ABSTRACT

Stress in pregnancy is common and impacts negatively on women, infants and families. A number of factors contribute to high levels of stress in pregnancy, including financial concerns, marital discord, low support systems and low socio-economic status.

A descriptive study was done on 300 antenatal women to assess level of anxiety among pregnant women visiting antenatal care (ANC) OPD at Dhulikhel Hospital. Face to face interview technique was used to collect data by using systemic random sampling. Data was analyzed using simple descriptive statistics and association of various factors was analyzed by inferential statistics. Chi-square test and level of anxiety of pregnant women was examined using the SPSS version 16.0. The tool was developed after reviewing the related literatures. Among total respondents, 97 (32.33%) of pregnant women showed mild to moderate level of anxiety. It was revealed that mothers with anxiety are lower in number than the mothers without anxiety. There was significant association between the level of anxiety and the demographic variables viz., age, monthly family income and occupation of the respondents.

Keywords: Anxiety, Antenatal women.

INTRODUCTION

Pregnancy and child birth are special event in a women’s life and indeed in the lives of their family. Though, pregnancy is a normal physiological process. Every day approximately 830 women die from preventable causes related to pregnancy and childbirth and 99% of all maternal deaths occur in developing countries. The majority of maternal deaths are due to haemorrhage, infection, unsafe abortion, and eclampsia. The vast majority of maternal deaths could be prevented if women had access to quality family planning services; skilled care during pregnancy, childbirth and after delivery. Increased attention for women living in conflict situations, or under humanitarian crisis is needed because a working health system with skilled personnel is key to saving these women's lives.

A pregnant women is “like a ship on a stormy sea”, out of balance seeking an equilibrium in the waves of the physiological changes. Although every woman has the fundamental right to survive while performing the physiological duty of pregnancy and child birth, however in most of the developing countries she is being denied of this right. So in developed countries anxiety among pregnant mothers has brought does to an irreducible minimum. But in the developing countries the anxiety is high which in turn affects the normal pregnancy among mothers.
Every individual has the ability to cope with anxiety. But the ability to cope varies from person to person. It is adaptive response as well as behavior that maintain the integrity of the individual. Adaptation is viewed as positive and is correlated to a healthy response. When behavior disrupts the integrity of the individual, it is perceived as anxiety. It assumes that one can learn to cope more effectively. Most mothers develop good adaptation to their anxiety providing the child with realistic care, integrating them into family.\[4\]

The purpose of the study was to assess the anxiety among pregnant women visiting antenatal care (ANC) OPD at Dhulikhel Hospital. The objectives of the study were to assess the level of anxiety among the pregnant women and to determine association between the selected demographic variables (age, occupation, monthly family income, gravida, and previous pregnancy outcome and education level) and the anxiety among pregnant women.

**MATERIALS AND METHODS**

This is cross-sectional study, conducted in antenatal care (ANC) OPD at Dhulikhel Hospital over a period of 1\textsuperscript{st} May to 30\textsuperscript{th} July of 2013. The total of 300 antenatal mothers was included by applying systematic random sampling technique. Face to face interview was carried out using both structured and semi-structured questionnaire for the data collection. Formal permission was obtained from the hospital authority. The collected data were reviewed daily for completeness and accuracy. Edited data were entered into the Statistical Package for Social Science Software (SPSS) version 16.0 for analysis using descriptive statistics.

Level of anxiety was determined by scoring their response in anxiety scale using likert scale. There were 20 questions related to anxiety to measure the level of anxiety. Overall level of anxiety was graded according to following criteria. Level of anxiety was graded according to the Zung Self-Rating Anxiety scale (SAS).\[5\]

<table>
<thead>
<tr>
<th>Anxiety Index</th>
<th>Clinical Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below 45</td>
<td>Within normal range</td>
</tr>
<tr>
<td>45-59</td>
<td>Mild</td>
</tr>
<tr>
<td>60-74</td>
<td>Moderate</td>
</tr>
<tr>
<td>Above 75</td>
<td>Severe</td>
</tr>
</tbody>
</table>

**RESULTS**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (in years)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15-19</td>
<td>20</td>
<td>6.7</td>
</tr>
<tr>
<td>20-24</td>
<td>162</td>
<td>54.0</td>
</tr>
<tr>
<td>25-29</td>
<td>85</td>
<td>28.3</td>
</tr>
<tr>
<td>30-34</td>
<td>29</td>
<td>9.7</td>
</tr>
<tr>
<td>35-40</td>
<td>4</td>
<td>1.3</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brahmin</td>
<td>94</td>
<td>31.3</td>
</tr>
<tr>
<td>Chhetri</td>
<td>65</td>
<td>21.7</td>
</tr>
<tr>
<td>Newar</td>
<td>88</td>
<td>29.3</td>
</tr>
<tr>
<td>Tamang</td>
<td>38</td>
<td>12.7</td>
</tr>
<tr>
<td>Others</td>
<td>15</td>
<td>5.0</td>
</tr>
<tr>
<td>Religion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>264</td>
<td>88.0</td>
</tr>
<tr>
<td>Buddhist</td>
<td>26</td>
<td>8.7</td>
</tr>
<tr>
<td>Christian</td>
<td>9</td>
<td>3.0</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>0.3</td>
</tr>
<tr>
<td>Education Level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Literate</td>
<td>285</td>
<td>95</td>
</tr>
<tr>
<td>Monthly family income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;Rs.5000</td>
<td>31</td>
<td>10.3</td>
</tr>
<tr>
<td>Rs.5000-Rs.10000</td>
<td>110</td>
<td>36.7</td>
</tr>
<tr>
<td>Above Rs.10000</td>
<td>159</td>
<td>53.0</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>50</td>
<td>16.7</td>
</tr>
<tr>
<td>Agriculture</td>
<td>15</td>
<td>5.0</td>
</tr>
<tr>
<td>House wife</td>
<td>217</td>
<td>72.3</td>
</tr>
<tr>
<td>Business</td>
<td>18</td>
<td>6.0</td>
</tr>
</tbody>
</table>

It can be seen table 1, more than half (54%) of the respondents were aged between 20-24 years. Most of the respondents (31.3%) were from Brahmin ethnicity. Majority of the respondents (88%) follow Hindu religion. Majority (95%) of the respondents were literate. More than half of the respondent (53%) had monthly family income of more than Rs.10,000. Majority of the respondents (72.3%) were house wife.

The data in the above table shows that more than half (52%) of the respondents were primigravida. Out of 144 multigravida respondent 59.7% did not have the history of previous abortion. Out of 144 respondent majority (69.4%) did not have any complications during their last pregnancy.
Table 2: Obstetrics Information of the Respondents n=300

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravida</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primigravida</td>
<td>156</td>
<td>52.0</td>
</tr>
<tr>
<td>Multigravida</td>
<td>144</td>
<td>48.0</td>
</tr>
<tr>
<td>History of Previous abortion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>58</td>
<td>40.3</td>
</tr>
<tr>
<td>Not present</td>
<td>86</td>
<td>59.7</td>
</tr>
<tr>
<td>Complications during last pregnancy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>44</td>
<td>30.6</td>
</tr>
<tr>
<td>Not present</td>
<td>100</td>
<td>69.4</td>
</tr>
</tbody>
</table>

Table 3: Level of Anxiety among all the Respondents n=300

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency (f)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anxiety level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal/No anxiety</td>
<td>203</td>
<td>67.1</td>
</tr>
<tr>
<td>Mild</td>
<td>95</td>
<td>31.7</td>
</tr>
<tr>
<td>Moderate</td>
<td>2</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Table 4: Association between dependent and independent variables n=300

<table>
<thead>
<tr>
<th>Variables</th>
<th>Anxiety</th>
<th>Total</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Present</td>
<td>Not present</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;25</td>
<td>71(30.0)</td>
<td>111(41.0)</td>
<td>182</td>
</tr>
<tr>
<td>≥25</td>
<td>26(22.0)</td>
<td>92(78.0)</td>
<td>118</td>
</tr>
<tr>
<td>Occupation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Service</td>
<td>6(12.0)</td>
<td>44(88.0)</td>
<td>50</td>
</tr>
<tr>
<td>Agriculture</td>
<td>7(46.7)</td>
<td>8(53.3)</td>
<td>15</td>
</tr>
<tr>
<td>House wife</td>
<td>78(35.9)</td>
<td>139(64.1)</td>
<td>217</td>
</tr>
<tr>
<td>Business</td>
<td>6(33.3)</td>
<td>12(66.7)</td>
<td>18</td>
</tr>
<tr>
<td>Education level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illiterate</td>
<td>8(53)</td>
<td>7(46)</td>
<td>15</td>
</tr>
<tr>
<td>Literate</td>
<td>89(31.2)</td>
<td>196(68.8)</td>
<td>285</td>
</tr>
<tr>
<td>Monthly family income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;Rs. 3,000</td>
<td>16(51.6)</td>
<td>15(48.4)</td>
<td>31</td>
</tr>
<tr>
<td>Rs. 5,000-Rs.10,000</td>
<td>40(36.4)</td>
<td>70(63.6)</td>
<td>110</td>
</tr>
<tr>
<td>Above Rs.10,000</td>
<td>41(25.8)</td>
<td>118(74.2)</td>
<td>159</td>
</tr>
<tr>
<td>Complication during last pregnancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Present</td>
<td>23(52.3)</td>
<td>21(47.7)</td>
<td>44</td>
</tr>
<tr>
<td>Not present</td>
<td>27(20.0)</td>
<td>73(73.0)</td>
<td>100</td>
</tr>
</tbody>
</table>

*Significant

Table 3 reveals that most of the respondents (67.1%) did not have any anxiety. Only 31.7% of the respondents had low level of anxiety and none of the respondents had severe level of anxiety.

It can be seen from table 3 there is significant association between anxiety and age, occupation, monthly family income and complication during last pregnancy of the respondents whereas significant association was not found between anxiety and education level of respondents.

DISCUSSION

The study showed that 32.33% of the respondents had mild to moderate level of anxiety which is similar to the study conducted by Raja Lexshimi R.G et al. where 42.1% women experienced a mild level of anxiety. [6] Similar findings were shown in the study done by Hamid F et al. and Verbeek T et al. where prevalence of anxiety found 39% and 41% respectively. [7,8]

Another similar finding reported in China showed that the prevalence rates of anxiety and depression in these Chinese pregnant women during prenatal period were 6.8% and 4.8%, respectively. [9]

This study shows that there was no significant association (p value 0.074) between Anxiety and Education Level of the Respondents which is contrast to the study conducted by Yu-ting K et al. showed significant relationship with education level. [5]

This study shows that there was no significant association between history of abortion and type of previous delivery and the anxiety (p>0.05) which is contrast to the study conducted by Ali N.S et al. and Blackmore ER et al. showed that pregnant women having prior stillbirth or abortion and miscarriage had reported significantly higher score of anxiety and depression. [10,11]
This study shows that there is no any association between gravidas of the respondents and the anxiety. But the study conducted by Shakya et al. (2008) has shown that the anxiety and depression level was high among the primi gravidas than the multigravida. [12]

This study shows that there is association (p=0.010) between monthly family income and the anxiety during pregnancy which is similar to the study conducted by Faisal-Cury A which shows that there is significant association (p = 0.001) between couple's income and antenatal anxiety at 5% level of significance. [13]

This study shows that there is significant association between anxiety and occupation of the respondent at 5% level of significance (p=0.007). Similar study was done by Karmaliani R et al. where Psychological distress was associated with husband unemployment (p=0.032). [14]

CONCLUSION

It was revealed that mothers with anxiety are lower in number than the mothers without anxiety.

There was significant association between the level of anxiety and the demographic variables viz., age, monthly family income and occupation of the respondents. Therefore it was concluded that higher the age and lower the family income increases the level of anxiety.

The study is unable to establish significant association between education level, gravidas and previous pregnancy outcome of the respondents. Hence it can be concluded that anxiety of the respondents was independent of education level, gravidas and previous history of abortion.

ACKNOWLEDGEMENT

I take this opportunity to extend my sincere thanks and indebtedness to all those persons and dignitaries who helped me to complete this study.

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I would like to thank to all who have directly or indirectly helped me during the course of my study.

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Sushila Shrestha et al. Anxiety Among Pregnant Women Visiting Antenatal Care (ANC) OPD at Dhulikhel Hospital.


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