Exploring the community perceptions and understanding of stillbirth in South Africa: A qualitative study

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Abstract

Background: The stillbirth rate in Mpumalanga province, South Africa, ranges from 21 to 27 per 1000 total births.
Objectives: The objective was to determine the community perceptions and understanding of factors contributing to stillbirths.
Methods: A qualitative exploratory study was conducted. The population comprised traditional birth attendants and women who had experienced a stillbirth in their lifetime. Purposive sampling was used to select the four hospitals and twelve women while snowball sampling was used to select five Traditional Birth Attendants. Data were collected through in-depth interviews and analyzed through Tesch's open coding method. Trustworthiness was ensured by considering the criteria of credibility, dependability, applicability, and transferability.
Results: The themes that emerged as general perceptions and understanding of stillbirth focused on participants' knowledge of stillbirth, perceived contributory causes, perceived prevention interventions, and traditional birth attendants' roles and interventions.
Conclusion: Lack of knowledge, cultural practices, and health workers' attitudes were perceived to be contributory causes of stillbirth. The antenatal care health education content for women of childbearing age and traditional birth attendants needs to include the medical diseases that cause stillbirth.

Keywords: Antenatal care, Contributory factors, Intrapartum care, Perceptions, Stillbirths.

Introduction

Stillbirth (SB), is defined as a baby’s death before or during birth after 28 weeks gestation.[1] This is devastating to parents and their families, as it is associated with psychological, physical, social short and long-term adverse effects.[2] In most instances, a stillbirth is challenging to predict or prevent.[3] A recent study revealed that the stillbirth rate in South Africa is 23.3% per 1000 total births.[4] SB rate is a reasonable care indicator during the third trimester and intrapartum period. Stillbirth in many parts of the world has been unacknowledged grief and associated lack of public discourse.[5,6] Duryea et al.[7] elaborated on the causes of stillbirths as fetal, maternal nonmodifiable, and modifiable risk factors. The early identification of fetal growth restriction has been shown to contribute to the prevention of stillbirths, especially in typically formed singleton pregnancies.[8,9] Stillbirths constitute a large and invisible loss of life and a significant public health issue that must be addressed.[10] Effects of stillbirths may be anxiety, depression, and other biopsychosocial maladies.[11,12] Das et al.[13] hold that tension in the family relationship may lead to couples' separation and dissolution of marriage.

Most studies about stillbirth knowledge have focused on bereaved parents and healthcare professionals.[14-17] In Mpumalanga province, where the study was conducted, the stillbirth rate was 27 per 1000 total births, above the national target of 21 per 1000 births. This coincided with the findings by Day et al.[18] that the rate of antenatal visits before 20 weeks was 38.3% in 2012/13 and was the lowest in the Mpumalanga province. Tveit, et al.[19] indicated that public health campaigns around stillbirth have, to date, focused mainly on reduced fetal movements during pregnancy. The research question was "what are the perceived contributory factors of stillbirth?"
Objectives
The study aimed to explore the community perceptions and understanding of factors contributing to stillbirths at selected hospitals in a particular district, Municipality, Mpumalanga province, South Africa.

Methods
Study design and participants
A qualitative approach and explorative design were used to determine the depth and breadth of understanding of stillbirth by affected women and Traditional Birth Attendants (TBAs). The study was conducted at four hospitals based on a high number of stillbirths in 2020 and nearby villages of the selected district, Mpumalanga province, South Africa.

The participants comprised twelve patients, three from each health facility, who had experienced a stillbirth in their lifetime. They were purposively sampled by obtaining their medical records through the professional nurse from the health facility who recruited participants on behalf of the researcher. Contact was made to make appointments and secure informed consent. To complement the participants' data, five TBAs staying in villages around the selected facility were purposively sampled through snowballing technique. The sampling of participants was continued until data saturation occurred.

Data collection
Data were collected through individual in-depth unstructured face-to-face interviews to gain a detailed narrative of perceptions and understanding of stillbirth. This was done at women's or TBAs' homes after the appointment was agreed upon. The question asked for a woman participant was, "Can you share with me your understanding and perceptions on contributory factors of stillbirth?" The TBAs were asked, "Describe how you treat the mother who has delivered a stillbirth". Probing with follow-up questions was done. Field notes were made during and after each interview to capture nuances, including non-verbal cues. The interviews were conducted in the participants' local language (iSiSwati), each lasting between 30 and 45 minutes. A voice recorder was used to capture information after obtaining approval from the participants.

Ethical considerations
Ethical standards were ensured by obtaining ethical clearance (Ref: SHS/17/PDC/08/2403), from the University Ethics Committee, permission to conduct the study from the Provincial Department of Health, the hospital Chief Executive Officers, and the participants. Participants were coded as Woman Participant (WP), or TBA. Participants gave verbal and written, informed consent, and were informed of their right to withdraw from the study without any penalty. Adherence to ethical principles of fairness, privacy, confidentiality, anonymity as well as participants' rights to voluntarily participate was ensured.

Data analysis
The narrative data from the in-depth individual interviews were analyzed qualitatively using Tesch's open coding method as postulated by Creswell. The recorded interviews were translated into English by language experts. They were transcribed word by word, and the nonverbal cues (for example, silence/sigh, frowns, and lean back) were included in the transcripts. All transcripts were read, and condensation was done to give meaning. Coding was done, where the names that mostly describe the condensed meaning and a list of similar topics were clustered. Data were grouped according to themes. Field notes were also coded.

Data trustworthiness
As outlined in Guba and Lincoln cited in Polit and Beck, the criteria for ensuring trustworthiness were adhered to. Credibility was ensured through prolonged engagement with data. A member check was also conducted to validate the truth and confirm the findings. The voice recorder was used to capture data to ensure credibility. Thick descriptions of research methodology were used to ensure transferability. The recorded interviews were transcribed verbatim and the nonverbal cues were included in brackets of the transcripts to ensure authenticity.

Results
Five (5) TBAs and 12 women [Table 1] participated in the study. Data yielded four themes as perceptions and understanding of stillbirth; which were participants' understanding of a stillbirth, perceived contributory factors, perceived prevention interventions despite stillbirth occurrences, and TBAs' interventions to a client who present with SB. The perceptions of factors contributing to stillbirths were not different between women and TBAs.

Participants' understanding of stillbirth
The patient participants defined stillbirth as a dead baby with no breath of life and no movement at birth. This was confirmed by the TBAs. They said, "What I know is that a baby comes out dead and doesn’t cry or doesn’t breathe" WP aged 21. A WP aged 29 said, "Stillbirth is when the baby does not make any movements when inside the uterus … no
life ....”. However, a WP aged 40 had a different view when saying, "A stillbirth is a death that is wrongful and caused by negligence or improper actions by those who help us”. A WP aged 33 attached her experience when defining stillbirth, "I felt very numb and I am still unable to discuss it with my family or any member of the community I don't know. I felt guilty". To both mothers and TBAs, it is culturally assumed that a community will not grieve the loss of a thing. The burial of a stillborn baby is done in private, mainly by women, with little opportunity for public mourning or condolence. Stillbirths are not announced in the village, and in most cases, people are not widely informed, which makes the woman suffer alone.

**Perceived contributory causes of stillbirth.**

Most of the participants cited a lack of knowledge, cultural and traditional beliefs, and health workers' treatment as contributory factors to stillbirths. Both groups did not cite the medical causes even after probing, so broadly, participants did not have accurate knowledge on other contributory causes. The importance of fetal movement monitoring was not emphasized, wherein the pregnant woman can actively participate in her care. Lack of knowledge was one of the most important factors that made them not notice the warning signs that may contribute to stillbirth. "We are not informed about normal or abnormal expectations during pregnancy. We sometimes ignore warning signs like vaginal bleeding and severe headache, or that fetal movements are important. Some of us do not know how to monitor the fetus's survival" (TBA 2 and WP aged 28).

Some of the TBAs attached the cultural and traditional beliefs to be a contributor when saying, "People have forsaken their cultural practices. They are disrespecting our ancestors in the process. One man may impregnate a woman but then wrongly hold another man accountable, this could result in stillbirth” (TBA - 4, village around Ermelo).

Women participants also attached the contributory causes to cultural and traditional beliefs. A WP aged 26 said, "Jealous, if you have a co-wife, she will bewitch you.” The other WP aged 23 who was HIV seemed to blame her mother-in-law when saying, "My mother-in-law did not believe that HIV exists, so I had to hide my ARVs as they thought its witchcraft. My immune system was compromised, and that increased the chances of stillbirth.” Some women participants also were not in favor of consulting TBAs said. They preferred not to use antenatal care, "I don't want to consult TBAs for pregnancy. Some of us do not even come back until we deliver at home. This makes it impossible for a prior diagnosis of possible risk birth-related complications’ (WP aged 26).

Some women cited health workers’ treatment as related risk factors for stillbirth: "Nurses usually have negative attitudes towards us, and that is why we don't start antenatal care timeously.” (WP aged 18). "Nurses are judgmental during the first visit. They will ask you how many kids if you say four, they will mock you saying four children are too many at such a tender age", bewailed the ex-patient, (WP aged 32). Another woman participant who could not hold her tears while explaining the perceived negligence that contributed to her stillbirth said, "I was in active labour and they were sitting, drinking coffee while others were eating and chatting. I called them to assist since my baby's head was already out and hanging. But the baby did not cry after delivery. The senior nurse came to deliver the sad news that my baby was no more”, sobbed the WP aged 23.

**Perceived preventive interventions despite stillbirth occurrences**

Patient participants described different interventions that have been made to assist pregnant mothers like mom-connect. However, it was also indicated that the messages were not connected to stillbirths and they could not find help from this intervention. A WP aged 29 said, "there is the mom-connect program on their first booking. The mom will get messages from the program reminding them about her estimated delivery date. Health information is also sent through the same program.”

Participants appreciated the efforts by the government for care provided during antenatal care; however, attention must also be given to interventions to prevent the occurrence of stillbirths. A WP aged 28 said, "I think the government is trying very hard since it is building clinics near our areas and mobile clinics in areas without clinics. This is helping us a lot since many pregnant women are becoming victims of stillbirths due to the unavailability of antenatal care facilities.” Referring to the same matter, a WP aged 40 commented, "But I think practicing family planning, early antenatal care, and avoiding a heavy workload can also assist in preventing stillbirth.” A WP aged 28 also said, "Some people have their own beliefs; for them, divine intervention, protective witchcraft, and the use of herbs during pregnancy can be regarded as important measures”.

**Community perceptions of stillbirth**
Table 1. The demographic information of the participants

<table>
<thead>
<tr>
<th>Participants</th>
<th>Age</th>
<th>Gender</th>
<th>Ethnic group</th>
<th>Marital status</th>
<th>Educational Background</th>
<th>Religious Affiliation</th>
<th>Place of residence</th>
<th>Parity TBA work experience (years)</th>
<th>Number of Antenatal care visits</th>
<th>Taking traditional medicines when pregnant</th>
<th>Place of delivery</th>
</tr>
</thead>
<tbody>
<tr>
<td>TBA 1</td>
<td>40</td>
<td>Female</td>
<td>Zulu</td>
<td>Married</td>
<td>Primary</td>
<td>Faith based</td>
<td>Urban</td>
<td>2</td>
<td>11</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>TBA 2</td>
<td>62</td>
<td>Female</td>
<td>Swati</td>
<td>Single</td>
<td>Primary</td>
<td>Traditional</td>
<td>Rural</td>
<td>7</td>
<td>19</td>
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<td>N/A</td>
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<tr>
<td>TBA 3</td>
<td>65</td>
<td>Female</td>
<td>Swati</td>
<td>Married</td>
<td>No school</td>
<td>Traditional</td>
<td>Rural</td>
<td>5</td>
<td>23</td>
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<tr>
<td>TBA 4</td>
<td>48</td>
<td>Female</td>
<td>Swati</td>
<td>Married</td>
<td>Primary</td>
<td>Faith based</td>
<td>Rural</td>
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<td>30</td>
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<tr>
<td>TBA 5</td>
<td>45</td>
<td>Female</td>
<td>Zulu</td>
<td>Divorced</td>
<td>Primary</td>
<td>Traditional</td>
<td>Rural</td>
<td>4</td>
<td>35</td>
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<tr>
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<td>Female</td>
<td>Swati</td>
<td>Single</td>
<td>Tertiary</td>
<td>Roman</td>
<td>Rural</td>
<td>2</td>
<td>2</td>
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<td>Hospital</td>
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<tr>
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<td>Zulu</td>
<td>Single</td>
<td>Primary</td>
<td>Apostolic</td>
<td>Rural</td>
<td>2</td>
<td>4</td>
<td>No</td>
<td>Hospital</td>
</tr>
<tr>
<td>Woman 3</td>
<td>33</td>
<td>Female</td>
<td>Zulu</td>
<td>Single</td>
<td>Primary</td>
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<td>Urban</td>
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<td>4</td>
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<td>Hospital</td>
</tr>
<tr>
<td>Woman 4</td>
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<td>Married</td>
<td>Matric</td>
<td>Apostolic</td>
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<td>2</td>
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<td>Woman 6</td>
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<td>Zulu</td>
<td>Single</td>
<td>Matric</td>
<td>Lutheran</td>
<td>Rural</td>
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<td>4</td>
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<td>Female</td>
<td>Swati</td>
<td>Single</td>
<td>Matric</td>
<td>Traditional</td>
<td>Rural</td>
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<td>2</td>
<td>Yes</td>
<td>Hospital</td>
</tr>
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<td>Woman 8</td>
<td>26</td>
<td>Female</td>
<td>Swati</td>
<td>Single</td>
<td>Primary</td>
<td>Christian</td>
<td>Rural</td>
<td>1</td>
<td>2</td>
<td>No</td>
<td>Hospital</td>
</tr>
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<td>35</td>
<td>Female</td>
<td>Swati</td>
<td>Single</td>
<td>Tertiary</td>
<td>Christian</td>
<td>Rural</td>
<td>1</td>
<td>4</td>
<td>No</td>
<td>Hospital</td>
</tr>
<tr>
<td>Woman 10</td>
<td>32</td>
<td>Female</td>
<td>Swati</td>
<td>Single</td>
<td>Primary</td>
<td>Apostolic</td>
<td>Rural</td>
<td>2</td>
<td>3</td>
<td>No</td>
<td>Hospital</td>
</tr>
<tr>
<td>Woman 11</td>
<td>36</td>
<td>Female</td>
<td>Swati</td>
<td>Married</td>
<td>Matric</td>
<td>Traditional</td>
<td>Rural</td>
<td>2</td>
<td>3</td>
<td>No</td>
<td>Hospital</td>
</tr>
<tr>
<td>Woman 12</td>
<td>35</td>
<td>Female</td>
<td>Swati</td>
<td>Single</td>
<td>Primary</td>
<td>Lutheran</td>
<td>Rural</td>
<td>1</td>
<td>3</td>
<td>No</td>
<td>Hospital</td>
</tr>
</tbody>
</table>
TBAs’ interventions to a client who presents with SB

TBA from the village in Ermelo raised concerns about pregnant women’s delay in consulting with them. They explained that pregnant women needed to consult early for their treatments and referral. The data shows that TBAs employ different treatment modalities to strengthen the mother’s womb and baby during pregnancy. There are certain herbs that they need to take during the first few weeks of pregnancy. Failure to do so is commonly associated with stillbirth since the womb needs to be strengthened during pregnancy. The issue of herbs was corroborated by other TBAs when saying: “Long ago women were given traditional herbs called “Embumbwa” to drink during pregnancy to protect the baby and the mother from evil spirits.” Another TBA also said, “The herbs help ease common pregnancy-related problems like morning sickness, backache, and swelling of feet and help babies born with skin rash, prevent malaria” (TBA 2). Another traditional herb that pregnant women use was “mululuza” (a small shrub called bitter leaf in Africa due to its bitter taste). Women used it as an anti-helminth, laxative, and anti-mutagenic, and anti-malaria effects. TBA 2 also administered “Ebombo”: “I administer Ebombo (i.e. M. foetida) in a wide range of disorders including stomach troubles, emetic, verminfuge, smallpox, chickenpox, measles, body swellings, edema, gout, venomous sting, and also as a pain killer. TBA 3 (MB) also said, “I was also advised to use lizard and infant feces. These are thought to soften the pelvic bones thus enabling them to give birth easily.”

Another traditional birth attendant from the village next to one hospital also believed that “Those who depend on herbs have successful pregnancies and their treatment seems to work more than western medication” (TBA 4). However, patient participant had a different perspective regarding the taking of the traditional treatment. A WP aged 28 said, “I think the traditional birth attendants are overdosing us with their herbs because today they will tell us to take their herbs using a spoon while their counterparts instruct us to use a cup.” TBAs were providing traditional herbs; however, the patient participants were not sure whether this was not contributing to stillbirth, especially the dosage.

Discussion

Most participants knew that when the baby is delivered with no life, that is, no crying and breathing, it is referred to as stillbirth. However, there was limited knowledge about the perceived contributory factors and causes. Although participants had personally experienced stillbirth, they seem not free to talk about it openly. This was the same as the findings by Attachie et al. that mourning or talking much about the stillborn one will welcome the recurrence. Still, there was a general perception and understanding concerning the existence of stillbirth when defining it. When asked about what contributes to babies dying before birth, participants mentioned delays in accessing health services due to financial constraints Some indicated the cause of stillbirths as being cursed. Attachie et al. supported that stillbirth is believed to have a supernatural association. Lack of knowledge about when to seek care was cited as the source of many delays. Another aspect was the unfavorable attitude of health professionals, who were characterized as being haughty, arrogant, careless, and vulgar. Findings show that midwives regularly questioned women in labor as to why they became pregnant while they were disturbing them. A few young midwives have also been accused of abusing expectant mothers, especially if the mother had a history of several pregnancies or had never attended antenatal care. Sharma et al. also supported that suboptimal maternal care, with women reporting clinical neglect, insufficient explanation, strained relationships, and verbal, and sometimes even physical abuse from nursing staff. This shows that midwives were not uncommon to ill-treat pregnant women, a practice that indirectly causes stillbirth. Concerns were raised regarding the woman’s lack of understanding of fetal movement monitoring, which is crucial because she would be involved in her care. This was the same as in the study by Smyth et al. that early identification of risk factors for stillbirth, the lack of knowledge about risk factors was not known as most respondents were unable to identify any risk factors for stillbirth. Given that the literature suggests that modifiable risk factors are present in up to 56% of stillbirths, the lack of knowledge about risk factors highlights the need for increased public health information to address this knowledge gap.
Women participants were aware that, early antenatal education should be given to prevent stillbirth. Whereas the TBAs saw their role as crucial in preventing the occurrences of stillbirth by providing traditional herbs. TBAs tend to be older women, respected in the community for their knowledge and experience.\textsuperscript{[26,27]}

TBAs cited using traditional herbs to strengthen the womb to prevent stillbirth. This was in line with the findings of Nergard \textit{et al.}\textsuperscript{[28]} and Nyeko \textsuperscript{[29]} who cited reasons for traditional medicine use as general well-being during pregnancy, promotion of fetal growth, and spiritual cleansing to protect the pregnancy against evil influence. Whereas generally, the role of TBAs was viewed as to perform other roles depending on local custom, their interests, and expertise. However, the patient participants did not favor of taking these traditional herbs, especially the dosage, as they viewed this as contributing to stillbirth. Participants cited that at times using herbal medicines might cause the uterus to contract too early, suffocating the baby and leading to stillbirth. The findings by Rasch \textit{et al.}\textsuperscript{[30]} confirm that the plants used were found to have a remarkable strong uterine contractive effect. It was also warned that in cases where herbs are inserted into the private parts, they do cause infections to the mother and baby. Such infections might lead to a miscarriage or the delivery of a baby with disorders like skin problems.\textsuperscript{[31]}

The study was conducted in one of the three districts of Mpumalanga province and the sensitivity and unspoken of the subject may have prevented free participation from participants.

\textbf{Conclusions}

Women participants and TBAs displayed knowledge deficits on real contributory factors of stillbirths. Cultural practices, health workers’ negligent and attitudes contributed to stillbirth. Community perceptions on the importance of preconception and antenatal care attendance are to be conducted. The ANC health education content for women of childbearing age and TBAs need to include the medical diseases that cause stillbirth. The interventions must consist of general supportive measures to improve environmental and social conditions and interventions that address maternal nutrition, prevention, and management of maternal and fetal infections and diseases during pregnancy and childbirth. Such interventions would reduce stillbirths and educate society on treating such individuals.

\textbf{Acknowledgment}

Researchers would like to acknowledge all TBAs and patients who experienced stillbirth who participated in this study, Mpumalanga Provincial Department of Health, the hospital managers, and the village headmen who granted permission to conduct the study.

\textbf{Competing interests}

The authors declare that they have no competing interests.

\textbf{Abbreviations}

- Antenatal care: ANC;
- Human Immunodeficiency virus: HIV;
- Traditional Birth Attendants: TBAs.

\textbf{Authors’ contributions}

S.P.M conducted the study and drafting of this manuscript.

R.T.L was the co-supervisor and led the literature review, M.S.M for supervision and correcting and finalizing the article. All authors read and approved the final manuscript. All authors take responsibility for the integrity of the data and the accuracy of the data analysis.

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\textbf{Role of the funding source}

None.

\textbf{Availability of data and materials}

The data used in this study are available from the corresponding author on request.

\textbf{Ethics approval and consent to participate}

Ethical standards were ensured by obtaining ethical clearance (Ref: SHS/17/PDC/08/2403), from the University Ethics Committee, permission to conduct the study from the Provincial Department of Health, the hospital Chief Executive Officers, and the participants.

\textbf{Consent for publication}

By submitting this document, the authors declare their consent for the final accepted version of the manuscript to be considered for publication.

\textbf{References}


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