The Alarming Rise in Prevalence of Antenatal Depression in Pakistan: A Review

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ABSTRACT

Depression is a disturbance in mood, attention, and body; evident as varying degrees of sadness, frustration, loneliness, hopelessness, self-doubt and remorse. Antenatal Depression; the most common mental disorder, is the depression during pregnancy; and is a strong predictor of postnatal depression. Etiology of antenatal depression is multi-factorial and deeply embedded in socio cultural factors. In developed countries, about 10%–15% of women and in developing countries between 20%–40% of women experience depression during pregnancy or after childbirth. In Pakistan incidence of antenatal depression has been reported to range from 18-80% which mostly goes undiagnosed and has caused maternal implications. Identification, screening and management of antenatal depression should be a part of MCH services as it is a major public health issue. Measures targeted towards antenatal depression can result in reduced maternal morbidity, mortality and health care costs.

Key words: antenatal depression, etiology, prevalence, Pakistan.

BACKGROUND

Depression is a disturbance in mood, attention, and body; evident as varying degrees of sadness, frustration, loneliness, hopelessness, self-doubt and remorse. The symptoms include loss of interest or happiness, diminished energy, troubled sleep, appetite, inability to concentrate and often anxiety. These problems can worsen and lead to considerable impairments in an individual’s ability to ensure his everyday errands. In the worst case, depression can lead to suicide. About 1 million people commit suicide each year that means 3000 suicides each day.

In any community mothers not only constitute a priority group, they are also a vulnerable and special risk group. Depression during pregnancy is called prenatal depression or antenatal depression. Antenatal Depression is the most common mental disorder and is a strong predictor of postnatal depression. It may be identified if mother is emotionally disturbed, there are changes in memory and concentration, weight loss and loss of appetite or wakes up early in the morning. Depression is possible if the woman feels listless, guilty and hopelessness, and has thoughts of harming herself.

There have been a few studies on screening of antenatal depression and its associated risk factors in Pakistan. Thus this review is aimed to identify and discuss alarming increase in prevalence of antenatal depression in Pakistani population.

METHODOLOGY

This paper is based on review of the literature published in Medline and Google Scholar. Articles were searched using the following keywords: antenatal depression, etiology, prevalence, and Pakistan. Also, some official documents and reports from the WHO have been referred to. A total of nine
studies were identified which assessed antenatal depression among Pakistani population from different provinces, both urban and rural areas. A brief account of the finding is presented to highlight the hidden iceberg and 21st century’s largest burden of disease.

**DISCUSSION**

**Etiology of antenatal depression**

Etiology of antenatal depression is multifactorial and deeply embedded in socio cultural factors. Antenatal depression is associated with the fear and stress of the pregnancy. A recent research examined 57 studies on the association between antenatal depression and risk factors. The investigators concluded that most important risk factors are life stress, history of depression, unsupportive family, unplanned pregnancy, domestic violence, low socio-economic status, low literacy, smoking and being single parent.

A cross sectional study of Asian pregnant women reported that maternal male gender preference was not common and was not associated with antenatal depression. Family male gender preference, unplanned pregnancy, a history of depression and feeling anxious in pregnancy were independently associated with an increased likelihood of depression, whilst support from family and friends, being satisfied with pregnancy and being multiparous were associated with a reduced likelihood of depression.

In Pakistan, causes of antenatal depression were husband’s unemployment, low household income, having more than 10 years of formal education, unintended pregnancy, and violence by husband. In an urban tertiary care hospital, more women with depression reported problems in their marriage, problems with parents/in laws, history of domestic violence, past history of psychiatric problems and history of postnatal depression.

**Prevalence of antenatal depression in World**

In developed countries, about 10%—15% of women and in developing countries between 20%—40% of women experience depression during pregnancy or after childbirth. In previous studies the prevalence of antenatal depression was found to be 14.2% in Brazil, 15.5% in Malta, 19% in Jordan, 25% in Jamaica, and 32.0% in Japan.

**Prevalence of antenatal depression in Pakistan**

Sex ratio in Pakistan is 1.08 male/female and women of reproductive age (15-49 yr) comprise 25% of total population that means almost 50 million.

The prevalence of depression among pregnant women (n=1,368) was found to be 18% in Hyderabad using the validated Aga Khan University Anxiety Depression Scale (AKUADS) at 20-26 weeks of gestation. According to a study carried out in Southern Kahota, prevalence of antenatal depression was 25%. Schedule for Clinical Assessment in Neuropsychiatry (SCAN) was administered to 632 pregnant women for screening. In another descriptive cross sectional study conducted in District Chitral, and the prevalence of depression was estimated to be 34% among 340 pregnant women. A short translated Khowar version of the Aga Khan University Anxiety and Depression Scale (AKUADS) was used to identify depression.

A study from a tertiary care hospital in Lahore showed a high prevalence of antenatal depression (42.7%) among 213 pregnant women evaluated by Edinburgh Postnatal Depression Scale (EPDS). In a comparative study between Pakistani and Canadian women, Pakistani women of Ghizar District of Gilgit Baltistan, reported higher (n=128, 48.4%) antenatal depression than Aboriginal Canadian women (n=128, 31.2%) and Caucasian Canadian women (n=128, 8.6%).

In a cross-sectional study conducted at an urban tertiary care hospital, out of 506 antenatal attendees screened for antenatal depression using Edinburgh Postnatal Depression Scale (EPDS), 75% were depressed. In a cross-sectional study in Peshawar, a total of 300 pregnant were administered Centre for Epidemiologic Studies Depression Scale (CES-D) to assess depressive symptoms. Out of 300 antenatal women 240 (80%) women scored >15 on the CES-D scale indicating antenatal depression.

In a recently published study the prevalence of antenatal depression was found to be 43% (35/82) among middle class urban women attending a tertiary care hospital in Lahore. Antenatal women
Table 1: Prevalence of antenatal depression in different parts of Pakistan

<table>
<thead>
<tr>
<th>Author, year</th>
<th>City, country</th>
<th>Urban/Rural</th>
<th>Study design</th>
<th>Instrument</th>
<th>Gestational age at screening</th>
<th>Sampling technique (Inclusion/exclusion criteria)</th>
<th>Sample</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Karmaliani et al, 2009</td>
<td>Hyderabad, Sindh</td>
<td>Rural</td>
<td>Prospective cohort</td>
<td>Aga Khan University Anxiety Depression Scale (AKUADS)</td>
<td>20-26 weeks</td>
<td>Population based. Inclusion (20 to 26 weeks of pregnancy) Exclusion (a clinical diagnosis of a life-threatening condition, and/or plans to deliver outside of the project area)</td>
<td>1,368</td>
<td>18%</td>
</tr>
<tr>
<td>Rahman et al, 2003</td>
<td>Southern Kahota, Rawalpindi district, Punjab</td>
<td>Rural</td>
<td>Prospective cohort</td>
<td>WHO Schedule for Clinical Assessment in Neuropsychiatry (SCAN)</td>
<td>6 weeks before delivery</td>
<td>Population based, physically healthy women aged 17–40 years in their third trimester of pregnancy.</td>
<td>632</td>
<td>25%</td>
</tr>
<tr>
<td>Mir et al, 2012</td>
<td>Chitral, Khyber-Pakhtunkhwa</td>
<td>Urban</td>
<td>Descriptive cross sectional</td>
<td>Short translated Khowar version of the AKUADS</td>
<td>3rd trimester</td>
<td>Hospital based, consecutive sampling</td>
<td>340</td>
<td>34%</td>
</tr>
<tr>
<td>Bajwa et al, 2009</td>
<td>Lahore, Punjab</td>
<td>Urban</td>
<td>Cross sectional</td>
<td>International Classification of Diseases (ICD-10)</td>
<td>All trimesters</td>
<td>Hospital based, convenience sampling. Exclusion criteria, obstetric complication, co morbid medical/surgical illness.</td>
<td>100</td>
<td>39.7%</td>
</tr>
<tr>
<td>Imran et al, 2009</td>
<td>Lahore, Punjab</td>
<td>Urban</td>
<td>Prospective cohort</td>
<td>Edinburgh Postnatal Depression Scale (EPDS)</td>
<td>3rd trimester</td>
<td>Hospital based, consecutive sampling</td>
<td>213</td>
<td>42.7%</td>
</tr>
<tr>
<td>Saeed et al, 2016</td>
<td>Lahore, Punjab</td>
<td>Urban</td>
<td>Prospective cohort</td>
<td>Edinburgh Postnatal Depression Scale (EPDS)</td>
<td>2nd trimester</td>
<td>Hospital based, consecutive sampling</td>
<td>82</td>
<td>43%</td>
</tr>
<tr>
<td>Shah et al, 2011</td>
<td>Ghizar district, Gilgit Baltistan</td>
<td>Rural</td>
<td>Prospective cohort</td>
<td>EPDS</td>
<td>All trimesters</td>
<td>1000 Stratified households, all pregnant women</td>
<td>128</td>
<td>48.4%</td>
</tr>
<tr>
<td>Humayun et al, 2013</td>
<td>Lahore, Punjab</td>
<td>Urban</td>
<td>Cross sectional</td>
<td>Centre for Epidemiologic Studies Depression Scale (CES-D)</td>
<td>3rd trimester</td>
<td>Hospital based, consecutive sampling. Exclusion criteria, obstetric complication, co morbid medical/surgical illness.</td>
<td>506</td>
<td>75%</td>
</tr>
<tr>
<td>Safi et al, 2013</td>
<td>Lahore, Peshawar, Khyber-Pakhtunkhwa</td>
<td>Urban</td>
<td>Cross sectional</td>
<td>EPDS</td>
<td>All trimesters</td>
<td>Hospital based, consecutive sampling. Exclusion criteria, obstetric complication, co morbid medical/surgical illness.</td>
<td>300</td>
<td>80%</td>
</tr>
</tbody>
</table>

were screened with EPDS and among the depressed the prevalence of severe depression was found to be 20% (16/35)15.

Further details can be viewed in Table 1. It can be concluded from the above discussion that the prevalence of antenatal depression is quite widespread, both in rural and urban areas of Pakistan, which is alarming and needs to be promptly attended.

Consequences of antenatal depression
Pregnant women with mental health problems are unable to take adequate care of them. They are unlikely to seek and receive antenatal or postnatal care or follow prescribed health regimens. Suicide is a leading cause of maternal death in developed countries. Depression in mothers can lead to increased maternal mortality, both through negatively affecting physical wellbeing as well as more directly suicide.

The mental health of women not only adversely influences them, but its impact on their developing neonate is also severe. If the ability of women to take care of their baby is compromised,
the survival and development of the neonate is jeopardized\textsuperscript{16}.

**CONCLUSION**

Improving maternal and child health is international and national priority, the United Nations Millennium Development Goals list maternal health as one of the eight goals\textsuperscript{17}, so dealing with depression during pregnancy is relevant to achieving better outcomes for mothers. It is high time that maternal mental health is prioritized and identification and management of antenatal depression is made a part of mother and child health care so implications for mother and health care costs could be reduced.

**Competing interests**

The authors declare that they have no competing interests.

**Author's contribution**

AS was responsible for conception, review of literature, and write up of the paper. AH and TR were responsible for conception and critical review of the paper. All authors approved the final version of the paper.

**REFERENCES**


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