Article

A Study on the Current Situation of Psychological Distress among Psychiatric Nurses and its Influencing Factors

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Abstract

Objective: To understand the current situation of psychiatric nurses' psychological distress and analyse its influencing factors.
Methods From August to October 2022, 326 clinical nurses in three psychiatric hospitals in Henan Province were selected by convenience sampling method, and questionnaires were administered to them using the General Information Questionnaire, Psychological Distress Scale, Flexibility Scale Simplified, and Workplace Violence Frequency Scale. Statistical processing used SPSS 24.0.
Results 76.4% of the nurses had different degrees of psychological distress, and the total score of psychological distress was (23.35±9.19). Length of work, psychological resilience and workplace violence were the influencing factors of psychiatric nurses' psychological distress (P<0.05), which could explain 26.6% of the total variance.

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Conclusion Psychiatric nurses have more serious psychological distress, and nursing managers should take active interventions to improve the level of psychological resilience of nursing staff and reduce workplace violence.

Keywords: Psychiatric nurses; psychological distress; influencing factors

Psychological distress is a non-specific adverse psychological state, such as anxiety and depression, experienced by individuals in high-pressure situations, which affects healthy physical and mental development (Salvarani V et al., 2020). According to Lazarus' stress theory, individuals are vulnerable to psychological distress when they are exposed to chronic stressful situations and have insufficient coping resources. Psychiatric patients are often affected by psychiatric symptoms such as suicide, self-injury, injury and destruction and other emergencies. Due to the special nature of the work environment, psychiatric nurses are in a high-stress state for a long time and are at high risk of psychological distress (Fan et al., 2018). Liu et al. (2015) found that 80.7% of psychiatric nurses had psychological distress, and high levels of psychological distress increase the risk of nursing errors, which in turn affects the quality of nursing services and patient safety. Psychological distress among psychiatric nurses can affect the quality of nursing services (Tomura M., 2023). Psychological resilience, as a positive psychological trait, refers to an individual's ability to adapt in the face of adversity successfully, trauma, disaster threat and other major life stressors (Southwick SM, Charney DS, 2012); it is another important variable that affects psychological distress. Studies have shown (Perron JL, Cleverley K, Kidd S., 2014) that psychological resilience is significantly and negatively related to psychological distress; psychological resilience is predictive of anxiety and depression, and individuals with high psychological resilience tend to adopt positive coping styles (Bonanno GA et al., 2012). In addition, psychological resilience can also be effective in preventing the occurrence of psychological disorders such as depression and post-traumatic stress disorder and maintaining good mental health (Mealer M, Jones J, Newman J, et al., 2012)

Based on this, this study intends to investigate the effects of psychological resilience workplace violence on psychological distress to provide a theoretical basis for nursing managers to develop targeted measures to promote the physical and mental health of psychiatric nurses.

Object and Method

Study Subjects

From August to October 2022, 326 clinical nurses on duty in two public and one private psychiatric hospitals in Henan Province were selected by the convenience sampling method as the study subjects. Among them, 24.23% were male, and 75.77% were female; 50.30% were <30 years old, 36.20% were 30-40 years old, and 13.50% were >40 years old; 37.12% were college and below, and 62.88% were bachelor and above.

Inclusion criteria: (1) clinical registered nurses; (2) two years of clinical work in psychiatry; (3) informed consent and voluntary participation in this study; exclusion criteria: (1) nurses who studied outside the hospital; (2) time off work due to leave ≥ 6 months. According to the sample size calculation criteria (Ni et al., 2010), the sample size is at least 5-10 times the number of variables. The number of variables in this study was 35, and considering 20% inefficiency, the minimum sample size included was 210 cases, and 326 cases were finally included in this survey.

Methods

Research Instruments

(1) A general information questionnaire designed by the researcher, including age, gender, education level, monthly income, marital status, years of work, and job title.

(2) The Kessler psychological distress scale (K10) was developed by Kessler et al. (Kessler et al., 2002), using the Chinese version of K10 by Zhou et al. (2008), to assess the frequency of non-specific symptoms such as anxiety and depression experienced by individuals in the past four weeks. The K10 was used to assess the frequency of non-specific symptoms such as anxiety and depression in the past four weeks and was rated on a 5-point Likert scale, with 1 indicating "none" and 5 indicating "all the time", with a total score of 10-50. The scores were divided into four levels: almost no psychological distress (10-15), mild psychological distress (16-21), moderate psychological distress (22-29), and severe psychological distress (30-50), with a total score of ≥16 being considered as having psychological distress. The Cronbach's alpha coefficient of the scale in this study was 0.96.

(3) The Connor-Davision resilience scale (CD-RISC) was developed by Campbell Sills et al. (2007) using the Chinese version of the CD-RISC by Wang et al. The higher the score, the better the psychological resilience of the individual. The Cronbach's alpha coefficient of the scale in this study was 0.949.

(4) Workplace violence frequency measurement scale (WVS) was developed by Peek et al. (1998), and the Chinese version of the WVS by Wang et al. (2007) was used to investigate psychiatric nurses' exposure to workplace violence in the past year. The scale has five items, including physical assault, emotional abuse, threatening intimidation, verbal sexual harassment, and physical sexual harassment. It is rated on a scale of 0-3 with a total score of 0-15 and a frequency scale: zero frequency (0 points), low frequency (1-5 points), medium frequency (6-10 points), and high frequency (11-15 points). The Cronbach's alpha coefficient for this scale in this study was 0.815.

Data Collection Method

A questionnaire was used to generate a link in the form of a questionnaire star, which was distributed to nurses after obtaining consent. The questionnaire was prefaced with a uniform guideline explaining the purpose and significance of the study and the

principles of confidentiality and anonymity. A total of 340 questionnaires were collected in this study, and 326 valid questionnaires were collected after excluding some invalid questionnaires that were not logical and had less than 3 min of answering time, with a valid recovery rate of 95.88%.

Statistical Treatment

SPSS25.0 software was used for statistical analysis, and the mean±standard deviation was used to describe the measurement data in accordance with normal distribution, and the frequency and percentage were used to describe the count data; t-test or F-test was used for one-way analysis of variance in accordance with normal distribution, and the least significant difference method was used for two-way comparison between groups; Pearson correlation analysis was used to analyse the correlation between variables; multiple linear regression analysis was used to analyse the correlation between variables. Pearson's correlation analysis was used to analyse the correlation between variables; multiple linear regression was used to analyse the influencing factors of psychological distress, and the difference was considered statistically significant at $P < 0.05$.

Results

General Information on Psychiatric Nurses and Univariate Analysis of Psychological Distress Scores

The general information of 326 psychiatric nurses in this group is shown in Table 1; the score of psychological distress (23.35±9.19) was based on the defined value of psychological distress (K10≥16): 77 cases with almost no psychological distress.

(23.62%), Eighty-four cases of mild psychological distress (25.77%), 73 cases of moderate psychological distress (22.39%), and 92 cases of severe psychological distress (28.22%). The results of the univariate analysis showed that the differences in psychiatric nurses' psychological distress scores were statistically significant (all $P<0.05$) when comparing psychiatric nurses with different levels of education, years of experience, job titles, working hours and frequency of violence in the workplace, as shown in Table 1.

Table 1: General Information on Psychiatric Nurses and Univariate Analysis of Psychological Distress Scores

Item		Number of cases[n (%)]	Psychological distress score	t/F	*P*
gender				1.134	0.257
	Male	79(24.23)	24.37±9.82		
	Female	247(75.77)	23.02±8.97		
age				2.249	0.107
	<30	164(50.30)	22.90±9.55		
	30-40	118(36.20)	22.95±8.78		
	>40	44（13.50）	26.07±8.62		
Education level				-2.656	0.008
	College and below	121（37.12）	21.60±8.16		
	Bachelor's degree and above	205（62.88）	24.38±9.62		
Working years				5.790	0.003
	<5	112（34.36）	21.05±8.94		
	5-15	162（49.69）	24.27±9.32		
	>15	52（15.95）	25.42±8.45		
title				5.669	0.004
	Nurse	99（30.37）	20.91±8.59		
	Nurse practitioner	158（48.47）	24.81±9.93		
	Nurse practitioner in charge and above	69（21.16）	23.48±7.47		
Hours of work per day				10.375	<0.001
	<9	272（83.44）	22.44±8.61		
	9-12	49（15.03）	28.67±10.65		
	>12	5（1.53）	20.40±7.80		
Frequency of workplace violence				17.725	<0.001
	Zero frequency violence	26（7.98）	15.54±6.26		
	Low frequency	67（20.55）	20.39±7.67		

violence		
Medium frequency violence	140（42.94）	23.36±8.43
High frequency violence	93（28.53）	27.65±9.79

Psychological Resilience, Workplace Violence and Psychological Distress Scores of Psychiatric Nurses

Psychological resilience score (27.83±8.35); workplace violence score (7.97±4.35).

Variables	score
Psychological resilience	27.83±8.35
workplace violence	7.97±4.35

Correlation of Psychological Distress with Psychological Resilience and Workplace Violence among Psychiatric Nurses

Correlation analysis showed that psychological distress was negatively correlated with psychological resilience ($r = -0.371$, $P < 0.01$), and psychological distress was positively correlated with workplace violence ($r = 0.390$, $P < 0.01$).

Table 2: Correlation of Psychological Distress with Psychological Resilience and Workplace Violence in Psychiatric Nurses (r)

Variables	psychological distress	p
Psychological resilience	-0.371	P＜０.０１
Workplace violence	0.390	P＜０.０１

Multiple Linear Regression Analysis of Psychological Distress among Psychiatric Nurses

Multiple linear regression analysis was conducted with psychological distress scores as the dependent variable and significant variables in univariate and correlation analyses as independent variables.

The results showed that work hours had a significant positive predictive effect on psychological distress (β=0.129, p=0.008), and psychological flexibility had a significant negative predictive effect on psychiatric nurses' psychological distress (β=-0.325, p<0.001). Workplace violence had a significant positive predictive effect on psychiatric nurses' psychological distress (β=0.294, p<0.001), R2= 0.266, so working

hours, psychological flexibility and workplace violence predicted psychological distress by 26.6%, with psychological flexibility having the best predictive power for psychological distress. The results of the specific results regression analysis are shown in Table 3.

Table 2: Results of Multiple Linear Regression Analysis of Psychological Distress in Psychiatric Nurses (n=326)

Independent variable	B	sb	β	t	P
Constant term	20.204	4.083	–	4.905	<0.001
Daily working hours	2.807	1.043	0.129	2.691	0.008
Psychological flexibility	-0.358	0.053	-0.325	-6.745	<0.001
Workplace violence	0.621	0.114	0.294	5.450	<0.001

Note: R^2=0.282, adjusted R^2=0.266, F=17.833, p<0.001.

Discussion

Current Status of Psychiatric Nurses' Psychological Distress

In this study, nurses with a bachelor's degree or above, nurse practitioners, and long working years had a high prevalence of psychological distress, which is consistent with Zhong et al. (2018) and Li et al. This is consistent with the findings of Zhong et al. (2017); in addition to the nature of psychiatric work, the special nature of the service recipients and hierarchical treatment, it may also be related to the following reasons: nurses with high education, high titles and long working years are the backbone of the department, not only to complete clinical work, but also to undertake more tasks such as scientific research and teaching; most of them have two children, and it is difficult for most nurses to work and family Most of them have two children, and most nurses have difficulty in taking care of their work and family at the same time; some nurses are facing career bottleneck, unclear personal career planning, professional fatigue, and heavy psychological burden. Therefore, managers should pay attention to nurses' psychological health, strengthen humanistic care and support, adopt scientific and reasonable staffing, and encourage nurses with low titles to actively participate in scientific research and teaching activities to reduce nurse overload; in addition, career guidance intervention can be carried out to help them clarify their career direction and reduce career fatigue, to relieve nurses' psychological pressure.

Analysis of the Factors Influencing Psychological Distress of Psychiatric Nurses

Working Hours

The results of this study showed that nurses who worked 9-12 hours per day had the highest psychological distress scores. This is consistent with the findings of Li et al. (2022) and Grace MK, Vanheuvelen JS (2019). Working hours are one of the main stressors for nurses, especially those working >40 hours per week, who are prone to moderate to high fatigue risk, which affects physical and mental health and job performance. The reasons for this are: as the working hours increase, the nurses' physical strength and energy are continuously exhausted, their concentration is gradually reduced, and patients are prone to adverse events such as suicide, self-injury, aggression and exodus, which in turn will increase the psychological load of nurses. Therefore, managers can manage human resources with the actual situation of the department, implement dynamic and flexible scheduling, and reasonably arrange nurses' workload and working hours to ensure patient safety and nursing quality to finally achieve the purpose of reducing nurses' psychological distress.

Psychological Flexibility Level

In this study, nurses' psychological resilience score was (27.83±8.35), which was at a medium level, and psychological resilience and psychological distress were negatively correlated; the higher the level of psychological resilience, the less the nurses were affected by psychological distress. This may be because nurses with high levels of psychological resilience are more comfortable in coping with life events and can recover quickly from stressors, adapt positively and develop well, which can help nurses adopt good coping styles and avoid the effects of psychological distress. Psychological resilience is not only a protective factor against psychological distress and the basis for psychological adjustment but also an ability and quality that enables the ability to face setbacks and adversity through individual positive qualities and external environmental resources. Moreover, psychological resilience can be acquired through training. Therefore, psychological resilience interventions, such as cognitive therapy based on positive thinking, can be carried out to improve nurses' stress-coping ability and reduce psychiatric psychological distress.

Workplace Violence

In this study, workplace violence scores were positively correlated with psychological distress ($P < 0.01$); that is, the higher the frequency of suffering from workplace violence, the more serious the psychological distress, and workplace violence is an important influencing factor of psychological distress. The reason for this analysis may be due to the special nature of patients' diseases, confused thinking, and inability to control their thoughts and behaviours, and nurses sometimes suffer from accidental injuries, which cause psychological distress. In addition, nurses' lack of awareness of the importance of violence training and incomplete acquisition of violence prevention skills may make them more vulnerable to workplace violence. Shi L et al. (2017) and

Wirth T, Peyer C, Nienhaus A, et al. (2021) found that exposure to workplace violence can cause nurses to experience psychological feelings of aggression, anger, despair and fear as well as job burnout, decreased job satisfaction, intention to leave and post-traumatic stress disorder. Therefore, it is recommended that nursing managers improve the psychiatric nursing risk assessment system, strengthen nurses' violence skills training, and enhance their ability to predict and prevent violence; at the same time, nursing staff affected by workplace violence should be given timely emotional and material support to reduce feelings of aggression and helplessness, to reduce psychiatric nurses' psychological distress.

Summary

In conclusion, psychiatric nurses' psychological distress is severe, and the effects of working hours, psychological resilience and workplace violence on them cannot be ignored. It is suggested that psychiatric nursing managers should carry out psychological resilience interventions for nurses, strengthen nurses' violence skills training, reasonably arrange the nursing workforce, and reform scheduling methods to achieve the purpose of reducing psychiatric nurses' psychological distress and promoting their psychological health. The study still has some limitations; firstly, the research method is cross-sectional, and no causal relationship can be drawn. Secondly, the influencing factors included in this study are limited. In the future, we can consider combining longitudinal, qualitative and cross-regional studies to explore further the causes and mechanisms affecting psychological distress in order to provide more empirical support for the investigation of psychiatric nurses' psychological distress, to provide a basis for the development of psychiatric nurses' psychological distress intervention. The purpose of this study is to provide more empirical support for the investigation of psychiatric nurses' psychological distress to provide a basis for developing interventions for psychiatric nurses.

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