Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

Level of Anxiety and Depressive Symptoms among Pregnant Women with Previous Perinatal Loss during Present Pregnancy

Marwa A Kassem[1], Prof. Dalal M Eshra[2], Prof. Inass K Kassem[3], Prof. Maaly E El Malky[4]

[1] BNSc.: Faculty of Nursing, Menoufia University

[2, 3] Professors of Maternal and Newborn Health Nursing

[4] Prof of Mental and Psychiatric Health Nursing Faculty of Nursing, Menoufia University

Abstract: **The present study investigated** the level of **anxiety and depressive symptoms** for women with previous perinatal loss during present pregnancy. **Descriptive correlational cross -sectional design was used to achieve this purpose. The participants included one hundred pregnant women who attended Maternal and Child health centers participated in the study. Three instruments were used throughout the course of this study. They included an interviewing questionnaire, a perinatal Anxiety Screening Scale, and Edinburgh Postnatal Depression Scale. The findings of the study revealed that all the pregnant women with previous perinatal loss of the study participants have anxiety and depressive symptoms ranging from mild to severe during the present pregnancy. There is no relationship between the history of previous pregnancy and the anxiety symptoms. There is also a significant positive relationship between the number of the previous pregnancy and depressive symptom during the present pregnancy. In conclusion, the present study findings succeeded in answering all study questions. It is recommended that, family involvement can help the women to come out of any distress.**

Keywords: **perinatal loss, anxiety, depressive symptoms.**

1. INTRODUCTION

Pregnancy after perinatal loss was perceived by women as a doubtful journey ***(Mori, Morisaki, 2014)***. Perinatal loss includes fetal deaths with a stated or presumed period of gestation of 20 weeks or more and neonate deaths occur at less than 28 days of age ***(Medical Dictionary, 2012)***. Perinatal loss presents a significant life crisis for any woman and has far-reaching implications into a couple's future aspirations. This life crisis may include the loss of future hopes and dreams, self-esteem, the anticipated parent role, being pregnant, prenatal medical attention, and concern over the potential loss of the ability to create another new life ***(Wayne, 2016)***.

Several studies revealed that becoming pregnant and having another child too soon after any type of loss (within 5–6 months) may result in unresolved grief issues, anxiety and depression . This is because women may doubt their ability to maintain a successful pregnancy, may be afraid of the recurrence of perinatal loss and may potentially play a role in ineffective parenting for the subsequent child ***(Warland, O'Leary, McCutcheon, Williamson, 2011)***. Spitz (2012) added that these symptoms are quite serious and could affect the development of the fetus.

According to Flenady and Wilson (2009), the period that follows perinatal loss is referred to as perinatal bereavement. Their study surveyed 377 mothers who had lost babies and 232 who had not. Their findings revealed that, among bereaved mothers, the rate of depression was 23%, compared to 8% among mothers in the control group. Nynas et.al (2015) stated that the presence of anxiety and depressive symptoms during pregnancy are associated with shorter gestation, higher incidence of preterm birth, smaller birth weight and length, increased risk of miscarriage, hyperactivity and inattention in boys. So, the identification of anxiety and depression during subsequent pregnancies is critical.

Kroker et.al (2011) and Dimes (2017) pointed out that nursing implications are very important to support women with previous perinatal loss and to reduce the burden of illness. It is important to figure out what makes the pregnant women anxious or depressed and encourage them to express their feelings, and eat healthy foods. It is also important to have them get plenty of sleep and exercise, have a good support, including husband, family and friends, ask a health care provider about resources in the community that may be able to help, ask for help from trustworthy people, and accept help when offered. Also, they should try relaxation activities, like prenatal yoga or meditation, practice the breathing and relaxation techniques, take a childbirth education class to know what to expect during pregnancy and when your baby arrives.

Significance of the Study:

Previous perinatal loss can have a major emotional impact on members of the affected family, particularly the mother, with significant repercussion on the health and well-being of the family ***(The World Bank, 2011)*** .Several studies (e.g. Avelin et.al,(2013);Nynas et.al (2015) and Gong et.al (2013) have reported that some bereaved women encounter long-term consequences including anxiety and depression in subsequent pregnancies and marital disharmony that leads to separation and divorce. The presence of anxiety and depressive symptoms during pregnancy has been associated with shorter gestational period, higher incidence of preterm birth, smaller birth weight, and increased risk of miscarriage. Late fetal death, including stillbirth, occurs in about 25% of all pregnancies at United States (Hutti, Armstrong, & Myers, 2013). According to Egyptian Public Health Association, (2017) 2.7 million babies die every year in their first month of life and a similar number are stillborn. Geller et. al (2013) reported elevated the anxiety level during the first six months and up to one year after the loss from 27% to 66% and the levels of depressive symptoms at 6 months were lower than reported just after the loss but still elevated (10.9% *v* 4.3% for controls) and remained high at one year.

According to the previous review of relevant literature, the researcher was stimulated to study the emotional impact of previous perinatal loss on women during their present pregnancy.

Purpose of the Study:

The purpose of this study was to investigate the level of anxiety and depressive symptoms for women with previous perinatal loss during the present pregnancy.

Research Questions:

1- What is the level of anxiety and depressive symptoms which is related to previous perinatal loss during the present pregnancy?

2- What is the relationship between anxiety level and the socio-demographic characteristics of the study participants such as age, duration of marriage, educational level, occupation, residence and income during the present pregnancy?

3- What is the relationship between depressive symptoms and socio- demographic characteristics of the study participants such as age, duration of marriage, educational level, occupation, residence and income during present pregnancy?

4- What is the relationship between the anxiety level and history of previous pregnancy of the study participants such as number of previous perinatal losses , number of previous pregnancies, number of previous deliveries, the month in which the previous loss has occurred and the complications that occured during the previous pregnancy and affect the present pregnancy?

5- What is the relationship between depressive symptoms and the history of previous pregnancy of the study participants such as the number of previous perinatal losses , the number of previous pregnancies, the number of previous deliveries, the month in which the previous loss has occurred and the complications that occured during the previous pregnancy and affect the present pregnancy?

6- What is the relationship between the anxiety level and the history of present pregnancy of the study participants such as the period between the previous pregnancy and the present pregnancy, the duration of present pregnancy, and the present pregnancy complications?

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

7- What is the relationship between the depressive symptoms and the history of present pregnancy of the study participants such as the period between the previous pregnancy and the present pregnancy, the duration of present pregnancy, and the present pregnancy complications?

8- What is the correlation between the anxiety level and the study variables such as age, duration of marriage, educational level, previous and present pregnancy history?

9- What is the correlation between depressive symptoms and the study variables including age, duration of marriage, educational level, previous and present pregnancy history?

10-What is the correlation between the anxiety and the depressive symptoms among the study participants during the present pregnancy ?

2. METHOD

Research Design:

The descriptive correlational design was utilized to achieve the purpose of the study.

Research setting

The present study was conducted at maternal and child health centers at Shebin El-kom, Menoufia Governorate(Qebli and Bahari) .They are affiliated to the Ministry of Health and Population **.** These centers serve both rural and urban sectors of Menoufia community. They are equipped to provide several services as antenatal care and follow-up of pregnancy, family planning services, obstetric clinics to exclude problems of the pregnant mothers, laboratory investigation, and health education.

Maternal and Child Health Center at Shebin El-Kom, Menoufia Governorate (Qebli MCH) is located in the eastern mainland at Shebin El-Kom city next to Egypt Air company. Antenatal and natal care in Qebli MCH is scheduled on Monday and Wednesday. Monday is scheduled for those who come for the first visit and Wednesday for the return visits. The average number of pregnant woman who attend to the clinic is between 30:40 pregnant women per day.

Maternal and Child Health Center at Shebin El-Kom, Menoufia Governorate (Bahri MCH) is located at Sabri Abou Alam Street branching from Gamal Abdel Naser Street. It consists of several floors for providing different health services for the citizens. Antenatal and natal care is scheduled on Saturday and Monday. Saturday is scheduled for those who come for the first visit and Monday for the return visits. The average number of pregnant woman who attended to the clinic was between 10:20 pregnant women per day. These centers were selected as they have a high flow rate of women attending in order to seek antenatal care and vaccination during pregnancy from the different surrounding cities and villages near Shebin El Kom city.

Determining the size of participants

The participants were 100 pregnant women. The equation used to determine the number of participants was as follows: n = $(z^2 \times p \times q)/D^2$ at power 80% and CI 95%.

Instruments:

Throughout the course of the present study, data were collected using the following Instruments:-

Instrument one: An interviewing questionnaire

It was developed by the researcher and consisted of two parts:

Part I: contains the socio-demographic data such as name, age, education, occupation, residence and family income.

Part II **:** contains the clinical data and previous as well as present obstetric history, gravidity, parity , the number of living children, number of previous perinatal loss, the types of labor, complications during labor, and the postpartum complications and so on .

Instrument two: A perinatal Anxiety Screening Scale (PASS**)**

This scale was adopted from Muhannad Mohammed Abdul Sattar, Shahd Saad Taher, (2015**)**.It measures the specific anxiety symptoms in women in the perinatal period up to twelve months. It consisted of 30 questions whose responses were scored 0, 1, 2according to the increased severity of the symptom. This scale had four categories of anxiety: (1) acute anxiety and adjustment, (2) general worry and specific fears, (3) perfectionism, control and trauma and (4) social anxiety. The perinatal anxiety screening scale scores were as follows: The score from (0-20) was considered mild anxiety, (21-40) was considered moderate anxiety, and (41-60) was considered severe anxiety.

Instrument three: Edinburgh Postnatal Depression Scale (EPDS**)**

This scale was adopted from Edinburgh and Livingston (1987) to measure the depressive symptoms during present pregnancy. The EPDS consisted of 10 questions. Responses were scored 0, 1, 2, or 3 according to increased severity of the symptom. Items 3, 5 to 10 had reversed scores (i.e., 3, 2, 1, and 0).The total score was determined by adding the scores together for each of the 10 items. The woman who was scored 13 or higher was likely to have clinically significant depressive symptoms whereas the woman whose scores were below 13 was considered to be at low risk for depression.

Validating the instruments:-

The validity of the previous instruments was ascertained by five experts (4 experts from the Faculty of Nursing,& one expert from Faculty of Medicine) who reviewed the content for internal validity. They also were asked to judge the items for completeness and clarity .No modifications were done.

Reliability of the instruments:

Test and retest reliability was used by the researcher for testing the internal consistency of all previous instruments . It was done through the administration of the same instrument to the same participants under similar conditions on two occasions. Scores from repeated testing were compared. The instruments proved to be highly reliable (r = 0.7, 0.9) and (0.81) respectively.

Administrative approval

An approval to conduct the study was granted from the Ethical & Hearing committee of Faculty of Nursing, Menoufia University. A formal letter from Faculty of Nursing, Menoufia University was submitted to maternal and child health centers at Shebin El-kom, Menoufia Governorate (Qebli and Bahari). An officially permission was obtained to carry out the study from the directors of the above-mentioned setting.

Ethical considerations:

An approval of the Ethical and Hearing committee of Faculty of Nursing ,Menoufia University was obtained on 15th August, 2017.Also, an oral consent was taken from each participant in the study after explaining the purpose and the importance of the study. The participants who agreed to participate in the study were informed that the information they provided during the study would be kept confidential and used only for statistical purposes and after finishing the study, the findings would be presented as a group data with no personal information remained. Each participant was informed that participation in the study was voluntary, and she could withdraw from the study whenever she decided to do so without giving a reason. Each one was given the opportunity to freely refuse participation. They were free to ask any question about the study details.

Piloting the instruments:

Piloting was done after the development of the instruments and before starting the data collection. It was conducted on 10 % of the total sample (10 pregnant women) using the instruments (1), (2) and (3) previously described. The purpose of piloting was to test the applicability, feasibility and clarity of the instruments. In addition, it served to estimate the approximate time required for interviewing the pregnant women as well as to find out any problem that might interfere with data collection. After obtaining the piloting results, the final form was developed under the guidance of supervisors. The pregnant women who shared in piloting were not included in the study participants.

Fieldwork (procedure of data collection)

The study was carried out in two phases, namely; the preparatory and data collection phases.

Preparatory phase:

- This phase included the review of relevant literature and previous studies related to the topic of research such as textbooks, magazine articles, periodicals, and internet research to have a clear picture of all the aspects related to the research topic.

Data collection phase:

- The data collection started from March (2018) to August (2018) .
- The researcher introduced herself to the convenient participants and a brief description of study purpose and the type of questionnaire required to be filled in was given to each participant.
- The researcher collected data through interviewing every participant who agreed voluntarily to participate in the study
- The researcher collected the data during the morning, 3 days per week (Saturday, Monday, and Wednesday). Saturday was assigned to collect data from Bahri maternal and child health nursing &Monday, as well as Wednesday from Qubli maternal and child health nursing.
- Each interview took from 30-40 minutes depending on the responses of the participants.

Statistical design:

Upon the completion of data collection, the collected data were organized, tabulated; each answer sheet was coded and scored. The researcher coded the data into a coding sheet so that data could be prepared for computer use and statistical analysis using Statistical Package for the Social Sciences (SPSS), version 20, (SPSS Inc. Chicago, IL, USA). The following statistical devices were used:

1-Descriptive statistics: in which quantitative data were presented in the form of mean, ($\overline{X}$), standard deviation (SD), range, and qualitative data were presented in the form numbers and percentages.

2-Analytical statistics was used to find out the possible association between studied factors and the targeted disease. The tests of significance were used.

- Spearman's correlation: is a nonparametric measure of rank correlation. It is appropriate for both continuous and discrete variables, including ordinal variables

-(r) < 0.2= no correlation. -(r) 0.2 - 0.5= mild correlation.

-(r) 0.5-0.7= moderate correlation. -(r) > 0.7= strong correlation.

P value of <0.05 was considered statistically significant

P value of <0.001 was considered highly statistically significant.

3. RESULTS

Table (1) shows the socio demographic characteristics of the study participants. Some women's (46%) ages were between 20 to <30 years old, Whereas more than one third (39%) were married since 5 to < 10 years. More than one-third (39%) had university education, whereas the majority (70%) were housewives .More than half of the participants lived in rural areas and had enough income (56% and 55% respectively).

Table (2) shows the obstetric and medical history of the study participants. More than half of the participants (53%) had 2 to 6 times previous pregnancy whereas the majority (86%) had 1 – 3 times previous delivery. More than half of the participants (56%) had twice perinatal losses. More than the quarter of the participants (27%) had complications during previous pregnancy. Less than the quarter of the participants (21%) had history of medical disease and about one-third (31%) had history of previous surgery.

Table (3) shows the relationship between the socio-demographic characteristics of the study participants and the level of anxiety during present pregnancy. There was no statistically significant relationship between the socio-demographic characteristics of the study participants and level of anxiety during present pregnancy(P=0.132, 0.160, 0.749, 0.946, 0.391, 0.754).

Table (4) displays the relationship between the socio-demographic characteristics of the study participants and depressive symptoms during present pregnancy. There was no statistically significant relationship between the socio-demographic characteristics of the study participants and depressive symptoms during present pregnancy (P=0.923, 0.599, 0.351, 0.471, 0.066, 0.673).

Table (5) shows the relationship between the history of previous pregnancy and the level of anxiety among the study participants during the present pregnancy. There was no statistically significant relationship between the history of the previous pregnancy among the study participants and the level of anxiety during present pregnancy (P=0.575, 0.127, 0.304, 0.079, 0.651).

Table (6) displays the relationship between the history of previous pregnancy and depressive symptoms among the study participants during present pregnancy. There was only highly statistically significant relationship between the number of the previous pregnancy among the study participants and depressive symptoms during present pregnancy (P=0.025*) and there was no statistically significant relationship between the number of previous delivery, number of perinatal loss, the month in which loss has occurred, the complications during previous pregnancy and depressive symptoms during present pregnancy (P=0.148, 0.524, 0.169, 0.507 respectively).

Table (7) shows the relationship between the level of anxiety and the history of present pregnancy among the study participants. There was a statistically significant relationship between the complications of the present pregnancy among the study participants and the level of anxiety during present pregnancy (P=0.024*).

Table (8) displays the relationship between the depressive symptoms and the history of present pregnancy among the study participants. There was a statistically significant relationship between the complications of the present pregnancy among the study participants and the depressive symptoms during present pregnancy (P=0.009*).

Table (9) shows the correlation between anxiety and the study variables as age, duration of marriage, educational level and previous as well as present pregnancy history. There was a significant positive correlation between the number of previous pregnancy and anxiety. This means that when the number of previous pregnancy increases, anxiety also increases (P=0.010*****).

Table (10) shows the correlation between depression and the study variables as age, duration of marriage, educational level, previous and present pregnancy history. There was a significant negative correlation between the number of live births and the depressive symptoms among the study participants (P=0.046*****). This means that when the number of live births increases, depressive symptoms also decrease.

Table (11) displays the correlation between anxiety and depressive symptoms among the study participants. There was a significant positive correlation between anxiety and the depressive symptoms among the study participants (P=0.001*).This means that when anxiety increases, depressive symptoms also increase.

Figure (1) shows that all the study participants had anxiety during present pregnancy. More than two thirds of them had anxiety ranging between mild to moderate representing 13%, 26%, 61% and having severe, mild and moderate levels of anxiety respectively.

Figure (2) displays that more than half of the study participants (51%) had depressive symptoms during present pregnancy.

Table (1): Socio Demographic Characteristics of the Study Participants (N =100):

Variables	Study participants	
	No.	%
Age / years :		
- < 20	7	7.00
- 20 - <30	46	46.0
- 30 - < 40	33	33.0
- 40 - < 45	14	14.0

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

Duration of marriage		
- 1 - <5	34	34.0
- 5 - < 10	39	39.0
- 10 - < 15	18	18.0
- > 15	9	9.00
Educational level		
- Illiterate	10	10.0
- Read and write	11	11.0
- Secondary school	15	15.0
- University	39	39.0
- others	25	25.0
Women occupation		
Employed	**30**	**30.0**
- A nursing specialist	10	33.3
- A worker	2	6.70
- A teacher	7	23.3
- A doctor	2	6.70
- Others	9	30.0
Unemployed	**70**	**70.0**
Residence		
- Rural	56	56.0
- Urban	44	44.0
Income		
- Enough	55	55.0
- Not enough	45	45.0

Table (2): Obstetric and Medical History of the Study Participants (N =100):

Variables	Study participants	
	No.	**%**
Number of previous pregnancies		
- Once	11	11.0
- 2 – 3 times	53	53.0
- 4 – 5 times	32	32.0
- >5times	4	4.00
Number of previous deliveries		
- None	11	11.0
- 1 – 3 times	86	86.0
- 4 – 5 times	3	3.00
Number of peri-natal loss		
- Once	55	55
- Twice	26	56
- Three times	12	12
- Four times	4	4
- Five times	3	3
Complications during previous pregnancy		
Yes	**27**	**27.0**
No	**73**	**73.0**

Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

History of medical disease		
Yes	**21**	**21.0**
No	**79**	**79.0**
History of previous surgery		
Yes	**31**	**31.0**
No	**69**	**69.0**

Table (3) Relationship between Socio-Demographic Characteristics of the Study Participants and Level of Anxiety during the Present Pregnancy (N =100):

Variables	Anxiety						χ^2	P value
	Mild (N=26)		Moderate (N=61)		Severe (N=13)			
	No.	%	No.	%	No.	%		
Age / years :								
- < 20	1	3.80	6	9.80	0	0.00		
- 20 - <30	12	46.2	31	50.8	3	12.1		
- 30 - < 40	9	34.6	18	29.5	6	46.2	14.9	0.132
- 40 - < 45	4	15.4	6	9.80	4	30.7		
Duration of marriage								
- 1 - <5	9	34.6	18	29.5	7	53.8		
- 5 - < 10	11	42.3	25	41.0	3	23.1		
- 10 - < 15	5	19.2	13	21.3	0	0.0022	9.25	0.160
- > 15	1	3.80	5	8.20	3	3.1		
Educational level								
- Illiterate	4	15.4	5	8.20	1	7.70		
- Read and write	4	15.4	6	9.80	1	7.70		
- Secondary school	4	15.4	8	13.1	3	23.1	5.09	0.749
- University	9	34.6	27	44.3	3	23.1		
- others	5	19.2	15	24.6	5	38.5		
Women occupation								
Employed	**9**	**34.6**	**17**	**27.9**	**4**	**30.8**		
- A nursing specialist	2	22.2	8	47.1	0	0.00		
- A worker	1	11.1	1	5.90	0	0.00		
- A teacher	0	0.00	5	29.4	2	50.0		
- A physician	1	11.1	1	5.90	0	0.00	0.111	0.946
- Others	5	55.6	2	11.8	2	50.0		
Unemployed	**17**	**27.9**	**44**	**72.1**	**9**	**69.2**		
Residence								
- Rural	15	57.7	36	59.0	5	38.5	1.87	0.391
- Urban	11	42.3	25	41.0	8	61.5		
Income								
- Enough	14	53.8	35	57.4	6	46.2	0.564	0.754
- Not enough	12	46.2	26	42.6	7	53.8		

$\chi^{2:}$ Chi squared test

Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

Table (4): Relationship between Socio-Demographic Characteristics of the Study Participants and the Depressive Symptoms during the Present Pregnancy (N =100):

Variables	Depressive symptoms				χ^2	P value
	Absent (N=49)		Present (N=51)			
	No.	%	No.	%		
Age / years :						
- < 20	4	8.20	3	5.90		
- 20 - <30	21	42.8	25	49.0		
- 25 - < 40	17	34.7	16	31.4	0.48	0.923
- 40 - < 45	7	14.3	7	13.7		
Duration of marriage						
- 1 - <5	17	34.7	17	33.3		
- 5 - < 10	19	38.8	20	39.2	1.87	0.599
- 10 - < 15	7	14.3	11	21.6		
- > 15	6	12.2	3	5.90		
Educational level						
- Illiterate	7	14.3	3	5.90		
- Read and write	7	14.3	4	7.80	4.43	0.351
- Secondary school	7	14.3	8	15.7		
- University	19	38.8	20	39.2		
- others	9	18.9	16	31.4		
Women occupation						
Employed	**11**	**22.4**	**19**	**37.3**		
- A nursing specialist	4	36.4	6	31.6		
- A worker	1	9.10	1	5.30	0.519	0.471
- A teacher	2	18.2	5	26.3		
- A physician	2	18.2	0	0.00		
- Others	2	18.2	7	36.8		
Unemployed	**38**	**77.6**	**32**	**62.7**		
Residence						
- Rural	32	65.3	24	47.1	3.37	0.066
- Urban	17	34.7	27	52.9		
Income						
- Enough	28	57.1	27	52.9	0.178	0.673
- Not enough	21	42.9	24	47.1		

Table (5): Relationship between History of Previous Pregnancy and the Level of Anxiety among the Study Participants during the Present Pregnancy (N =100):

Variables	Anxiety level						χ^2	P value
	Mild (N=26)		Moderate (N=61)		Sever (N=13)			
	No.	%	No.	%	No.	%		
Number of previous pregnancy								
- Once	4	15.4	7	11.5	0	0.00		
- 2 – 3 times	16	61.5	30	49.2	7	53.8		
- 4 – 5 times	5	19.2	22	36.1	5	38.5	4.75	0.575
- >5times	1	3.80	2	3.30	1	7.70		

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

Number of previous delivery								
- None	0	0.00	10	16.4	1	7.70	7.17	0.127
- 1 – 3 times	26	100.0	49	80.3	11	84.6		
- 4 – 5 times	0	0.00	2	3.30	1	7.70		
Number of peri-natal loss before								
- Once	15	62.5	34	59.6	4	33.3		
- Twice	6	25.0	12	21.1	7	58.3		
- Three times	2	8.30	7	12.3	1	8.30		
- Four times	0	0.00	3	5.30	0	0.00	9.51	0.304
- Five times	1	4.20	1	1.80	0	0.00		
In which month the previous loss has occurred.								
Mean ±SD	4.55±1.18		5.03±1.48		4.38±1.26		K	0.079
Range	3.5 - 9		1 -9		2 - 7		5.08	
Complications during previous pregnancy	N=5		N=16		N=6			
- Hyper emesis gravid arum	0	0.00	1	6.30	1	16.7		
- Hypertension	1	20.0	3	18.8	1	16.7		
- Anemia	4	80.0	5	31.3	2	33.3		
- Others	0	0.00	7	43.8	2	33.3	4.13	0.651

Table (6): Relationship between History of Previous Pregnancy and the Depressive Symptoms among the Study Participants during Present Pregnancy (N =100):

Variables	Depressive symptoms				χ^2	P value
	Absent (N=49)		Present (N=51)			
	No.	%	No.	%		
Number of previous pregnancy						
- Once	8	16.3	3	5.90		
- 2 – 3 times	26	53.1	27	52.9		
- 4 – 5 times	11	22.4	21	41.2	9.38	**0.025***
- >5times	4	8.20	0	0.00		
Number of previous delivery						
- None	4	8.20	7	13.7		
- 1 – 3 times	42	85.7	44	86.3	3.82	0.148
- 4 – 5 times	3	6.10	0	0.00		
Number of perinatal loss						
- Once	30	63.8	23	50.0		
- Twice	9	19.1	16	34.8		
- Three times	5	10.6	5	10.9	3.20	0.524
- Four times	2	4.30	1	2.20		
- Five times	1	2.10	1	2.20		
In which month the previous loss has occurred.						
Mean ±SD	4.68±1.20		4.96±1.56		U	
Range	3.0 - 9		1 -9		1.37	0.169
Complications during previous pregnancy	N=9		N=18			
- Hyper emesis gravid arum						
- Hypertension	0	0.00	2	11.1		
- Anemia	2	22.2	3	16.7		
- Others	5	55.6	6	33.3	2.32	0.507
	2	22.2	7	38.9		

FE: Fisher exact test U: Mann –Whitney test *significant

Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

Table (7): Relationship between the Level of Anxiety and History of Present Pregnancy among the Study Participants (N =100):

Variables	Anxiety level						Test of sig.	P value
	Mild (N=26)		Moderate (N=61)		Sever (N=13)			
	No.	%	No.	%	No.	%		
Period between the previous pregnancy and the present pregnancy								
Mean ±SD							K	0.192
Range	8.53±10.4		10.1±9.70		10.4±9.22		3.30	
	1 - 40		1 - 48		2 - 36			
Duration of present Pregnancy/weeks								
Mean ±SD							K	
Range	25.3±6.39		25.0±7.40		24.3±4.57		2.37	0.305
	1 - 32		1 - 32		17 - 32			
Present pregnancy								
- Wanted	24	92.3	56	91.8	10	76.9	χ^2	
- Unwanted	2	7.70	5	8.20	3	23.1	2.84	0.241
Present pregnancy complications								
Yes							χ^2	
No	7	26.9	32	52.5	9	69.2	7.46	**0.024***
	19	73.1	29	47.5	4	30.8		
What were the complications?								
Hyper emesis gravid arum	0	0.00	2	6.30	2	22.2		
Hypertension	1	14.3	3	9.40	0	0.00	χ^2	
Gestational diabetes	1	14.3	1	3.10	0	0.00	7.51	
Anemia	2	28.6	13	40.6	5	55.6		0.483
Others	7	42.9	13	40.6	2	22.2		

*significant K: Kruskal Wallis test

Table (8): Relationship between the Depressive Symptoms and the History of Present Pregnancy among the Study Participants (N =100):

Variables	Depressive symptoms				Test of sig.	P value
	Absent (N=49)		Present (N=51)			
	No.	%	No.	%		
Period between the previous pregnancy and the present pregnancy						
Mean ±SD					U	
Range	9.61±10.7		9.92±8.77		1.08	0.280
	1 - 48		1 - 40			
Duration of present pregnancy/weeks						
Mean ±SD						
Range	24.5±7.29		25.5±6.31		t-test	
	1 - 32		5 - 32		0.766	0.445
Present pregnancy						
- Wanted	44	89.8	46	90.2	FE	
- Unwanted	5	10.2	5	9.80	0.01	0.946
Present pregnancy complications						
Yes					χ^2	
No	17	34.7	31	60.8	6.81	**0.009***
	32	65.3	20	39.2		

Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

What were the complications?						
Hyper emesis gravid arum	0	0.00	4	12.9	χ^2	
Hypertension	2	11.8	2	6.50	5.98	0.201
Gestational diabetes	0	0.00	2	6.50		
Anemia	10	58.8	10	32.3		
Others	5	29.4	13	41.9		

*significant U: Mann-Whitney test FE; Fisher exact test

Table (9): Correlation between Anxiety level and the Study Variables (N =100):

Variables	Anxiety level	
	r	P value
Age	0.196	0.050
Duration of marriage	0.089	0.380
Educational level	0.187	0.062
Number of previous pregnancy	0.256	**0.010***
Number of previous delivery	0.058	0.569
Number of live births	-0.009	0.932
Period between the previous pregnancy and the present pregnancy	-0.008	0.941
Duration of present pregnancy/weeks	0.120	0.234

*significant

Table (10): Correlation between Depressive symptoms and the Study Variables (N =100):

Variables	Depressive symptoms	
	r	P value
Age	0.043	0.668
Duration of marriage	0.017	0.868
Educational level	0.179	0.074
Number of previous pregnancy	0.088	0.387
Number of previous delivery	-0.187	0.063
Number of live births	-0.200	**0.046***
Period between the previous pregnancy and the present pregnancy	0.075	0.461
Duration of present pregnancy/weeks	-0.008	0.935

*significant

Table (11): Correlation between level of Anxiety and Depressive Symptoms among the Study Participants (N =100):

Variables	Anxiety	
	r	P value
Depression	0.637	**0.001***

*significant

Novelty Journals

ISSN 2394-7330

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

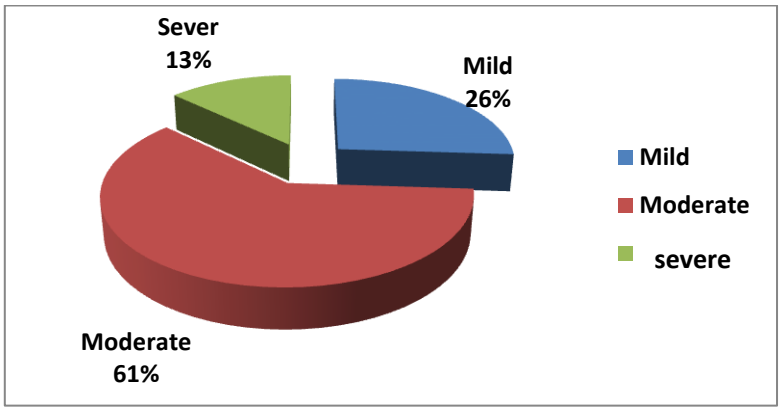

Figure (1): Anxiety level among Pregnant Women during Present Pregnancy

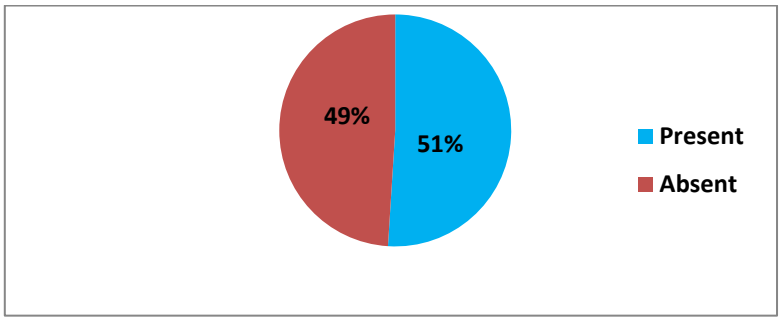

Figure (2): Depressive Symptoms among Pregnant Women during Present Pregnancy

4. DISCUSSION

The findings revealed that the majority of women's ages 20 to 30 years old. This could be due to the fact that women at this age are at a transitional stage where there is increased risk of becomeing depressed and anxious, as well as pregnancy is considered a time of increased vulnerability for the development of anxiety and mood disorders. These findings were supported by Rosa (2017) who reported similar age group (20-34 years) in a study entitled "Are Past Adverse Pregnancy Outcomes Associated with Maternal Anxiety and Depressive Symptoms in a Sample of Currently Pregnant Women?". These findings are contradicted by Xiangjun et al, (2013) who investigated Pregnancy loss and anxiety and depression during subsequent pregnancies. Their findings revealed that age group was between (17 -46)years.

The present study also revealed that more than one-third of the study participants had university education and more than half of them were from rural areas. This could be due to the increased awareness of the importance of education in rural residents in recent years. This was supported by Kesha et al, (2014) who investigated the effect of previous miscarriage on the maternal birth experience in the first baby study. Their findings revealed that the majority of the study participants had university education. This is also supported by Khatija et al,(2010) who investigated the psychosocial impact of mothers with perinatal loss and its contributing factors. The findings revealed that the majority of study participants were rural residents.

Three quarters of the present study were housewives. This could be related to the relative increase in the percentage of unemployment. This was supported by Mônica et.al,(2017) who investigated the prevalence of anxiety and associated factors in pregnancy and reported similar findings as the study participants reported that the majority were housewives. In contrast, Rosnah et.al (2010) investigated the psychosocial impact of mothers with perinatal loss and its contributing factors. The findings revealed that the majority were working women.

More than half of the present study participants had enough income. This may indicate that enough income cannot avoid the occurrence of pregnancy complications. This was supported by Sheree et. al, (2014) who investigated "History of Pregnancy Loss Increases the Risk of Mental Health Problems in Subsequent Pregnancies''. Similar findings were revealed as the majority of the study participants had enough income.

The present study indicated that the majority had 1 – 3 times previous delivery and more than half of them had twice perinatal losses. This could be due to the inadequate antenatal care or improper health education among pregnant women. This was supported by Marianne et. al, (2015) who investigated "Grief Intensity, Psychological Well-Being, and the Intimate Partner Relationship in the Subsequent Pregnancy after a Perinatal Loss". Their findings revealed that 100% of study participants had previous perinatal loss due to miscarriage (42.3%), stillbirth (36.1%), and neonatal death (21.6%).

More than one quarter of the present study participants had complications during previous pregnancy. This could be due to the exposure to stressful life events or inadequate antenatal care, or hereditary factors and unstable psychological status regarding the results of pregnancy. The presence of complications during the previous pregnancy increases the likelihood of disrupting the psychological status during subsequent pregnancy. This was supported by Mônica et.al (2017), in South of Minas Gerais State, Brazil, who reported that the presence of previous pregnancy complications increases the likelihood of the presence of psychological problems in subsequent pregnancy. On the contrary, the findings are contradicted by the findings of Kleanthi , (2012) who investigated "Psychosocial Risk Factors of Depression in Pregnancy" and reported that12% only of the study participants had experienced complications during previous pregnancy.

The present study indicated that less than one quarter of the participants had history of medical disease and about one-third had a history of previous surgery. This indicates that the presence of history of medical disease or history of previous surgery had a low impact on the occurrence of perinatal loss. This was congruent by Debanjali, (2012) who investigated "Recurrent pregnancy loss in patients with thyroid dysfunction". Similar findings were revealed as it reported that approximately 8-12% of all pregnancy losses are the result of endocrine factors.

In contrast, Mankee et.al,(2015) investigated "Lupus anticoagulant disease activity and low complement in the first trimester are predictive of pregnancy loss". Their findings revealed that among those with lupus anticoagulant during the first trimester, 38% experienced a pregnancy loss compared with only 9% of other pregnancies. In addition, those with low complement or higher disease activity had a higher rate of pregnancy loss than those without. Kari et al,(2015) investigated the "Outcomes of Pregnancy after Bariatric Surgery'.' Their findings revealed that pregnancies after bariatric surgery, as compared with matched control pregnancies who were associated with lower risks of gestational diabetes and large-for-gestational-age infants, a higher risk of small-for-gestational-age infants and shorter gestation, although the risk of preterm birth was not significantly different . The risk of stillbirth or neonatal death was 1.7% versus 0.7%. Also, there was no significance between-group difference in the frequency of congenital malformations.

The findings of the present study revealed that there was no statistical relationship between the socio-demographic characteristics of the study participants and the level of anxiety during present pregnancy. This indicates that anxiety did not increase or decreased due to a certain age, residence, occupation, education or income. Also, Srinivasan et.al (2015) investigated the assessment of depression burden during pregnancy among pregnant women residing in a rural setting of Chennai. Their findings revealed that age and residence were not associated with depression or anxiety during pregnancy. This was contradicted by Bhat et.al,(2015) who investigated the "Socio-demographic factors: A major predictor of anxiety and depression among pregnant women". Their findings revealed that age and monthly income was negatively and significantly related to anxiety.

The findings of the present study were inconsistent with Niloufer et.al,(2012) who investigated the frequency and the associated factors of anxiety and depression in pregnant women. Their findings revealed that age of women's age was found to be positively and significantly related to anxiety and depression. There was no significant difference between the respondents' educational status and the women's working status. Also, they were contradicted by Turkish, (2017) who revealed that there was a statistically significant association between the presence of anxiety during pregnancy and occupation evidencing that pregnant women who performed the housewife's activities had a greater chance of developing anxiety during pregnancy than those who were employed. In addition, Weobong et.al (2014) investigated the prevalence and determinants of antenatal depression among the pregnant women in a predominantly rural population in Ghana. Their findings revealed that low income or financial difficulties tended to be relevant factors to antenatal anxiety and depression. All these contradictions could be due to culture differences.

The findings of the present study revealed there was no statistically significant relationship between the socio-demographic characteristics of the study participants and depressive symptoms during present pregnancy. This was supported by Ratcliff et.al (2015) who investigated the factors associated with antenatal depression and obstetric complications in immigrant women in Geneve. Their findings revealed that education did not seem to be a significant predictor of antenatal depression. On the contrary, the findings were contradicted by Bhat et.al (2015) who investigated Socio-demographic factors: A major predictor of anxiety and depression among the pregnant women. Their findings revealed that age, educational qualifications and monthly income were negatively and significantly related to depression.

The findings of the present study revealed that there was no statistically significant relationship between the history of the previous pregnancy among the study participants and the level of anxiety during present pregnancy. This could be due to culture differences. This was contradicted by Johanna et.al(2017) who investigated the possible relationship between general and pregnancy-related anxiety during the first half of pregnancy and the birth process. Their findings revealed that high general anxiety and high pregnancy-related anxiety were more frequently observed in higher pre-pregnancy and in women who gave birth to babies with lower birth weight**.** Also, Gabriel et.al (2017) investigated the previous pregnancy outcomes and subsequent pregnancy anxiety. Their findings revealed that prior live term, birth was associated with lower pregnancy anxiety in all three trimesters, whereas Prior stillbirth was associated with greater pregnancy anxiety in all three trimesters, prior miscarriage was significantly associated with higher pregnancy anxiety in the first trimester. In addition, Prior elective abortion was significantly associated with higher pregnancy anxiety scores in the first and second trimesters, with an association of similar magnitude observed in the third trimester.

The present study findings revealed that there was a highly statistically significant relationship between the number of the previous pregnancy among the study participants and depressive symptoms during present pregnancy. This was supported by Carolina et.al(2017) who investigated the antenatal depressive symptoms among pregnant women: evidence from a Southern Brazilian population. Their findings revealed that antenatal depression was associated with the higher number of deliveries at home , history of depression and being underweight or obese during previous pregnancy.

The present study findings revealed that there was a statistically significant relationship between the complications of the present pregnancy among the study participants and the level of anxiety during present pregnancy. This was supported by Rosa et.al(2018) who investigated the comorbidity of low back pelvic pain and risk of depression and anxiety in pregnancy in primiparous women. Their findings revealed that there was a positive correlation between low back and pelvic girdle pain (LBPP) and depression/anxiety. It was contradicted by Niloufer et.al (2012) who investigated the frequency and associated factors for anxiety and depression in pregnant women. They reported that no significant difference was observed in the respondents' willingness of pregnancy.

The present study findings revealed that there was a statistically significant relationship between the complications of the present pregnancy among the study participants and depressive symptoms during present pregnancy. This was supported by Nuša et.al(2015) who investigated depression and anxiety in women during pregnancy in Slovenia. Their findings revealed that pregnant women experiencing complications during their present pregnancy reported more intense symptoms of depression and of state and trait anxiety than women who were free from complications.

They also revealed that there was no correlation between age and anxiety or depression. This was supported by Srinivasan et al (2015)who investigated the assessment of burden of depression during pregnancy among pregnant women residing in rural settings of Chennai. They reported that age was not associated with depression or anxiety during pregnancy. On the contrary, Hanieh et. al(2013) investigated the prevalence and risk factors of the symptoms of common mental disorders in early and late pregnancy in Vietnamese women: a prospective population-based study. Their findings revealed that there was a significant positive correlation between young age and depression/anxiety during pregnancy. Also, the present study is inconsistent with Rubertsson et.al (2014) who investigated anxiety in early pregnancy: prevalence and contributing factors. Their findings revealed that there was a significant negative correlation between young age and depression/anxiety during pregnancy. Nevertheless, some studies found that an older age was positively associated with depression scores during pregnancy.

In addition, the present study findings revealed that there was a significant negative correlation between the number of live births and depressive symptoms among the study participants. This means that when the number of live births increases, depressive symptoms decrease. This was supported by Ida et.al (2018) who investigated anxiety, depression and the relationship of satisfaction in the pregnancy following stillbirth and after the birth of a live-born baby. Their findings revealed that women who become pregnant after stillbirth had a higher prevalence of anxiety and depression compared with women with a previous live birth.

Furthermore, the present study findings revealed that there was a significant positive correlation between anxiety and depressive symptoms among the study participants. This means that when anxiety increases depressive symptoms increase. This result is in agreement with Mohamad et.al (2015) who investigated the prevalence of antenatal depressive symptoms among women in Sabah, Malaysia. Their findings revealed that women who had experienced antenatal anxiety, were about three times more likely to suffer from depression during pregnancy. Added to this, it is consistent with Nuša et.al(2015) who investigated depression and anxiety in women during pregnancy in Slovenia. Their findings revealed the same study finding showing moderate anxiety and depression among the current cohort and as anxiety scores increase, the depressive symptoms also increase.

5. CONCLUSIONS

Based on the present study findings, the following conclusions include:

- the entire study participants who have history of perinatal loss have anxiety ranging from mild to severe during present pregnancy. More than half of the study participants who have history of perinatal loss have depressive symptoms during present pregnancy and this answered the first research question.
- There was no statistically significant relationship between the socio- demographic characteristics of the study participants and level of anxiety during present pregnancy and this answered the second research question.
- There was no statistically significant relationship between the socio- demographic characteristics of the study participants and depressive symptoms during present pregnancy and this answered the third research question.
- There was no relationship between previous pregnancy history and the level of anxiety during present pregnancy and this answered the fourth research question.
- There was only a highly statistical significant relationship between the number of the previous pregnancy among the study participants and depressive symptoms during present pregnancy and this answered the fifth research question.
- There was a statistically significant relationship between the complications of the present pregnancy among the study participants and level of anxiety during present pregnancy and this answered the sixth research question.
- There was a statistically significant relationship between the complications of the present pregnancy among the study participants and depressive symptoms during present pregnancy and this answered the seventh research question.
- There was only significant positive correlation between the number of previous pregnancy and anxiety. This means that when the number of previous pregnancy increases, anxiety also increases and this answered the eighth research question.
- There was a significant negative correlation between the number of live births and depressive symptoms among the study participants. This means that when the number of live birth increases, depressive symptoms decrease and this answered the ninth research question.
- There was a significant positive correlation between anxiety and depressive symptoms among the study participants. This means that when anxiety increases, depressive symptoms increase and this answered the tenth research question.

It is evident that all research questions were answered.

International Journal of Novel Research in Healthcare and Nursing
Vol. 6, Issue 2, pp: (200-217), Month: May - August 2019, Available at: www.noveltyjournals.com

6. RECOMMENDATIONS

Based on the findings of the present study, the following recommendations are suggested:

- Educating pregnant women with previous perinatal loss to adopt regular follow up, change life style.
- Educating pregnant women with previous perinatal loss to follow healthy diet and sit down with supportive groups.
- Educational programs should be conducted to improve women's knowledge about the importance of visiting family planning clinics that regulate the number of pregnancies and spaces.
- There is a need for incorporating the psychological intervention in nursing counseling for women with previous perinatal loss .
- The family should provide psychological support to the women and not critique them.

Future research:

-Replication of this study to other settings using a larger sample where women from rural and urban areas are involved to get a broader perspective of women's psychological status and compare results.

REFERENCES

[1] **Alcock G., More N.S., Sushmita D., Wasundhara J., and Osrin D.,(2012).** Stillbirths and newborn deaths in slum settlements in Mumbai, India: a prospective verbal autopsy study. BMC Pregn Childbirth.64,176-185.

[2] **Cousens S, Blencowe H, Stanton C, Chou D, Ahmed S, Steinhardt L, Creanga AA, Tunçalp O, Balsara ZP, Gupta S, Say L, Lawn JE,(2011).** National, regional, and worldwide estimates of stillbirth rates in 2009 with trends since 1995: a systematic analysis. 377 (9774), 1319-1330.

[3] **Flenady V, King A., Charles A., (2011).** Epidemiology of fetal and neonatal death. In Khong T.Y., and Malcomson R.D.G. Keeling's fetal and neonatal patholog Clinical practice guideline for perinatal mortality audit Brisbane. Australia: The Perinatal Society of Australia and New Zealand (PSANZ).25,254-257.

[4] **Gaudet C., Séjourné N., Camborieux L., Rogers R., and Chabrol H.,(2010).** Pregnancy after perinatal loss: association of grief, anxiety and attachment. J Reprod Infant Psychol .28, 240-251.

[5] **King Edward Memorial Hospital ,(2014).** Perinatal Anxiety Screening Scale.

[6] **Kumar M., Singh S., Sharma K., Singh R., Ravi V., and Bhattacharya J.,(2016).** Adverse fetal outcome: is first trimester ultrasound and Doppler better predictor than biomarkers? J Matern Fetal Neonatal Med .34, 1-23.

[7] **Manktelow B.N., Smith L.K., Seaton S.E., Hyman-Taylor P., Kurinczuk J.J., Field D.J., Smith P.W., and Draper E.S.,(2016).** MBRRACE-UK Perinatal Mortality Surveillance Report: UK Perinatal Deaths for Births from January to December 2014. 54,1243-1255.

[8] **McCarthy F.P., Moss-Morris R., Khashan A.S., North R.A., Baker P.N., Dekker G., Poston L., McCowan L.M.E., Walker J.J., Kenny L.C., and O'Donoghue K.,(2015).** Previous pregnancy loss has an adverse impact on distress and behaviour in subsequent pregnancy. BJOG: Int. J. Obstet. Gynaecol, 122,1757-1764.

[9] **Monari F., Pedrielli G., Vergani P., Pozzi E., Mecacci F., Serena C., (2016).** Adverse perinatal outcome in subsequent pregnancy after stillbirth by placental vascular disorders. 11, 155-161.

[10] **National Center for Health Statistics,(2011).** www.cdc.gov/nchs .

[11] **Riley LE, Stark AR, (2012).** Standard terminology for reporting of reproductive health statistics in the United States. In: Guidelines for Perinatal Care, American Academy of Pediatrics, Elk Grove Village . 7,497.

[12] **Scottish health centres, Edinburgh and Livingston,(1987).** Edinburgh Postnatal Depression Scale (EPDS) .

[13] **Sun J.-C., Rei W., and Sheu S.-J.,(2014).** Seeing or not seeing: Taiwan's parents' experiences during stillbirth. Int J Nurs Stud , 51, 1153-1159.

[14] **The World Bank.,(2011).** How we classify countries.

[15] **World Health Organization .,(2015).** The WHO application of ICD-10 to perinatal deaths: ICD-perinatal mortality (ICD-PM). Geneva.

[16] **Van den Berg G., Lundborg P., and Viktrom J.,(2012).** The economics of grief. IZA discussion paper. Bonn: Institute for the Study of Labor, 764,7010-7020.

[17] **World Health Organization.,(2016).** Making every baby count: audit and review of stillbirths and neonatal deaths. Geneva.

[18] **Mackenzie RM, Sandrim VC, Carty DM, McClure JD, Freeman DJ, Dominiczak AF, McBride MW, Delles C.,(2012).** Endothelial FOS expression and pre-eclampsia. BJOG. 119 (13),1564-1571.

[19] **Robertson Blackmore E., Cote -Arsenault D., Tang W., Glover V., Evans J., Golding J., and O'Connor T.G.,(2011).** Previous prenatal loss as a predictor of perinatal depression and anxiety. Br. J. Psychiatry . 198, 373-378.

[20] **Shreffler K., Hill T., and Cacciatore J.,(2012).** Exploring the increased odds of divorce following miscarriage or stillbirth. J Divorce Remarriage. 53, 91-107.