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RESEARCH ARTICLE

A DESCRIPTIVE STUDY TO ASSESS THE LEVEL OF ANXIETY AND DEPRESSION AMONG ANTENATAL MOTHERS IN A SELECTED HOSPITAL, MANGALORE, WITH A VIEW TO DEVELOP AN INFORMATION BOOKLET

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ABSTRACT

Introduction: Anxiety and depression during pregnancy are the major public health problems because of their high prevalence.[1] Pregnant mother experiences a series of physical and emotional changes during pregnancy. If she finds difficult to adapt to the changes, then she develops anxiety and depression and it affects the physical and mental health of mother and child.[2]

Objectives: The objective of the study was to "assess the level of anxiety and depression among antenatal mothers in a selected hospital, Mangalore, with a view to develop an information booklet".

Method: A descriptive approach was adopted for the study and 100 antenatal mothers were selected through purposive sampling technique from a selected hospital Mangalore. A baseline Proforma with 19 items was developed. Standardized scales were used to measure the level of anxiety (HEM-A, r=.782), and depression (EPDS, r=.770).

Results: Result indicated that 8% of the subjects had severe level of anxiety, 22% had moderate and 70% had mild level of anxiety, whereas 3% subjects had severe depression, 19% had moderate depression and 78% had mild level of depression. The mean anxiety score was 12.91, SD was 7.018, and the mean % was 23.05. The mean depression score was 8.06, SD was 2.339 and the mean % was 26.87. There was a significant association between level of anxiety and selected variables. like number of pregnancies, number of full-term delivery, number of abortion, number of live children, planned pregnancy, history of depression, and physical health of the sample. There was a significant association between level of depression and selected baseline variables like number of pregnancies, number of abortion, history of depression, and history of counselling. There was a significant statistical correlation between anxiety score and depression score.

Conclusion: Anxiety and depression during pregnancy are the major health problem among reproductive aged women.Findings suggest the need for assessment of the risk for prenatal anxiety and symptoms of depression during each antenatal visit and take measures immediately to prevent and manage them.

INTRODUCTION

Pregnancy is a wonderful period in a woman's life and she spends each and every day in pleasant anticipation, waiting to hold her bundle of joy in her arms at the end of the ninth month.[3] Even though it is a time of great happiness and fulfillment of the life, both the mother and her developing child face various types of health risks.[4] Mental health is an important aspect of health, however, it is a neglected component of reproductive health. The seventh top cause of death globally for women aged 20-59 years is suicide.[5] WHO estimates that by 2020, the depressive disorders will be the second leading cause of global disease burden, and rates of depressive in women of reproductive age are reported to be twice than in men.[6] Anxiety and depression often both occur together in pregnancy and persist if not treated.[7] These disorders can have a wide range of effects not only for the mother but on the foetus, the infant, partner and other family members as well.[8] Several perspective studies have shown that prenatal anxiety disorder is one of the strongest risk factors for developing depression during the prenatal and postnatal period.[9]

Poor outcomes of pregnancy are associated with anxiety and depression. Pre-eclampsia, increased nausea and vomiting, longer sick leave during pregnancy, increased number of visits to obstetrician, spontaneous preterm labour, preterm delivery, low birth weight, low APGAR scores, breastfeeding difficulties, a more difficult labour and delivery, elective caesarean section, and admission of infant to neonatal care are more common conditions associated with maternal anxiety and depression.[10,11] Certain factors that may increase the risk of depression during and after pregnancy are personal or family history of depression or other mental illness, lack of support

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from family and friends, anxiety or negative feelings about the pregnancy, problems with a previous pregnancy or birth, marriage or money problems, stressful life events, young age, substance abuse and gender preference for male children.[12]

Early assessment, screening and intervention are the most important factors for the positive outcome during antenatal, intranatal and postnatal period with regard to the health of the mother and the baby. Different modalities of treatment showed the effectiveness in treating anxiety and depression during the pregnancy and prevent the postpartum depression.[13] The objectives of the study were to determine the level of anxiety and depression among antenatal mothers and to find the association between anxiety score and selected baseline variables, depression score and selected baseline variables and find the correlation between anxiety score and depression score.

MATERIAL AND METHODS

A descriptive approach was adapted for the study. A total of 100 antenatal mothers (27 weeks to before starting labour) were selected through purposive sampling technique. Sample included antenatal mothers who were on the third trimester of pregnancy and attended antenatal OPD of selected hospital, Mangalore.

Instrument/tool used for data collection

A structured baseline proforma with 19 items such as age, religion, educational status, occupation, monthly income, type of family, number of pregnancy, delivery, abortion, still birth, live children, planned/ unplanned pregnancy, family support, supporters, history of depression, history of counseling, reason for counseling, causes of anxiety, present state of physical health. Hamilton anxiety scale HAM-A and Edinburgh postnatal depression scale EPDS were the standardized tools used to assess anxiety and depression.

Pretesting was done to assess the level of understanding of tool. Reliability was found to be .782 for anxiety scale and .770 for depression scale. Pilot study was conducted to assess the feasibility for the main study. Tool was translated to Kannada language.

Ethical clearance and permission

The researcher had obtained ethical clearance from ethics committee of Yenepoya University. Formal written permission was taken from the authority of the Yenepoya Medical College Hospital and introduction and purpose of research was explained to the participants and written consent was obtained before the data collection.

Data collection procedure

The data was collected from 1st December 2014 to 16th December 2014 and analyzed using descriptive and inferential statistics.

RESULTS

Baseline performa

The present study showed that the majority of the antenatal mothers (38%) were in the age group 24-29 years, 44% were belonged to Hindu religion, 100% of the women were educated, and majority (44%) were unemployed. Among them majority (53%) had less than Rs. 10,000 income per month and 41% of the antenatal mothers were belonged to nuclear family. Total 38% had no previous pregnancy, 23% had 3-4 pregnancies, 20% had 5-6 pregnancies, and 19% had 1-2 pregnancies, (62%) had no history of full term delivery, 26% had 1-2 full term deliveries, and 12% had 3-4 full term deliveries, 2% had 5-6 abortions, 2% had 3-4 abortions, 16% had 1-2 abortions, and 80% had no history of previous abortion. Among the samples only 1% had the history of still birth, majority (76%) of the samples had no live children, 20% had 1-2 live children, 3% had 3-4 live children and only one percent had 5-6 live children.

Levels of anxiety among antenatal mothers

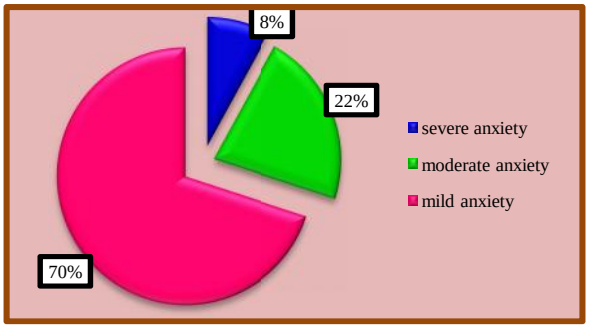

Fig.1 Level of anxiety n=100

Figure 1 shows that 8% of the sample had severe level of anxiety, 22% had moderate level of anxiety and 70% had mild level of anxiety during the antenatal period.

Level of depression among antenatal mothers

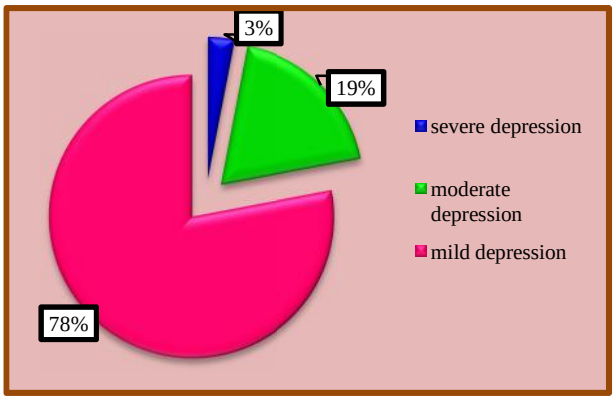

Fig.2 Level of depression n=100

Figure 2 shows that 3% of the sample had severe level of depression, 19% had moderate level of depression and majority of the sample 78% had mild level of depression during the antenatal period.

Distribution of Prenatal anxiety level based on mean, median, mean percentage and Standard deviation (area-wise)

Table 1 Prenatal anxiety level based on mean, median, mean percentage and Standard deviation (area-wise) n=100

Sl. No.	Content area	Max. possible score	Mean score	Median	Mean %	SD
1.	Anxious mood	4	1.38	1.00	34.50	1.237
2.	Tension	3	1.22	1.00	30.50	0.917
3.	Fears	4	0.88	1.00	22.00	1.028
4.	Insomnia	4	0.95	1.00	23.75	0.845
5.	Intellectual	3	0.95	1.00	23.75	0.892
6.	Depressed mood	4	0.97	1.00	24.25	0.797
7.	Somatic (muscular)	3	0.96	1.00	24.00	0.803
8.	Somatic (sensory)	3	0.74	1.00	18.50	0.895
9.	Cardiovascular symptoms	3	0.86	1.00	21.50	0.899
10	Respiratory symptoms	3	0.65	.00	16.25	0.796
11	Gastrointestinal symptoms	4	0.97	1.00	24.25	0.926
12	Genitourinary symptoms	4	0.94	1.00	23.50	0.952
13	Autonomic	3	0.79	1.00	19.75	0.832
14	Behaviour at interview	3	0.67	.00	16.75	0.817
	Overall anxiety score	**56.0**	**12.91**	**10.00**	**23.05**	**7.018**

The above table depicts that combined mean score of samples regarding the level of anxiety were 12.91(23.05%) with SD±7.018 where as median was 10.00. The highest mean percentage was obtained in anxious mood [1.38(34.50%) with SD ±.1.237] and the lowest mean percentage obtained in respiratory symptoms [.65(16.25%) with SD ±.796].

Distribution of Prenatal depression level based on mean, median, mean percentage and standard deviation (area-wise)

Table 2 Prenatal depression level based on mean, median, mean percentage, and standard deviation (area-wise) n=100

Sl. No.	Content area	Max. possible score	Mean score	Median	Mean %	SD
1.	Able to laugh	3	1.02	1.00	34.00	0.964
2.	Enjoyment to things	3	0.96	1.00	32.00	0.920
3.	Blamed myself	3	0.94	1.00	31.33	0.851
4.	Anxious or worried	3	0.77	1.00	25.67	0.802
5.	Felt scared	3	0.71	1.00	23.67	0.743
6.	Things on top of me	3	0.68	1.00	22.00	0.723
7.	Unhappy/difficulty in sleeping	3	0.79	1.00	26.33	0.686
8.	Felt sad	3	0.99	1.00	31.33	0.722
9.	Unhappy, crying	3	0.80	1.00	26.67	0.725
10.	Thought of self harming	3	0.44	0.00	14.67	0.608
	Overall depression score	**30.00**	**8.06**	**8.50**	**26.87**	**2.339**

The above table depicts that combined mean score of antenatal mothers regarding the level of depression was 8.06 (26.87%) with SD±2.339 whereas median was 8.50. The highest score was in the ability to laugh, where mean and SD score was 1.02±.964, whereas the lowest mean and SD score was in thought of self harming,(.44±.608).

Association between selected baseline variables and anxiety

Significant association was found between level of anxiety and selected variables like number of pregnancies (χ^2=15.333, p<0.05), number of full-term delivery (χ^2=14.338, p<0.05), number of abortion (χ^2=5.114, p<0.05), number of live children (χ^2=5.104, p<0.05), planned pregnancy (χ^2=6.823, p<0.05), history of depression (χ^2=17.774, p<0.05), history of counseling, (χ^2=5.393, p<0.05), and present physical health of the sample (χ^2=6.734, p<0.05).

Level of anxiety was independent of baseline variables like number of stillbirth (p>0.05, Fisher's exact), emotional support (χ^2=5.470, p>0.05), and causes of present anxiety (χ^2=5.831, p>0.05).

Association between selected baseline variables and depression

There was a significant association between level of depression and selected baseline variables like number of pregnancies (χ^2=9.141, p<0.05), number of abortion (χ^2=6.250, p<0.05), history of depression (χ^2=15.021, p<0.05), and history of counseling, (χ^2=15.431, p<0.05).

No significant association was found between level of depression and selected baseline variables like number of full term delivery, number of stillbirth, number of live children, planned/unplanned pregnancy, emotional support, emotional supporter, causes of present anxiety, current physical health of antenatal mothers, at p>0.05 level.

Correlation between anxiety level and depression level

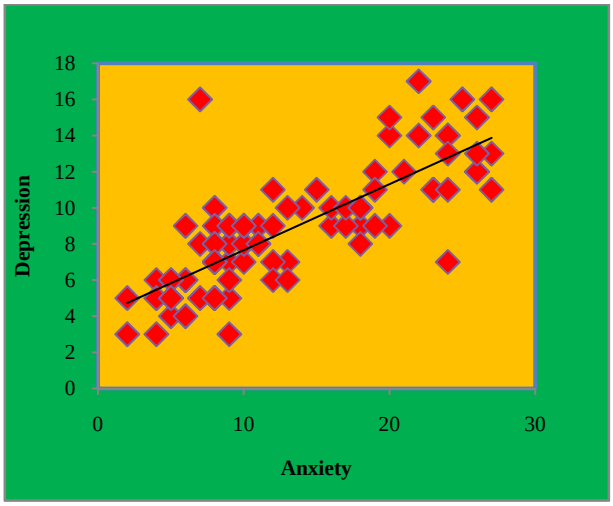

Fig 3 Scatter plot diagram based on correlation between anxiety and depression score

Figure 3 shows that there was a significant statistical correlation (r=.771, p<0.001) between anxiety score and depression score of antenatal mothers during pregnancy, as the points are moving upwards forming a straight line. This indicates that as anxiety increases depression also increases.

DISCUSSION

Level of anxiety and depression among antenatal mothers

Almost similar findings were reported by a study conducted to assess and compare the prevalence of anxiety and depression during and after pregnancy in New Delhi. The findings revealed that 27% prenatal mothers had scored moderate level anxiety and 17% scored moderate level of depression.[14]

Association between level of anxiety among antenatal mothers and selected baseline variables

Findings of present study on association between anxiety level among antenatal mothers and selected baseline variables were similar to a study conducted in Lahore. Anxiety level was significantly associated with rural background, abortion, caesarean delivery, unplanned pregnancies, and gender of the previous children (P<.05). [15]

Association between level depression among antenatal mothers and selected baseline variables

Finding of this study is consistent with the result of the present study, showed that antenatal depression was associated with history of greater number of abortions (OR: 2.21; 95% CI 1.23:3.97, p¼0.009).[16]

Correlation between the level of anxiety and depression

Finding of this study is consistent with result of the study conducted in Greece, to assess anxiety and depressive symptomatology. The findings showed that there was a significant statistical correlation between trait anxiety score and depression score (Anxiety and depression scale) (r=0.6, p=0.000).[17]

CONCLUSION

Anxiety and depression during pregnancy are the major health problem among reproductive aged women. The reason for the antenatal anxiety were pregnancy, health, gender of the child, money, relationship with partner (husband), children and family.

The findings suggest the need of training the doctors and nurses regarding the assessment and screening of antenatal mother about prenatal anxiety and depression during each antenatal visit and take measures immediately and appropriately as required. It helps to prevent and manage antenatal anxiety and depression as well as its future consequences on mother, child and the entire family.

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