

Nurses' Knowledge and Attitude toward Physical Health Care for Patients with Psychiatric Disorders

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Abstract: Physical health problems are a serious global issue among patients with psychiatric disorders leading to increased risk of early mortality. The most important causes related to unmet physical health needs are nurses' level of knowledge and attitude toward physical health care. **Aim:** to assess nurses' knowledge and attitude toward physical health care for patients with psychiatric disorders. **Subjects:** All nurses who provide direct care to patients (90 nurses) were involved. **Settings:** The study was conducted at the Inpatient Psychiatric Department in two settings; Tanta University Hospital, and The Neurology, Psychiatry, and Neuro-Surgery Center, both settings are affiliated to Ministry of High Education and Scientific Research. **Study design:** A descriptive research design was utilized. **Study tools:** two tools were used: **Tool I:** Structured questionnaire of nurses' knowledge about physical health care for patients with psychiatric disorders, **Tool II:** The Physical Health Attitude Scale (PHASe). **Results:** the study revealed that about half of the studied nurses had moderate level of knowledge and more than one third of them had positive attitude toward physical health care among patients with psychiatric disorders. There was statistically significant positive correlation between nurses' knowledge and attitude toward provision of physical health care among patients with psychiatric disorders. **Conclusion** Based on the results of the present study it can be concluded that mental health nurses' level of knowledge regarding provision of physical health care for patients with psychiatric disorders positively correlated with their positive attitude. **Recommendations:** Developing educational programs for enhancing level of knowledge and attitude of nurses toward provision of physical health care among patients with psychiatric disorders.

Key words: Patients with Psychiatric Disorders, Physical Health Care, Nurses' knowledge, Nurses' attitude.

Introduction

Psychiatric disorders are known as serious public health issues which cause misery and incapacity and exists in different forms, including schizophrenia, anxiety and mood disorders (**Amirani, et al, 2020**). Psychiatric disorders contribute 14% of the global burden of diseases, and 30% of the non-fatal diseases burden, which is deteriorated by physical health problems (**GBD 2019 Mental Disorders Collaborators, 2022**). There is evidence that individuals with psychiatric disorders receive substandard physical health care when compared to the general population (**Gray & Brown, 2017, Fiorillo& Sartorius, 2021**). A considerable number of them suffer from hypertension, diabetes, or dyslipidemia, and are at a heightened risk of acquiring cardiovascular disease or other physical comorbidities (**Afzal, et al, 2021; Rogers, et al, 2021**). Furthermore their life expectancy is dramatically decreased by 7 to 20 years due to the high occurrence of physical comorbidity, which frequently has poor physical care (**Launders, et al, 2022**). Thus, it is essential that people with psychiatric problems have access to high quality physical health care due to the substantial comorbidity between mental and physical health diseases. (**Glasper, 2016**).

Numerous correlated factors have negative effect on physical health of people with psychiatric disorders. These include unhealthy lifestyle such as physical inactivity, poor eating patterns, smoking habits,

prescribed drugs, barriers in accessing care, poor uptake of health screening and self-stigma. In addition, the attitudes of nurses and lack of nurses' knowledge are most likely to be relevant factors towards the poor outcome of physical health for people with psychiatric disorders (**Bressington et al 2018**).

Nurses employed in mental health settings play a crucial role in identifying patients at risk of deterioration through continuous assessment and action in response to shifting physical health condition (**Ince & Gunusen, 2018, Liyew, et al, 2020**). However evidence postulated that lack of knowledge as well as the negative attitudes toward provision of physical health care play vital role in patients' physical health needs to be disregarded (**Bressington, et al, 2018, Dickens, et al, 2019**).

Knowledge of nurse is vital in enhancing patient satisfaction and the quality of care and treatment outcomes, it can also successfully lower medical expenses and shorten hospital stays while maintaining patient safety. This allows for a more efficient way to addressing increasingly complicated care issues. (**Li, H., et al, 2024**). So that lack of knowledge regards physical healthcare of patients impedes the practice of mental health nurses' full participation in physical health care activities.

Moreover, planning care for the physical health of individuals with psychiatric disorders would be challenging for mental health nurses (MHNs) with limited knowledge and expertise (**Buzlu, and Sahin-**

Bayindir, 2022). Therefore, mental health nurses who care for patients with psychiatric patients must receive appropriate information about assessment and management of physical health care to bridge the gaps in healthcare needs so these patients can experience elevated health outcomes (**Bolt, 2024**).

On the other side, negative attitudes of nurses can have adverse consequences on people with psychiatric disorders from delays in seeking physical help to decreased quality of care provided. Negative attitudes toward physical health care by nurses have been reported in many studies across the world (**Glasper 2016, Skargon, 2020; Butler, et al, 2020**). Attitudes have a role in shaping behavior and contribute to the practice of mental health nurses (**Dickens, 2022**). Nurses who possess a positive attitude towards providing physical health care leading to reduced morbidity and early mortality in psychiatric patients and improve quality of care by monitoring and screening patients and well referral (**Osman & Barakat 2023**). Hence assessing such attitude is an essential step in understanding such problems and, if needed, developing and implementing appropriate interventions to reduce it. Unfortunately, a multitude of research revealed that a large number of mental health nurses had negative attitudes regarding the provision of physical health care, in addition to lacking their confidence and participation in pertinent interventions tailored to the requirements of individuals with

psychiatric problems. (**Rodgers, et al, 2018; Reilly, et al, 2024**).

On the other hand, nurses have a high degree of expertise, knowledge, and a positive attitude toward providing physical health care are associated with lowering morbidity and early death in patients with psychiatric disorders and improves quality of care through patient screening and monitoring (**Chee, Wynaden & Heslop, 2018, Osman et al, 2023**).

Significance of the problem:

The physical health of individuals experiencing psychiatric disorders is often ignored by the healthcare professionals, resulting in more undiagnosed or undertreated conditions compared to people without psychiatric disorders with a prevalence rate of these conditions ranging from 40 to 70% in patients with schizophrenia and 20–30% in persons with bipolar disorders. So that, people with psychiatric disorders have a twofold to threefold increased risk of premature mortality and decline in life expectancy of 10–20 years than the general population (**Gronholm, et al, 2021**).

Despite of mental health nurses play a vital role in providing care for common physical problems, promoting healthy lifestyles and improving the self-care of individuals with psychiatric disorders, little research has been done to understand how mental health nurses' knowledge and attitudes may affect care provision or health outcomes (**Firth et al., 2019**). Therefore the present study was conducted to shed light on knowledge and attitude of nurses

toward physical health care of patients with psychiatric disorders.

Aim of the study

To assess nurses' knowledge and attitude toward physical health care for patients with psychiatric disorders.

Research questions:-

What are the levels of nurses' knowledge about physical health care for patients with psychiatric disorders?

What is the nurses' attitude toward physical health care for patients with psychiatric disorders?

Subjects & Method

Subjects

Research design:-

A descriptive research design was used in the current study.

Setting:-

The present study was carried out at Inpatient Psychiatric Department of the following settings:

- a) Tanta University Hospital. Its capacity is (42 beds) divided into two wards for men (26 beds) and two wards for women (16 beds).
- b) Neurology, Psychiatry, and Neuro-Surgery Center. This center has a capacity of (77 beds) Both previously settings are affiliated to Ministry of High Education and Scientific Research

Subjects:

All nurses who provide direct care to patients 90 nurses at the time of data collection (55 work at Inpatient psychiatric department at the psychiatry, Neurology and Neurosurgery Center and 35 work at The Inpatient Psychiatric Department of Tanta University Hospital)

Tools of the study: -The data was gathered by using two tools:-

Tool I: Structured questionnaire of nurses' knowledge about physical health care for patients with psychiatric disorders :

Part (1): Socio-demographic and Occupational Data Questionnaire:

This tool was developed by the researcher after review of related literatures (Hennessy, et al, 2018; Dickens, et al, 2019). It was created for collecting information about the socio demographic and occupational characteristic of the studied nurses. It included items such as; (age, gender, marital status, residence, educational level, years of experience at psychiatric nursing, and prior physical health care courses).

Part (2): Nurses' Knowledge about Physical Health Care for Patients with Psychiatric Disorders:

It was developed by researcher after review of relevant literatures (Idvall, et al. 2012; Rashedi, et al, 2014; Bregar, et al, 2018). It was developed to assess knowledge of nurses toward physical care for patient with psychiatric disorders. This questionnaire consists of 6 questions and it covered nurses' knowledge about the following points:

Definition of physical health care, components, benefits, causes, barriers, needs for psychiatric patients. Questions were presented in the Multi choice question (MCQ) format.

Each question has alternatives answers and only one of them is considered correct answer. Scoring for each question was divided as correct answer was given score (1) and incorrect answer was given score (0).

Total scoring system was divided as follow:

- < 60% was indicated low level of knowledge
- 60% -80% was indicated moderate level of knowledge
- > 80% was indicated high level of knowledge

Tool II: The Physical Health Attitude Scale (PHASe)

The Physical Health Attitude Scale (PHASe) was adopted from Robson & Haddad (2012). The scale aimed to assess attitude of mental health nurses toward provision of physical healthcare for psychiatric patients. It consisted of 28 items reflecting the personal nurses' attitudes regarding physical health care, split into four subscales:

- Subscale one: - Nurses' attitudes to involvement in physical health care (10 items).
- Subscale two: Nurses' confidence in delivering physical health care (6 items).
- Subscale three: - Nurses' perceived barriers to physical health care delivery (7 items).
- Subscale four: - (Nurses' attitudes to smoking (5 items).
- Items of the scale were assessed on a Likert scale of 1 to 5, where 1 considers strongly disagree and 5 considers strongly agree. Scores was arranged as follow:
- < 50% were negative attitude.

- > 50% -75% were neutral attitude
- > 75% were positive attitude

Method

The study was carried out according to the following steps:-

1-Administrative process:

1. The researchers attained an official permission from the Dean of Faculty of Nursing, Tanta University and was directed to the responsible authorities to seek their approval and cooperation after explaining the purpose of the study.

2. Ethical and legal consideration:

-The approval was granted from Faculty of Nursing, Scientific Research Ethical Committee, and Tanta University. Code no (295-9-2023)

-Nature of the study didn't put the participants in danger or discomfort.

-After clarifying the nature and purpose of the study, nurses gave their informed consent to participate.

-Confidentiality and privacy were strictly upheld during data collection

-During the study the researcher informed the studied nurses about their right to refuse participation or withdrawn from the study at any time they want without providing justification.

3. Content validity:

Five professionals in the field of psychiatric nursing reviewed the tools used in the study to ensure that the questionnaire was clear and had valid content. Changes were made in response to their revision.

4. Content reliability:-

Cronbach's Alpha test was used and it was found to be (0.81) for knowledge items (tool I), (0.89) for physical health attitude scale (tool II) and (0.94) for the entire study tool.

5. Pilot study:-

Pilot study was conducted on nine nurses (10%) to evaluate feasibility, clarity and applicability of tools. It was used to determine the duration it would take to interview the participants as well as recognize potential challenges that might come up during the actual study. Because the tools kept unchanged, the pilot study's participants were included into actual study.

6. Actual study:

It was carried out by researcher to assess nurses' knowledge and attitude toward physical health care for patients with psychiatric disorders.

An informed consent was reconfirmed from nurses for participation in the study after illustrating the aim of the study.

The tools were distributed in individual basis to studied nurses and the researcher asked nurses to complete the questionnaire in front of the researcher for any needed clarification. Tool I which used to assess nurses' knowledge lasted for 15-25 minutes from nurses to complete it. Tool II took 10-20 minutes from nurses to complete it so that nurses took 30-45 minutes to fill all sheets. Data was collected over 5 months from April 2024 to August 2024.

Statistical analysis

(SPSS) version 23 was used to organize, computerize and validate the study data in order to perform tabulation and statistical analysis. The quantitative data were computed by mean, range, and standard deviation. For comparison between

means of two variables independent sample t test was performed and for comparing more than two means One Way Anova test was used. For categorical variables numbers and percent were calculated. Comparison was done using chi-square test (χ^2). Pearson's correlation coefficient (r) was performed to identify correlation between variables. A significance was adopted at $P < 0.05$ for interpretation of results of tests of significance (*). Also, highly significant was adopted at $P < 0.01$ for interpretation of results of tests of significance (**).

Results:-

Table (1) clarifies distribution of studied nurses according to their socio-demographic and occupational characteristics. In relation to age, about more than the half of studied nurses (60%) aged between 22 to 35 years old with Mean \pm SD 35.62 ± 9.371 . Regarding to sex, about three quarters of studied nurses (75.6%) were female.

Relating to marital status, about two thirds of studied nurses (71.1%) were married. It was found that half of the studied nurses (51.1%) had nursing technical institute.

Concerning residence, about two thirds of studied nurses (62.2%) were living in rural. In relation to number of years of experience in the field of psychiatric nursing, more than one third of studied nurses (38.9%) had 1 to 5 experiences' years while the minority of them (2.2%) had between 16 to 20 experiences' years. As regard to receiving previous training program on physical health care, more than of

half of the studied nurses (52.2%) didn't receive any of these programs.

Figure (1) demonstrates total mean scores of knowledge subscales of the studied nurses regarding provision of physical health care for patients with psychiatric disorders. It was noticed that the highest ranking knowledge subscale among the studied nurses was relationship between the patient's physical health and mental health with mean (4.488) while the least ranking knowledge subscale was methods of improving the provision of physical health care, its mean was (0.62) and in between obstacles of physical health care subscales, concepts of physical health and physical health care and needs of patients with psychiatric disorders to physical healthcare, mean was (0.63, 1.44, 1.46) respectively. In relation to items of benefits of physical health care, its indicators and periodic examination, mean was (2.02, 2.63 and 2.68) respectively.

Concerning to mean of role of nurse, common physical symptoms and components of physical health care was (2.79, 3.39 and 4.32) respectively.

Figure (2) illustrates distribution of the studied nurses according to their levels of knowledge about physical health care for patients with psychiatric disorders. It was showed that (41.1%) had moderate level of knowledge and (24.4%, 34.4%) had low and high level of knowledge respectively

Figure (3) illustrates total mean scores of physical health attitude subscales among the studied nurses. It was found that mean of attitude to

involvement in the physical health care subscale was (31.13) while perceived barriers in delivering the physical health care subscale was (19.16). In relation to mean of attitude to smoking and confidence in delivering the physical health care subscales was (19.38), (20.71) respectively.

Figure (4) demonstrates distribution of the studied nurses according to their levels of attitude toward provision of physical health care for patients with psychiatric disorders. It emphasized that (36.7%) of the studied nurses had positive attitude while (28.9%) of them had negative attitude and about one third of them (34.4%) had neutral attitude

Table 2 demonstrates correlation between total knowledge score and total attitude score of the studied nurses. It was showed that there is a highly positive statistical significant correlation between total knowledge score and total attitude score which means that increasing nurses' knowledge leading to increase their level of attitude toward physical health care for patients with psychiatric disorders and vice versa where ($r = 0.753$, $p = 0.001$).

Table 3 illustrates relationship between socio-demographic characteristics and levels of knowledge of the studied nurses. This table showed that there is a highly positive statistical significant relationship between age, educational level, marital status and nurses level of knowledge, where ($p=0.001$ - 0.001 - 0.001) respectively.

In relation to age, the nurses aged (22-35) years had more level of

knowledge than other aged groups. Regarding educational level, nurses who had Bachelor of Science in nursing were having high level of knowledge than other groups. As regard to marital status, it was found that single nurses had more level of knowledge regarding to physical health care for patients with psychiatric disorders than other groups.

Table 4 illustrates relationship between socio-demographic characteristics and levels of attitude of the studied nurses toward provision of physical health care for patients with psychiatric disorders. This table shows that there is a highly positive statistical significant relationship between age, educational level, marital status and nurses' level of attitude, where ($p=0.001$ - 0.001 - 0.001) respectively.

In relation to age, the nurses aged (22-35) years had more level of attitude than other aged groups. Concerning to educational level, nurses who had Bachelor of Science in nursing were having positive attitude than other groups. Regarding marital status, it was found that single nurses had more level of attitude regarding physical health care for patients with psychiatric disorders than other groups.

Table (1): Distribution of Studied Nurses according to their Socio-demographic and Occupational Data

Nurses socio-demographic and Occupational data	The studied nurses (n=90)	
	No	%
Age in years		
22-35	54	60.0
35-45	19	21.1
45-55	17	18.9
Range	22-53	
Mean ± SD	35.62 ± 9.371	
Sex		
Male	22	24.4
Female	68	75.6
Marital status		
Single	18	20.0
Married	64	71.1
Separated	1	1.1
Divorced	3	3.3
Widowed	4	4.4
Educational level		
Diploma in Nursing (3 years)	24	26.7
Nursing Technical Institute	46	51.1
Bachelor of Science in Nursing	20	22.2
Residence		
Urban	34	37.8
Rural	56	62.2
Number of years of experience in the field of psychiatric nursing		
1-5	35	38.9
5-10	28	31.1
10-15	6	6.7
15-20	2	2.2
More than20	19	21.1
Having training program on physical health care for patients with psychiatric disorders?		
Yes	43	47.8
No	47	52.2

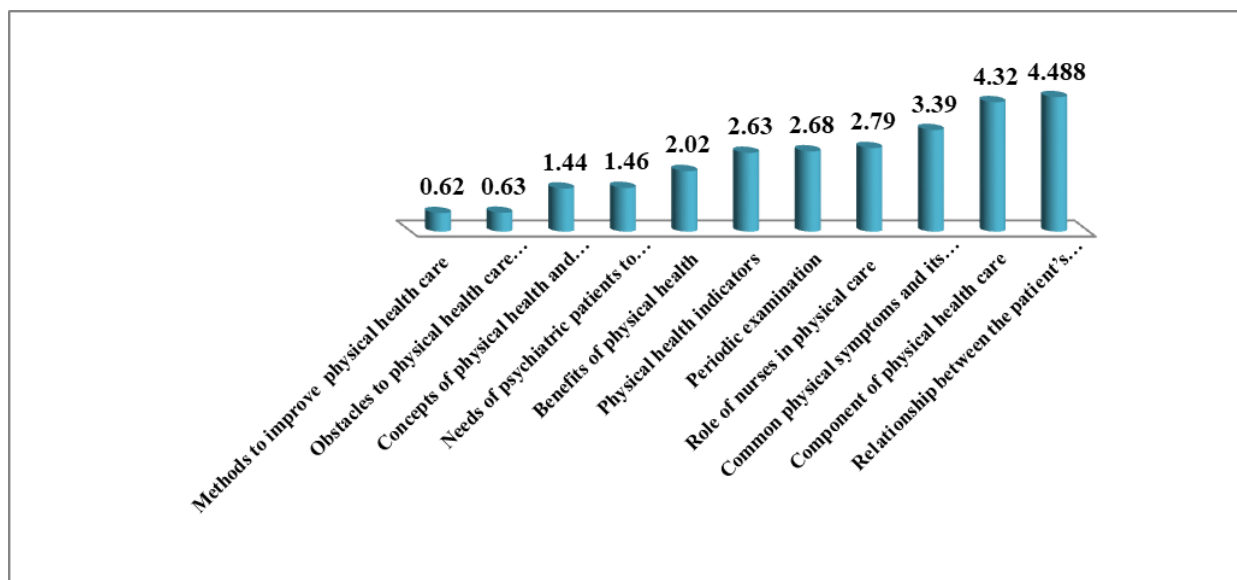


Figure (1): Mean Score of Knowledge Subscales of the Studied Nurses Regarding Physical Health Care for Patients with Psychiatric

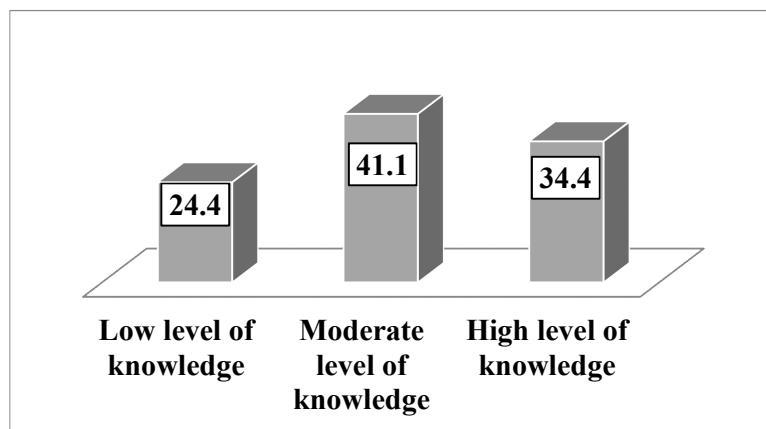


Figure (2): Distribution of the Studied Nurses According to Their Levels of Knowledge about Physical Health Care for Patients with Psychiatric Disorders

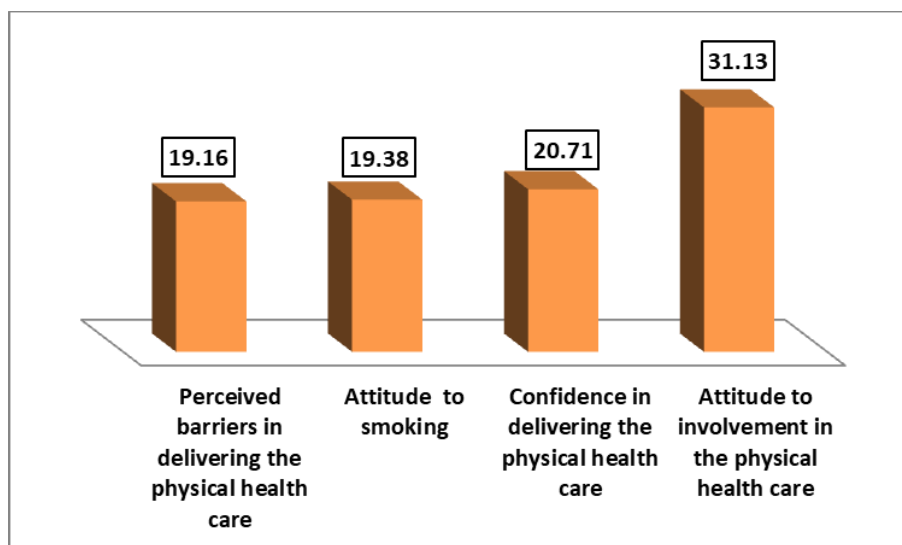


Figure (3): Mean Score of Physical Health Attitude Subscales for the Studied Nurses

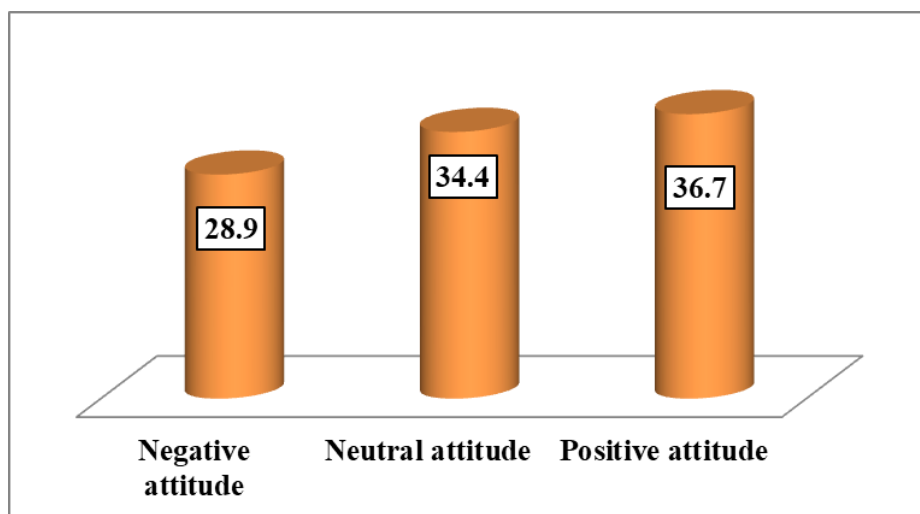


Figure (4): Distribution of the Studied Nurses according to their Levels of Attitude toward Provision of Physical Health Care for Patients with Psychiatric Disorders

Table (2) Correlation between Total Knowledge Score and Total Attitude Score of the Studied Nurses

Total knowledge score	Total attitude score	
	r	P
	0.753	0.001**

** Correlation is highly significant at $p < 0.01$ level

Table (3): Relation between Socio-demographic and Occupational Characteristics of the Studied Nurses and their Levels of Knowledge regarding Provision of Physical Health Care for Patients with Psychiatric Disorders

Socio-demographic variables	The studied sample (n=90)	t / f p
	Total of knowledge	
Age in years		
22-35	26.85±3.276	13.651 0.001**
35-45	20.26±7.140	
45-55	22.76±6.638	
Sex		
Male	25.77±4.461	1.029 0.306
Female	24.34±6.019	
Educational level		
Diploma in Nursing (3 years)	21.21±6.640	8.68 0.001**
Nursing Technical Institute	25.22±5.081	
Bachelor of Science in Nursing	27.65±3.438	
Marital status		
Single	27.56±3.258	9.345 0.001**
Married	24.75±5.24	
Separate	25.00±0.00	
Divorced	9.33±4.726	
Widowed	22.25±3.862	
Residence		
Urban	24.53±6.430	0.206 0.837
Rural	24.79±5.246	
Number of years of experience in the field of psychiatric nursing		
1-5	25.46±5.802	1.644 0.171
5-10	25.89±4.228	
10-15	22.50±5.394	
15-20	24.50±7.778	
More than 20	22.21±6.828	
Having training program on physical health care for patients with psychiatric disorders?		
Yes	2.00±0.724	1.189 0.238
No	2.19±0.798	

Table (4): Relation between Total Score of Attitude toward Provision of Physical Health Care to Patients with Psychiatric Disorders and Socio-demographic Characteristics of the Studied Nurses

socio-demographic characteristics		Attitude total score	
Age in years	22-35	97.26±17.480	
	36-45	78.95±18.213	
	46-55	78.29±25.330	
	f- test	10.050	
	p-value	0.001**	
Sex	Male	90.23±21.865	
	Female	89.68±21.118	
	t- test	0.105	
	p-value	0.916	
Educational level	Diploma in Nursing	76.04±22.896	
	Nursing Technical Institute	91.54±18.797	
	Bachelor of Science in Nursing	102.35±14.752	
	f- test	10.618	
	p-value	0.001**	
Marital status	Single	100.67±18.020	
	Married	89.97±19.392	
	Separate	67.00±0.00	
	Divorced	53.33±22.030	
	Widow	71.50±24.256	
	f- test	5.305	
	p-value	0.001**	
Residence	Urban	91.00±21.522	
	Rural	89.09±21.132	
	t- test	0.413	
	p-value	0.681	
Years of experience in psychiatric nursing		1-5	93.49±21.257
		5-10	94.07±16.810
		10-15	83.83±17.348
		15-20	86.50±27.577
		More than20	79.00±24.976
		f- test	2.002
		p-value	0.101
Having training program on physical health care for patients with psychiatric disorders?		Yes	86.91±20.835
		No	92.47±21.365
		t- test	1.248
		p-value	0.215

Discussion

Physical health care, including screening, disease prevention, and health promotion, should be given high priority for nurses caring for patients with psychiatric disorders because physical health in individuals with psychiatric disorders is often neglected, suggesting that this population faces an elevated risk of morbidity and death from physical health issues like obesity, diabetes, metabolic syndrome, hypertension, cardiovascular disease, and respiratory diseases than the general population (**Penninx and Lange, (2018; Garrido-Torres, et al ,2021)**). Mental health nurses work closely with patients who suffer from psychiatric disorders have an essential role in helping them resolve physical health issues. Nursing studies have proven that nurses' knowledge and attitude regarding provision of physical care are closely linked to the effectiveness and quality of nursing care for psychiatric patients. As a result nurses' knowledge and attitude toward physical health care have become the focus of recent nursing researches in the field of mental health nursing (**Çelik Ince, et al., 2018**). In the scope of this, the current study was developed to assess nurses' attitudes and level of knowledge regarding physical health care for patients with psychiatric disorders. The main results revealed by the study are most of the studied nurses had moderate level of knowledge and positive attitude

regarding physical health care for this patients group.

Concerning nurses' level of knowledge regarding provision of physical health care for patients with psychiatric disorders, the current study proved that most of the studied nurses had knowledge since about nearly half of them had moderate level of knowledge and approximately one third of them exhibited high level of knowledge regarding physical health care, this results may be due to the following rationalizations:-

- Educational background of the studied nurses

Most of the studied nurses graduated from Bachelor of Science in nursing and Nursing Technical institute (5 years). In the faculty of nursing, psychiatric educational curriculum concerned on integration between physical and mental health care as well as focused on providing a holistic approach care for individuals with psychiatric disorders. In this point, results of the current study supported this rational that knowledge subscale of relationship between physical and mental health was the first ranking. This means that nurses are prepared to understand and manage any physical health problem affect their patients as well as psychotropic medications' side effects that represents as painful and serious physical health problems affecting patients with psychiatric disorders. (**Goh, et al ,2021**)

The results of the current study were in line with the study conducted by **Dickens et al. (2019)** showed that mental health nurses had satisfactory

knowledge about provision of physical health care as well as nurses' role in physical health care for patients with psychiatric disorders

Additionally, The study results of conducted by **Lundström et al. (2020)** revealed that mental health nurses had moderate level of knowledge about the interplay between physical health and mental health as well as significance of physical activity and eating healthy diet. The current findings were in contrast with the study of **Hennessey, S., & Cocoman, A. M. (2018)** found that nurses had low level of knowledge related to physical health care.

Regarding to level of nurses' attitude toward provision of physical health care, the current findings showed that more than one third of the studied nurses held positive attitude regarding physical health care among patients with psychiatric disorders, this may attributed to several explanations. **Firstly**, part of this results may be related to the majority of studied nurses had moderate and high level of knowledge which may be positively affected on nurses' attitude meaning that an increase in knowledge level may lead to increase of level of attitude regarding physical health care owing to knowledge develops deeper understanding of the topic shaping nurses' beliefs and judgments. The more informed persons are, the more likely they are to hold attitude based on evidence, logic and understanding (**Andrade, et al, 2020**). This rationalization is

supported by results of the recent study which revealed positive correlation between knowledge and attitude regarding physical care among studied nurses.

Secondly, the section of nursing training and education at General Secretariat of Mental Health always has a new trend toward nursing care in which nurses must care for patients holistically, mentally as well as physically. Additionally nurses had strong belief in the right of every patient to receive equal holistic care regardless his psychiatric condition which reported by some studied nurses during data collection of the present study.

This finding was in line with a study by **Ganiah et al. (2017)** found that nurses at mental health facilities held positive attitudes in general physical health care facets, such as helping patients with psychiatric disorders control their weight and offering advice on how to prevent heart disease.

The results of the present study were in harmony with the study of **Holmberg (2020)** found that mental health nurses' motivation to practice and their attitudes on their role in providing physical health care showed to be positive.

These findings contrasted with the study carried by **De Melo et al. (2016)** concluded that nurses had negative attitudes when providing care to individuals with psychiatric problems. Furthermore **Giandinoto et al. (2018)** stated that mental health nurses exhibited a negative attitude toward patients with psychiatric problems as well as their

physical health demands and circumstances. Concerning correlation between nurses' knowledge and attitude toward provision of physical health care for patients with psychiatric disorders, the current results demonstrated that positive correlation between nurses' knowledge and attitudes significantly in which nurses who had higher level of knowledge related to physical health care reported more positive attitudes toward this also and vice versa. These findings may be attributed to increased awareness because gaining knowledge about physical health care often leads to greater awareness, which can shift nurses' attitude. Knowledge can help forming positive attitudes by providing a more complete understanding of the benefits or importance of a particular issue or behavior. For example, learning about the harmful effects of psychotropic medication may change nurses' attitude, making them more positive toward patients' symptoms and its management.

Additionally, knowledge allows nurses to make more informed decisions and it can also help challenge and reduce negative or prejudiced attitudes. As a result, nurses develop attitudes that reflect rationality and practicality, because knowledge directly influences attitudes by shaping how to interpret and respond to physical health needs of patients with psychiatric disorders (**Kruse, et al, 2022**). The present study findings go in the same line with the findings of **Dickens et al.**

(**2019**) revealed that knowledge and attitude of mental health nurse related to physical health care are positively correlated.

Regarding to relation between studied nurses' age, educational level, marital status and their level of knowledge and attitude toward physical health care for patients with psychiatric disorders, the current findings declared that there was a statistically highly significant positive relation between studied nurses' age, educational level, marital status and their level of knowledge and attitude toward physical health care.

Regarding age, the result pointed out that majority of nurses aged between (22-35) years old had moderate level of knowledge and positive attitude related to provision of physical health care because they are newly graduated and still had recent knowledge and adaptability of younger nurses to technology which aids their abilities to integrate new knowledge quickly (**Brown, et al, 2020**).

The **Venables et al. (2023)** study supported the current findings by demonstrating that young nurses also scored higher in both knowledge and attitudes than older nurses toward physical health care for patients with psychiatric disorders.

According to a study by **Lee et al. (2021)** that conducted at psychiatric inpatient settings was in contrast with the present findings revealed that young nurses tend to have low level of knowledge and have a negative attitude toward the use of physical assessment, which is a

component of nursing care is provided to patients with psychiatric disorders

Concerning level of education, the study revealed that majority of nurses who had nursing technical institute and Bachelor of Science in nursing, their level of knowledge and attitude related to physical health care for patients with psychiatric disorders are better than other nurses who had diploma in nursing. This may be related to many of psychiatric nursing curriculums have been advanced with most recent literatures pointed the importance of providing holistic care to patients with psychiatric disorders that improves nurses' knowledge and attitude toward them.

As well as when level of education increases , nurses communication skills will be advanced between nurses themselves and their mentors as well as with psychiatrists leading to interdisciplinary collaboration which foster nurses' positive attitude toward physical health care as well as toward these patients group (Tusaie, K., & Fitzpatrick, J. J, 2022).

The findings were consistent with the study by El-Aqou et al. (2020) which showed that nurses with higher education levels are better able to possess a high degree of knowledge and attitude regarding a pain management issue which is considered an important part of physical care for individuals with psychiatric disorders.

According to Liyew et al. (2020) study, nurses' attitudes and expertise regarding physical assessment—the

most crucial aspect of the physical health care process—were not significantly correlated with their educational status, which contrasts with the present finding

Conclusion & Recommendations

Conclusion Based on the results of the present study, it can be concluded that mental health nurses' level of knowledge regarding provision of physical health care for individuals with psychiatric disorders positively correlated with their positive attitude.

Recommendations

-Developing educational programs for enhancing level of knowledge and attitude of nurses toward provision of physical health care among patients with psychiatric disorders.

-In-services update training programs should be provided for nurses about physical health care for patients with psychiatric disorders.

- Further studies are needed to assess other factors affecting physical health care among psychiatric patients.

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