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Research Article

**THE ROLE OF THE WORKPLACE ENVIRONMENT ON THE  
PERSONALITY DISORDERS IN NURSES AND ITS  
PREVALENCE**<sup>1</sup>Dr Sana Rasheed, <sup>2</sup>Dr Muhammad Safdar Nazir, <sup>3</sup>Dr Muhammad Irfan Murtaza<sup>1</sup>Muhammad Medical College, Mirpurkhas Sindh<sup>2</sup>DG Khan Medical College, Dera Ghazi Khan<sup>3</sup>Nishtar Medical University and Hospital, Multan**Article Received:** May 2020**Accepted:** June 2020**Published:** July 2020**Abstract:**

**Objective:** Personality disorder is a multifactorial disease in which stress in the workplace plays an important role. This study was conducted because of a lack of information on the role of stress in the workplace, which can cause personality disorders among nurses. Our goal was to assess the prevalence of personality disorder in nurses working in Mayo hospital Lahore and to assess the factors that affect their occurrence.

**Place and Duration:** In the Emergency and Psychiatry department of Nishtar Hospital, Multan for one-year duration from March 2019 to March 2020.

**Study plan:** In this cross-sectional study the personality disorders of nurses working in various hospital departments were evaluated based on Minnesota Multiphasic Personality Inventory-2 (MMPI-2) test. After the completion of questionnaires, data were entered to MMPI-2 test's special software and the final result was interpreted based on the opinion of a clinical psychologist. Finally, multivariate logistic regression model was used to assess the independent effect of the mentioned factors on prevalence of personality disorders in nurses.

**Results:** We collect data from 2 groups of participants (No. 206). These groups included nurses in emergency departments and nurses in other hospital wards. The median age was 32.5-6.9 years. A multi-variable logistic regression analysis showed that the history of accidents or serious injuries increased the likelihood of personality disorders being detected by 3.8 times (ratio [OR] to 3.84; 95% IC: 1.33-11.06; 1.33-11.06%; P to 0.01). In addition, last year it was 2.2 times the event (2.23 OR; 95% CI: 1.18 – 4.22; P to 0.01) in both groups.

**Conclusion:** The present study showed that there was no significant difference between emergency departments and other units of hospitals regarding the prevalence of personality disorders among nurses. Overall, somatization, hysteria, and pollyannaish were the most common personality disorders among the studied population.

**Keywords:** Personality Disorder, Fatigue, Professional, Workplace, Nurses

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**INTRODUCTION:**

The personality characteristics of each person play an important role in terms of work efficiency and the workplace. Stress in the workplace is one of the most important causes of mental illness. Evidence suggests that a quarter of the working population experiences some type of work-related behavioural disorder. Mild and stimulating stress can lead to improved productivity at work, but harmful stress can destroy people's abilities by doing homework in the workplace. In their nursing career, nurses experience stressful events and intense mental pressure due to multiple interactions and responsibilities in the medical team. A systematic review showed that mental and personality disorders among emergency department nurses (ED) accounted for between 26% and 35%. These disorders not only affect the health of staff, but also reduce their competence and the quality of their services. On the other hand, adequate staff performance plays an important role in reducing the burden of accidents and diseases. Therefore, to increase the patient's satisfaction.

Previous studies have reported the impact of workplaces on the incidence of mental disorders in nurses. Personal, family and social factors influence the incidence of these disorders. Therefore, personality disorders, workplace stress, staff fatigue and personal and social factors should be studied at the same time as a multifactorial condition. Although there is a lot of research in the field of personality disorders caused by stress in the workplace, the lack of such information in Iran reveals the need for education in this area. This study was done to assess the prevalence of personality disorder among nurses working in different hospital wards and to assess the factors that affect their incidence.

**METHODS:**

This cross-examination was conducted in the Emergency and Psychiatry department of Nishtar Hospital Multan for one-year duration from March 2019 to March 2020.

We use a modified version of the Minnesota Multiphasic Personality Inventory-2 (MMPI-2) test, which includes 71 questions to evaluate personality disorders. MMPI-2 is a standard survey that combines a wide range of self-supporting functions. This census, which represents a quantitative indicator of people's emotional harmony, shows participants' attitudes towards personality traits. MMPI tests are the most well-known and widely used personality test developed as an objective tool for the diagnosis of mental disorders. This test is a self-assessment study that contains "yes" or "no" responses and has 3 validation weights and 10 clinical scales.

Validation scales provide information on a subject's approach to research, while 10 basic clinical scales are used in the diagnosis of mental disorders. The most valuable use of MMPI-2 is screening of abnormal people in general, and in particular to determine the severity of the problem. Mmpi-2 diagnostic layers and scales include hypochondriasis, depression, hysteria, psychopathic deviation, masculinity/femininity, paranoia, psyche, schizophrenia, hypomania and social introversion. To increase the clinical benefits of MMPI, there are three validation weights, including scale of reclining detection, frequency and defense as correction or braking scales.

The study population consisted of nurses working in hospital wards (emergency and non-emergency). The sample was selected on the basis of a simple random technique. Therefore, a list of nurses was prepared and participants were selected randomly. We exclude incomplete or incorrect surveys based on the MMPI-2 test, as well as nurses who do not sign the approval form. Demographic data and the MMPI-2 test were included in the survey and distributed among the population studied.

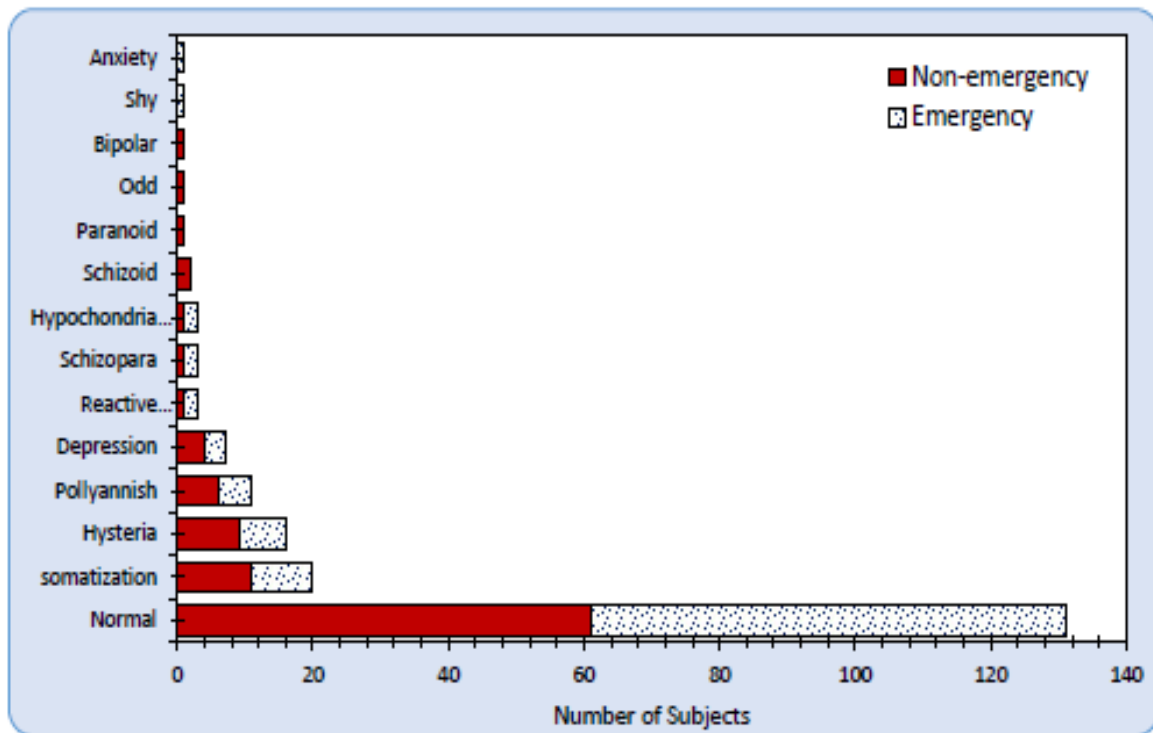
Sample size was estimated at 206 nurses, depending on the incidence of 26% (3%) personality disorders, 0.05 and 6%. However, 5 cases were excluded due to exclusion criteria. This examined 102 emergency nurses and 99 nurses from other units. After the end of the study, the data was entered into the special software of the MMPI-2 test, and the result was interpreted according to the opinion of a clinical psychologist. The data was analyzed using statistician software STATA 11.0, and the incidence of personality disorder was reported as frequency and percentage. We use Chi-square, Fisher and Mann-Whitney tests to assess the relationship between reference and demographic factors between nurses. Finally, a multi-variable logistics model was used to assess the independent impact of the factors listed in the incidence of personality disorder in nurses.  $P < 0.05$  was considered statistically significant in all analyses.

**RESULTS:**

Totally, 201 questionnaires were analyzed. We excluded 5 questionnaires as they were not valid based on MMPI-2 scale. All participants were female with a mean age of  $32.5 \pm 6.9$  years (range: 23–54 years). Most participants were married (58.2%) and 199 (99.0%) had an undergraduate degree. 99 (49.25%) participants worked in non-emergency departments (non-ED), and 102 (50.75%) worked in ED. Table 1 reports the relationship of demographic and baseline factors of the studied population with personality disorders. There was no significant difference between the 2

groups regarding the prevalence of personality disorders. Overall, 70 (34.8%) nurses showed symptoms of personality disorders in which 38

(54.3%) of them worked in non-ED and 32 (45.7%) worked in ED (P= 0.30) (Figure 1).



**Figure 1.** Distribution of the frequency of personality disorders in the studied population based on the department they worked in.

We observed 79 disorders. Five participants had 2, and 2 participants had 3 personality disorders. The most common personality disorder was somatization with 20 (10.0%) cases. Among these cases, 11 (55.0%) worked in non-ED and 9 (45%) worked in ED. This was followed by hysteria with 8.0% prevalence (33.3% in non-ED vs. 66.7% in ED), pollyannaish with 5.6% (55.0% non-ED vs. 45.0% ED), and depression with 3.5% (57.1% non-ED vs. 42.9% ED). The distribution of these disorders was not related to the department they worked in (P= 0.89).

Table 1 shows the relationship between personality disorders and demographic factors and the primary

factors of the working population. There was only a significant correlation with the occurrence of personality disorders among the factors listed in the unpleasant event (P - 0.01) and in the history of accident or serious injury (P - 0.007). In this context, 58 nurses reported a serious unpleasant event, which had 48.3% of personality disorders. On the other hand, only 29.4% of those who did not experience these ailments have been diagnosed. The history of accidents was present in 17 cases, and 64.7% of them had personality disorders, while the incidence of those who did not have this experience was 32.1%.

**Table 1:** The relationship of demographic and baseline factors of the studied population with personality disorders

Variable	Personality disorders		P
	Absent	Present	
Age (mean $\pm$ SD)	32.3 $\pm$ 6.3	33.0 $\pm$ 8.0	0.5
<b>Marital status</b>			
Single	53 (64.6)	29 (35.4)	0.95*
Married	77 (65.8)	40 (34.2)	
Divorced	1 (50.0)	1 (50.0)	
<b>Educational level</b>			
Undergraduate	130 (65.3)	69 (34.7)	0.99*
Masters	1 (50.0)	1 (50.0)	
<b>Occupation</b>			
Nurse	120 (67.0)	59 (33.0)	0.32
Head-nurse	5 (50.0)	5 (50.0)	
Supervisor	6 (50.0)	6 (50.0)	
<b>Employment type</b>			
Apprentices	22 (62.9)	13 (37.1)	0.74
Contract	15 (68.2)	7 (31.8)	
Fixed-term	5 (50.0)	5 (50.0)	
Full-time	89 (66.4)	45 (33.6)	
<b>Also works in another center</b>			
No	130 (65.3)	69 (34.7)	0.99*
Yes	1 (50.0)	1 (50.0)	
<b>Working shift type</b>			
Day	12 (52.2)	11 (47.8)	0.13
Night	8 (50.0)	8 (50.0)	
Variable	111 (68.5)	51 (31.5)	
<b>History of illness</b>			
No	114 (65.1)	61 (34.9)	0.98
Yes	17 (50.3)	9 (49.7)	
<b>History of drug use</b>			
No	115 (65.3)	61 (34.7)	0.9
Yes	16 (64.0)	9 (36.0)	
<b>History of mental disorders in family</b>			
No	126 (66.0)	65 (34.0)	0.32
Yes	5 (50.0)	5 (50.0)	
<b>A serious unpleasant incident</b>			
No	101 (70.6)	42 (29.4)	0.01
Yes	30 (51.7)	28 (48.3)	
<b>History of accident</b>			
No	125 (67.9)	59 (32.1)	0.007
Yes	6 (35.3)	11 (64.7)	

A multi-variable logistic regression analysis showed that in a history of serious accidents or injuries, the chance of personality disorders was increased by 3.8 times (ratio [OR] to 3.84; 95% CI: 1.33-11.06;; P 0.01), and last year an unpleasant event 2.2 times (OR 2.23; 95% CI: 1.18 -4.22; P to 0.01) (Table 2).

**Table 2:** The relationship of demographic and baseline factors of the studied population with personality disorders based on multivariate logistic regression analysis

Variable	OR	95% CI	P
History of serious accident or trauma	3.84	1.33-11.06	0.01
Unpleasant incident in the past year	2.23	1.18-4.22	0.01

**DISCUSSION:**

There was no difference between ED nurses and other departments of personality disorder. This study showed that there were the most common personality disorders among nurses. There were serious accidents or injuries and the only effective factors that caused population personality disorders that were investigated last year in a history of unpleasant incidents.

The incidence of personality disorder in the general population was reported to be 4.4-10.6% (12-14%) and may be associated with the role of stress in the workplace at the onset of personality disorders. However, some personality disorders remain hidden, and symptoms only manifest themselves when a person is under stress in the workplace. Therefore, stress in the workplace can only be a trigger for symptoms of hidden disorders, not a cause. In this study, the incidence of personality disorders may be caused by a slight difference between ED nurses (a highly stressful workplace) and workers in other departments (less stressful jobs).

18 percent more anxiety and 11 percent more cases of depression were reported among nurses in the intensive care unit (Intensive Care Unit) compared to the general population of Mealer and Arc (29 percent). In our study, the incidence of anxiety and depression was 0.5% and 3.5% respectively. This difference may depend on the population studied. In this study, nurses from different hospital wards were selected, while Mealer et al. Death and dangerous conditions in the intensive care unit are more common than in other wards. Exposing nurses to death scenes and long-dying patients can affect their mental health. This was supported by the results of the study, which showed emotional reactions and psychophysiological outcomes were more serious than other nurses who witnessed death and serious injuries. Therefore, people in this group were more susceptible to post-traumatic stress disorder.

We have not seen any relationship between the wards where nurses worked and personality disorders. According to this study, Escribá-Ag-ir and others have also shown that there is no evidence that workplace hardness and work adversely affects the presentation of fatigue syndrome. However, Yang and the saliva arch measured cortisol and ed nurses found that cortisol

and stress were higher than nurses in other wards. However, high levels of cortisol and salivary stress should necessarily be remembered that personality disorders are not accompanied by a higher incidence. Therefore, ED nurses maintain more tolerable stress, but do not increase the risk of mental illness. In other words, the ability of ED nurses to adapt to stress can prevent the development of personality disorders and showing symptoms. Psychological flexibility is a factor in the influence of mental disorders. The presence of psychological flexibility results in a significant decrease in the incidence of post-traumatic stress disorder, fatigue syndrome and symptoms of depression and anxiety. Therefore, flexibility is a defense mechanism that can increase the ability of nurses and other medical professionals to adapt to stress in the workplace. As psychological flexibility can be achieved through training, programs aimed at improving the skills of therapeutic staff in terms of psychological flexibility can reduce symptoms of mental and personality disorders and increase job satisfaction.

Environmental stress is one of the factors that lead to mental disorders and personality. The results of this study also showed that there are independent factors that influenced the onset of personality disorder in nurses with a history of serious accidents or injuries and an unpleasant incident last year. Therefore, work-related personality disorders are a multifactorial syndrome that is affected by both workplace tensions and personal life.

One limitation of this study was the small sample size. Although the number of cases required is estimated at 206 nurses, only 201 surveys were analysed because 5 surveys were not correct. However, the test strength has been calculated as 96%, which guarantees the validity of the results. The nature of the assessment of personality disorders is another limitation of this study. In most cases, personality disorders were not a single problem and different diagnoses were made for a person. Therefore, it is possible that the reported percentages differ to some extent from reality. In addition, the vision of the diagnosed psychological influenced the calculated percentages.

**CONCLUSION:**

The present study showed that somatization, hysteria, and pollyannaish were the most common personality disorders among the studied nurses.

History of serious accident or trauma and an unpleasant event happening in the past year were the only effective factors in the onset of personality disorders among the studied nurses. No difference was found between ED nurses and those who worked in other departments regarding the prevalence of personality disorders.

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