



RESEARCH ARTICLE

Public's Knowledge, Attitudes, and Barriers to Seek Healthcare Regarding Postpartum Depression in the Western Region of Saudi Arabia

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Background

Depression is a major mental issue affecting people of all ages around the world. According to The World Health Organization (WHO), depression will probably be the first risk factor contributing to illness, and is expected to be the instrumental reason for the highest disability levels surpassing any physical or mental disorder in the world [1]. Depression is commonly recognized as the consistent low state of mood accompanying a general loss of interest in usual activities, which could affect a person's emotional state, actions, thoughts, and sense of wellness [2]. There is a notable gender difference when it comes to depression. According to the National Institute of Mental Health, women are more likely to have depression than men with recurring symptoms like guilt, sadness, and worthlessness. Moreover, high rates of depression are most likely associated with women due to their unique biological and hormonal factors [3].

Furthermore, major life changes and events like pregnancy and childbirth may cause depressive symptoms to develop, and will most likely result in all kinds of depression diagnosis. One type of depression that affects both genders, but mostly females, and occurs during the first year after childbirth is called Postpartum Depression (PPD). The incidence of PPD among men whose partners were undergoing PPD ranges from 1.2% to 25.5% [4]. On the other hand, many fe-

males experience emotional transitions and negative changes in their behavior after birth, which might develop into PPD. One study in the United States concluded that the prevalence rate of PPD among women is 12% [5]. Another study in the same country reported an overall PPD prevalence of 11.5% and ranging from 8.0% to 20.1% [6]. In Saudi Arabia, the highest documented prevalence rate is 33.2%; however, there are other more recent regional studies that reported prevalence rates ranging from 17.8% to 23.9% [7-9].

There are several symptoms that indicate the presence of PPD. According to the DSM-5 criteria, the symptoms of PPD are identical to the symptoms of a major depressive episode. The symptoms include: depressed mood, losing interest in usual activities, insomnia or hypersomnia, weight gain or loss, increased or decreased appetite, fatigue, agitation, and psychomotor retardation. The DSM-5 also indicates that at least five of the stated nine symptoms must be present to diagnose a patient with PPD [2]. According to other papers, there are other similar symptoms that may rise such as anxiety, strong feelings of guilt, inability to make decisions, and inappropriate thoughts of harming oneself or the newborn. This illness could reach an extreme level of severity that could lead to suicide or a long-term illness such as chronic depression [10,11]. In addition to those symptoms, an altered cognitive, behavioral, and/or social development might occur if left

untreated. Other complications of PPD include poor relationships between the mother and the child, substance abuse, and experiencing depressive episodes in later pregnancies [12,13]. The negative impact on the patient can spread to other family members and influence the relationships between them [4].

Globally, there is a dramatic increase in PPD literature that is mostly about the risk factors and the prevalence rates of this illness [14]. Local researchers attempted to cover the literature gap in Saudi Arabia and also to reach to the global level of studies [15]. Nonetheless, there are few studies that discuss the knowledge, attitudes, and health-seeking barriers of the public regarding PPD [16]. Furthermore, there are many misconceptions, ideas, and myths about PPD in the public society in Saudi Arabia that must be acknowledged, for it can help to identify the symptoms of depression the future [17]. In a study performed to understand mental health literacy (MHL) in low income postpartum women, participants understood the symptoms and indicators of an underlying mental issue, but they did not seek health professional help mostly out of fear and frustration. The study also concluded that some women chose to do harmful activities like smoking and drinking instead of seeking help [18].

Examples of misconceptions include the thought that postpartum depression is purely due to ghost possession or sinning. Other members of the society with negative thoughts may deny the whole illness since it may be perceived as embarrassing or shameful. Research on the public opinions and what they know about this illness can motivate healthcare providers to initiate educational programs and campaigns, which might result in a more educated society with positive attitudes. Recognizing and being aware of this illness in early stage can increase the chances of early diagnosis, treatment, and prevention of complications. Therefore, this condition should neither be underestimated nor ignored.

Research Aim and Objectives

The main aim of this study is to explore the public's level of knowledge, attitudes, and barriers for seeking healthcare regarding PPD in the Western Region of Saudi Arabia.

Specific Objectives

1. To assess the level of knowledge of the society about PPD.
2. To explore public attitudes towards PPD.
3. To identify barriers for seeking medical treatment.
4. To correlate some of the socio-demographic characteristics with knowledge, attitudes, and help-seeking barriers.

Methodology

Design

A quantitative cross-sectional design was used, where a self-administered questionnaire was developed by the research group after extensive literature review. The questionnaire was written, revised, pilot tested, and finalized. The questionnaire includes 64 questions, and it is divided into four sections, which include the demographics, knowledge, attitude, and barriers to seek healthcare. Completing the questionnaire takes around 10-15 minutes.

Setting

This study will be carried out in public areas in the western region, particularly in Jeddah and Makkah.

Setting

This study was carried out in public areas in the Western Region of Saudi Arabia, particularly in Jeddah and Makkah. Data was collected from malls and hospitals. The malls included Mall of Arabia, Aziz Mall, Andalus Mall, Makkah Mall, Aldiyafah Mall, and Alhijaz Mall. The hospitals included were National Guard Health Affairs and Alnoor Specialized Hospital. Refresher assistants were trained for data collection. Before distributing the questionnaires, participants permission obtained. After the questionnaires were filled, incomplete questionnaires were disregarded and were not included in the analysis.

Subjects

Inclusion criteria: The inclusion criteria included all adult public citizens of the western region that could be reached, agreed on participating in the research, and knew at least one of the two languages, English or Arabic.

Exclusion criteria: Participants under 15 years of age and participants that did not complete the full questionnaire were excluded.

Sampling technique

The sampling technique used in this research was a non-probability convenient sample from public citizens of the Western Region that can be reached and voluntarily agreed to participate in the research.

Sample Size

A convenient sample from public citizens of the Western Region that can be reached and agreed voluntarily to participate in the research. A power analysis indicated minimum sample size will be at least 325 with 95% power and 5% significance level.

Data collection and analysis

The instrument used was developed by the re-

searchers after extensive literature review. The instrument includes four parts:

- (1) Socio-Demographic Characteristics (4 items).
- (2) Knowledge of PPD, includes three subsections. First, general information on PDD (6 items); Second, information on causes and risk factors of PPD (12 items), rated in three Likert Scale of Agree, Uncertain, or Disagree, and third, Knowledge About Signs and Symptoms of PPD (10 items), rated in three Likert Scale of Yes, No, or I don't know.
- (3) Attitudes toward PPD (15 items), and also rated in three Likert Scale of Agree, Uncertain, or Disagree.
- (4) Barriers to seek medical treatment for PPD (10 items and rated as Agree or Disagree).

The survey was validated by Content Validity using expert focus group and was pilot tested using a small sample. Modifications were made accordingly before distribution. Then Cronbach's alpha was calculated, to test the reliability of a tool. The instrument Reliability was established at Cronbach's Alpha at 0.675 to 0.775. This indicates that the instrument developed lies in the range of acceptable to good, which means that it is reliable and repeated measures using it can give similar results each time it is used.

Data was analyzed using SPSS version 24. Different methods of data analysis were performed, including descriptive analysis, Mann-Whitney U test (was done to compare the knowledge scores of males/females, and participants who know/don't know a PPD patient).

Results

Demographic characteristic of participants was presented in Table 1. The total number of the participants were 941. The majority were females (63.1%) and more

Table 1: Demographic characteristics.

Items	Results	
Age	Mean ± SD	
	30.48 ± 11.02	
Gender	Number	Percentage
Male:	347	36.9%
Female:	593	63.1%
Educational Level		
High School	265	28.1%
College/University	556	59.1%
Postgraduate	64	6.8%
Other	38	4%
Marital Status		
Single	361	38.4%
Married	529	56.2%
Divorced	13	1.4%
Widow	33	3.5%

than half were married (56.2%). More than half have university education.

Results indicated that public knowledge is high regarding PPD including their knowledge about signs and symptoms of PPD. Half of participants (50.7%), the source of information was family and friends. Two Third of participants (59.9%) knows someone diagnosed with PPD and most of the participants (82%) have a desire to know about PPD. 61.7% of the participants want to know about causes and risk factors of PPD. Table 2 shows the results of general information on PPD. Figure 1 shows the distribution of the public's knowledge and Figure 2 shows the comparison of knowledge between women and men, where women scores are higher than men (P = 0.001).

Data revealed that there is statistically significant relationship (P = 0.001) between the level of knowledge and knowing someone with PPD. Data presented in Table 3.

Regarding knowledge on causes and risk factors of PPD, results indicated that participants have some knowledge but still there were some misconception as evil eye and sins. Table 4 presented the results on the Public's Knowledge on causes and risk factors associated with PPD.

Public's knowledge about signs and symptoms of

Table 2: General information regarding PPD.

Items	Results	
Heard of PPD	Number	Percentage
Yes:	690	73.3%
No:	251	26.7%
If yes, Source of knowledge		
TV	129	13.7%
Online	248	26.4%
Formal Education	85	9%
Family & Friends	477	50.7%
Knowing someone who has PPD		
Yes	377	40.1%
No	560	59.9%
If yes, Level of Relationship		
Immediate Family Member	148	15.7%
Friends and Relatives	180	19.2%
Others	33	3.5%
Desire to know about PPD		
Yes	772	82%
No	165	17.5%
If yes, type of information		
Causes & Risk Factors	581	61.7%
Signs and Symptoms	388	41.2%
Treatment	420	44.6%
Others	20	2.1%

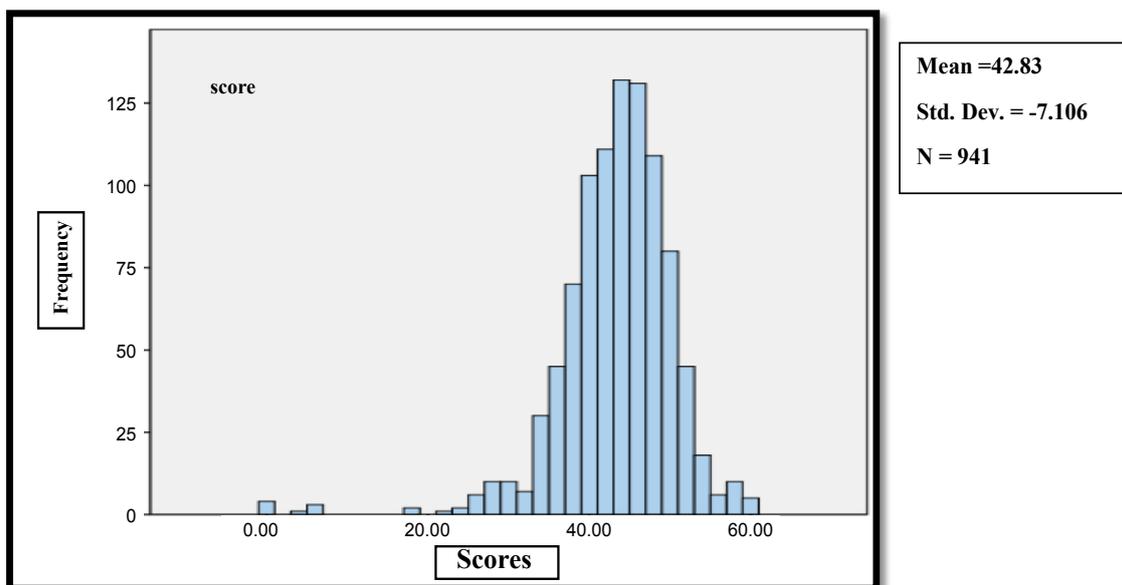


Figure 1: Public’s general information regarding PPD.

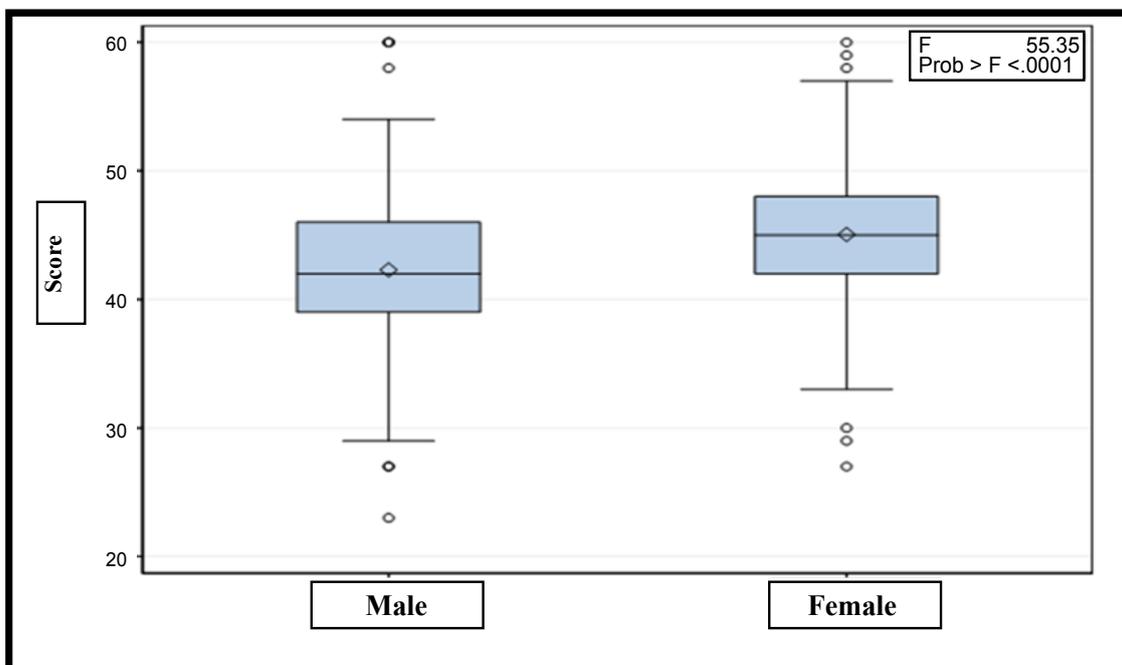


Figure 2: Distribution of knowledge scores according to gender.

Table 3: Distribution of knowledge scores in relation to knowing a woman with PPD.

Know a woman that has or had postpartum depression	N	Mean of Scores	Std. Deviation	P value	Z score
Yes	377	44.1326	6.01668	0.001	7.8
No	560	42.0929	7.27841		

PPD is considered adequate in most of the items except thoughts about harming the baby and presence of hallucinations or delusions. Table 5 presents the results regarding knowledge on signs and symptoms of PDD.

The public attitudes are widely distributed across the scale and there were many answers of uncertainty. Also, participants did not answer several items so there

are missing data regarding the public attitudes toward PPD. Table 6 show the data regarding public attitudes.

Regarding barriers to seek medical treatment for PPD, data revealed that high barrier were: not knowing if they have a psychiatric disease, not knowing where to get health care services, Affordability of services, timed, and Stigma (disgrace of the society to psychiat-

Table 4: Public's knowledge about causes and risk factors of PPD.

In your opinion, what are the causes and risk factors of Postpartum Depression?	Agree	Uncertain	Disagree	Missing
Statement				
Hormonal changes can cause postpartum depression.	81.3%	15.2%	2.01%	1.5%
Genetic factors can cause postpartum depression.	32.8%	40.1%	20.6%	12.4%
Problems in life can cause postpartum depression.	80.5	11.3%	5.7%	2.6%
Poor relationships among family members can cause postpartum depression.	69.8%	17.1%	10.31%	2.8%
Postpartum depression is caused by envy/evil eye.	18.8%	29.6%	49%	2.6%
Postpartum depression is caused by ghost possession or magic.	11.1%	26.1%	60.1%	2.7%
Postpartum depression is caused by doing sins.	24.4%	28.3%	44.2%	3.1%
History of depression increases the risk of having postpartum depression.	51.1%	32%	13.9%	3.1%
A woman who is raising a child alone is at risk of having postpartum depression.	50%	24.5%	22.8%	2.7%
A postpartum woman who lacks confidence in herself and in taking care of her baby has a higher chance of having postpartum depression.	65.3%	22.2%	10.2%	2.2%
Unplanned pregnancy increases the risk of getting postpartum depression.	51.7%	25.5%	21.3%	1.6%
Health problems/sickness of the mother or her baby may cause postpartum depression.	60.4%	25.6%	12.2%	1.8%

Table 5: Public's knowledge about signs and symptoms of PPD.

Is the following a sign or symptom of Postpartum Depression?	Yes	No	I don't know	Missing
Feeling energetic	5%	75%	18%	2%
Lack of interest or pleasure in usual activities	74.9%	11.2%	12.4%	1.5%
Feeling sad, hopeless, and sometimes anxious or stressed	87%	5.1%	6.4%	1.5%
Feeling of worthlessness and guilt	69.9%	13%	14.8%	2.3%
Sleeping disturbances	71.9%	10.1%	13.1%	4.9%
Increase or decrease in appetite	64.7%	14.5%	15.9%	4.9%
Significant weight loss or gain	62.9%	16.4%	18%	2.8%
Suicidal thoughts	51.3%	23.4%	21.9%	3.4%
Thoughts about harming the baby	45%	27.7%	23.7%	3.6%
Presence of hallucinations (seeing or hearing things that do not exist) or delusions (believing in things that are not true despite strong evidence against them)	42.6%	25.1%	29.4%	2.9%

Table 6: Public's attitudes toward PPD.

Statements/Items	Agree	Uncertain	Disagree
I would feel ashamed or embarrassed if I had postpartum depression.	21.2%	24%	54%
Postpartum depression is acceptable by the society as a disease.	51.9%	27.6%	19.9%
Postpartum depression is a serious illness.	38.7%	23.9%	36.7%
Women who have postpartum depression cannot be good mothers.	15.5%	16.3%	68%
Women who have postpartum depression should stay at home.	12.7%	15.7%	70.9%
Women who have postpartum depression are weak and annoying.	25.4%	27.3%	47%
I should be patient and empathetic being able to understand feelings and emotions towards women who have postpartum depression.	86.3%	8%	5.4%
Women who have postpartum depression cannot take care of their own children.	28.5%	33.8%	36.7%
Postpartum depression is an incurable disease and will continue to increase in severity for those who have it.	11.3%	17.7%	67.8%
Women who have postpartum depression cannot make decisions at all.	29.7%	33.9%	35.6%
Women who have postpartum depression should not have other children.	16%	20.5%	62.7%
I would be ready to help if my relatives had postpartum depression.	84.3%	9.5%	5.9%
I would feel overwhelmed if I had to take care of a woman who has postpartum depression.	17%	19.3%	63.2%
Women who have postpartum depression are considered a burden load to the family.	13.6%	16.3%	69.7%
Women who have postpartum depression should be treated in hospitals.	40.2%	28.2%	30.9%

Table 7: Barriers for seeking medical treatment for PPD.

Statements/Items	Strongly Agree	Agree
They don't know that they have a psychiatric disease	344 (36.6%)	384 (40.8%)
Fear of psychiatric disease	286 (30.4%)	385 (40.9%)
Stigma (disgrace of the society to psychiatric patients)	249 (26.5%)	242 (25.7%)
They do not know where they can get healthcare services	237 (25.5%)	286 (41%)
They might not be able to afford it	213 (22.6%)	344 (36.6%)
Family might not accept the disease	183 (19.4%)	309 (32.8%)
No transportation	147 (15.9%)	229 (31.9%)
Taking care of other children	125 (13.3%)	282 (30%)
Shortage of time	101 (8.7%)	310 (32.9%)
Language barrier	79 (8.4%)	148 (15.7%)

ric patients). The results of the barriers to seek medical care presented in Table 7.

Discussion

Literature review revealed that there is lack of researches that describe the general public's views regarding PPD and the perceived barriers to seek healthcare services. Key findings indicated that knowledge of the public regarding PPD is relatively at acceptable level, with an acceptable average score, but still there were some gaps and uncertainty. Result indicated that there were misconceptions and myth regarding PPD. Comparing this result to a similar study conducted recently in Thailand where their percentages were higher [19].

Association of demographic characteristics with the level of knowledge regarding PPD, was found significant with gender, and knowing a woman with PPD, age and level of education. In contrast, the study of Al Dallal, no relationships were identified between depression symptoms and any of demographic variables [20].

The result on attitudes indicated the distribution of responses across the survey and focusing in specific area. Generally, the result affected by the role of culture and family on the public perceptions toward PPD. Results indicated positive attitudes toward PPD. The results suggest that PPD is acceptable by the society and a great number of participants disagree on negative statements about PPD. However, A lot of statements show very high uncertainty, thus confirming low level of knowledge in the society. Pinto-Foltz MD and Logsdon MC, indicated that negative publics' perceptions was identified as factors that impeded postpartum women from seeking mental health treatment [11].

Participants agreed that most of the statements are barriers to seek treatment or healthcare. According to Dennis and Chung-Lee, lack of knowledge about postpartum depression or the acceptance of myths was a significant help-seeking barrier [17]. In contrast to a study in the USA, time was found to be the highest barrier [4].

Conclusion

The results of this study are very important to be considered as a base to design and implement educational programs regarding PPD. Publics perceived several barriers that can prevent them from seeking healthcare. The results of this study can help healthcare systems in bridging the gap of knowledge and removing those barriers.

Recommendations

Raise the awareness of the public by national campaigns about PPD by designing and implement long term educational programs and educational materials.

Conducting further research focused on postpartum maternal health and utilizing research findings to improve healthcare practice.

Establishing policies and protocols regarding postpartum maternal health and introducing a system to ensure proper healthcare.

Limitations

This study had limitations including the fact that it was a convenience sample, data were self-reported by students so there is the potential for social desirability bias. Time constrain was also limitation.

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