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RESEARCH ARTICLE

Nurses' Knowledge and Skills to Manage Patients with Psychological Distress in Emergency Departments

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Abstract:

Background:

Identifying and managing patients with psychological distress is a challenge to nurses at emergency departments at hospitals not specialized in psychiatric mental health. This requires that nurses must be equipped with knowledge and skills to fulfill patients' needs.

Objectives:

The purpose of this study is to identify the knowledge and skills of nurses to manage patients with psychological distress in emergency departments.

Methods:

A convenience sample of 307 registered nurses working at emergency departments completed and returned a package of surveys regarding knowledge and skills to manage patients with psychological distress in emergency departments.

Results:

Although nurses were found to have a high level of knowledge about managing psychological distress, their level of skills was lower. Nurses were found to encounter difficulty in identifying signs and symptoms of patients with psychological distress at emergency departments. A significant and positive correlation was found between nurses' knowledge and skills (r = .68, p < .001). Statistical and significant differences were found in the knowledge of nurses in relation to their previous experience of receiving training and courses in managing psychological distress (p < .05).

Conclusion:

Nurses need to improve the level of knowledge in order toidentify the psychological and physical signs and symptoms of psychological distress, as well as to be equipped with skills that make them capable tof providing proper care and meeting patients' needs with psychological distress at emergency departments.

Keywords: Emergency Departments (ED), Psychological distress, nurses' knowledge, nurses' skills, emergency nurses, Jordan.

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1. INTRODUCTION

The Emergency Department (ED) is a dynamic environment that challenges nurses to manage critical situations such as patients with psychological distress [1]. Nurses at EDs are confronted with patients complaining of physical signs connected to psychological distress which may influence the abilities of nurses to make an appropriate diagnosis and management [2]. Nurses at EDs are assumed to have the knowledge and skills to differentiate psychologically-based symptoms from physical-based ones [3]. However, such an issue hypothesizes that nurses are trained and educated during their academic preparation to manage patients with psychological distress. This hypothesis is confronted with reports that there is a significant increment in the number of patients with psychological problems reported to EDs. Previous reports showed that psychological distress is present in 84% of patients who had frequent attendance to EDs [4, 5]. This has raised the

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attention toward the need to address the knowledge and skills of nursesat the emergency departments where specialized psychiatric personnel are present to provide appropriate psychological intervention once needed. While nurses give priority to manage physical complaints rather than psychological ones [5], further harm to the patients is expected due to the mismanagement or delayed management of psychological needs [5]. The harm could be temporary or permanent in the form of self-harm or committing suicide [5]. Thus, acquiring knowledge and skills to identify and signify psychological distress associated with psychological problems is a priority issue to be investigated among nurses in EDs.

Interestingly, while nurses in EDs possess knowledge about psychological distress and its psychotherapeutic approaches, they still lack the skills to appropriately manage it [6]. Among the issues that interfere with the performance of nurses is lack of agreement on defining patients with psychological distress which may contribute to mismanagement at EDs [6]. While some proposed that psychological distress is a psychological symptomatic condition, others indicated that psychological distress has physical and psychological signs and symptoms [4, 6 - 8]. This requires that nurses need to be more attentive to both psychological and physical symptoms equally. Once nurses are well-equipped with knowledge and skills to assess and manage psychological distress, this would reflect positively on nursing care outcomes. Appropriate management of patients with psychological distress was found to improve quality of life, decrease recurrent visits for non-cardiac chest pain, and to lower depressive and anxiety symptoms [9]. Moreover, previous studies reported that management of psychological distress in EDs is associated with decreased workload, length of stay, and financial burden of health care services [9, 10]. Such reports enhanced the reciprocal benefits of appropriate management of psychological distress between nurses and their patients at EDs. Further, nurses are also vulnerable to secondary traumatic stress due to working in emergency settings and that nurses are unable to detect psychological symptoms associated with physical deteriorations [11 - 14]. This indicates that nurses and other health care professionals also become stressed and suffer from psychological distress while caring for patients who attend emergency units and may be in need of psychological management and care [15]. Nevertheless, the literature emphasized the need to further investigate and ensure that nurses in emergency settings have adequate knowledge and skills and are sufficiently competent to manage psychological distress [6]. In Jordan, psychological distress among emergency topics is not covered in nursing curricula, and that nurses in EDs rely heavily on their employer in order to get trained and educated to improve their skills to identify and manage psychological distress [16]. Therefore, the purpose of this study was to identify the knowledge and skills of nurses related to the management of psychological distress in emergency departments.

The research questions were: what is the level of nurses' knowledge related to the management of psychological distress in emergency departments? 2) what is the level of nurses' skills related to the management of psychological distress in emergency departments? and 3) are there differences in

knowledge and skills related to the management of psychological distress in relation to nurses' socio-demographic characteristics?.

2. MATERIALS AND METHODS

2.1. Design

This study used a cross-sectional, descriptive-correlational design to collect data from 307 nurses working at EDs in Jordan. Data were collected using self-administered questionnaires regarding knowledge and skills related to the management of psychological distress in EDs.

2.2. Sample and Settings

Multistage cluster sampling technique was used to select hospitals, while the convenience sampling technique was used to recruit nurses working in two EDs at university-affiliated, three public, four military and six private hospitals in Jordan. The sample included registered nurses with at least six months experience at EDs to ensure that they have finished the orientation period, are functioning independently, and have the appropriate knowledge about the policies and protocols at the EDs and their hospitals. No exclusion criteria were used to allow maximizing variations among nurses.

2.3. Data Collection Procedure

Ethical approvals of the ethical committee (IRB) were obtained from the targeted institutions and the affiliated university before data collection. Data collection was conducted in the period Sept 2017 to Jan 2018. An advertisement was placed throughout EDs. A facilitator from each hospital was assigned to serve as a liaison to facilitate approaching all nurses at EDs and invite them to participate in the study. The researcher approached nurses who expressed interest in participation. A package including cover letter, selfadministered questionnaires, and an author-developed demographic survey was distributed. All ethical rights of participants were maintained and ensured including confidentiality, privacy and voluntary participation. Nurses were asked to sign the consent form and have all their questions answered. The researcher was available to collect completed surveys and a sealed box was made available for nurses to return surveys at their convenience. All data was kept in a closed cabinet at the researcher's office.

2.4. Measurement

Data were collected using an Arabic version of an adapted self-administered questionnaire utilizing international studies and guidelines. Translation of the tool was conducted according to the World Health Organization (WHO) guidelines [17]. Pilot testing was conducted (n = 10) to check on the understanding, clarity, and time required for completing the questionnaires. In addition, author-developed profile questions were used to obtain demographic information.

The tool has two main sections:

2.4.1. Nurses' Knowledge

Measured using an adapted scale of 30 items that consists

of two parts. Part one consisted of 15 items measuring nurses' knowledge in Managing Patients with Psychological Distress at EDs (MPSD) (item 1-15) using a visual analogue scale with responses ranging from 0 (not confident at all) to 10 (very confident). Part two, items 16 -30, was designated to measure knowledge regarding the physical and psychological Signs and Symptoms of Psychological Distress (SSPSD), where nurses asked to respond by yes (1), no (2), or do not know (3). The possible range of scores was 15-45. The total score was categorized into four levels utilizing an interquartile equation in which 15-36 indicates a weak level of knowledge, 37-39 indicates a low level of knowledge, 40-44 indicates a moderate level of knowledge, and 45 indicates a high level of knowledge.

2.4.2. Nurses' Skills

Measured using an adapted scale of 37 items (item 31-67) designated to measure nurses' Skills in Managing Patients with Psychological Distress (SPSD) at EDs using visual analogue scale with responses ranging from 0 (not confident at all) to 10 (very confident). The possible range is 0 to 370.

2.5. Validity and Reliability

Face validity, content validity, and construct validity were assessed. Face validity was ensured, as the items listed in the scales were taken directly from the guidelines [18 - 26]. The content and face validities were assessed by a panel of nursing experts for clarity, relevance, comprehensiveness, understandability, and ease of administration and all of them were specialized in nursing mental health of community. In addition, the developed items were reviewed by an expert panel in the field of mental and emergency care that ensured the content validity of the tools. Construct validity was assured through factor analysis using principal component factor analysis with Varimax rotation. The number of factors with Eigenvalues greater than 1.00 confirmed the one-factor solution. Spearman brown for equal versus unequal length of scales was also conducted. The correlation between the item score and total correlation, using Spearman rho, of the scale was calculated. The subscale correlation was also significant (p < .001) for all subscales (KMPSD = .82, KSSPSD = .73, and SPSD = .92).

The reliability was tested using a split-half reliability coefficient and multiple Cronbach's alpha coefficients. The split-half reliability was .81 and Cronbach's alpha was .89 for MPSD, while for SSPSD split-half reliability was .73 and Cronbach's alpha was .82. Finally, for SPSD split-half reliability was .90 and Cronbach's alpha was .96.

2.6. Data Analysis Plan

Data has been analyzed utilizing the software package (IBM-SPSS V 24). The variables were described using frequency tables and the central tendency measures (Mean and Median) and dispersion measures (SD, variance and range). To assess the correlation between the variables, the Pearson correlation coefficient (r) has been used and a t-test for an independent sample and ANVOA have been used to test the differences related to demographic and personal characteristics.

Alpha was set to .05.

3. RESULTS

3.1. Nurses' Characteristics

A total of 387 nurses were approached in emergency units and 307 nurses expressed interest in participating and filled out the survey with a response rate of 79%. The analysis (Table 1) showed that nurses' age ranged between 21 and 52 years with a mean of 28.5 (SD = 4.6). Of the nurses, 57% (n = 175) were males, and 43% (n = 132) were females. The majority (94.4%, n = 290) had a bachelor's degree. The experience of nurses in EDs ranged from six to 420 months with a mean of 48.3 (SD = 48.8) months. Regarding experience in nursing, nurses' responses ranged from 0.5 - 35 years with a mean of 5.8 (SD=4.7). Current unit experience ranged from 0.2 to 24 years with a mean of 3.8 (SD=3.5) years. Of the nurses, 17.6% (n=54) had a special course or training in the management of psychological distress, while 13.7% (n=42) had special training or received courses in psychiatric mental health nursing care.

3.2. Nurses' Knowledge and Skills to Manage Psychological Distress

Regarding nurses' knowledge, using univariate and bivariate descriptive analysis of central tendency measures and dispersion measures, the analysis (Table 2) showed that the total responses ranged from 31 to 150, with a mean of 108.8 (SD=24.3) and a median score of 112. A quartile equation was used to examine the direction of distribution. The analysis showed that 25% of the sample had a score of 95 or less, while 25% of the sample had a score of 127 or above, and 50% had a score between 95 and 127. Noting that the expected minimum and maximum scores for the scale range from 0 -150, the results indicate that the majority of nurses have a high level of knowledge to manage patients with psychological distress at EDs.

Regarding the skills of nurses in managing patients with psychological distress, the analysis showed that the total score ranged from 20 to 360, with a mean of 262.9 (SD=59.1) and a median score of 270. The analysis also showed that 25% of the nurses had a score of 223 or less, and 25% had a score of 306 or above. Noting that the expected minimum and maximum scores for the scale range from zero to 370 and that 50% of the nurses had a score between 223 and 306, the results indicate that nurses had moderate levels of skills to manage patients with psychological distress at EDs.

Item analysis has also been conducted to examine the areas in which nurses had the highest and lowest levels of knowledge. The analysis showed that mean scores ranged from 6.7 (SD = 2.8) to 8.1(SD=2.1). The highest mean score was observed in item 1 "Appropriate triage work is helpful to understand patients' needs by Emergency Room nurses" (M=8.1, SD =2.2), while the lowest was observed in item 11 "Managing patients will minimize the probability of further visit for the same reason" (M=6.7, SD =2.8) (Table 2).

3.3. Nurses' Knowledge of Signs and Symptoms of Psychological Distress

Regarding nurses' knowledge of signs and symptoms of psychological distress, the analysis showed that the total mean score for nurses was 38.8(SD=5.2) with scores ranging from 36-39. This indicates that the majority of nurses had a low level of knowledge regarding physical and psychological signs and symptoms. The item analysis showed that the highest positive response (those answered yes) was for item 16 "Shock, denial, or disbelief are psychological signs for patients with psychological distress" (80.8%, n = 248), while the lowest was observed in item 27 "Aches and pains are physical symptoms for patients with psychological distress?" (n=161, 52.4%).

3.4. Nurses' Skills to Manage Psychological Distress

Nurses' mean item scores ranged from 3.3 (SD = 2.7) to 8.0 (SD = 2.3). Item analysis showed that the highest three means were observed in item 3 "Provide privacy" with (M = 8.0, SD = 2.3), item 15 "Talk down in a calmly and patiently manner" with (M = 8.0, SD = 2.3), and item 16 "Using therapeutic negotiation skills "with (M=8.0, SD = 2.3). The lowest three means were observed in item 33 "using general support and reassurance without explaining for the physical symptoms or doing other investigations" with (M = 3.3, SD = 2.7), item 18 "Using restraints as needed or prescribed" with (M = 5.1, SD = 3.4), and item 19 "Using empathic listening (paying full attention with empathy to patient)" with M = 6.6, SD = 3.0).

3.5. Differences and Relationship to Demographic and Personal Characteristics

The analysis showed that there was a significant and

Table 1. Descriptive characteristics of the sample (N = 307).

positive correlation (using Pearson *r*) between nurses' knowledge regarding managing psychological distress and nurses' knowledge of physical and psychological signs and symptoms of psychological distress (r = 0.28, p < .001). In addition, there was a significant and positive correlation between nurses' knowledge and their skills regarding managing patients with psychological distress (r = 0.68, p < .001), while no significant correlation was found in relation to other variables (p > .05).

Furthermore, there was a significant and positive correlation between nurses' knowledge of signs and symptoms of psychological distress and nurses' knowledge in managing psychological distress (r = 0.28, p < .001). A significant and positive relationship between nurses' knowledge of signs and symptoms of psychological distress and nurses' skills in managing psychological distress was also found (r= 0.29, p < .001), while, no significant correlation with other variables was identified.

Using t-test to examine differences in knowledge and skills related to dichotomous variables, the analysis (Table 3) showed that there was a significant difference in nurses' knowledge related to the management of psychological distress in relation to nursing training experiences (trained/not trained nurses) and in regards to whether nurses took a course of psychological management or not (received/not received courses). The analysis showed that those who received training had higher mean score (M = 118.2, SD= 20.9) than those who did not receive any training(M = 106.8, SD = 24.5), moreover the nurses who received specific psychological management course had higher mean score than those who did not (t = 3.2, p < .001). However, no further significant differences were found related to all other demographic variables (p > .05).

Variable	Μ	SD	Min	Max		
Age (years) 28.5 4.6				52		
Nursing experience/years. 5.78 4.7				35	n	%
Emergency department experience/Months 48.3 48.8				420		
Current unit experience/years	3.75	3.5	0.2	24		
Gender					175	57.0
Gender		Female		132	43.0	
T and a factor of an				Undergraduate		94.5
Level of education				Graduate		5.5
	Public		70	22.8		
Work section					87	28.3
				Military		31.9
				University-affiliated		16.9
Experience in nursing psychiatric mental health				Yes		21.5
Experience in huising psychiatric mental nearth			No		241	78.5
Special course or training in management of psychological distress			Yes		54	17.6
Special course of training in management of psychological distress				No		82.4
Special course or training mental health nursing				Yes		13.7
Special course or training mental health nursing			No		265	86.3

Variable	М	Md.	SD	Min	Max	P ₂₅	P ₇₅
MPSD	108.8	112	24.3	31	150	95	127
SPSD	262.9	270	59.1	20	360	223	306

Table 2. Descriptive statistics of nurses' knowledge and skills to manage patients with psychological distress.

MPSD: Nurses' knowledge regarding management of patients with psychological distress in emergency department \Box *SPSD*: Nurses' skills to management of patients with psychological distress in emergency department

Table 3. Differences an	d relationship to den	nographic and Personal	Characteristics ($N = 307$).
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Variables	MPSD	SSPSD	SPSD
MPSD	-	-	-
SSPSD	.28**	-	-
SPSD	.68**	.29**	-
Age	.04	.11	.05
Nurses experience.	.06	.10	.09
Nurses emergency unit experience	.02	.10	.01
Current unit experiences.	.02	.10	.01

^{*} Significant as alpha < .05^{**} Significant as alpha < .001 **SPSD:** Nurses' Skills to Manage Psychological Distress in emergency department **SPSD:** Nurses' skills to management of patients with psychological distress in emergency department **SSPSD:** Nurses' Knowledge of Signs and Symptoms of Psychological Distress in emergency department

4. DISCUSSION

Connecting knowledge to practice, in general, is one cornerstone of the quality of nursing care and improving nursing care outcomes. It has been observed that nurses lack theoretical and clinical training in managing psychological distress in emergency units during their undergraduate education [16]. This may have questioned sources of education at the clinical area and emphasized the significant role of staff development courses and training. We have found that nurses in EDs had a low level of knowledge to detect signs and symptoms of psychological distress, and lack skills to manage such problems if they were able to detect it. However, nurses had the ability to detect psychological signs and symptoms much better than physical signs inferring that nurses encounter difficulty in detecting and differentiating psychological-based symptoms from physical-based ones. In other words, nurses are more sensitive to physical complaints than psychological ones. The results support previous findings that nurses do emphasize and focus on physical symptoms rather than psychological ones in emergency departments [6, 10]. However, the question remains whether nurses lack the knowledge to manage or confused about the way to manage psychological distress while assessing physical ones. Probably nurses prioritize the management of physical signs and symptoms assuming urgency of physical signs and symptoms. The literature supported these findings where almost two-thirds of nurses in EDs have difficulty in detecting and managing patients with psychological complaints [22]. The shared signs and symptoms between physical and psychological complaints have also been reported as one factor that confuses emergency nurses at triage and emergency room while caring for patients with psychological distress [6, 22]. Recently, there is an agreement that nurses in emergency units similar to other health professionals need the skills to manage traumatic stress to improve their care outcomes [23].

On the other hand, nurses in this study had a high level of

knowledge regarding the management of psychological distress. The highest three reported areas indicated nurses' awareness about the significance of appropriate triage and the harmful effect of psychological distress on patients' health and well-being. These findings are congruent with the international guidelines and studies that triage is critical to understand patients' needs and minimize the harmful effects and consequences of psychological distress [1, 6, 24]. However, nurses did not indicate other areas such as assessment, interventions and evaluation despite being importunate [19]. The results showed various areas of nurses' knowledge deficits and lack of awareness related to appropriate care for psychological distress at EDs.

One interesting finding in this study is that nurses reported a high level of knowledge in managing psychological distress, while had moderate skills to manage it. Nurses showed that they have knowledge about psychological distress which is supposed to enable them to manage psychological distress; however, their skills and practice to manage psychological distress did not correspond with their level of knowledge. This discrepancy may contribute to variation in the quality of care provided. One possible explanation is that nurses have probably been exposed to information packages that discussed psychological distress while they have not been adequately exposed to the clinical application or have not actually managed such scenarios. The findings agree with previous international ones who found that nurses have good knowledge about psychological distress; however, they lack skills to appropriately manage it [6, 22]. The literature had proposed some inclusion for this discrepancy where nurses are probably lacking the confidence to manage patients with psychological distress in EDs due to their inadequate knowledge and training to manage such complaints [6, 22].

This study also found that nurses' years of experience and previous experience in psychiatry had no significant correlation with their knowledge and skills in managing psychological

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distress. While nurses who had received special courses or training in managing psychological distress had higher levels of knowledge to manage psychological distress than those who did not. The result of the study emphasized that courses or training about psychological distress enabled nurses to have the required knowledge to manage patients with psychological distress. In the previous report, high fidelity simulation has been found to be a significant contributor to knowledge, skills and motivation among nurses [27 - 29]. This experience can be emphasized at academic institutions and clinical areas while implementing staff development courses and training. Health care professionals, including nurses, need to be exposed to psychological distress scenarios, health policy programs and live cases to acquire the knowledge and skills to appropriately manage psychological distress in Eds [6, 21, 28]. The study signifies the importance of clinical courses on psychological distress and its positive outcomes on the abilities of nurses to manage psychological distress at EDs. In addition, many studies have also emphasized the importance of training and its positive impact on nurses' knowledge and quality of nursing care [29]. In Jordan, emergency care has different kinds of concepts, in general, emergency care has minor non-acute and severe acute kind of cases and is not specialized as a trauma center. Nurses in ER rooms are managing cases from minor non-acute to severe acute traumatized cases.

One limitation of this study could be related to the fact that none of the emergency departments in Jordan is considered a specialized trauma center which may widen the variation between emergency nurses working in these units.

CONCLUSION

The results have implications for emergency nursing practices and for continuing nursing education at EDs. The study highlighted the need to pay more attention and improve awareness regarding psychological distress at EDs among nurses and emphasized on the need of training and preparing emergency nurses and other health care professionals for the proper management of patients with psychological distress at EDs so that health care professionals as well as policy decision-makers could pay attention towards it. The study highlights the lack of knowledge and skills of nurses in identifying and dealing with patients with psychological distress at ED. Nurses need to improve their knowledge to identify the psychological and the physical signs and symptoms of psychological distress as well as the skills to provide proper care at the EDs. Finally, proper management for psychological distress requires improving nurses' knowledge and skills to identify and manage patients with psychological distress at EDs.

ETHICAL APPROVAL AND CONSENT TO PARTICIPATE

Ethical Approval obtained from The IRB of The University of Jordan. PMs. 15.5. 17/12/2017.

CONSENT FOR PUBLICATION

Informed consent has been obtained from all the participants.

STANDARD OF REPORTING

STROBE Guideline and methodology were followed.

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CONFLICT OF INTEREST

The author declares no conflict of interest, financial or otherwise.

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