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Assessment Of The Depression Symptoms Among Mothers Of Preemie At Al_Zahraa Teaching Hospital Of Gynecology And Obstetrics

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Abstract

Preterm birth is a common state of delivery before the full term gestation. This state had a higher risks and impact on preemies, as well as psychological problems like depression, anxiety and stress on their mothers and families. The study aimed to assess the depression level among mothers who had a preterm baby and find out the relationship between the levels of depression with some demographic characteristics for mothers and their baby as a preemie.

A descriptive analytical study conducted during 1st March to 15th April (2022) in AlZahraa teaching hospital of gynecology and obstetrics at Al-Najaf province. The random sample included 60 mothers had at least one premature baby hospitalized in sterile or home preemie wards. The study used Beck's depression scale Arabic version to assess the levels of depression among mothers.

The study revealed about 65% of mothers aged were less than 30 years old and 78.3% of them as a house wife were job. There is significant relationship between the level of depression with job of mothers, type of labour and duration of preemie hospitalization.

The study concluded more than half of mothers had a low level of education and one third of them had a mild level of depression or able to get depressed. So that, the study recommended to support the mothers and their families by health facilities. In addition, to educated mothers about depression and how to deal with it.

Keywords: Depression, Mothers of preemie, Premature baby, Al_Zahraa Teaching Hospital

Introduction

The birth of infant before completed the full term of labour is had a higher risk for death among infants than who birth beyond 42th week of gestation "post term" (Carvalho et al., 2009). The number of premature babies are estimated between 10-15% from all birth each year (Osterman et al., 2011) and most of them were need to admitted to neonatal

intensive care unit may due to had numerous complication like deformity, birth with low weight or respiration problems (Geller, et al., 2018).

The preemie baby is commonly needed to special care long period to be health status is a stable in NICU (Alkozei, et al., 2014). This period had adverse consequences on parents especially on mother, so that most mothers suffered from stress, anxiety depression and other psychological problems (Greene, et al., 2018) and distressing event for parents that often report symptoms of post-traumatic stress in several years (Trumello et al., 2018).

Depression disorders were common among population about 30%and women were affecting twice than men (Al-Hamoodi, 2018). Depression disorders had a fourth rank as a cause for disability in world (Semple & Symth, 2013) and first rank for suicide (Sheila, 2020). Depression is a mood disorder that causes a persistent of sadness feeling and loss of interest; also called clinical depression, it affects in emotions, thoughts and behavior as well as variety disturbances in emotions and physical symptoms (Barker, 2009). It includes many types of disorders are major depression disorder (including major depression episode), persistent depression (dysthymia), disruption mood-dysregulation, premenstrual dysphoric, substance/ medication-induced depression, depression disorder due to other medical condition and other depression disorder such as unspecified or that attached with specifiers when the some cases diagnosed like seasonal depression, psychotic features depression,…etc. (APA, 2013; Halter, 2018).

Numerous studies were investigating the symptoms of psychological problems among preterm baby of mothers like symptoms of depression, anxiety, mood disturbance and etc. however, the more mothers of preterm baby had a high rate incidence of postpartum depression than mothers who had a baby full-term birth (Field, 2018). Although, the mothers experience the postpartum depression and their relationship with baby are effected, but the new mothers of preterm baby were comorbid with it by 40–60% than mothers had other baby as a preemie (Novick & Flynn, 2013). The study aimed to assess the depression level among mothers who had a preterm baby and to find out the relationship between the levels of depression with some demographic characteristics for mothers and their baby as a preemie.

Materials and Methods

Design of the study: is a descriptive-analytic study.

Setting

The study conducted in Al-Najaf province. Al-Najaf province is lying in middle Iraq and one of Iraqi large provinces. AL-Zahraa teaching hospital of gynecology and obstetrics is a main and specialized hospital for treat and caring the all types of pregnant mothers and health status of all ages women whether as virgin or married. This hospital is carried out the all types of operations of gynecology and procedures. AL-Zahraa teaching hospital of gynecology and obstetrics is covered approximately (1.25) million people who lived in Al-Najaf province and when the mothers reffered from primary heath care center to it according their appointments. The study is conducted in AL-Zahraa teaching hospital in Al-Najaf province and included only mothers who hospitalized their preemie baby in one of the home or sterile preterm wards in hospital.

Variables of the study

The variables of study included the depression symptoms as dependent variables and the personal data of mothers and preemie like age, gender, education, job duration of hospitalization, and types of labour, age of gestation…etc as an independent variables.

Sample of the study:

A simple random sample used to representative the population of the study. The sample size is included (60) mothers who hospitalized their preemie baby in one of the home or sterile preterm wards. The study sample included only mothers are agreed to participated in the study and had at least one premature baby are hospitalized in home or sterile preemie wards. The researchers reduced the bias by given all mothers of preemie who agreed to participate in the study were an equal chance. The sample size calculated by the power analysis and table of Krejcir & Morgan in 1972, but the number of mother of preemie during the period of data collection were small than calculated and

some of mothers of preemie were refused to participate in the study.

The study instrument

The researchers used questionnaire form had two parts to meet the objectives of the current study by interview with mothers. The instrument included in part one questions about the socio-demographic data for mother and their preemie; the second part included adopted Beck's depression scale Arabic version (Al-Hamoodi, 2018) to assess the levels of depression among mothers. The Beck scale is used to detect the patient had a depression symptoms in last two week or not, also this scale able to detect the severity of depression. Beck scale had 21 items each one had four rated extend from not had this symptoms to had an extremely this symptoms. So the value for each items rated extended from zero to three and very important to understanding the result get from participants in the study. The instrument validity were getting from 12th experts had experts in this field and the reliability of instruments was accepted according to the value of Cronbach's Alpha is equal 0.79, but this scale had 0.92 in study of García-Batista et al. (2018).

Data Collection

Data were collected by the interview in same hospital wards and the period to all interviews which took about 15-20 minutes.

Statistical Analysis

The study data is analyzed by used Microsoft office Excel (2019) and SPSS v.25. The researchers used both descriptive inferential statistics tools like Frequencies, Percentages, Mean, Range; and inferential statistics to find out the relationship and interpret the results like Cronbach's Alpha, Chi Square and p-value.

Results

3.1. Participants:

The study sample included 60 mothers had at least one preterm baby and hospitalized them in premature wards in Al-Zahraa teaching hospital at Al-Najaf province that are agreement to participated in the study. Any missing data in forms of questionnaire is not filled correctly were neglected.

3.2. Descriptive data:

The study used Beck depression scale Arabic version to assess the severity of depression among mothers. This scale contains 21 items related to most important symptoms of depression and had for rated to assess the severity of it in last two weeks extended from not had it to severe.

More than half mothers were aged 19-30 years (65%) and their level education primary school graduated or less (59%). Most of mothers were job as a house wife (78.3%) and their income is moderately sufficient (55%) and lived in urban area (80%). Mothers were reported had 2-3 children (45%) and most they had only one child as a preemie (76.7%). Table 1

3.3. Outcome data:

The preterm babies were a male (61.7%) and their gestational aged >30 weeks (75%) with weight 1-2.5 Kg (73.3%). The preterm babies are labored by cesarean section (60%) with still hospitalized less than 1 week (51.7%). So that, the mothers are divided to two types according to the premature wards hospitalized their baby in sterile preemie ward (15%) and home preemie ward (85%). Table 2

3.4. Main results:

The level of depression according to the Beck scale for mothers were normal or not had symptoms of depression (58.3%), but about (33.3%) of them had a mild level of depression and the residual percent were extend between moderately to severe level (8.3%). Table 3

However, there is no significant relationship between the levels of depression with demographic characteristics for mothers (like mother age, level education, residence, income and number of children) and their baby (like gender, age of gestation, weight, types of ward); while there is significant relationship between the level of depression with job of mothers, duration of premature hospitalization and type of labour of premature baby at p-value (0.05). Table 4

Discussion

4.1. Key result

This topic is a new study conducted in Al-Najaf province. So that, the study aimed to assess the depression level of mothers who had a premature baby and find out the relationship between the levels of depression with demographic characteristics of mother's who had a premature baby. The demographic characteristics of sample were similar with other studies who studied the mental health of mother's preterm baby like study of AlHamoody et al. (2022), Field (2018) and Canário & Figueiredo (2017).

4.2. Interpretation

The results of study revealed two third of mothers of preterm baby were not had depression symptoms may because the main causes for depression are the lost, death or prolonged diseases or deficit in adapting skills with the state of their baby and duration between the laboure of premature baby and rising the depression symptoms on them, but one third revealed the mild level or more of depression may be the age of their baby were more than one month and still hospitalized more than two weeks. This result consent with O'Hara, (2009) when studied the postpartum mood and anxiety symptoms among mothers who admitted to NICU may increase the risk for broken in maternal-infant attachment and bonding.

Although, the most demographic characteristics for mothers and the preterm baby were not significant like residence of mothers, this result consent with study of Nemiary et al. (2012). But some characteristics had significant relationship with level of depression like the types of job for mothers, duration of premature hospitalization and type of labour of their premature baby at p-value (0.05) may be the mothers who are a house wife are more vulnerable to stress and mood disruption than who had a job and had experiences in life or had more than one child as a preemie baby. Also, the duration of hospitalized is increased the chance to depression disorder occur. This result is consent with study of Liao et al. (2020) when studied the relationship between the depression and length of stay intensive care unit and result of Bener study (2013). Also, this result consent with study of Prina et al. (2015) when found high relationship between the length of hospitalization and re-admission with depression symptoms.

Conclusion and recommendations

The study concluded the most mothers were age less than thirty years old and level education were Intermediate school graduate and less. About three quarters of mothers had at least one baby as preemie and hospitalized them in home preemie ward. Also, more than half mothers were not had symptoms of depression and one third of them had mild level of depression. So that, the study concluded the duration of hospitalization is increased the risk of depression symptoms and types of laboure of preemie.

The study recommended supporting mothers of preemie and their families and introducing a good instruction and caring, also recommended to established health facilities in primary health care system special program to educated mothers about depression and how to deal with it.

Ethical considerations

Ethical approval was taken from the scientific committee in the Faculty of Nursing and consent the chairman manger of AL-Zahraa teaching hospital of gynecology and obstetrics. The verbal consent were getting from all mothers participated in the study.

Limitations

This study was a descriptive-analytic study conducted to depression levels only and neglect other psychological problem may be effecting on mothers of preemie. Also, the size of sample is small and restricted in Al-Najaf province only.

Generalization

This study can be generalized on mothers of preemie in Al-Naja province and any mothers had same characteristics included in this study.

What is known about this topic?

• This topic is a new topic studied in Al-Zahraa teaching hospital on mothers of premature baby,

• The levels of depression disorder among mothers of preemie in this hospital are not diagnosed by psychiatrist and this study had a chance to highlighted it

• Measures the severity of depression disorder can be induced the other researchers to studied it and what the impacts may be had.

What this study adds?

• The psychological symptoms among the mothers of premature baby are highly among them like anxiety, stress, and depression symptoms may be had,

• The depression symptoms and it levels are not diagnosed previousely in Al-Najaf provice especially and in Iraq generally,

• The severity of the depression symptoms are mild to notfound among them, so that, give us a positive index.

Tables of the study

Table (1): Distribution of premature mothers according to their demographic characteristics

Demographic characteristics N= 60		Frequency	Percentage
Mother age	<19 yrs	10	16.7
	19-30 yrs	39	65
	31-45 yrs	11	18.3
Level of education	Illiterate	8	13.3
	Able to read and write	7	11.7
	Primary school graduate	21	35
	Intermediate school graduate	12	20
	Preparatory school graduate	1	1.7
	Institution graduate	2	3.3
	College graduate	9	15
Job	House wife	47	78.3
	Free job	3	5
	Civil servant	8	13.3
	Others	2	3.3
Income	Sufficient	17	28.3
	Moderately sufficient	33	55
	Insufficient	10	16.7
Residence	Urban	48	80
	Rural	12	20
Number of children	1 child	21	35
	2-3 children	27	45
	>3 children	12	20
Number of premature children	1 premature	46	76.7
	2-3 premature	13	21.7
	>3 premature	1	1.7
Total		**60**	**100%**

Table (2): Distribution of premature babies according to their demographic characteristics

Demographic characteristics N= 60		Frequency	Percentage
Gender	Male	37	61.7
	Female	23	38.3
Age of gestation	26 weeks or less	4	6.7
	27-30 weeks	11	18.3
	>30 weeks	45	75
Weight	<1 Kg	6	10
	1-2.5 Kg	44	73.3
	>2.5 Kg	10	16.7

Type of labour	Normal labour	24	40
	Cesarean section	36	60
Duration of hospitalization	<1 week	31	51.7
	1-2 weeks	16	26.7
	3 weeks – 1 month	10	16.7
	>1 month	3	5
Age of premature baby	<1 week	18	30
	1-2 weeks	21	35
	3 weeks – 1 month	17	28.3
	>1 month	4	6.7
Types of premature ward	Sterile preemie ward	9	15
	Home preemie ward	51	85
Total		**60**	**100%**

Table (3): Distribution of premature mothers according to their severity of depression levels

Level of depression N= 60	**Frequency**	**Percentage**
Normal	35	58.3
Mild	20	33.3
Moderate	3	5
Severe	2	3.3
Profound	0	0
Total	**60**	**100%**

Table (4): the relationship between severity of depression among of premature mothers with demographic variables for them and their premature babies

Demographic variables		**level of depression**				**Chi²**	**Df**	**P-value**
		Normal	Mild	Moderate	Severe			
Mother age	<19 yrs	8	2	0	0	5.9	6	.43
	19-30 yrs	22	12	3	2			
	31-45 yrs	5	6	0	0			
Residence	Urban	28	18	1	1	6.46	3	.09
	Rural	7	2	2	1			
Level of education	Illiterate	5	1	2	0	21.8	18	.24
	Able to read and write	3	3	0	1			
	Primary school graduate	15	6	0	0			
	Intermediate school graduate	6	4	1	1			
	Preparatory school graduate	0	1	0	0			
	Institution graduate	0	2	0	0			
	College graduate	6	3	0	0			
Job	House wife	29	15	1	2	40.73	9	**.000**
	Free job	2	1	0	0			
	Civil servant	4	4	0	0			
	Others	0	0	2	0			
Income	Sufficient	12	5	0	0	8.74	6	.19
	Moderately sufficient	19	12	1	1			

	Insufficient	4	3	2	1			
Number of children	1 child	14	7	0	0	8.02	6	.24
	2-3 children	17	8	1	1			
	>3 children	4	5	2	1			
Number of premature children	1 premature	28	15	1	2	6.24	6	.39
	2-3 premature	7	4	2	0			
	>3 premature	0	1	0	0			
Gender of premature baby	Male	22	13	0	2	6.18	3	.103
	Female	13	7	3	0			
Age of gestation	26 weeks or less	2	2	0	0	2.83	6	.831
	27-30 weeks	5	5	1	0			
	>30 weeks	28	13	2	2			
Premature weight	<1 Kg	5	1	0	0	3.63	6	.727
	1-2.5 Kg	23	16	3	2			
	>2.5 Kg	7	3	0	0			
Type of labour	Normal labour	19	2	3	0	16.3	3	**.001**
	Cesarean section	16	18	0	2			
Duration of premature hospitalization	<1 week	24	6	1	0	20.05	9	**.018**
	1-2 weeks	6	8	1	1			
	3 weeks – 1 month	5	4	1	0			
	>1 month	0	2	0	1			
Age of premature baby	<1 week	14	3	0	1	13.58	9	.138
	1-2 weeks	11	8	2	0			
	3 weeks – 1 month	9	7	1	0			
	>1 month	1	2	0	1			
Types of premature ward	Sterile preemie ward	7	1	0	1	4.71	3	.195
	Home preemie ward	28	19	3	1			

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