

## Contributory Factors to Antenatal Depression as Perceived by Pregnant Women in Vhembe District, Limpopo Province

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**ABSTRACT** Depression affects about 20 percent of women during their lifetime, with pregnancy being a high vulnerability. Depression during pregnancy is a matter of public health importance due to that, it is the strongest risk factor for post-natal depression and it leads to adverse maternal and fetal outcomes. Depression during pregnancy is therefore a matter of great importance. The purpose of the study was to explore factors contributing to antenatal depression as perceived by pregnant women who were discharged from the psychiatric ward at one Hospital at Vhembe district in Limpopo Province. The qualitative research approach, exploratory and descriptive design was used. The population comprised of pregnant women who were discharged from the psychiatric ward of Siloam Hospital, Vhembe district, Limpopo province. A non-probability, purposive sampling was used to select 10 pregnant women. Data were collected through unstructured in-depth interviews at participant's home until saturation was reached. Data were analysed by open-coding method. Findings revealed three themes namely; social factors, obstetrical factors and psychological factors. It was recommended that health awareness be provided to the community members on contributory factors and symptoms of prenatal depression. Workshops for midwives should be conducted to enhance history taking and screening skills to promote early detection and treatment.

### INTRODUCTION

Perinatal (maternal) depression refers to major and minor episodes during pregnancy (termed *antenatal*) and/or within the first 12 months after delivery (termed *postpartum* or *postnatal*) (Leung and Kaplan 2009; Mushwana et al. 2015). This study focussed on antenatal depression. Studies show that the prevalence of antenatal depression is higher than that of postnatal depression (Bennett et al. 2004; O'Keane and Marsh 2007). Low rates were reported from developed countries, 4 percent in Hong Kong (Lee et al. 2004) and 8 percent, in Finland (Pajulo et al. 2001). The higher rates have been found in low socio-economic settings (Hartley et al. 2011; Kaaya et al. 2010; Rochat et al. 2011; Gausia et al. 2009; Shah et al. 2011). Literature has documented that, women are more informed and aware of postpartum depression, and how to get help for mood problems after having a baby. However, issues of depression before a baby is born; symptoms of prenatal depression, how can it be minimized and what treatment options are documented, is limited.

Solchany (2007) pointed that prenatal depression robs women of the positive experiences and emotions they require to become mothers and to care for their babies. It negatively affects all

aspects of a woman's lifework, health, nutrition, and connections with friends and family. Women may lose the energy necessary to invest in their intimate relationships, which negatively impacts the support and encouragement they need.

Prenatal depression does not act alone; anxiety and stress also have an impact. In fact, depression, anxiety, and stress act as a trilogy of risks that can negatively affect both mother and child. Unchecked anxiety and stress progress to depression, depression and stress increase anxiety, and, anxiety and depression increase vulnerabilities to stressors (Hartley et al. 2011).

Prenatal depression increases the risk of pre-term labour, preterm delivery, and low birth weight. Without intervention, prenatal depression can lead directly to postpartum depression, a condition that increases the vulnerability of the new-born and the mother-child relationship. According to Leung and Kaplan (2009), these risk factors may include difficult relationships with the baby's father, parents and family members, or even with unsympathetic co-workers and bosses; family or personal history with depression or anxiety and pregnancy complications. Ross et al. (2011) further mentioned intense, unrelenting nausea or "morning sickness", previous miscarriage or loss of a child, infertility

treatment, personal history of abuse, traumatic life events occurring before or during pregnancy, stressful life circumstances for example, money struggles, living alone, lack of support, being overworked, having many other children to care for.

Prenatal depression if left untreated can have negative effects on a developing fetus. Leung and Kaplan (2009) further indicated that prenatal depression is linked to preterm birth and low birth weight, which increases the likelihood of health problems for baby. Preterm birth is the premier cause of infant mortality (Ross et al. 2011). Antenatal depression is associated with high levels of stress hormones in newborn babies, irritability, agitation and changes in baby's attention span, which has been verified via electroencephalography (an infant brain test). These problems are likely to continue into the child's life. Apart from physiological effects on the fetus, depression in pregnancy can affect a mother's functional status and cause cognitive distortions that affect her decision-making capacities. This may further be associated with poor attendance at antenatal clinics and lack of motivation to follow physician care regimens Pajulo et al. (2001), and lead to other problems such as maternal substance abuse. Table 1 shows women who were diagnosed with antepartum depression out of the total admission in psychiatric ward at one hospital from April 2011 – March 2012.

Dealing with depression during pregnancy is relevant to achieving better health outcomes for mothers and infants in South Africa and in Vhembe district in particular. Contributory factors for antenatal depression as perceived by pregnant women were explored and described in order to recommend interventions for early detection and treatment.

## METHODOLOGY

### Research Design

A qualitative, descriptive, exploratory and contextual design was used to explore and de-

scribe contributory factors for antenatal depression as perceived by pregnant women.

### Sampling

Population consisted of pregnant women who were admitted and discharged with prenatal depression at the psychiatric unit at one hospital, Vhembe district of Limpopo Province. Non-probability, convenient and purposive sampling was used to select participants from the Psychiatric unit from October 2011 to March 2012. The inclusion criteria were; participants should have once been admitted in Psychiatric unit with a diagnosis of prenatal depression, and should be willing to participate to share their knowledge and sign an informed consent form. Ten women participated in the study.

### Data Collection Methods

Ethical clearance was obtained from the Ethics Committee of the University of Venda and permission to access the health facility and conduct the study was sorted from the Provincial Department of Health. An appointment for interview was secured during discharge. The interviews were conducted in the local language (Tshivenda) by the researchers at participants' home for about forty five minutes to one hour. In-depth individual unstructured interviews (de Vos et al. 2006) were conducted. The focus of the interview was on perceived contributory factors of prenatal depression amongst pregnant women. The question which guided the interview was '*In your opinion what contributed to your admission to this unit?*' The question was followed by probing as a communication skill which elicited more information from the participants as postulated by (de Vos et al. 2006). Permission to use voice recorder was obtained and recordings were transcribed verbatim and translated in English (de Vos et al. 2006). Data was collected from participants until data saturation was reached.

The narrative data from the in- depth interviews were analysed qualitatively using Tesch's open coding method cited in (Creswell 2009).

**Table 1: Admission of depressed women**

| April | May  | June | July | Aug  | Sept | Oct  | Nov | Dec  | Jan | Feb | March |
|-------|------|------|------|------|------|------|-----|------|-----|-----|-------|
| 2011  |      |      |      |      |      | 2012 |     |      |     |     |       |
| 2/10  | 2/11 | 1/7  | 2/12 | 2/12 | 3/10 | 2/8  | 0/6 | 2/10 | 3/8 | 1/9 | 2/9   |

The method included the following steps: the researcher read carefully through all the transcripts to get a sense of whole. After the completion of all transcripts, a list of similar topics was compiled. Data were grouped according to themes and field notes were also coded and categorized. A literature control was done to contextualise the results of the study (Creswell 2009).

## RESULTS AND DISCUSSION

Women are two to three times more likely to experience depression than men Leung and Kaplan (2009). Ten pregnant women were interviewed. Table 2, present the demographic data of participants.

The study revealed three interconnected themes, namely; Socio-economic, Obstetrical and Psychological as contributory factors of prenatal depression as perceived by pregnant women who were discharged from the psychiatric unit at the hospital, Vhembe district, Limpopo Province.

### Perceived Factors Contributing to Antenatal Depression

Participants who are presented in Table 2, expressed different perceptions as contributory factors of antepartum depression and this include socio-economic, obstetrical and psychological. The appropriate quotes from participants and literature substantiated the themes.

### Theme 1: Socio-economic Factors

Social support has been reported to affect attitudes and behaviours, including satisfaction with pregnancy and parenting. Pregnant women who suffer high stress levels and low social support networks have more neonatal and obstetric problems than those who have less stress and high social support networks (Adewuya et al. 2007; Fisher et al. (2012). In the study that was conducted in KwaZulu-Natal by Manikkam and Burns (2012) concurs with the finding of the study when pointing that, in developed and developing countries, socio-demographic factors are associated with risk of depression during pregnancy. Hartley et al. (2011), Kaaya et al. (2010), Shah et al. (2011), Robertson et al. (2004), Beydoun et al. (2012) and Leigh and Milgrom (2004) indicated that this may include a previous history of depression, low self-esteem, low social support, single status, intimate partner violence, low income, younger age and unplanned pregnancy. Factors related to socio-economic status were cited by participants as follows: One mother participant stated that: *“Ummm.... I am in a stressful life of economic deprivation I didn't plan for this pregnancy. Clinics are too far, I need transport to go and attend the antenatal clinic, I need healthy food, taxis are too expensive but I am only using the very little money of child grant”*.

Financial difficulties can significantly increase the amount of stress during pregnancy. Attending antenatal clinics early will assist in the identification of such stress and/or depres-

**Table 2: Demographic data for participants (n=10)**

|                                | Categories                | No. of participants | %  |
|--------------------------------|---------------------------|---------------------|----|
| Age                            | < 18 years                | 3                   | 30 |
|                                | 18 – 30 years             | 5                   | 50 |
|                                | >30 years                 | 2                   | 20 |
| Educational Level              | High school               | 3                   | 30 |
|                                | Primary school            | 7                   | 70 |
| Occupation                     | Employed                  | 3                   | 30 |
|                                | Unemployed                | 7                   | 70 |
| Parity                         | 0 – 3                     | 7                   | 70 |
|                                | 4 and above               | 3                   | 30 |
| Gestational Age                | 1 <sup>st</sup> trimester | 0                   | 00 |
|                                | 2 <sup>nd</sup> trimester | 6                   | 60 |
|                                | 3 <sup>rd</sup> trimester | 4                   | 50 |
| Marital Status                 | Single                    | 5                   | 50 |
|                                | Married                   | 5                   | 80 |
| Previous History of Depression | Yes                       | 4                   | 40 |
|                                | No                        | 6                   | 60 |

sion, resulting in appropriate management of the identified problems (Teixeira et al. 2009; Mushwana et al. 2015). Family support assists women to be mentally stable during pregnancy. Women who receive support from their family members and their boyfriends are able to attend antenatal care early and regularly. The lack of family (financial) support can contribute to the possibilities of depression. This was evidenced when one mother participant says *"I am the first wife, now my husband has another person he wants to marry, he is not supportive. This make me to be stressed because now am pregnant, and his job is not stable.....how will I cope with this pregnancy?"* When the pregnant woman is experiencing difficulties and worry about lack of support when the baby is born, she may become depressed. The distress associated with perceived partner infidelity was difficult to explain. Partner fidelity concerns may have been under reported, as women's questioning of a partner's fidelity in the study area is often discouraged (Lary et al. 2004). In addition, barriers to expressing and addressing partner fidelity concerns may normalize infidelity, and its expectation may minimize intensity of expected distress.

The other mother participant said *"my partner is so abusive, I am scared to report him.... he will chase me out of the house and not support me."* Fisher et al. (2007) reported that partner conflicts were dependently associated with antenatal depression. Authors further pointed that there is consistent international evidence that the quality of relationship between pregnant women and intimate partners is a determinant of mood. Mood disturbances have been associated with partner coercion (control, criticism and efforts to change her); and domestic/intimate partner violence (Ferri et al. 2007; Mushwana et al. 2015).

Pregnancy can trigger painful memories in women who survived emotional, sexual, physical or verbal abuse. It was very touching when one mother participant said *"I was raped by unknown person while I was in the bush to fetch the wood with others; it was on Saturday April 2012. Others flee away but I couldn't. I don't want to accept this pregnant because I have been raped by unknown person, I will kill the baby immediately after birth, I don't want the baby who has no father. I am so stressed"*. Fisher et al. (2007) indicated that unplanned pregnancy has two-fold risk of antenatal depression.

The other participant said *"my boyfriend run away from me immediately when I have said I have missed the period so I don't want this pregnancy"*. Women who lack partners suffer greater financial hardships and struggle with the reality of raising additional children by themselves (Jayakody et al. 1993). Women with perinatal depression may present predominantly with negative cognitions and suicidal ideations, which, in turn, interfere with self-care, reaching out for support and the motivation to bond with the infant (Paris et al. 2009).

## Theme 2: Obstetric Factors

A history of bad obstetrical history, like miscarriage or stillbirth can also conjure up negative feelings and the fear that the same thing will happen again. This is a completely natural response, especially if it's happened more than once before. Shah et al. (2011) also pointed other obstetric factors and events during pregnancy like previous abortions, and modes of previous delivery like past instrumental or operative delivery gravidity, previous history of stillbirth, previous history of prolonged labour, previous puerperal complications, poor antenatal care, whether pregnancy was planned or not. These factors could contribute to mother's antenatal depression. One mother participant who was diagnosed with Bad Obstetrical History (BOH) said *"I was told at the clinic that I have bad obstetrical history. I gave birth normally to my first born in 1988 and the child alive. I then delivered my 2<sup>nd</sup> born in 1993 and the baby died immediately after some few hours. The third pregnancy, I had an intrauterine death at gestational age of 32 weeks. The mode of delivery was caesarean section. From 1998 I am struggling to conceive until in July 2012. I am so anxious, I want to have a baby like other women but I am scared and when I think of it, I become so stressed. My husband wants a child. This makes me to have crying episodes, withdrawn from other family members, depressed mood, insomnia, feeling of worthlessness, and loss of appetite, weight loss, and memory loss"*. The findings of the study by Rich-Edwards et al. (2006) and Patel et al. (2002) indicated that previous history of abortions and history of obstetrics complications in the past was significantly associated with depression during pregnancy.

Pregnancy loss is a frustrating and challenging problem for couples and clinicians alike. Singh and Sidhu (2010) indicated that miscarriage is often associated with guilt, embarrassment and depressive states. This is particularly true when the patient presents with subsequent pregnancy with added concerns of primary or secondary infertility, irregular menses, absent or irregular ovulation, a known history of uterine fibroids, a family history of miscarriage, advancing age, medical history and a prior history of pregnancy complications. After a miscarriage, stillbirth, or termination of a pregnancy it is usual to require a period of grieving for the loss. This can sometimes spill over into an episode of clinical depression.

The childbirth-related stress levels can be heightened after: delivery of a very preterm or sick baby; an emergency delivery; a long and painful labour and birth perhaps includes instruments to aid in the delivery, birth of a baby that is slow to breathe or has an abnormal appearance (Field et al. 2006). It is the way the mother experiences the labour and birth that determines whether it is stressful for her, rather than the way the partner or the doctor perceives the process (Pereira et al. 2009). One mother participant who was admitted with the depression said *"Yaa I was anxious and still scared how will be my baby after delivery? With my last delivery, my baby was very tired and one nurse said my baby is a cabbage... so I so anxious and scared that this does not happen."*

Field et al. (2006) pointed that prenatal depression interferes with adequate blood flow to the placenta, which negatively impacts the supply of nutrients and oxygen to the unborn child. Maternal hormones, placental hormones, and fetal hormones can all be triggered and expose the fetus to toxic chemicals its developing systems cannot yet handle. Research has found that some babies have high levels of neurotransmitters and stress hormones at birth. Babies born to depressed mothers often demonstrate depressive behaviours after birth (for example, lethargy, difficulty feeding, and irritability). They may also have difficulties with self-quieting, low tone, abnormal reflexes, and orientation. These early difficulties can undermine the developing mother-child relationship (Wisner et al. 2009).

### Theme 3: Psychological Factors

Psychological factors include current depression or anxiety and history of depression Niels-

en et al. (2000), and history of psychiatric illness Milgrom et al. (2008). Mothers with psychiatric illness reported worse health than those without psychiatric illness due to the fact that while experiencing depressive symptoms, pregnant women are less likely to follow doctor's orders and take care of their personal health and well-being (Vesga-Lo'pez et al. 2008). This was corroborated by one mother participant who said *"I am pregnant for the 3<sup>rd</sup> time I am suffering from this condition as I am admitted here at Siloam, my sister who is 21 was also admitted in psychiatric ward at Elim hospital for about two weeks and my mother also suffered by the same illness at the age of 40 years while she was pregnant by her last born. I believe that the illness is a family history (genetic factors)."*

If the depression runs in the family, or if a mother had had past episodes of depression, then she will be likely to become depressed. A history of depression is also an important risk factor for antenatal and postpartum depression (Robertson et al. 2004). HIV positive status was also found to contribute to antenatal depression. This was also confirmed by Manikkam and Burns (2012), in their study that being HIV-positive places a mother at a significantly increased risk of depression in pregnancy. One mother participant was quoted saying *"At the clinic they told me that I am pregnant and I discovered that am HIV positive, and blood for syphilis was also positive. I was shocked because, I am faithful to my husband, which means my husband was not faithful to me, he has other sexual partners.....that thing put me on emotional stress and pressurize me. I couldn't take it and I can't cope being pregnant."*

According to Bansil et al. (2010) factors contributing to antepartum depression can be a medical condition (positive HIV status). The brief on maternal mental health published by the Perinatal Mental Health Project in Cape Town also suggested that the high rates of maternal depression in developing countries may be linked to HIV/AIDS, violence, lack of social support, refugee status, substance abuse and teen pregnancy (Perinatal Mental Health Project n.d).

### CONCLUSION

Perceived contributory factors of prenatal depression were found to be socio-economic, obstetrical and psychological. Under the socio-

economic factors, pregnant women cited lack of financial, emotional support and gender-based violence as contributed to their admission to the psychiatric unit. Whereas, with the obstetrical factors were, bad obstetrical history, which included habitual abortions; and difficult delivery that resulted in delivering the asphyxiated baby. Knowledge of risk factors for antenatal depression in the health care settings can alert health providers to the possibility of depressive disorder. Then the early detection of depression during pregnancy is critical because depression can adversely affect birth outcomes and neonatal health and, if left untreated, can persist after the birth. Untreated postpartum depression can impair mother-infant attachments and have cognitive, emotional, and behavioural consequences for children.

### RECOMMENDATIONS

It was recommended that health awareness be provided to the community members on contributory factors and symptoms of prenatal depression. The screening for depression should be a part of the routine during antenatal check-ups so that women in need of interventions can be detected and treated early, thereby preventing adverse outcomes. Health professionals should teach pregnant women the prevention of depression which include simple activities like; regular exercise, getting out of the house and into the fresh air, eating well, and, most significantly, getting the necessary support from family and friends. Workshops should be conducted to enhance the history taking and screening skills of midwives to promote early detection and treatment. The health care providers should possess the knowledge of the risks factors for depression in pregnancy, in order to plan interventions that are responsive to the needs of women.

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