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Vaginal Bleeding as a Pregnancy Problem during First Trimester at Polokwane Municipality, Limpopo Province

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ABSTRACT Pregnancy problems such as spontaneous rupture of membranes, sudden vaginal bleeding, poor or no foetal movements are regarded as top causes of maternal and neonatal deaths. The study focused on determining the knowledge and practices of pregnant women with regard the vaginal bleeding during first trimester at Polokwane Municipality of Capricorn District Limpopo Province, South Africa. A qualitative, exploratory and descriptive design was used. The study population included pregnant women who were admitted in high risk units at Tertiary hospital in Polokwane Municipality. A non-probability, purposive and convenient sample was used to select 20 participants until data saturation was reached. Data were collected by the researchers through semi-structured individual interviews before the discharge of patients. Data were analysed qualitatively by means of the open-coding method. Findings revealed two themes namely: knowledge on sudden vaginal bleeding and practices with regard to health seeking behavior during vaginal bleeding. The paper proposed the provision of woman centered counseling programmes for women present with pregnancy related bleeding.

INTRODUCTION

A baseline assessment of maternal health care was conducted in Limpopo Province during the workshop "Towards Unity Reproductive Health" in 2011. It was discovered that 8 percent of health facility as meeting standards of information provision to pregnant women who were attending antenatal care service. Since a baseline of 8 percent was low, the assessment of knowledge of pregnancy problems was warranted in Polokwane Municipality of the Limpopo Province (Towards Unity Reproductive Health Workshop in June 2011). Pregnancy problems such as spontaneous rupture of membranes, sudden vaginal bleeding and poor or no foetal movements were regarded as top causes of maternal and neonatal deaths (Department of Health 2007). The study by Hnat et al. (2005) and Ankumah et al. (2015) found that vaginal bleeding before preterm premature rupture of membranes is associated with increased rates of neonatal respiratory distress syndrome and placenta abruption. If this is not well managed, it might result into serious complications leading to death.

Obstetric hemorrhage and hypertension contribute to 26.0 percent, 23.8 percent and 16.5 percent of the avoidable deaths respectively. This means is 66.3 percent of all avoidable deaths (Department of Health 2012).

Vaginal bleeding is a common event in the first trimester, reported to occur in 15 percent to 25 percent of all pregnancies (Ankumah et al. 2015; Calleja-Agius 2008; Poulose et al. 2006; Schauberger et al. 2005; Fleischer et al. 2008). Whereas, Yang et al. (2005) indicated that vaginal bleeding is a common and alarming symptom during early pregnancy. Hnat et al. (2005) pointed out that vaginal bleeding that occurs near the time of membrane rupture would likely be associated with increased risk of perinatal morbidity especially during a shorter latency period to delivery. In India Mumbai it was observed that greater percentage of death was caused by haemorrhage during pregnancy which leads to higher rates of anaemia (Chatterjee and Fernandes 2014). It was further highlighted by Chi and Kadir (2012) that women who have problems of bleeding during pregnancy have inherited that and it calls for them to receive special care when pregnant if it is known that they inherited bleeding disorders.

Several reports suggest that bleeding is associated with an increased risk of various adverse pregnancy outcomes, including preterm birth and low birth weight (Weiss et al. 2004). Wittels et al. (2008) were of the opinion that vaginal bleeding in the first trimester of pregnancy is associated with spontaneous abortion/mis-

carriage, ectopic implantation, hydatidiform mole, preterm delivery, and low birth weight. Whereas, Deutchman et al. (2009) and Graham et al. (2015) indicated differential diagnosis of bleeding in pregnancy as implantation bleeding, threatened abortion, complete abortion, incomplete abortion, missed abortion, septic abortion, ectopic pregnancy, hydatidiform molar pregnancy, cervical insufficiency, placenta previa, placenta abruption, vasa previa, lower genital tract malignancy, trauma, cervicitis, cervical polyp, vaginitis, lower genital tract malignancy, rectal sources of bleeding, urologic sources of bleeding and labor.

Pregnant women in Polokwane Municipality seemed to be lacking valuable knowledge and awareness concerning sudden vaginal bleeding as evidence by the statistics from Perinatal Care Survey by the Department of Health in 2010 as outlined in Table 1. During clinical accompaniment in health facilities of Capricorn district, researchers observed that midwives do provide information of pregnancy problems to women during antenatal visit. The provision of information was done during health education session with less counseling sessions. The danger signs were highlighted to pregnant women with little emphasis on their implications to the mother or the baby. This was also found in a Perinatal Care Survey that was conducted at Capricorn hospitals' delivery units from 01 July to 30 September 2010. The aim of the survey was to estimate a National perinatal mortality rate, identify the major causes of perinatal mortality and related avoidable factors, missed opportunities and substantial care in South Africa. The findings are displayed in Table 1.

Table 1: Vaginal bleeding related to maternal and neonatal perinatal mortality

Hospital	*Period*	*Number of deliveries*	*Sudden vaginal bleeding*
Mankweng	01.07-30.09.2010	1258	6.6%
Seshego	01.07-30.09.2010	648	3.3%

Extracted from Perinatal Care Survey conducted in 2010.

According to the National Department of Health Statistics, Labour units in Mankweng and Seshego hospitals had the above outlined incidences of sudden vaginal bleeding. These problems contributed to maternal and neonatal mortality and morbidity rates (National Department of Health 2007). Olds et al. (1996) noted 'that a pregnant woman should report immediately if sudden vaginal bleeding is experienced and this should be discussed during the initial pregnancy visit as well as her subsequent antenatal care visits. According to Peyvandi et al. (2011), the lack of adequate information regarding the causes of vaginal bleeding during pregnancy makes it difficult to prepare for evidence-based guidelines for the prevention of bleeding in the affected women. It was indicated that there is a need for a multidisciplinary team to have good knowledge to manage these disorder and provide an awareness of the potential maternal complications including bleeding during pregnancy (Peyvandi et al. 2011). The purpose of this study was to determine the knowledge and practices of pregnant women regarding sudden vaginal bleedingin Polokwane municipality, Capricorn District, Limpopo Province.

METHODOLOGY

Research Design

A qualitative, descriptive, exploratory and contextual design was used to determine the knowledge of women regarding pregnancy problems in selected hospitals in Polokwane Municipality of the Capricorn District of Limpopo Province. The population consisted of pregnant women who were admitted in the High risk units of one district and one Tertiary hospital in Capricorn District, Limpopo Province.

Sampling

Non-probability, convenience and purposive sampling methods were used to select twenty pregnant women who participated in the study. To be included in the study, participants should have had attended the antenatal care services from the first to the third trimester; expressed willingness to participate in the study and signed an informed consent form.The ethical standards were adhered to. Ethical approval from the Ethics Committee of the University of Limpopo and permission from the Provincial Department of Health and the units was obtained.

Data Collection Methods

The in-depth interview was conducted in a private room in the high risk unit for not more than one hour when the patient was declared, to be discharged. The interviews were conducted in the local language using a voice recorder and field notes. The unstructured interview main question was *"In your opinion… what does it mean to you when you experience vaginal bleeding as you are pregnant?"* The question was followed by probing as a communication skill which elicited more information as postulated in De Vos et al. (2006) and Babbie and Mouton (2009) from the participants, until data saturation was subsequently reached Strauss and Corbin (1990). Data were transcribed to English by a language practitioner in translation studies unit at the university.

Tape-recordings of the interviews were transcribed verbatim. The narrative data from in-depth interviews were analyzed qualitatively using the open coding method, cited in Creswell (2009). The method included the following steps:

- The researcher carefully read through all the transcripts to get a sense of the whole. After the researcher had completed the task for all the interviews, a list was made of all similar topics. Data were grouped according to main themes and sub-themes and field notes were also coded and categorized.

A literature control was done to verify the results of this study (De Vos et al. 2006). The criteria for ensuring trustworthiness as outlined in Lincoln and Guba (1985), De Vos et al. (2006) and Babbie and Mouton (2009) were observed. Credibility was ensured by prolonged engagement during antenatal clinic attendance with pregnant women, in order to build trusting relationships with the participants for a period of 2 months. Referential adequacy was achieved by taking notes to record findings that provided a suitable data. Transferability was ensured by thick description of research methodology. Member check was also conducted in order to validate the truth and to confirm the results.

RESULTS AND DISCUSSION

The results reflected the knowledge and practices, as awareness of pregnant women with regard to sudden vaginal bleeding on pregnancy outcome at the hospitals in Capricorn District, Limpopo Province. Vaginal bleeding is self-reported by women themselves. The level of knowledge and practices about pregnancy problems and health seeking behaviour when the symptoms appear was described. Hence, the study results revealed two main themes namely:
Theme 1: Knowledge on Sudden Vaginal Bleeding and
Theme 2: Practices of Pregnant Women with Regard to Health Seeking Behavior during Vaginal Bleeding

Theme 1: Knowledge on Sudden Vaginal Bleeding

Vaginal bleeding episode in pregnancy may have several sources (Deutchman et al. 2009). In the very early stages of pregnancy, as the fertilized egg implants there can be a day or two of light bleeding. Later, as the placenta embeds in the uterine lining, it causes slight bleeding. Sometimes a woman will experience 'breakthrough' bleeding (Paspulati et al. 2004). In the study conducted by Chatterjee and Fernandes (2014) it was reported that respondents indicated to have learned that vaginal bleeding leads to anaemia. The outcome of may lead to maternal and neonatal morbidity and mortality rate. Sub-themes that emerged from this them included; what it means to experience vaginal bleeding, knowledge on the contributory causes and knowledge on symptoms of imminent vaginal bleeding and actual bleeding

Sub-theme 1.1: What It Means To Experience Vaginal Bleeding on the Outcome of Pregnancy

Vaginal bleeding can both have an adverse effect on the pregnant women and infant, including anemia, miscarriage, placenta abruption, preeclampsia, preterm birth, low birth weight, stillbirth, perinatal death and mental retardation (Normandin et al. 2015; Hasan et al. 2010; Deutchman et al. 2009).

Some participants displayed knowledge that when bleeding when pregnant is not normal. One of the participants said, *'When I bleed vaginally before the delivery month it means the baby is coming out prematurely'*. On the contrary the study results by Chatterjee and Fernandes (2014)

revealed that some of participants indicated that their mothers had normal deliveries which were safe even though they were bleeding during pregnancy. The participants couldn't understand the reasons of health care professionals to insist that they must seek for medical attention when they experience vaginal bleeding during pregnancy.

The other participant indicated that if a woman experiences vaginal bleeding the baby's life and mothers' are in danger and the mother might lose the baby. She further said, *'My grandmother told me that I will not see my periods during pregnancy until after I have delivered my baby'*.However one participant pointed that when observing *blood mixed with some slime this indicates that labour is starting.'* Knowledge deficit on what it means to experience vaginal bleeding during pregnancy was displayed.

Wessel and Endrikat (2005) indicated that pregnancy hormones cover up a woman's usual hormonal cycle, but variations in those normal cycles still go on. Some women notice bleeding at around the time they would usually have had a period as a result of this 'background' variation in hormonal levels. Occasionally women will experience a cervical erosion (a softening of the cervix), which can cause bleeding in early pregnancy.

Sub-theme 1.2: Knowledge on the Contributory Causes

Vaginal bleeding in pregnancy is always worrying, but it's also surprisingly common (Ouyang et al. 2006). There can be several possible reasons. A woman who present with a history of missed menses, a positive pregnancy test, an episode of vaginal bleeding, will show a high level of anxiety. When asked if they knew the reason for bleeding. One participant said *"I was so scared; I didn't know the reason for bleeding and I didn't do anything that will make to mouth of the uterus to be open"*. According to Peyvandi et al. (2011), the causes of the risk factors of bleeding in early pregnancy is unknown especially in carriers of haemophilia. Very early bleeding may be related to physiological changes associated with implantation, Wessel and Endrikat (2005) or with usual cycles of menses. Most superficially, bleeding may result from vaginal or cervical pathology. This could be due to a local lesion, inflammation, or a polyp (Ouyang et al. 2006). Bleeding may also be related to a uterine fibroid. Bleeding can also be associated with a vaginal or cervical infection (such as a yeast infection or bacterial vaginosis). Infection may mediate the relationship between bleeding and miscarriage.Infection during pregnancy has been implicated as a factor underlying a variety of adverse outcomes, including preterm birth, Romero et al. (2007) and may predispose to some of the previously mentioned immune alterations.

Investigations of the role of infection in the manifestation of bleeding symptoms have concluded that bleeding in pregnancy may be the only symptom related to a concurrent underlying infection of the reproductive tract (Gracia et al. 2005). On the other hand Gomez et al. (2005) pointed that early pregnancy bleeding may also result in infection by opening access to areas of the reproductive tract that were previously inaccessible to pathogens.

Bleeding may also occur due to low levels of progesterone. Presence of sufficient levels of progesterone during pregnancy is required for pregnancy maintenance. Decreasing progesterone levels are the trigger for the onset of menses during the usual menstrual cycle (Hasan et al. 2010). Progesterone plays a vital role in the preservation of early pregnancy, promoting maintenance of the endometrium, inhibiting uterine contractions and altering maternal immunity to prevent rejection of the foetus. If the placenta is not sufficiently developed to produce adequate amounts of progesterone to maintain pregnancy when the corpus luteum regresses, bleeding may occur through mechanisms involving decreased progesterone levels, similar to those which promote the onset of menses (Hasan et al. 2010). Bleeding may also occur in areas where the placenta and fetal membranes detach from the uterine wall, similar to the process underlying placental abruption in later pregnancy (Paspulati et al. 2004). Heavier bleeding may be suggestive of greater placental dysfunction, associated with a greater decrease in progesterone, leading to uterine contractions and pain (Snell 2009). Maternal conditions such as diabetes and reproductive tract infections may be associated with bleeding due to related biological processes, such as inflammation or placental infarction and hemorrhage. Fibroids have been associated with abnormal bleeding outside of pregnancy, and the same mechanisms may increase risk of bleeding during pregnancy, but those mecha-

nisms are not yet understood (Wegienka et al. 2003). Maternal behaviours, such as active smoking and alcohol intake during pregnancy, were important predictors of heavy, but not light, bleeding. It is importantto investigate what mechanisms underlie these relationships. Smoking was also inversely associated with light bleeding, likely related to decrease reporting of spotting and light bleeding episodes among smokers. Content on contributory causes should be used during the patient centred counselling of pregnant women.

Sub-theme 1.3: Knowledge on Symptoms of Imminent Vaginal Bleeding and Actual Bleeding

Women who participated in this study highlighted their experienced symptoms as swelling, back pain, morning sickness, *bleeding*, and fainting, but they did not perceive them as threats to their health. They are neglecting the significance of these symptoms which could lead to further complications, either during the pregnancy, at the point of delivery, or after delivery. This could be due to poor understanding and lack of knowledge about the complications of vaginal bleeding, or notions that vaginal bleeding during pregnancy is "normal". Other participants pointed that when the person is about to experience or experiencing vaginal bleeding; there will be discomfort or pain and cramping. However, one participant indicated *"I had vaginal bleeding, but there was no pain, discomfort or cramping. I wondered what went wrong because I didn't strain myself or engage in sexual intercourse"*. When participants experience vaginal bleeding without cramping or pain, this was not associated with labour pain. But one participant who was at advanced pregnancy said: …. *"In my ninth month if I see some blood mixed with slime I will know that this is an indication of going into labour… and I should go to the hospital"*. One participant was keeping secrete about pregnancy issues when saying: …. *"One should not tell people about what's happening to her during pregnancy."* In general a accurate information on antepartum bleeding (placenta praevia) should be provided to the client. Participants were receiving knowledge from various sources namely relatives, midwives, friends, grandmothers and peers. It was also noted that those who received information from the midwives emphasized on bleeding mixed with slime as a sign of labour during their delivery month and not on any other type of bleeding during pregnancy.A study by Malcolm et al. (2011) found that (22.3%) of women had high level of knowledge toward antepartum haemorrhage. The explanation of these finding, that the pregnant women may have some information concerning placenta previa. That from their experience with previous history of placenta previa or from prenatal care visits to the private clinic or primary health care center.

Theme 2: Practices of Pregnant Women with Regard to Health Seeking Behavior during Vaginal Bleeding

Different barriers, such as lack of quality service, attitude of health personnel, socioeconomic condition, cultural traditions and beliefs, and knowledge and perceptions concerning the obstetric complications are perceived as factors that prevent women from seeking appropriate care (Ware et al. 1992). The sub-themes that emerged under this theme were; consultation to hospital or clinic, wait for other family member to decide

Sub-theme 2.1: Consultation to Hospital or Clinic

Jirojwong (2001) argued that whether or not women seek pregnancy-related care depends on their knowledge and perceptions of risks associated with it. If women believe that their pregnancy is at risk, they may seek care (Mella 2003). Participants were asked about all practices they do when experiencing vaginal bleeding and the following were their responses, almost all participants said, *"I will tell the sister about vaginal bleeding when I go for check-up."* One participant said *"The sisters at the clinic are advising us to report anything that bothers during pregnancy when we come for check-up"*. … The other participant said *"I only go …..yaa…if it is severe, I will go to the doctor."* Clients, who present with vaginal bleeding, did not display urgency in seeking health assistance as they were indicating that they would report vaginal bleeding when they go for check-up. This was interpreted by researchers as when clients visit the clinic during the scheduled appointment. James (2010) indicted that participants who

present with problems of vaginal bleeding should be referred to prenatal care and delivery centers in which they will be assisted. Snell (2009) was of the opinion that women should have access to immediate transportation if she needs to seek treatment for a complication.

Sub-theme 2.2: Wait for Other Family Member to Decide

The other participant said *"I pad normally like during menstruation and wait for my mother who will decide what we supposed to do"*. It was also found that cultural stereotype like not to tell other people about what's happening with the pregnancy or the gestational age because the pregnancy will be aborted. One participant said *"I can't tell my pregnancy problems with other people. But can discuss your pregnancy problems with specific elders only, of which sometimes you have to travel far to reach them"*. Cultural attitudes to health care in general, and uterine bleeding in particular, can influence the provision of care for affected populations. For example, in many cultures a regular, heavy, red menstrual bleed is perceived as providing a "healthy clean-out of the womb," and this contributes substantially to delay in presentation for professional care (Malcolm et al. 2011).

CONCLUSION

Maternal morbidly and mortality could be prevented significantly if women and their families recognize pregnancy problems promptly and seek health care. Vaginal bleeding is the commonest obstetric danger sign. During pregnancy women suffer severe vaginal bleeding, swollen hands/face and blurred vision. During labor and childbirth they suffer severe vaginal bleeding, pro-longed labor, convulsions, and retained placenta. Whereas, during the postpartum period women presents with severe bleeding following childbirth, loss of consciousness after childbirth, and fever. Raising awareness of pregnant women on the danger signs would improve early detection of problems, save lives of mother and baby and to reduce the delay in deciding to seek obstetric care.

RECOMMENDATIONS

Pregnant women were unaware of obstetric danger signs. This indicates the proportions of pregnant women who do not have the knowledge are likely to delay in deciding to seek care. Therefore, woman centered counseling sessions to be recommended to provide information, education and communication to pregnant mothers to increase their awareness and thus enable early recognition of serious health problems during pregnancy, labor and post-partal period.

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