

Correlation between Workplace Violence, Work Stress, and Job Satisfaction among psychiatric Nursing staff

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Abstract

Background: Workplace violence is a complex phenomenon that must be explored in different psychiatric nursing environments and settings, as it is leading to increased work stressors and reduced job satisfaction. **Aim:** The current study aimed to assess the correlation between workplace violence, work stress, and job satisfaction among psychiatric nursing staff. **Design:** A descriptive correlational design was used in this study. **Setting:** The current study was conducted in Al Abbassia mental health hospital. **Sample:** A cross-sectional sample of 106 out of 140 psychiatric nurses was obtained in this study. **Tools for data collection** include 1) Nurse's Interviewing Questionnaire to assess the demographic characteristics of nurse's understudy, 2) Workplace Violence in Healthcare Questionnaire, 3) The Perceived Stress Scale, and 4) Satisfaction of Employee in Healthcare Scale. **Results:** The results of the present study showed that the majority of psychiatric nurses understudy (87.7%) were exposed to workplace violence, and 70.8% of them had a moderate level of perceived stress. In addition, more than half of the nurse's understudy (50.9%) were professionally satisfied and only more than one-third of them (36.8%), were professionally unsatisfied. Meanwhile, Moreover, there was a positive statistically significant correlation between the total score of workplace violence, the total score of perceived stress, and the total score of job satisfaction among psychiatric nursing staff understudy ($P < 0.001^{**}$). **Conclusions:** most nurses working with psychiatric patients are exposed to workplace violence mostly verbal and physical violence. Also, the majority of psychiatric nursing staff understudy had a moderate level of work stress and more than one-third of them were professional unsatisfied. This illustrated that workplace violence leads to increased perceived work stress and minimizes job satisfaction among psychiatric nursing staff understudy **Recommendations:** This study recommends developing and implementing a violence prevention program for psychiatric nursing staff to improve their professional safety and security, minimize their level of job perceived stress, and enhance their job satisfaction.

Keywords: Workplace Violence, Perceived Work Stress, Job Satisfaction, Psychiatric nursing staff

Introduction:

Violence exposure in psychiatric and mental health hospitals has become an unfortunate reality. Healthcare professionals like nurses are potentially at high risk of workplace violence that increased and becomes a global problem (Pihl-Thingvad, et al., 2019). Violence against healthcare providers was estimated to affect 95% of healthcare workers (Abdellah, & Salama, 2017). Several studies have reported a higher prevalence of violence against nurses ranging from 35.1% to 72.8%. Nurses in mental health areas have a higher violence rate than nurses working in other healthcare areas. The female nursing staff is at especially increased risk of falling victim to violence. The higher rate of violence in nursing is attributed to dissatisfaction with the nursing performance, mainly in communication and

interpersonal relation aspects (Hasan, El-sayed & Tumah, 2018).

Regarding types of violence, Magnavita, Heponiemi, & Chirico, (2020), explained that nurses worked in mental health hospitals are exposed to many types of violence including physical verbal, sexual, and psychological. Zhang, et al. (2017), illustrated that verbal violence is the most common type of violence against psychiatric nurses through threats, abuse, exaggerated arguments, offensive comments, etc. Moreover, Kobayashi, et al. (2020), found that nurses working in psychiatric hospitals are exposed to physical violence at least once in their workplace as hitting, slapping, choking, kicking, grabbing, throwing, burning, hair pulling, twisting arms, tripping, and confinement. In addition, Alkorashy & Al Moalad, (2016), illustrated that sexual harassment and

psychological abuse were frequently reported among nurses working in psychiatric hospitals.

Sources of violence in the workplace against psychiatric nurses were identified by **Cheung, Lee & Yip, (2018)**, who found that workplace violence is mainly perpetrated by patients, relatives, colleagues, and physicians, or other healthcare providers.

Violence can be defined as any verbal or physical behavior, resulting in, or intended to result in physical or psychological injury, pain, or harm. Moreover, nurses are not only exposed to violent events, but they are also the first line of defense in protecting the well-being of their patients (**Emam, et al., 2018**). Workplace violence was also defined by **Jaradat, et al. (2016)**, as an incident involving abuse, threat, or assault of staff in circumstances related to their work that aims to threaten safety, well-being, or health.

Research has recognized the significant relationship between exposure to workplace violence, increased job-related stressors, and poor job satisfaction among nurses, particularly nurses who work in a psychiatric facility, despite the importance of staff satisfaction for employee retention (**Liu, et al., 2018**).

In line with that, **Yosep, et al. 2019**, identified the contributing factors and catalysts of patient's violence against nurses to involve; severe psychotic symptoms (e.g., delusions, hallucinations, self-defense), demanding to leave, experiencing pain, long waiting time for receiving treatment, and lack of communication as contributing factor to aggression. Additionally, **Chang & Cho (2016)**, was also indicated that patients' relatives are recognized as a source of workplace violence against nurses if they reported bad treatment of themselves and the patient by the hospital personnel.

Despite all these findings, little has been done in mental health hospitals in Egypt regarding finding out what the psychiatric nurses lived with aggression and violence experience from psychiatric patients impact of these experiences on the psychiatric nurse's personal life and the service they render to the mental health care users (**Hasan, Elsayed, & Tumah, 2018**).

In this perspective, **Alharthy, et al. (2017)**, showed that nurse's exposure to workplace violence leads to reducing the quality of care provided, and minimizes nurses' concentration during their work, which subsequently raises their medical error, increased burnout, decreased productivity, and professional satisfaction, self-efficacy, and maximize the job-related stressors. Moreover, exposure to workplace violence undermines ethics and negatively affects the nurse's emotions leading to anger, sadness, or even fear. Furthermore, **Del Carmen, et al. (2020)**, added that the experience of workplace violence affects the mental health nurse's performance. They found that there were psychological problems such as fear, anxiety, uncertainty, depression, distributed sleeping, fragility, vulnerability, and lost steam and confidence as the impact of traumatic experience. An adaptive coping response for nurses in the case of violence may be analogized to the case of exposure to the terror. Therefore, nurses need to be prepared to properly manage these violent occurrences to protect themselves and their patients.

Consequently, assessment of workplace violence and traumatic experiences of psychiatric nurses are very important to enhance the hospital management and improve policies that promote an optimum work climate and provide appropriate intervention for mental health nurses and patients (**Itzhaki, et al., 2018**).

Significance of the study:

Psychiatric institutions worldwide are known to be encountering a certain level of violence and aggression against healthcare providers, particularly nurses who are exposed to the frequent incidence of aggression and violence from patients, relatives, or other healthcare providers (**Dean, Butler & Cuddigan, (2021)**). According to **Konttila, et al., (2021)**, identifying causes and risk factors of violence against psychiatric nursing staff might enable the nursing staff to develop skills and interventions for the prevention and management of different kinds of violent situations that increased their perceived stress and decrease their job satisfaction. It will allow the mental health nurses to give their patients

the best intervention and improve the quality of care.

Aim of the Study:

The present study aimed to measure the correlation between workplace violence, work stress, and job satisfaction among psychiatric nursing staff.

This aim was achieved by answering the following questions:

- 1) What are the types, impact, risk factors, and strategies for violence mitigation among psychiatric nursing staff?
- 2) What are the levels of work stress experienced by psychiatric nursing staff?
- 3) What are the levels of job satisfaction among psychiatric nursing staff who experienced workplace violence?
- 4) Is there a correlation between exposure to workplace violence, levels of work stressors, and level of job satisfaction among psychiatric nursing staff?

Subjects and Methods:

Research design: A descriptive correlational design was used to measure the correlation between exposure to workplace violence, levels of work stress, and job satisfaction among psychiatric nursing staff. In addition, this design helps to establish a database for future research.

Sample Technique: A cross-sectional sample of 106 out of 140 psychiatric nurses who met the study inclusion criteria and were approved to participate in the current study was obtained to measure the correlation between exposure to workplace violence, work stress, and job satisfaction among psychiatric nursing staff. This sample size represents approximately 25% of the total number of nurses working in the previously mentioned setting. The sample size has been calculated for the number of patients according to the equation developed by **Raosoft (2020)** as the following:

Sample size equation:

$$\text{Sample size, } n = N * \frac{Z^2 * p * (1-p)}{[N - 1 + \frac{Z^2 * p * (1-p)}{e^2}]}$$

- N = Population size,

- Z = Critical value of the normal distribution at the required confidence level equal to 0.95 and 1.96
- p = Sample proportion = 0.50
- e = Margin of error rate is equal to 0.05

Inclusion criteria:

- Age Range: 18- <60 years
- Gender: both Males & Females
- Working at a psychiatric hospital for at least one year.
- Written consent for participation in the study.

Study Setting:

The present study was conducted in Al Abbassia mental health hospital in Cairo, which is considered one of the oldest and biggest mental health hospitals in Egypt. It accommodates approximately 1500 patients monthly in the various sections and departments such as the psychiatric emergency department, addiction inpatient departments, outpatient clinics, daycare unit, child psychiatry units, electroconvulsive therapy unit, and rehabilitation units.

Data Collection Tools:

The data was collected using four self-administered questionnaires as the following:

1. The Nurse's Interviewing Questionnaire:

Consists of two parts.

- A) Contains data pertinent to the nurse's age, gender, marital status, educational level, monthly income, years of experience, and average working hours per week.
- B) It contains data related to the nurse's history of workplace violence, sources of violence, time of exposure to violence, events in which assaults occur safety feeling during work, availability of protective measures against violence, received violence prevention training, and reporting of workplace violence.

2. Workplace Violence in Healthcare Questionnaire (WPVHC):

It has been developed by **Kumari, et al., (2021)**, in English language and adopted and

translated into the Arabic language by the researchers to assess the frequency, impact, and risk factors related to workplace violence, in addition to suggested strategies for violence mitigation in the health setting.

WPVHC has 37 items divided into five domains like the following:

- **First Domain: Frequency of experienced workplace violence:** This domain consists of 2 items representing the frequency of exposure to workplace violence. Items rated on 5 points Likert scale, ranged from (1-5), where nearly daily=1, about once a week=2, about once a month=3, about once every six months=4, and about once a year or less=5.
 - **Second Domain: Impact of violent episodes:** This domain consists of 5 items that represent the impact of violent episodes on the nurse's feelings, personal wellbeing, routine activities with families, leisure time with others, and mental health. Items rated on 3 points Likert scale, ranged from (1-3), were not affected/mildly affected=1, moderately affected=2, and severely affected =3.
 - **Third Domain: Reasons for workplace violence underreporting:** This domain consists of 7 items that represent the reasons for underreporting of the workplace among healthcare providers. Items rated on 3 points Likert scale, ranged from (1-3), where disagree=1, neutral=2, and agree=3.
 - **Fourth Domain: Risk factors related to incidents of workplace violence:** This domain consists of 12 items representing the various risk factors associated with workplace violence items rated on 3 points Likert scale, ranging from (1-3), where very important=1, somewhat that important= and not important=3.
 - **Fifth Domain: Violence Mitigation Strategies:** This domain consists of 11 items that represent the suggested strategies for the prevention of workplace violence in a healthcare setting, where, very useful=1, somewhat useful=2, not useful=3.
3. **The Perceived Stress Scale (PSS):** It has been developed by **Masa'Deh, et al. (2017)**, in the English language for the measurement of stress levels among psychiatric nurses. This Scale has been translated into the Arabic language by the researchers. PSS has 10 items rated on 5

points Likert scale, scored from (0-4), ranging from never to very often respectively where never=1, sometimes=2, usually =3, always, and often=4. The total score ranged from (0-to 40) where a higher score representing a higher level of perceived stress.

Levels of perceived stress have been classified as the following:

- 0-13 Low level of stress
- 14-26 Moderate level of stress
- 27-40 Severe level of stress

4. **Satisfaction of Employee in Healthcare Scale (SEHC):** It was originally developed by **Alpern, et al. (2013)**, in the English language adapted and translated into the Arabic language by the researchers to assess the levels of staff satisfaction in healthcare settings. This scale consists of 20 items rated on 4 points Likert scale, where strongly disagree=1, disagree=2, agree=3, strongly agree=4. The total score ranged from (20-to 80) where a higher score indicates a higher level of job satisfaction.

Levels of job satisfaction have been classified as the following:

- <26 (Unsatisfied)
- 26 – <52 (Satisfied)
- 52-80 (Highly Satisfied)

Tools validity and reliability:

Validation of the Scales:

To achieve the criteria of trustworthiness of the tools of data collection in this study, the tools were tested and evaluated for their face content validity, and reliability. Face and content validity are tested by five different experts from faculty members in the psychiatric nursing field from Ain Shams University.

Reliability of the Scales:

The reliability of the tools was assessed using the developed questionnaires and reassessment was done after (7) days on the same subjects. The results were the same each time. Measuring internal consistency by determining the Cronbach alpha coefficient,

proved to be high as indicated in the following table:

Reliability of used scales:

Scale	No. of items	Reliability
WPVHC	37 items	0.851
PSS	10 items	0.945
SEHC	20 items	0.851.

Operational Design

The operational design for this study included the preparatory phase, pilot study, fieldwork, and ethical considerations.

Preparatory phase:

It included reviewing past, current, local, and international related literature, and theoretical knowledge of various aspects of workplace violence, work stress, and job satisfaction among psychiatric nurses. An official letter was issued from the dean of faculty of nursing, Ain Shams University, to the director of Al Abbassia mental health hospital, explaining the aim of the study and requesting their permission for data collection.

Pilot Study:

A pilot study was carried out on (11) nurses working with psychiatric patients as resenting around 10% of the total sample before conducting the actual study to ensure clarity of the questions, applicability of data collection tools, and time needed to complete them. All subjects who were involved in the pilot study were excluded from the main study sample.

Fieldwork:

Data has been collected for the current study from Al Abbassia mental health hospital from September to November 2021 including (106) psychiatric nurses. The researchers visited the selected setting 3 days per week (Every Sunday, Monday, and Thursday), from 8 am to 2 pm, for three successive months from September to November 2021, to collect the study data from psychiatric nurses in the previously mentioned setting. Data collection tools were reviewed by a specialized psychiatrist and professor of psychiatric/mental health nursing before the data collection phase. Nurses were asked for their approval to

participate in the study. After that, the questionnaire forms were filled in by the nurses, and the researchers offered help if they needed it. The questionnaires took about 15-20 minutes to complete. The researchers met the participants in the nursing room during their working hours in the different departments and units of the above-mentioned setting 3 days per week (Every Sunday, Monday, and Thursday), from 8 am to 2 pm, for three successive months from September to November 2021 including both males and females.

Ethical Considerations:

During the initial interview, the researchers met each psychiatric nurse individually, and introduced themselves; explained the purpose and nature of the study; and ensured the confidentiality of data. Each psychiatric nurse was informed about the aim and nature of the study, and the participation would be voluntary; hence every nurse had the right to participate or refuse to be included in the work, and they were informed about the right to withdraw at any time without giving any reasons, and without any consequences. The consent for participation was taken written. In addition, the confidentiality of any gathered data was assured.

Statistical Analysis:

Data entry and statistical analysis were done using SPSS 23.0 statistical software package. Data were presented using descriptive statistics in the form of frequencies for qualitative variables and means and standard deviations and medians for quantitative variables. Qualitative categorical variables were compared using the chi-square test. Spearman rank correlation was used for the assessment of the inter-relationships among quantitative variables and ranked ones. Multiple linear regression analysis was used and an analysis of variance for the full regression models was done. Statistical significance was considered at a p-value <0.05.

Results:

Table (1): Showed that the mean age of psychiatric nurse's understudy was 32.14±8.97. This study also revealed that the majority of nurses understudied were females and married representing 76.4% and 77.4% respectively.

Moreover, the present study illustrated that the highest percentage of nurses understudy had a nursing diploma and paid an insufficient monthly income, representing 51.9% and 72.6% respectively. In addition, this table also noticed that more than half of nurses 'understudy had years of experience ranging from 5-10 to years, and work an average of more than 36 working hours per week, representing 56.6% and 63.2% respectively.

Table (2): Showed that most psychiatric nurses under study experienced a history of workplace violence, representing 87.7%. More than half of nurses' understudy were exposed to verbal alteration in the workplace and more than one-third of them were exposed to physical violence, representing 50.9% and 38.7% respectively. Also showed that the highest percentage of nurses under study was exposed to workplace violence from patients, mostly during the day shift, representing 56.6%, 82.1%, and 53.8% respectively. The same table illustrates that the majority of nurses are not feeling safe during their work, suffer from a lack of protective measures against violence in the workplace, and did not receive violence prevention training, they represent 83.0%, 82.1%, and 82.1% respectively. In addition, most of the nurses (85.5%) understudy did not report the workplace violence, near half of them (49.1%) ignore the workplace violence and consider it a part of their job, and more than one-third of nurse's understudy refused to report the workplace violence to avoid legal procedures, representing 33.0%.

Table (3) showed that nearly two-thirds of psychiatric nurses under study experienced verbal altercations at the workplace (e.g., threats, abuse, exaggerated arguments, etc.) about once a week. Also, one-third of nurses under study experienced physical violence at the workplace (e.g., slapping, beating, thrashing, etc.) about once every 6 months, they represent 61.3%, and 33.0% respectively.

Table (4) clarified that the majority of psychiatric nurse's understudy considered inadequate action on receiving complaints of WPV, overcrowding, long waiting time Poor communication skills, and Inadequate security arrangements as very important risk factors for exposure to workplace violence, they represent 78.3%, 77.4%, 77.4%, 76.4%, 75.5% respectively.

Moreover, the same table showed that more than two-thirds of nurse's understudy considered unrealistic expectations of patients/attendants, a lack of redressed system, a lack of respect for the authority of doctors/healthcare workers, lack of the provision of harsh punishment for aggressors/offenders, lack of redressed system as very important risk factors for exposure to workplace violence, they represent 73.6%, 73.6%, 72.6%, and 71.7% respectively.

Table (5) illustrated that near two-thirds of psychiatric nurses understudied were severely affected due to exposure to workplace violence mostly for their productivity, professional satisfaction, and motivation to continue in the job. It also negatively affects nurse's routine activities with family, mental and psychological well-being (increased aggressiveness, irritability, low self-esteem, self-harm/suicidal ideations, etc., and personal wellbeing and self-care. They represent 60.4%, 56.7%, 56.7%, and 55.7% respectively.

Table (6) showed that the majority of nurses' understudy disagreed about their feeling of comfort in reporting the episode of violence at their workplace to competent authorities, representing 76.4%. Also, nearly two-thirds of nurses understudied agreed that reasons of underreporting of workplace violence may be due to lack of organizational support, the process was time-consuming, and fear that the appraisal or promotion avenues will be affected, representing 60.4%, 60.4%, 60.4%. Moreover, more than half of nurse's understudy agreed that underreporting of workplace violence due to their belief that no action will be taken against the perpetrator, and lack of support provided to report such incidences, represent 55.7%, 53.8% respectively.

Table (7) revealed that the majority of psychiatric nurses understudy consider self-defense training of health care workers, regular training of healthcare workers regarding soft skills (communication skills, breaking bad news, counseling skills, problem-solving skills), active complaint redressed system, controlling the number of attendants visiting the hospital with a patient, and improving healthcare facilities (like doctor-patient ratio, population-bed ratio) as very useful violence mitigation strategies against nurses working with

psychiatric patients, they represent 71.7%, 68.9%, 68.9%, 67.0%, and 67.9% respectively.

Figure (1) illustrated that the majority of psychiatric nurses' understudy had a moderate level of perceived stress, representing 70.8%. Also, this figure showed that more than a quarter of nurses' understudy had severe levels of perceived stress, representing 26.4%.

Figure (2) noticed that more than one-third of psychiatric nurses understudy were

professional unsatisfied, representing 36.8% compared to more than half of nurse's understudy who was professionally satisfied, representing 50.9%.

As mentioned in **table (7)**, there was a positive statistically significant correlation between the total score of workplace violence, the total score of perceived stress, and the total score of job satisfaction among psychiatric nurses understudy ($P < 0.001^{**}$).

Table (1): Frequency Distribution of psychiatric nurses under study according to their demographic characteristics (n. =106):

Items	No.	%
	Age:	
<30 years	53	50.0
30-<40 years	43	40.6
>40 years	10	9.4
Mean + SD	32.14±8.97	
Gender:		
Males	25	23.6
Females	81	76.4
Marital Status:		
Single	11	10.4
Married	82	77.4
Divorced/Separated	8	7.5
Widowed	5	4.7
Educational level:		
Nursing Diploma	55	51.9
Technical health institute	41	38.7
Bachelor of Nursing	10	9.4
Monthly Income:		
Sufficient	29	27.4
Insufficient	77	72.6
Years of Experience:		
<5 years	30	28.3
5-10	60	56.6
>10	16	15.1
Average working hours per week:		
<36	67	63.2
>36	39	36.8

Table (2): Frequency distribution of psychiatric nurse's understudy according to their history of exposure to workplace violence (n. =106):

Items		
	No.	%
History of experience workplace violence:		
Yes	93	87.7
No	13	12.3
Types of violence experienced:		
Verbal alteration (e.g., threats, abuse, etc.)	54	50.9
Physical violence (e.g., slapping, beating, thrashing, etc.)	41	38.7
Psychological (bullying, teasing, etc.)	5	4.7
Sexual Harassment	6	5.7
Sources of violence:		
Patients	60	56.6
Relatives/visitors	30	28.3
Physicians	6	5.7
Other healthcare providers	10	9.5
Time of exposure to violence:		
Day shift	87	82.1
Night Shift	19	17.9
Events in which assaults occur:		
When nurses are working alone	57	53.8
During visiting hours	33	31.1
During patient discharge	11	10.4
Uncontrolled crowding	5	4.7
Safety feeling during work:		
Yes	18	17.0
No	88	83.0
Availability of protective measures against workplace violence:		
Yes	19	17.9
No	87	82.1
Received violence prevention training:		
Yes	19	17.9
No	87	82.1
Reporting event:		
Yes	15	14.2
No	91	85.5

Table (3): Distribution of nurses working with psychiatric patient under study according to the frequency of workplace violence domains:

Items		
	No.	%
How often do you experience verbal altercations (e.g., threats, abuse, exaggerated arguments, etc.) at your workplace?		
Nearly daily	5	4.7
About once a week	65	61.3
About once a month	4	3.8
About once every 6 months	21	19.8
About once a year or less	11	10.4
How often do you experience physical violence (e.g., slapping, beating, thrashing, etc.) at your workplace?		
Nearly daily	22	20.8
About once a week	12	11.3
About once a month	32	30.2
About once every 6 months	35	33.0
About once a year or less	5	4.7

Table (4): Frequency distribution of psychiatric nurse's understudy according to their risk factors related to incidents of workplace violence domain:

Workplace Violence Risk factors	Psychiatric nurses					
	Very Important		Somewhat Important		Not Important	
	No	%	No	%	No	%
Unrealistic expectations of patients/attendants	78	73.6	18	17.0	10	9.4
Inappropriate knowledge about the disease/health condition	71	67.0	18	17.0	17	16
Poor communication skills	81	76.4	20	18.9	5	4.7
Lack of resources (equipment and medicines, doctor-patient ratio)	74	69.8	21	19.8	11	10.4
Overcrowding	82	77.4	21	19.8	3	2.8
Long waiting time	82	77.4	20	18.9	4	3.7
Inadequate security arrangements	80	75.5	21	19.8	5	4.7
Inadequate action on receiving complaints of WPV	83	78.3	21	19.8	2	1.9
Lack of respect for the authority of doctors/healthcare workers	77	72.6	21	19.8	8	7.6
Negative and inappropriate media reporting	73	68.9	21	19.8	12	11.3
Lack of the provision of harsh punishment for aggressors/offenders	76	71.7	21	19.8	9	8.5
Lack of redressed system	78	73.6	21	19.8	7	6.6

Table (5): Frequency distribution of psychiatric nurse's understudy according to Impact of workplace violence domain among psychiatric nursing staff understudy:

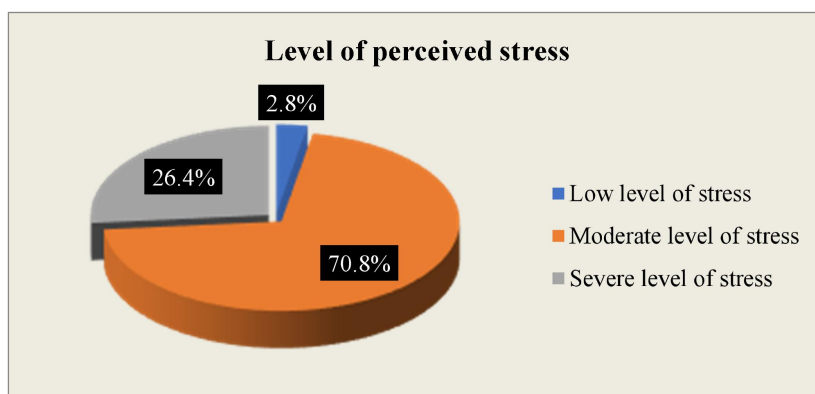
Impact of workplace violence	Not affected / mildly affected		Moderately affected		Severely affected	
	No	%	No	%	No	%
How much have the episodes of violence at your workplace affected your productivity, professional satisfaction, and motivation to continue in the job?	10	9.4	32	30.2	64	60.4
How much have the episodes of violence at your workplace affected your personal wellbeing and self-care?	7	6.6	40	37.7	59	55.7
How much has your routine activities with family been affected due to violence at your workplace?	8	7.5	38	35.8	60	56.7
How much has your social life with family, time spent doing enjoyable things with others been affected due to workplace violence?	8	7.5	41	38.7	57	53.8
How much do the episodes of violence at your workplace has affected your mental and psychological well-being (increased aggressiveness, irritability, low self-esteem, self-harm/suicidal ideations etc.)?	8	7.5	38	35.8	60	56.7

Table (6): Frequency distribution of psychiatric nurse's understudy according to Impact of workplace violence and reasons of underreporting domain:

Reasons of workplace violence underreporting domain	Disagree		Neutral		Agree	
	No	%	No	%	No	%
To what extent do the following reasons lead to under reporting?						
I Would be comfortable in reporting the episode of violence at my workplace to competent authorities	81	76.4	20	18.9	5	4.7
Felt ashamed of reporting	12	11.3	47	44.3	47	44.4
A belief that no action will be taken against the perpetrator	7	6.6	40	37.7	59	55.7
Lack of organizational support	16	15.1	26	24.5	64	60.4
Lack of support provision to report such incidences	8	7.5	41	38.7	57	53.8
The process was time-consuming	20	18.8	22	20.8	64	60.4
Fear that the appraisal or promotion avenues will be affected	13	12.2	29	27.4	64	60.4

Table (7): Frequency distribution of psychiatric nurse's understudy according to their suggested violence mitigation strategies domain (n. =106):

Violence mitigation strategies	Psychiatric nurses					
	Very useful		Somewhat Useful		Not useful	
	No	%	No	%	No	%
Controlling the number of attendants visiting the hospital with a patient	72	67.9	26	24.5	8	7.6
Educating patients and attendants about limitations of medical sciences and available infrastructure	12	11.3	47	44.3	47	44.4
Regular training of healthcare workers regarding soft skills (communication skills, breaking bad news, problem-solving skills)	73	68.9	23	21.7	10	9.4
Self-defense training of Health care workers	76	71.7	20	18.9	10	9.4
Improving healthcare facilities (like doctor-patient ratio, population-bed ratio)	71	67.0	21	19.8	14	13.2
Improving facilities within a hospital (like availability of medicines and diagnostic tests)	69	65.1	18	17.0	19	17.9
Improving Infrastructure facilities (like installation of CCTVs, metal detectors, alarm system)	66	62.3	18	17.0	22	20.7
Active complaint redressed system	73	68.9	18	17.0	15	14.1
Strong legislature measures like provision of significant punishment for offenders	54	50.9	18	17.0	34	32.1
Unbiased media reporting	59	55.7	18	17.0	29	27.3
Sensitizing politicians and public figures not to give immature/negative statements regarding healthcare workers	67	63.2	18	17.0	21	19.8

**Figure (1):** Percentage distribution of psychiatric nurse's understudy according to their level of perceived stress (n. =106)

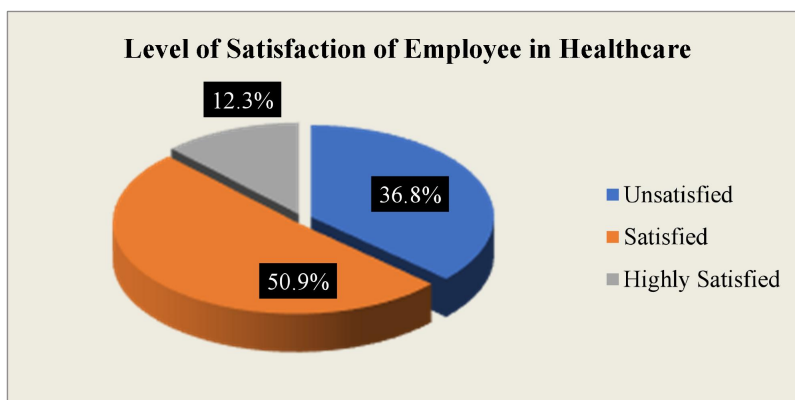


Figure (2): Percentage distribution of psychiatric nurse's understudy according to their level of job satisfaction (n. =106)

Table (8): Correlation matrix between total score of total score of WPVHC, total score of PSS and total score of SEHC of the studied psychiatric nurse's (n=106).

Total score		Total score of WPVHC	Total score of PSS	Total score of SEHC
Total score of WPVHC	R-value		0.796	-0.873
	p-value		<0.001**	<0.001**
Total score of PSS	R-value	0.796		-0.835
	p-value	<0.001**		<0.001**
Total score of SEHC	R-value	-0.873	-0.835	
	p-value	<0.001**	<0.001**	

(*) Statistically significant at $p < 0.05$, (**) statistically highly significant at $p < 0.001$, non-Significant at $p > 0.05$

Discussion:

Workplace violence in healthcare is a career threat with a harmful effect on work-related health. It leads to a high level of work stress and decreases job satisfaction among psychiatric nurses (Behilak, & AS, 2020).

This study found that the mean age of psychiatric nurses understudy was 32.14 ± 8.97 . It can explain the fact that younger nurses were at more risk of exposure to workplace violence than older nurses who become more skilled psychiatric nurses, and better able to deal with patients and visitors, thus reducing conflict. This study result was in a harmony with the result of Hasan & Tumah, (2019), which shows that older and more experienced nurses were exposed to less violence due to their acquired conflict resolution skills and effective communication skills with patients, relatives, and coworkers.

The present study illustrated that the highest percentage of nurse's understudy had nursing

diplomas, and paid an insufficient monthly income while they work an average of more than 36 working hours per week. It can explain the fact that graduates of technical diploma programs in nursing have little chance for professional development and improve their monthly income to be matched with their long working hours compared to nurses with a bachelor's degree in nursing. This result was supported by the findings of Cheung & Yip (2017), who found that a high level of occupational stress among female psychiatric nurses due to increased working hours, risk of exposure to aggression, and decreased chance of professional development through promotions or other incentives

This study indicated that most of the psychiatric nurses' understudies did not attend any violence management training courses. This study result explained that lack of training makes psychiatric nursing staff more likely to be exposed to workplace violence. This result was agreed by Issa & Mohammed, (2021),

who studied the work-related stress of nurses working in general and psychiatric wards at teaching hospitals in Baghdad city, they illustrated that absence of training courses for violence prevention and de-escalating hostile, and assaultive behaviors from patients, visitors or other staff leading to a higher risk of nurse's exposure to workplace violence.

The present study results revealed that the majority of psychiatric nurses understudy are not feeling safe during their work, and suffer from a lack of protective measures against violence in the workplace. It can be due to an unsupportive working environment including a lack of seclusion rooms for aggressive patients, a limited number of security personnel, a massive shortage in the nurses-patients ratio, poor leadership support, and a lack of strict implementation of policies and regulations that protect the psychiatric nurses' rights as the first victim to workplace violence and enhance their feeling of safety in a work setting. These study results were supported by **Konttila, Pesonen & Kyngäs (2018)**, who found a significant association between exposure to workplace violence and lack of safety feeling during work. They mentioned that experience of workplace violence increased the feeling of anxiety from uncertain danger, defensive behaviors, perceived professional stress and minimize enthusiasm, loyalty to work, and professional development and desire to change the career or ask to move jobs.

This study showed that nearly two-thirds of psychiatric nurses' understudy experienced workplace violence mostly for verbal violence including exposure to shouting, yelling, swarming, and using derogatory language and putdowns nearly daily. Physical violence was also reported among around one-third of psychiatric nurses' understudy in the form of hitting, slapping, choking, kicking, grabbing, throwing, burning, hair pulling, twisting arms, tripping, confinement, and use of weapons or devices, and punching. This can be due to the nature of psychiatric patients' illness e.g., delusions, hallucinations, etc., and a long period of patient stay in the psychiatric hospitals, in addition to strict compliance with mental healthcare policies and legal responsibilities that raise the conflict between the psychiatric nurses and patients, relatives,

and other healthcare providers. These study results were agreed by **Yosep, et al. (2019)**, who found that verbal violence was the most common type of violence against nurses working in psychiatric facilities due to patients' mental status, severe psychotic symptoms (e.g., delusions, hallucinations, self-defense), demanding to leave, experiencing pain, long waiting time for receiving treatment, and lack of communication as contributing factor to aggression and violence in psychiatric institutions.

In a similar study conducted by **Maghraby, Elgibaly & El-Gazzar, (2020)**, who studied workplace sexual harassment among nurses of a university hospital in Egypt, they found that that near half of nurses understudy exposed to psychological violence which comes in the form of isolation, making fear, threatening, or bullying. They also found that sexual violence was reported among a quarter of nurses' understudy through unwanted sexual touch or sharing the nurse's photos without their approval. They added that violence in the workplace has become an ill-fated reality in a healthcare setting, particularly among nurses whereas the nurses are exposed to the patients with psychotic symptoms.

Concerning the risk factors related to the incidence of workplace among nurses understudy, this study results revealed that the majority of nurses understudy considered inadequate action on receiving complaints of WPV, overcrowding, long waiting time poor communication skills, and inadequate security arrangements as very important risk factors for exposure to workplace violence. Moreover, this study revealed that more than two-thirds of nurse's understudy considered unrealistic expectations of patients/attendants, a lack of redressed system, a lack of respect for the authority of doctors/healthcare workers, lack of the provision of harsh punishment for aggressors/offenders, lack of redressed system as very important risk factors for exposure to workplace violence. It may be due to previous experience of workplace violence where all of these factors were act as precipitating factors to the incidence of violence.

This study's results were in line with the findings of a recent study conducted by

Kumari, et al., (2021), who indicated that the most common risk factors for workplace violence against psychiatric nurses include inappropriate communication with the patient and their relatives, lack of relative knowledge about the nature of the patient illness, lack of equipment or long waiting time, in addition to other institutional factors includes lack of violence-related policies or inadequate healthcare providers support against workplace violence.

In reference to the impact of violence on nurses' understudy, this study's results revealed that nearly two-thirds of nurses working with psychiatric patients under study were severely affected due to exposure to workplace violence mostly for their productivity, professional satisfaction, and motivation to continue in the job. It also negatively affects nurses' routine activities with family (parents, spouse, children), mental and psychological well-being leading to increased aggressiveness, irritability, low self-esteem, self-harm/suicidal ideations, personal wellbeing, self-care, and lack of interest in self-care or physical fitness.

This study's results were in a harmony with another study conducted by **Duan, et al. (2019)**, who examined the impact of workplace violence on job satisfaction, job burnout, and turnover intention, they found that more than half of the nurses who experienced violence from their patients often struggled with role conflict between one's duty to care and one's duty to self when providing care following a critical incident involving violence. Moreover, **Al-Azzam, et al., (2017)**, added that psychiatric nurses suffer from minimized professional self-esteem and become unsatisfied with their profession, in addition to other effects of violence episodes on mental well-being that make nurses more irritable, aggressive, socially withdrawn, and lack self-care such as sleep schedule eating pattern, fitness, grooming, and dressing.

This study's findings also revealed that most psychiatric nurses' understudy was not reporting the incidence of workplace violence. It can be attributed to many reasons including lack of organizational support, the process is time-consuming, fear that the appraisal or

promotion avenues will be affected, belief that no action will be taken against the perpetrator, and lack of support provided to report such incidences. These study results were agreed with the findings of **Abd El-Wahed, et al. (2021)**, who explained that most the psychiatric nurses avoid reporting the workplace violence to attach due to many reasons such as avoiding losing their job, fear of being charged, lack of organizational support, false beliefs that violence is part of their job, avoid time-consuming investigations, fear that the appraisal or promotion avenues will be affected.

This study was also revealed that the majority of psychiatric nurse's understudy consider self-defense training of health care workers, regular training of healthcare workers regarding soft skills (communication skills, breaking bad news, counseling skills, problem-solving skills), active complaint redressed system, controlling the number of attendants visiting the hospital with a patient, and improving healthcare facilities (like doctor-patient ratio, population-bed ratio) as very useful violence mitigation strategies against nurses working with psychiatric patients. It can be due to the fact that strict implementation of antiviolence activities might lead to minimizing the incidence of violence attached against nurses in the workplace. These findings were supported by the study of **Basfr, Hamdan & Al-Habib (2019)**, who recommended strategies that can be useful in the prevention of violence episodes at the workplace involve controlling the number of attendants visiting the hospital with every patient, patient education about available services and infrastructure, nurses training on psychiatric patient's control and restrain techniques, and strong legislature measures like provision of significant punishment for non-patients offenders. Moreover, **Gabr, Younis & El-Badry (2021)**, added other violence mitigation strategies in the workplace including an active complaint system, sensitizing politicians and public figures not to give immature/negative statements regarding healthcare workers, in addition to unbiased media reporting against nurses working with psychiatric patients to minimize community stigma and aggression against them.

This study's findings also illustrated that the majority of psychiatric nurses' understudy had a moderate level of perceived job stress. It can be explained by the fact that psychiatric nurses may more prolonged and in-depth contact with the patients than other healthcare providers, in addition to lack of resources, insufficient training, increased working hours, insufficient monthly income, and exposure to workplace violence and aggression from patients. This study's results were approved by **Dawood, Mitsu & Monica, (2017)**, who found that psychiatric nurses reported high-stress levels that affect their physical and psychological status leading to a high rate of job burnout due to a lack of resources, which directly affects the quality-of-care nurses are able to provide and undermines the health system efficiency and capability to deliver quality outcomes.

Another study conducted by **Itzhaki, et al, (2015)**, reported that nurses working in a psychiatric setting have a higher level of work stress compared to nurses working in a general hospital. Therefore, psychiatric nurses are at a higher risk for symptoms derived from work stress involving emotional exhaustion, frustration, the feeling of hopelessness, and difficulty dealing with the job. In addition, **Foster, (2020)**, noticed that exposure to workplace violence leads to the development of post-traumatic stress disorder.

With regards to levels of professional satisfaction among psychiatric nurses understudy, this study results noticed that more than one-third of nurses working with psychiatric patients under study were professionally unsatisfied, compared to more than half of nurses understudy who were professionally stratified. It may be due to professional adjustment and false belief that violence is part of their job in mental health hospitals that increased their tolerance to work stressors as well as acceptance of workplace violence as one of these stressors. These surprising results were agreed with the results of a similar study conducted by **Ham, et al., (2021)**, who showed that the level of nurse satisfaction was not affected by workplace violence due to tolerance of violence and believe that violence is an integral component of their work as psychiatric nurses. In another

word, the absence of association between exposure to workplace violence and job satisfaction may be viewed as an adjustment reaction to the challenges of working with psychiatric patients in mental health hospitals.

This study's results disagreed with the results of **Chiou-Fen, et al., (2020)**, who showed that more than half of nurses working in mental health hospitals were professionally dissatisfied due to exposure to workplace violence, in addition to other types of work stressors as increased workload, long working hours, low monthly income, and community stigma. It is evidenced by frequent absenteeism, multiple incidents or medical error, ineffective communication with other healthcare providers, and decreased productivity and job performance. **Kobayashi, et al., (2020)** suggested in their study titled workplace violence and its effects on burnout and secondary traumatic stress among mental healthcare nurses in Japan that nurses' exposure to violence in psychiatric wards is associated with work stress. It can cause a feeling of unsafety, which enhances other work stressors. However, **Mento, et al., (2020)**, found that stress in a workplace environment may arouse aggression, and create a cycle of violence. Another study conducted by **Pai, et al., (2015)**, found that an unsafe working environment for mental health nurses not only impacts work stress but also reduces life and professional satisfaction. This also might contribute to counterbalance by enhancing feeling of insecurity in workplace.

This study reported that there was a positive statistically significant correlation between the exposure to workplace violence, perceived stress, and job satisfaction among psychiatric nurse's understudy. It can be attributed to the fact that frequent exposure to workplace violence leads to emotional trauma associated with negative feelings including anger, anxiety, depression, frustration, fear, and loss of self-efficacy, all of which could lead to job burnout, and lower work performance, and job satisfaction. This study's results were in harmony with the result of **Yoshizawa, et al., (2016)**, who found that healthcare workers who experience workplace violence reported a lower level of job performance, higher level of professional stress, and minimized job

satisfaction. In a similar study conducted by Yang, et al, (2018), they found that workplace violence was the major contributor to work stress among nurses, which has a negative impact on job performance, and job satisfaction that leads to burnout. In another study conducted by Hilton, et al., (2021), they mentioned that workplace violence toward nurses has been shown to cause the poor professional quality of life, increased compassionate fatigue, and staff turnover.

Conclusions:

Based on the current study results, it can be concluded that:

- The majority of psychiatric nursing staff understudy has been exposed to workplace violence mostly verbal and physical violence.
- Inadequate action on receiving complaints of WPV, overcrowding, long waiting time poor communication skills, and inadequate security arrangements were considered very important risk factors for exposure to workplace violence by the majority of psychiatric nurses' understudy.
- Near two-thirds of nurses working with psychiatric patients under study were severely affected due to exposure to workplace violence mostly for their productivity, professional satisfaction, and motivation to continue in the job.
- The majority of psychiatric nurses understudy consider self-defense training, soft skills training, active complaint redressed system, controlling the number of attendants visiting the hospital with a patient, and improving healthcare facilities are very useful violence mitigation strategies against nurses working with psychiatric patients.
- The majority of psychiatric nurses' understudy had a moderate level of perceived stress.
- More than one-third of psychiatric nurses understudy were professionally unsatisfied compared to more than half of nurses understudy were professionally satisfied.
- There was a positive statistically significant correlation between exposure to workplace violence, levels of perceived stress, and levels of job satisfaction among psychiatric nurses understudy.
- Near two-thirds of nurses understudied agreed that the reasons for underreporting of workplace violence may be lack of organizational support, the process was time-consuming, and fear that the appraisal or promotion avenues will be affected.

Recommendations:

In the light of the current results, this study recommends the following:

- Developing and implementing a violence prevention program for psychiatric nurses to improve their professional safety and security, minimize their job perceived stress, and enhance their job satisfaction.
- Implement a training program on stress management among psychiatric nurses and improve their job satisfaction.
- Conduct further studies to investigate the impact of workplace violence on the quality of life and coping strategies with work-related stressors among psychiatric nurses in both governmental and private mental health hospitals.
- Strict implementation of violence-related policies, procedures, and regulations by decision-makers and mental health hospital administrators to maintain a safe working environment free from harm and unnecessary hazards or pressure.

References:

- Alharthy, N., Mutairi, M. A., Alsahli, A., Alshehri, A., Almatrafi, A., Mahah, A., & Qureshi, S. (2017). Workplace violence among emergency medical services workers in Riyadh, Saudi Arabia. *Journal of Hospital Administration*, 6(3), 26-32.
- Abdellah, R. F., & Salama, K. M. (2017). Prevalence and risk factors of workplace violence against health care workers in emergency department in Ismailia, Egypt. *Pan African medical journal*, 26(1), 1-8.
- Alkorashy, H. A. E., & Al Moalad, F. B. (2016). Workplace violence against nursing staff in a Saudi university hospital. *International nursing review*, 63(2), 226-232.
- Abd el-Wahed, E. A. A., Khalek, H. A. A., Metwally, S. M., & Said, B. (2021).

- Burnout among Psychiatric Nurses and its Relation to their Emotional Intelligence and Patients' Aggression. *Annals of the Romanian Society for Cell Biology*, 25(6), 18954-18969.
- Alpern, R., Canavan, M. E., Thompson, J. T., McNatt, Z., Tatek, D., Lindfield, T., & Bradley, E. H. (2013).** Development of a brief instrument for assessing healthcare employee satisfaction in a low-income setting. *PLoS one*, 8(11), e79053.
- Al-Azzam, M., Al-Sagarat, A. Y., Tawalbeh, L., & Poedel, R. J. (2017).** Mental health nurses' perspective of workplace violence in Jordanian mental health hospitals. *Perspectives in psychiatric care*, 54(4), 477-487.
- Basfr, W., Hamdan, A., & Al-Habib, S. (2019).** Workplace violence against nurses in psychiatric hospital settings: perspectives from Saudi Arabia. *Sultan Qaboos University Medical Journal*, 19(1), e19.
- Behilak, S., & AS-e, A. (2020).** The relationship between burnout and job satisfaction among psychiatric nurses. *J Nur's Educ Pract*, 10(10.5430).
- Chiou-Fen, L. I. N., Fu-Chih, L. A. I., Huang, W. R., Huang, C. I., & Hsieh, C. J. (2020).** Satisfaction with the quality nursing work environment among psychiatric nurses working in acute care general hospitals. *Journal of Nursing Research*, 28(2), e76.
- Chang, H. E., & Cho, S. H. (2016).** Workplace violence and job outcomes of newly licensed nurses. *Asian nursing research*, 10(4), 271-276.
- Cheung, T., Lee, P. H., & Yip, P. S. (2018).** The association between workplace violence and physicians' and nurses' job satisfaction in Macau. *PLoS one*, 13(12), e0207577.
- Cheung, T., & Yip, P. S. (2017).** Workplace violence towards nurses in Hong Kong: prevalence and correlates. *BMC public health*, 17(1), 1-10.
- Dean, L., Butler, A., & Cuddigan, J. (2021).** The impact of workplace violence toward psychiatric mental health nurses: Identifying the facilitators and barriers to supportive resources. *Journal of the American Psychiatric Nurses Association*, 27(3), 189-202.
- Duan, X., Ni, X., Shi, L., Zhang, L., Ye, Y., Mu, H., & Wang, Y. (2019).** The impact of workplace violence on job satisfaction, job burnout, and turnover intention: the mediating role of social support. *Health and quality of life outcomes*, 17(1), 1-10.
- Del Carmen Pérez-Fuentes, M., Gázquez, J. J., Del Mar Molero, M., Oropesa, N. F., & Martos, Á. (2020).** Violence and job satisfaction of nurses: Importance of a support network in healthcare. *European journal of psychology applied to legal context*, 13(1), 21-28.
- Dawood, E., Mitsu, R., & Monica, A. (2017).** Perceived psychiatric nurses job stress: a cross sectional study. *IOSR Journal of Nursing and Health Science*, 6(2), 37-47.
- Emam, G. H., Alimohammadi, H., Sadrabad, A. Z., & Hatamabadi, H. (2018).** Workplace violence against residents in emergency department and reasons for not reporting them; a cross sectional study. *Emergency*, 6(1).
- Foster, K., Roche, M., Giandinoto, J. A., & Furness, T. (2020).** Workplace stressors, psychological well-being, resilience, and caring behaviors of mental health nurses: A descriptive correlational study. *International journal of mental health nursing*, 29(1), 56-68.
- Gabr, H. M., Younis, F. E., & El-Badry, A. S. (2021).** Workplace Violence against Female Nurses in Menoufia Governorate, Egypt: An Epidemiological Study. *The Egyptian Family Medicine Journal*, 5(1), 17-27.
- Hasan, A. A., Elsayed, S., & Tumah, H. (2018).** Occupational stress, coping strategies, and psychological-related outcomes of nurses working in psychiatric hospitals. *Perspectives in psychiatric care*, 54(4), 514-522.
- Hasan, A. A., & Tumah, H. (2019).** The correlation between occupational stress, coping strategies, and the levels of psychological distress among nurses working in mental health hospital in

- Jordan. Perspectives in psychiatric care, 55(2), 153-160.
- Ham, E., Ricciardelli, R., Rodrigues, N. C., Hilton, N. Z., & Seto, M. C. (2021).** Beyond workplace violence: Direct and vicarious trauma among psychiatric hospital workers. A qualitative study. *Journal of Nursing Management*.
- Hilton, N. Z., Ricciardelli, R., Shewmake, J., Rodrigues, N. C., Seto, M. C., & Ham, E. (2021).** Perceptions of workplace violence and workplace stress: A mixed methods study of trauma among psychiatric workers. *Issues in mental health nursing*, 42(9), 797-807.
- Itzhaki, M., Bluvstein, I., Peles Bortz, A., Kostitsky, H., Bar Noy, D., Filshtinsky, V., & Theilla, M. (2018).** Mental health nurse's exposure to workplace violence leads to job stress, which leads to reduced professional quality of life. *Frontiers in psychiatry*, 9, 59.
- Itzhaki, M., Peles-Bortz, A., Kostitsky, H., Barnoy, D., Filshtinsky, V., & Bluvstein, I. (2015).** Exposure of mental health nurses to violence associated with job stress, life satisfaction, staff resilience, and post-traumatic growth. *International journal of mental health nursing*, 24(5), 403-412.
- Issa, I. A., & Mohammed, Q. Q. (2021).** Work-related stress of Nurses working in General and Psychiatric Wards at Teaching Hospitals in Baghdad City: Comparative Study. *Nveo-natural volatiles & essential oils Journal| NVEO*, 8968-8981.
- Jaradat, Y., Nielsen, M. B., Kristensen, P., Nijem, K., Bjertness, E., Stigum, H., & Bast-Pettersen, R. (2016).** Workplace aggression, psychological distress, and job satisfaction among Palestinian nurses: A cross-sectional study. *Applied nursing research*, 32, 190-198.
- Kobayashi, Y., Oe, M., Ishida, T., Matsuoka, M., Chiba, H., & Uchimura, N. (2020).** Workplace violence and its effects on burnout and secondary traumatic stress among mental healthcare nurses in Japan. *International journal of environmental research and public health*, 17(8), 2747.
- Kobayashi, Y., Oe, M., Ishida, T., Matsuoka, M., Chiba, H., & Uchimura, N. (2020).** Workplace violence and its effects on burnout and secondary traumatic stress among mental healthcare nurses in Japan. *International journal of environmental research and public health*, 17(8), 2747.
- Kumari, A., Singh, A., Ranjan, P., Sarkar, S., Kaur, T., Upadhyay, A. D., & Baitha, U. (2021).** Development and validation of a questionnaire to evaluate workplace violence in healthcare settings. *Cures*, 13(11).
- Konttila, J., Pesonen, H. M., & Kyngäs, H. (2018).** Violence committed against nursing staff by patients in psychiatric outpatient settings. *International journal of mental health nursing*, 27(6), 1592-1605.
- Konttila, J., Holopainen, A., Pesonen, H. M., & Kyngäs, H. (2021).** Occurrence of workplace violence and the psychological consequences of it among nurses working in psychiatric outpatient settings. *Journal of Psychiatric and Mental Health Nursing*, 28(4), 706-720.
- Liu, W., Zhao, S., Shi, L., Zhang, Z., Liu, X., Li, L., & Ni, X. (2018).** Workplace violence, job satisfaction, burnout, perceived organizational support and their effects on turnover intention among Chinese nurses in tertiary hospitals: a cross-sectional study. *BMJ open*, 8(6), e019525.
- Masa'Deh, R., Alhalaiqa, F., AbuRuz, M. E., Al-Dweik, G., & Al-Akash, H. Y. (2017).** Perceived stress in nurses: A comparative study. *Global Journal of Health Science*, 9(6), 195.
- Magnavita, N., Heponiemi, T., & Chirico, F. (2020).** Workplace violence is associated with impaired work functioning in nurses: an Italian cross-sectional study. *Journal of nursing scholarship*, 52(3), 281-291.
- Maghraby, R. A., Elgibaly, O., & El-Gazzar, A. F. (2020).** Workplace sexual harassment among nurses of a university hospital in Egypt. *Sexual & Reproductive Healthcare*, 25, 100519.

- Mento, C., Silvestri, M. C., Bruno, A., Muscatello, M. R. A., Cedro, C., Pandolfo, G., & Zoccali, R. A. (2020).** Workplace violence against healthcare professionals: A systematic review. *Aggression and violent behavior, 51*, 101381.
- Pihl-Thingvad, J., Elklit, A., Brandt, L. P. A., & Andersen, L. L. (2019).** Workplace violence and development of burnout symptoms: a prospective cohort study on 1823 social educators. *International archives of occupational and environmental health, 92(6)*, 843-853.
- Pai, D. D., Lautert, L., Souza, S. B. C. D., Marziale, M. H. P., & Tavares, J. P. (2015).** Violence, burnout and minor psychiatric disorders in hospital work. *Revista da Escola de Enfermagem da USP, 49*, 457-464.
- Raosoft, I (2020).** Sample size calculator by Raosoft, Inc. Available at: Sample Size Calculator by Raosoft, Inc.
- Yang, B. X., Stone, T. E., Petrini, M. A., & Morris, D. L. (2018).** Incidence, type, related factors, and effect of workplace violence on mental health nurses: a cross-sectional survey. *Archives of psychiatric nursing, 32(1)*, 31-38.
- Yosep, I., Mediani, H. S., Putit, Z., Hazmi, H., & Mardiyah, A. (2019).** Mental health nurses' perspective of work-related violence in Indonesia: A qualitative study. *International Journal of Caring Sciences, 12(3)*, 1871-1878.
- Yoshizawa, K., Sugawara, N., Yasui-Furukori, N., Danjo, K., Furukori, H., Sato, Y., & Nakamura, K. (2016).** Relationship between occupational stress and depression among psychiatric nurses in Japan. *Archives of environmental & occupational health, 71(1)*, 10-15.
- Zhang, L., Wang, A., Xie, X., Zhou, Y., Li, J., Yang, L., & Zhang, J. (2017).** Workplace violence against nurses: A cross-sectional study. *International journal of nursing studies, 72*, 8-14.