9	8.8	93	91.2
χ^2 (p-value)		1.2 (0.27)				3 (0.8)				f (0.75)			
Years of experience													
<5	64	21	32.8	43	67.2	33	51.6	31	48.4	5	7.8	59	92.2
≥5	76	26	34.2	50	65.8	24	31.6	52	68.4	8	10.5	68	89.5
χ^2 (p-value)		0.03 (0.87)				5.7 (0.017) (S)				0.3 (0.58)			
No. of Family members													
<5	95	30	31.6	65	68.4	37	38.9	58	61.1	9	9.5	86	90.5
≥5	45	17	37.8	28	62.2	20	44.4	25	55.6	4	8.9	41	91.1
χ^2 (p-value)		0.53 (0.47)				0.38 (0.54)				f (0.99)			
Income													
Sufficient	94	32	34.0	62	66.0	33	35.1	61	64.9	11	11.7	83	88.3

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In-sufficient	46	15	32.6	31	67.4	24	52.2	22	47.8	2	4.3	44	95.7
χ^2 (p-value)		0.03 (0.87)				3.7 (0.045)				f (0.22)			

χ^2 Chi-square test (S) significant $p<0.05$

Table(4): Correlation Matrix between Studied Parameters (n.140)

Items	1- Burnout score		2- Severity of patients' aggression score		3- Emotional intelligence	
	R	P	R	P	r	P
Burnout score − Emotional Exhaustion − Depersonalization − Personal accomplishment Total Burnout score			0.26 0.153 0.136 0.33	0.002 . 072 0.11 <.001	-0.24 -.22 -0.27 -0.36	0.004 .008 .001 <.001
Aggression score - Frequency of patients' Aggression - Intensity of patients' Aggression - Severity of patients' Aggression	0.29 0.3 0.33	<0.001 <.001 <0.001			-0.31 -0.18 -0.26	<.001 .034 .002
Emotional intelligence − Intrapersonal competences − Interpersonal competences − Adaptability − Stress management − General mood	-0.36 -0.38 -0.31 -0.2 -0.32	<.001 <0.001 <0.001 <0.001 <0.001	-0.22 -0.24 -0.176 -0.19 -0.3	0.0008 0.004 0.037 0.022 <0.001		

Table (5): Predictors for Burnout Score among Studied Nurses

	R	R^2	B	SE	T	sig
Emotional intelligence score Patients' Aggression score	0.42	0.18	-0.221 0.223	.059 .084	3.757 2.644	0.0001 0.009

β = (coefficient of x, represent the mean change in the dependent variable) for one unit of change in the predictor variable (independent)

t-test =test of significant

***Model ANOVA: F= 15, p<0.0001 (predict severity of burnout score from both Emotional intelligence score &aggressive behavior score)