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Assessment of Obsessive-Compulsive Disorder among Nursing Students in Alriyada College in Jeddah and its Relationship to some Variables

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ABSTRACT

Background: Obsessive-Compulsive Disorder (OCD) is a common neuropsychiatric disorder that occurs across the whole life span and is classified under anxiety disorders. It is a combination of illogical thoughts and compulsory behaviors caused by anxiety.

Aim: To assess obsessive-compulsive disorder among female nursing students in Alriyada college in Jeddah and its relationship to some variables.

Materials and Methods: A quantitative study "descriptive design". The total number of study participants was (N =279). Data was collected through one tool by "Arabic Scale of Obsession-Compulsion" (ASOC).

Results: The weighted mean for all dimensions of obsessive-compulsive disorder were 1.5458 ± .36035. The highest mean score of OCD symptoms 1.9023 ± .48364 was related to the "orderliness and discipline" dimension, followed by 1.7513 ± .53314 were related to the "obsessive thoughts" dimension.

Conclusion and Recommendations: The study showed a low prevalence of OCD among study participants. The study recommended early detection, and prevention programs to reduce the negative impact of OCD disorder on the behavior, the mental health of the individual, and society. Also, public awareness, screening, and the presence of an educational psychologist in college may help for early detection and symptom management.

KEYWORDS: *obsessions, compulsions, prevalence, symptoms.*

INTRODUCTION

Most of the studies reported a high rate of prevalence of obsessive-compulsive disorder at the present time, compared with the estimates that made in the last century, so this disorder takes the attention in the field of psychology (Reddy, Rao & Khanna, 2016)[1]. According to the Fourth Diagnostic and Statistical Manual of Mental Disorders (1994), the diagnosis indicates that symptoms of OCD affect the academic achievement of students and their social interaction and public relations (Luo et al., 2020)[2].

Despite, OCD is the most prevalent psychiatric disorder, it is still underestimated worldwide. From this respect, it may be the nature of the ego-personality of this disorder that enforce the sufferer to be ashamed or disguise from their symptoms and they will not reveal their obsessive thoughts and compulsive symptoms (Siev, Lit & Leykin, 2019)[3].

Moreover, most young people with OCD disorder may be unaware of the symptoms or perceive their symptoms as embarrassing and they do not reveal them unless specifically asked (Nazeer et al., 2020)[4]. Subsequently, there is evidence that early detection of OCD disorder symptoms and early intervention improves the treatment outcome (Kazem & Al-Said, 2016)[5].

The essential feature of Obsessive-Compulsive-Disorder (OCD) is repeated and uncontrollable obsession or compulsion, which is causes marked distress, resulting in time-consuming or serious interference with individuals' normal life, educational or occupational functioning, and their social relationships with others (Cochrane & Heaton, 2017)[6].

According to DSM-5, defined the obsessions as persistent thoughts, images that are experienced as intrusive and uncontrollable that cause marked distress or anxiety. While defining the compulsions as repetitive behaviors (e.g., ordering, hand washing, checking) or mental acts (e.g., counting, praying, repeating words silently) that the person performed in response to obsessive thoughts (Agrawal, Heath and Lynskey, 2016)[7].

Therefore, there is a lack of studies conducted in Saudi Arabia about obsessive-compulsive phenomena among

nursing students. In this context, this study aims to assess the prevalence of the obsessive-compulsive disorder among nursing students in Jeddah and its relationship to some variables.

MATERIAL AND METHODS

Research Design

The study will adopt a quantitative "descriptive design" to address the research questions.

Setting

The study conducted in Alriyada College for Health Sciences in Jeddah that adopts the evidence-based education curriculum in nursing sciences.

Research Sampling and Sample Size

The researcher applied a convenience sampling method. The sample size was calculated from the whole target population electronically by using the Raosoft website. Which is calculated the sample size by considering the response distribution among them as 50%, the margin of error as 5%, and confidence level as 95%. So, the minimum recommended sample size in this research is 235 and the reached sample size for this study is 279 nursing students.

Research Tool

Data was collected through one tool, which includes two parts:

Part I: socio-demographic characteristics and mental health status

This part was developed by the researcher to assess the socio-demographic characteristics of the study participants. It will include (age, marital status, degree & level of education, GPA average in the current academic year, family economic level. Also, to assess the mental health status of the study participants, which include (current psychiatric problems and family history of OCD).

Part II: structured questionnaire to assess obsessive-compulsive disorder

This part developed by (Abdel-Khalek, 2018)[8], used to assess obsessive-compulsive disorder among female nursing students. It includes 25 items, which divided into sex dimensions as the following: orderliness and discipline (four items), slowness and hesitation (four items), hoarding and collecting compulsions (four items), meticulousness and repetition (four items), checking (four items) and obsessive thoughts (five items).

The seventh dimension "self-injury compulsions" which is disorders related to OCD include six items that were added and modified by the researcher, the questionnaire conducted from the Milwaukee Inventory for Subtypes of Trichotillomania-Adult Version (MIST-A) include (three items) and the Milwaukee Inventory for the Dimensions of Adult Skin Picking (MIDASP) include (three items).

Responses were measured on a three-point Likert scale that ranges from 1 to 3, with the following ranges criteria: 3 = (Yes), 2 = (Sometimes), and 1 = (No). The highest response will indicate the highest rate of OCD symptoms, following the weighted mean for the Likert scale as shown in table 1.2

Table 1.2: The Likert scale model in answering the questionnaire.

Descriptive Interpretation	Weight	Weighted Mean
No (Low rate)	1	(1.00 – 1.66)
Sometimes (Moderate rate)	2	(1.67 – 2.33)
Yes (High rate)	3	(2.34 – 3.00)

The Questionnaires contain some items which are to be filler items and must be excluded from the computation of the total score (items number: 1, 5, 12, 17, and 20). These items are designed to control the acquiescence response bias (Abdel-Khalek,2018)[8] .

Validity

Validity was done in Two weeks. Comments and suggestions of the jury were considered and the necessary modification was done accordingly.

Reliability

The reliability test conducted and the result of Cronbach alpha coefficient was equal to 0.71 for overall questionnaire items.

Pilot Study

Before embarking on the actual study, 10% of nursing students included in a pilot study, according to the estimated study sample size, the pilot study was conducted for 24 nursing students in Alriyada College for Health Sciences after obtaining college permission. The researcher was distributing the questionnaire electronically through "google form". The questions of the tool were clear, simple, with easy language and no modification was done.

Data Collection Procedure

· An official permission to conduct the study obtained from the ethical committee of the Alriyada College for Health Sciences in Jeddah.

· The researcher met the responsible person in the research unit in Alriyada College to explain the aim of the study and ensure cooperation from students.

· The researcher explained the aim of the study in the research consent paper. Also, the participation is voluntary and full autonomy to withdraw from the study at any time has been explained and ensured.

· Electronic research questionnaires and consent were distributed to the nursing student after college permission.

Statistical Analysis

The research data were collected by using Statistical Package for Social Science (SPSS for Windows, version 26). The data was computed by using descriptive statistics for the study sample in the form of frequency, percentage (%), mean and standard deviation to describe items' responses. An "Independent T-test" was used to assess the significance of the relation between the two variables of socio-demographic characteristics and OCD symptoms. A "One-way analysis of variance" (ANOVA) test was used to measure the significance of the relationship between more than two variables of socio-demographic characteristics and OCD symptoms.

RESULTS

Table 1: Distribution of total mean scores ± standard deviation of all dimensions of obsessive-compulsive disorder, (n= 279):

All dimensions of obsessive-compulsive disorder	Total mean scores ± S.D
1- (Orderliness and discipline) items.	**1.9023 ± .48364**
2- (Slowness and hesitation) items.	1.5329 ± .43112
3- (Hoarding and collecting compulsions) items.	**1.7384 ± .67696**
4- (Meticulousness and repetition) items.	1.3584 ± .48619
5- (Checking) items.	**1.6165 ± .54151**
6- (Obsessive thoughts) items.	**1.7513 ± .53314**
7- (Repetition of self-injury compulsions) items.	1.1374 ± .31993
Weighted mean ± S.D 1.5458 ± .36035	

Table 1: The highest mean score of OCD was related to "Orderliness and discipline", "Obsessive thoughts " "Hoarding and collecting compulsions" and "Checking" dimensions with mean scores of (1.9023 ± .48364, 1.7513 ± .53314, 1.7384 ± .67696 and 1.6165 ± .54151) respectively.

While, the lowest mean score of OCD was related to "Slowness and hesitation", "Meticulousness and repetition" and "Repetition of self-injury compulsions" dimensions with mean scores of (1.5329 ± .43112, 1.3584 ± .48619 and 1.1374 ± .31993) respectively. The overall average of weighted mean was 1.5458 ± .36035 for all dimensions of obsessive-compulsive disorder, this result demonstrates a low prevalence of the obsessive-compulsive disorder among study participants in Alriyada College.

Table 2: The relationships between the total mean scores of OCD symptoms with their socio-demographic characteristics and their mental health status, (n=279)

Socio-demographic characteristics& mental health status of study participants		Total mean scores of OCD symptoms	
		Mean ± SD	**Test of significant**
Nurse age	≤ 20 years	± .390281.6346	F = 2.940 P = .034*
	21 – 30 years	± .364151.5813	
	31 – 40 years	±.332231.4619	
	≥ 40 years	± .407951.5577	
Social status	Single	± .368781.5971	F = 5.139 P = .002*
	Married	± .279271.3946	
	Divorced	± .374961.4983	
	Widowed	± .353551.4423	
The degree of education	School graduate	1.5863 ± .37252	T = 2.129 P = .034*
	Diploma graduate	1.4944 ± .33885	
The current level of education	First year	± .338641.5353	F= 3.374 P= .019*
	Second year	± .408301.6284	
	Third year	± .395511.5819	
	Fourth year	± .277711.4339	

*Statistically significant at P ≤ 0.05

Table 2: Show that there was a statistically significant difference between the total mean scores of OCD symptoms with their social status, where the present findings indicate that the study participants were single have the highest mean score. Also, there was a statistically significant difference between the total mean scores of OCD symptoms with their current level of education, where the present findings indicate that the study participants in the second year have the highest mean score.

In addition, there was a statistically significant difference between the total mean scores of OCD symptoms with their age, where the present findings indicate that the study participants who less than 20 years old have the highest mean score. Whereas, there was a statistically significant difference between the total mean scores of OCD symptoms with their degree of education, where the present findings indicate that the study participants who were school graduates have the highest mean score.

Table 3: The relationships between the total mean scores of OCD symptoms with their socio-demographic characteristics and their mental health status, (n=279)

Socio-demographic characteristics& mental health status of study participants		Total mean scores of OCD symptoms	
		Mean ± SD	Test of significant
GPA average	4.50 – 5.00	± .331251.4808	F = 3.163 P = .025*
	4.00 – 3.50	± .361921.5527	
	3.00 - 2.50	± .388581.6370	
	≤ 2.00	± .271961.9231	
Family economic level	Excellent	± .320131.4487	F = 1.467 P = .224
	Average	± .366221.5791	
	Good	± .366481.5274	
	Very bad	± .281761.5577	
Family history of OCD	Yes	1.7719 ± .33418	T = 3.648 P = 0.000*
	No	1.5195 ± .35464	
Psychiatric problems	Depression disorder	1.9423 ± .38330	F= 21.262 P = 0.000*
	Anxiety disorder	1.7990 ± .36847	
	None	1.4732 ± .31509	

*Statistically significant at P ≤ 0.05

Table 3: Show that there was a statistically significant difference between the total mean scores of OCD symptoms with their family history of OCD, where the study participants who have a family history of OCD have a highest mean score. In addition, there was a statistically significant difference between the total mean scores of OCD symptoms with their GPA average, where the study participants who have a GPA average (3.00 - 2.50 and ≤ 2.00) have the highest mean scores. Also, there was a statistically significant difference between the total mean scores of OCD symptoms with their psychiatric problems, where the study participants who have depression disorder have the highest mean score.

DISCUSSION

According to the symptoms of obsessive-compulsive disorder among study participants for all dimensions, it includes seven dimensions as following: orderliness and discipline, slowness and hesitation, hoarding and collecting compulsions, meticulousness, and repetition, checking, obsessive thoughts, and repetition of self-injury compulsions.

Regarding the first dimension "orderliness and discipline", the findings of the present study indicated that the OCD symptoms of orderliness and discipline among study participants were at a moderate rate. The findings of the present study were in accordance with the results of studies done by Townsend & Pedersen, in (2015)[9] and Alsubaie et al., in (2020)[10], who found that most of the study participants had a moderate rate of OCD symptoms which related to orderliness and discipline.

In contrast, studies done by (Rady, Salama, Wagdy & Ketat, in 2013)[11], the result demonstrated that the study participants had a high rate of OCD symptoms related to orderliness and discipline dimension. Further, the study result was inconsistent with the current study findings, the result revealed that only 12% of study participants had ordering and symmetry symptoms of OCD.

As regards, the OCD symptoms of study participants toward the second dimension "slowness and hesitation", the findings of the present study indicated a low rate of slowness and hesitation symptoms among study participants. This result was in the same line with the study done by (Kazem &Al-Said, 2016) in Oman,[5] who found that only 10.92 percentage was related to slowness, carelessness, and hesitation symptoms. Whereas, studies done by (Akras in 2017)[12] the findings reported that the most popular forms of obsessions associated with doubts, slowness, carelessness, and hesitation.

In relation to the OCD symptoms of study participants toward the third dimension "hoarding and collecting" compulsions, the finding of the current study indicated that the OCD symptoms of "hoarding and collecting" were at a moderate rate. This result was consistent with the study done by (Rady, Salama, Wagdy & Ketat)[11], the result of the study disclosed that the most compulsive symptoms found among OCD students were about 38% of study participants had hoarding symptoms. While, a study by (Erfan & Rakhawy)[13], reported that the OCD symptoms of hoarding and collecting were at a high rate. This result inconsistent with the study done by (Peng et al., 2011)[14], who reported a low rate of hoarding and collecting symptoms.

Regarding the OCD symptoms of study participants toward the fourth dimension "meticulousness and repetition", the findings of the present study indicated a low rate of meticulousness and repetition symptoms among study participants. This result matched with other studies done by (Stewart, Hezel & Stachon, 2012)[15] in Iran.

This result was contradicted by the results of studies done by (Vivan et al., 2013) in Brazil and (Guo et al., 2016) in China[16,17], they reported that about 86.7% of the study participants suffer from miscellaneous compulsive symptoms. In addition to other study findings done in Syria, which revealed that the most prevalent compulsive symptoms were related to repeating washing, cleaning, and counting (Slaimon, Alsaadi & Watfe)[18]. Furthermore, another study reported the effectiveness of cognitive-behavioral therapy (CBT) in reducing the OCD symptoms of repetition and cleanliness among women (Alblowy, 2018)[19].

Concerning the OCD symptoms of study participants toward the fifth dimension "checking", the findings of the present study indicated a moderate rate of checking symptoms among study participants. This result was in the same line with other studies done in Qatar, Saudi Arabia, and Egypt, [4,10,11] the result reflected that the common compulsive symptoms were checking. In addition to other study done in Shaqra University in KSA, the result of the study revealed that more than half of the students spend less than an hour in compulsive behaviors and repeatedly check things, such as door locked, oven turned off (Alroqee, Deshwali & Al Hubail, 2018) [20]. This result was contradicted by the results of studies done[5,21,22] which revealed a low rate of checking symptoms.

Regarding the OCD symptoms of study participants toward the sixth dimension "obsessive thoughts", the findings of the present study indicated that the symptoms of obsessive thoughts were at a moderate rate among study participants. This result in harmony with other studies done by (Aljeshi in 2011) [23] in Saudi Arabia and Jaisoorya et al., in 2020 in India, the results reflected a moderate rate of obsessive thoughts, and the most common obsessive symptoms were related to contamination, symmetry, aggression, collecting and religious [22]. In addition to suicidal obsessions in a patient with OCD [24]. Moreover, another study done by (Ghanem et al., 2015) in Ain Shams University Hospital in Egypt, the result found that the biggest portion of study participants mostly suffered from obsessional doubting, hoarding thoughts fears of contamination, and obsessive thoughts about the arrangement of objects to achieve a satisfying symmetry [25].

Consistently, other study was done in Jerusalem, the result of the study reflected that most of the students suffered from various obsessions, which include fear of contamination or illness, fear to hurt other, sexual, religious, and symmetry obsessive thoughts[26]. This result was not in harmony with other study done by Kazem &Al-Said in 2016 in Oman, in which the result revealed a low rate of obsessive thoughts among study participants [5].

About the OCD symptoms of study participants toward the seventh dimension "Repetition of self-injury compulsions", the findings of the present study indicated a low rate of symptoms related to self-injury compulsions among study participants. This result matched with other studies done by[27,28] ,the result demonstrated that the prevalence of excoriation and trichotillomania was low among university students.

This result inconsistent with the result of other studies which revealed a high rate of self-injury compulsions among study participants[29,30,31]. In the same dimension, a study done in the US found a high rate of OCD-related disorders, in which the most common site related to trichotillomania disorder was the scalp and eyebrows[32]. Whereas, other the study reported the most common sites of excoriation disorder are the face, nails, arms, scalp, feet, and hands[33].

CONCLUSION AND RECOMMENDATIONS

The study showed a low prevalence of OCD among study participants. The study recommended early detection, and prevention programs to reduce the negative impact of OCD disorder on the behavior, the mental health of the individual, and society. Also, public awareness, screening, and the presence of an educational psychologist in college may help for early detection and symptom management.

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