



Women Attending Hospital in Malawi for Miscarriage: A Qualitative Study of Perceptions of Miscarriage

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Authors' contributions

This work was carried out in collaboration between all authors. Author SL designed the study and wrote the protocol with assistance from authors DL, CMA and CF. Author JI gave qualitative methodological advice. Author BM arranged the location for the study and helped set up the recruitment process for the study. Author SL conducted the interviews and was assisted in recruitment of participants by authors HR and SW. Author SL conducted the analysis and wrote the first draft of the manuscript and authors CMA, CF, DL, JI, BM provided critical intellectual input and read and approved the final manuscript.

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ABSTRACT

Aims: To investigate women's perceptions of miscarriage and its complications.
Study Design: A qualitative design was used with data collected through semi-structured interviews.
Place and Duration of Study: Gynaecology ward of the Queen Elizabeth Central Hospital, Blantyre, Malawi, during February and March 2012.
Methodology: Sample: We included 30 patients (aged between 18 and 39) admitted to the gynaecology ward for surgery following miscarriage. Inclusion criteria were: (a)

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diagnosis of miscarriage (b) aged over 18. Semi-structured interviews were conducted through a translator and lasted an average of 30 minutes (range 14 – 46minutes).

Results: 14 of the women interviewed knew what a miscarriage was. Perceived causes included contraceptives, prohibited medicines, hard labour, stress, HIV, malaria, witchcraft, traditional medicines, lack of child spacing and abuse by their male partners. Women obtained knowledge from their own experience of miscarriage and through the shared experiences of female family members and friends. Women were found to have concerns about death from miscarriage; facing stigmatising attitudes of community and health workers; and the treatment they would receive in hospital, particularly the surgical procedure.

Conclusions: The women had poor knowledge of the causes and symptoms of miscarriage. They were concerned about the treatment that they would receive in the hospital and how their miscarriage would be perceived by both the hospital staff and within their communities. Women who have miscarriages should be encouraged to discuss this with female friends and relatives to improve knowledge on miscarriage and help dispel the stigma surrounding it. Providing information on the treatment they would receive whilst in hospital may help to allay women's concerns. Incorporating education about miscarriage into the school syllabus may help to improve women's awareness and understanding.

Keywords: Miscarriage; developing countries; perceptions; semi-structured interviews.

1. INTRODUCTION

Every day 1000 women die from pregnancy-related complications worldwide. More than 99% of these deaths are in developing countries, and over half are in sub-Saharan Africa [1]. Malawi has one of the highest maternal mortality ratios in the world at 460 per 100,000 live births [2]. According to the United Nations World Health Report 2010, 9% of maternal deaths in developing regions are due to miscarriage and abortion complications [3]. In the last twenty years, maternal mortality ratio in Malawi has decreased significantly, but more action is needed if Malawi is to achieve Millennium Development Goal 5 (MDG5) by 2015 [1,4].

To date, despite its important contribution to maternal mortality and the availability of effective treatment, very few studies have explored women's perceptions of miscarriage in developing countries, including Malawi. Awareness of danger signs in pregnancy, such as bleeding, has been found to be poor in Malawi [5,6]. Indeed, a recent study of women's groups in rural Malawi, found that only 36% of women identified miscarriage as an antenatal health problem [7]. It is important that women are aware of the symptoms of miscarriage (and its complications) to enable them to make the decision to seek early treatment if this arises, since two-thirds are likely to need surgical evacuation of retained products of conception [8]. Induced abortion is illegal in Malawi, however incomplete abortion has been estimated to account for 42% of admissions for acute gynaecological problems [9]. Studies in sub-Saharan Africa have shown that women are reluctant to admit to inducing abortion for fear of negative social and legal consequences [10,11]. Accordingly, some women who present to healthcare workers for miscarriage management may have had an incomplete induced abortion.

Given the role of miscarriage and abortion as a cause of maternal mortality and morbidity, it is important to understand the worries and concerns women have relating to miscarriage and its management. In-depth, qualitative research is needed to provide better understand how

and why women's beliefs and concerns act as barriers to help-seeking, so that health education strategies can be developed to improve help-seeking behaviour for miscarriage, and subsequently reduce maternal mortality and morbidity. This study sought to investigate women's perceptions of the causes, symptoms and complications of miscarriage, and what concerns women have regarding their miscarriage and its management.

2. METHODOLOGY

2.1 Study Design

A qualitative design was most suitable for researching women's perceptions of miscarriage, its complications and their help-seeking behaviours. Qualitative research is described by Holloway [12] as "an important tool in understanding the emotions, perceptions and actions of people who suffer a medical condition" and appropriate for exploring complex and sensitive issues which might not be accessible through more structured methods [13].

2.2 Setting

This study was conducted in the gynaecology ward of the Queen Elizabeth Central Hospital, Blantyre, Malawi during February-March 2012. The Queen Elizabeth Teaching Hospital is a large urban government owned public health facility and also a teaching hospital for Malawi's only medical school. The hospital, opened by the Queen Mother in 1957, now has 1,100 beds [14]. An average of 160 suction evacuations for miscarriage are carried out each month (personal communication: Dr Frank Tauro, July 2011), representing 68% of gynaecology admissions [15]. During the study period of six weeks there were 306 admissions for miscarriage and 206 evacuations for incomplete miscarriage.

2.3 Sampling and Recruitment

The study sample consisted of women admitted to the gynaecology ward for surgery following miscarriage. Inclusion criteria were: (a) diagnosis of miscarriage (b) aged over 18. A researcher (SL) attended the gynaecology ward on consecutive mornings (excluding weekends) and approached all women who met the inclusion criteria. An information sheet was provided in Chichewa, and if the patient was unable to read, a translator read this information to them. Patients were reassured that their refusal to participate would not affect the quality of care they receive. Recruitment stopped when SL felt data saturation had been reached. Straus and Corbin describe data saturation as the point at which subsequent interviews fail to yield new information or insights, and this point was reached after 28 interviews [16]. To confirm this, SL systematically reread all transcripts with the aim of identifying any themes which could have been overlooked previously. None were found. As final confirmation of data saturation, SL conducted two final interviews, from which no new information or insights emerged.

2.4 Consent

Women who agreed to take part were asked to provide consent by signing or thumb-printing a written consent form, which is an approved local practice given levels of illiteracy. The translator signed the consent form to confirm that she had read the information sheet to illiterate women, that they understood it and were happy to take part.

2.5 Data Collection

Semi-structured interviews were considered most appropriate for this study as they allow the researcher to maintain a focus on the research questions that drive the study, whilst also accommodating follow up questions that probe and explore participant responses. This was useful and necessary because participants sometimes raised unanticipated but relevant issues [12], and because responses were sometimes unclear and needed clarifying [17].

All interviews were conducted by SL (a British, female medical student intercalating in International Health) with a Malawian female translator experienced in conducting qualitative research on sensitive topics. Interviews were conducted in a side-room of the gynaecology ward to ensure privacy for the women and all interviews were recorded on a dictaphone. Field notes were made immediately after each interview, which included notes about meaningful non-verbal communication that occurred during the interviews and observations about the setting [18]. These notes were also used to record SL's initial thoughts on the themes that arose during each interview, and began the analytic process. A topic guide for the interviews was developed from background research. A pilot interview with a local woman was conducted during the preparatory week and the wording of questions was altered to improve understanding.

2.6 Ethics

The College of Medicine Research and Ethics Committee (COMREC) in Malawi and the University of Birmingham Intercalated BMedSc Population Sciences and Humanities Internal Ethics Review Committee (IREC) approved this study.

2.7 Analysis

Data collection and analysis occurred concurrently. Digital recordings of the interviews were listened to and transcribed by SL, and then double checked to improve the accuracy of transcription. The translator's words were transcribed verbatim to record the responses of participants as accurately as possible. Immersion in the data began during the transcription process, with initial thoughts typed as memos to ensure that thoughts about emerging concepts were captured.

A simple thematic analysis, as described by Boyatzis [19], was conducted. This comprised a two-part process, with SL first examining all transcripts systematically, twice per interview, and recording broad themes on a large handwritten spider diagram (this ensured that SL was sufficiently immersed in the data). Second, SL open coded the transcripts. Codes that were related were sorted into categories and, as the analytical process progressed, codes were compared and merged where appropriate. Emergent codes were grouped into categories of similar themes and these were refined as understanding improved.

Constant comparison was employed to ensure that emergent themes from subsequent interviews were compared, contrasted where necessary and appropriately combined, resulting in a final set of core themes that described the data as a whole [20]. Finally, quotations describing thematic concepts arising from the data were indexed and charted for use in the written report. Owing to the short length of hospital stay and language barriers, member validation of findings was not possible.

3. RESULTS

3.1 Interview Information

30 interviews were conducted in total. Of the 32 women asked to participate only two refused, and many of the women were appreciative of the opportunity to discuss their miscarriage with an interested listener. One interview was stopped after 15 minutes as the participant appeared too distressed to continue. Nonetheless, this woman wanted her interview to be included in the analysis. This request was respected and, despite the very short duration, the interview provided useful information on concerns about treatment in the hospital (Woman 5). The average duration of the interviews was 30 minutes, with a range of 14-46 minutes. Women ranged in age from 18 to 39, and had between none and five previous children (Table 1).

Three main themes emerged from the data: (1) conceptualisation and knowledge of miscarriage; (2) concerns regarding miscarriage and miscarriage management; (3) attitudes towards induced abortion.

Table 1. Women’s ages and number of previous children

<i>Age</i>	<i>Number of women</i>
18-22	8
23-26	8
27-30	8
31-34	3
>35	3
<i>Previous children</i>	<i>Number of women</i>
None	5
One	12
Two	2
Three	6
Four	4
Five	1

3.2 Conceptualisation and Knowledge of Miscarriage

Around half of the women said that they knew what the word ‘miscarriage’ meant, and when asked to describe it were generally able to give a basic, but accurate, description:

“It’s having pregnancy whereby the pregnancy is terminated on its own and unexpectedly.”(Woman 16, 29years, four children, no previous miscarriages)

Miscarriage was attributed to a wide variety of causes. Contraceptives, sexually transmitted infections and prohibited drugs were cited most frequently:

“Drugs that are not permitted when you are pregnant.”(Woman 10, 23years, two children, no previous miscarriage)

Other causes mentioned were: hard labour, stress, HIV, malaria, witchcraft, traditional medicines, lack of child spacing, and abuse of women by their male partners:

"If you are beaten you can lose the baby."(Woman 11, 25years, one child, no previous miscarriage)

"If you don't have child spacing sometimes it can lead to miscarriage because it is like, your body is not yet fit, you are not yet well in yourself so you can have a miscarriage." (Woman 4, 29years, three children, no previous miscarriage)

"Some they say that through witchcraft they take away your pregnancy." (Woman 10, 23years, two children, no previous miscarriage)

Some women also believed that miscarriage can happen spontaneously, without a cause.

Less than half of the women said they had recognised their symptoms as those of miscarriage. Symptoms that they associated with miscarriage were pain and bleeding. Several of the women believed that these symptoms were normal in pregnancy:

"Since it was my first pregnancy I was not even aware what was happening. I just thought that's how it is."(Woman 8, 21years, no children, no previous miscarriage)

Women commonly obtained practical knowledge from their own experiences, or through the shared experiences of female family members and friends. However, a few participants described a lack of willingness from relatives to disclose information of their miscarriages:

"My in-law never disclosed how it goes like. I just know that she miscarried."(Woman 6, 30years, three children, no previous miscarriage)

All of the women interviewed believed it was important to come to the hospital in the case of a miscarriage. When questioned on who had made the decision to come to hospital, about half of the women said they had made the decision themselves, with the other half being encouraged to seek medical care by neighbours, partners and family members. Many of the women interviewed talked about the importance of coming to hospital so that the "remains" from the uterus following miscarriage could be removed, in order to prevent them "rotting" in the stomach. Participants believed that failure to do this can lead to the death of the woman:

"The remains can be rotting in the stomach and end of the day they can die."(Woman 20, 18years, one child, no previous miscarriage)

3.3 Concerns Regarding Miscarriage and Miscarriage Management

Women had varying attitudes towards their miscarriage. The majority described having negative feelings:

"It's a big loss, a very big loss."(Woman 18, 33years, one child, no previous miscarriage)
"It's a very big pity to my life." (Woman 21, 27years, one child, two previous miscarriages)

Several women expressed a fear of dying:

"I was thinking that the pregnancy has been terminated on its own and what will happen to my life?" (Woman 28, 26years, one child, no previous miscarriage)

One of the women believed that death was inevitable in miscarriage, and two said that if women do not seek treatment they will definitely die:

"When you miscarry you die." (Woman 13, 28years, two children, no previous miscarriage)

"If the remains are not removed from the womb, definitely the woman will die." (Woman 29, 19years, one child, no previous miscarriage)

One woman reported questioning why this had happened to her:

"I am just asking myself 'why has this happened to me?'"(Woman 18, 33years, one child, no previous miscarriage)

Regarding the management of their miscarriage, women said that they had been worried about being accused by hospital staff of deliberately attempting to terminate the fetus:

"I was thinking that I would be treated harshly because the doctors might think that I had terminated it."(Woman 29, 19years, one child, no previous miscarriage)

Other concerns included the long waiting times, worries about being admonished for delaying coming to hospital, and fear of having an operation:

"I was worried because I heard that when you miscarry at home, when those things happen at home, so when you come here the nurses shout at you so I was worried. They say maybe you were reluctant to come into hospital." (Woman 5, 33years, three children, no previous miscarriage)

"People scare you... they say to have the operation is very painful."(Woman 19, 23years, one child, no previous miscarriage)

Few women had concerns about returning home following miscarriage. Two women, however, reported being worried about community gossip, and had concerns that the perceived association between induced abortion and miscarriage might lead to prejudicial assumptions about the cause of the miscarriage:

"People might think that I have had the traditional medicines, or the drugs, some sort of drugs which are, that can terminate the pregnancy....sometimes the way they talk they talk in a way that I should feel bitter, feel bad."(Woman 15, 22years, three children, no previous miscarriage)

3.4 Attitudes towards Induced Abortion

Only two of the women reported they had sought a termination, though one of these women later changed her mind, and said that the "capsules" she was given at the private clinic were taken after she had already started bleeding. The other woman who reported seeking a termination described how her boyfriend had obtained the drugs for her to take. Over half of the women's pregnancies had been unplanned, with shortages and side effects of contraceptives being a common problem for them. Several women reported that, on discovering the pregnancy, they had been concerned about how they would cope with supporting the unborn child:

“I was feeling bad how I struggle at home with the three children, so I was very worried that if we are struggling with three children and then we should add one, what will happen?” (Woman 22, 34years, three children, no previous miscarriage)

Despite these practical concerns, almost all of the women said they were against induced abortion, largely as a result of their religious beliefs:

“Everything that happens to humans it is from the almighty God, so once you do such things you are competing with him.” (Woman 15, 22years, three children, no previous miscarriage)

Two women believed that termination should be allowed where the mother’s life is at risk, and one woman thought that it was acceptable in circumstances where other children in the family were likely to suffer as a result of the pregnancy, due to the inability to breast feed.

4. DISCUSSION

This study has given an insight into the perceptions and concerns of Malawian women on miscarriage and its complications and strengthens the limited existing evidence. Given the extent of maternal mortality and morbidity associated with miscarriage and abortion (Fig. 1) in the face of availability of effective treatment, such findings are much needed to identify areas of concern that can be used to improve provision information and care.

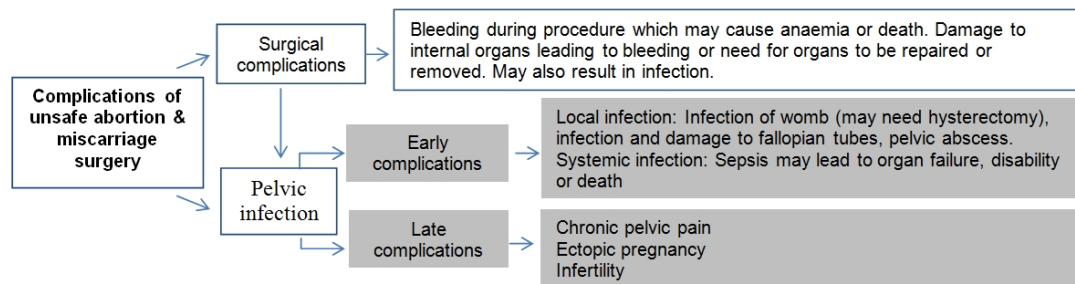


Fig. 1. Complications of unsafe abortion and miscarriage surgery

The women in this study had varying perceptions of the severity of miscarriage. Only half of them were aware that the symptoms they experienced were that of miscarriage with the other women believing that the symptoms they experienced were normal pregnancy related signs. This is in keeping with previous studies, which found that knowledge of obstetric danger signs is low in Malawi [5,6]. The introduction of safe motherhood education to schools could improve awareness of miscarriage and danger signs. Perceived causes of miscarriage were similar to those mentioned in a previous study, which looked at community perceptions of preterm birth in rural Malawi, and included: sexually transmitted infections, inappropriate use of medicines, witchcraft, poor nutrition, heavy work and physical violence; along with the addition of ‘stress’ and ‘lack of child spacing’ [21]. Women’s own experience was found to be an important source of information. A few of the women had gained their knowledge of miscarriage from mothers and friends, in keeping with previous studies where it was found that shared experiences of female friends and relatives are useful to childbearing women [22]. Some participants, however, stated that their relatives were unwilling to disclose information about their miscarriage, which is consistent with previous

research that has found women may attempt to conceal their experience of miscarriage due to the associated stigma [23,24]. Given that many women in this study reported that discussion with friends and family was an important way they learned about miscarriage. This supports findings from another qualitative study where beliefs of family and friends influenced women's experience of miscarriage [25]. If women can be encouraged to share their experiences of miscarriage upon returning home, not only might this improve women's knowledge about miscarriage, but may also help to reduce the stigma surrounding it.

The women's main concern about miscarriage and miscarriage management was fear for their life, with some women believing that maternal death was an inevitable consequence. This builds on the findings of a study looking at post-abortal care (PAC) in adolescents, showing fear of death is common to women of all ages experiencing miscarriage [26]. Women also expressed fear of the surgical evacuation operation, in keeping with a UK study that found a nearly uniform fear of surgical intervention in women presenting with miscarriage [27]. These concerns might be allayed to some extent by provision of better information to women admitted with miscarriage by the hospital. Another common concern was that the hospital staff and their community would think that their miscarriage had been a deliberate induced abortion so would be met with harsh treatment. Studies in Tanzania and Cameroon, where abortion is also illegal, also found substantial stigma surrounding abortion and women suspected of procuring an abortion [23,24]. This finding is consistent with the results of a recent qualitative study in Malawi of policymakers, healthcare providers, and other individuals in leadership positions, which found widespread stigmatisation of abortion both in the community and in health facilities [28]. That such stigma has been found in studies in three separate countries suggests that this it may also be as prevalent in other Sub-Saharan countries where abortion remains illegal. There is a need to educate both women and the community about miscarriage, to increase awareness of miscarriage as distinct from induced abortion, so as to ameliorate the fear of being falsely accused, which could have both physiological and psychological repercussions, especially if it results in delayed help seeking (or none at all). Previous studies have found substantial capacity for improving both preventive and care-seeking behaviour within communities among women's groups [7,29]. Such community groups could provide an effective strategy for the sharing of collective knowledge on miscarriage and challenging the ingrained concerns women have.

The topic of abortion also emerged during the interviews. In many instances this subject arose spontaneously, perhaps owing to a blurred distinction between miscarriage and abortion perceived by participants. In some interviews gentle prompting was used to elicit women's views on this topic, since it quickly became apparent to the researcher that the issue was inextricably linked to perceptions of miscarriage. Negative attitudes toward abortion are so deep-rooted that fear of miscarriage being confused with an abortion can act as a barrier to seeking help when a women suspects she has symptoms of miscarriage. This supports findings from a recent study in the United States in which women expressed the discomfort they felt at the proximity between miscarriage and induced abortion services [30]. Thus, understanding and addressing negative attitudes towards abortion, and the confusion between the two, may help improve understanding of and attitudes towards miscarriage.

The fact that over half of these womens' pregnancies had been unplanned raises the issue of the limited availability of contraception in Malawi. This is important to acknowledge, as this shortage may lead to unwanted pregnancy, illegal abortions, dangerous incomplete miscarriages, and maternal deaths. Furthermore, given that there is a greater risk of serious infection with induced abortions than miscarriage, it is important that women feel able to inform their doctors if they have undergone an induced abortion, since these women will

require prophylactic antibiotics. Only 2 of the 30 women interviewed revealed that they had induced an abortion, but given the associated stigma and legal status of the practice it is quite possible that other women did not disclose this during interview. Indeed, abortion was viewed as a “sin” by the majority of women. To improve maternal health in Malawi, the stigma surrounding abortion needs to be addressed alongside any legislative changes, which alone is an insufficient step toward eliminating unsafe abortion [31].

A limitation of this study was introduced by the necessary reliance on translators, since it is possible that finer concepts were lost in translation. Moreover, it is possible that social acceptability bias may have affected responses given the sensitive nature of the topic, the illegality of induced abortion in Malawi, and the presence of a white British researcher. Furthermore, the researchers own view, that abortion should be legalised in Malawi, may have biased the results of the study. Another limitation is that these data reported are all from women who presented for treatment thus they may not be representative of the views of all women. It is likely that the participants in this study are more informed and more open about the topic as attenders, and these data may therefore underestimate the limited knowledge and negative perceptions held by women more generally in the country.

5. CONCLUSION

It is critical that women are aware of the signs of miscarriage, and present for medical help. Complications of miscarriage and induced abortion cause many maternal deaths, which in most cases could be prevented if the woman received appropriate medical care. It is important that knowledge is improved in order to ensure that such care can be given. Women should be encouraged to discuss their miscarriage with female friends and relatives to both improve knowledge of women on miscarriage and to help dispel the stigma surrounding this topic: based on evidence in other counties, community women’s groups might be utilised to assist in achieving this [7,29,32]. Incorporating education on miscarriage into the school syllabus may also help to improve women’s understanding of miscarriage and dispel stigma. The stigma surrounding abortion specifically needs to be addressed, alongside any legislative changes.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. WHO, UNICEF, UNFPA and the World Bank. Trends in maternal mortality: 1990 to 2008. Estimates developed by WHO, UNICEF, UNFPA and the World Bank. Geneva, World Health Organisation; 2010. ISBN: 978 92 4 150026 5
2. World Health Organisation. World Health Statistics 2012 report. ISBN 978 92 4 156444 1.
3. UN Department of Economic and Social Affairs. The Millennium Development Goals Report; 2010. Accessed 17/11/12.
Available from: <http://www.unfpa.org/public/home/publications/pid/6090>.
4. World Health Organisation. Achieving Millennium Development Goal 5: target 5A and 5B on reducing maternal mortality and achieving universal access to reproductive health. World Health Organization, Department of Reproductive Health and Research; 2009.

5. Malata A, Hauck Y, Monterosso L, McCaul K. Development and evaluation of a childbirth education programme for Malawian women. *Journal of Advanced Nursing*. 2007;60:67–78.
6. Kumbani L, McInerney P. Primigravidae's knowledge about obstetric complications in an urban health centre in Malawi. *Curationis*. 2006;29:41-49.
7. Rosato M, Mwansambo CW, Kazembe PN, Phiri T, Soko QS, Lewycka S, et al. Women's groups' perceptions of maternal health issues in rural Malawi. *Lancet*. 2006;368:1180-1188.
8. Tuncalp O, Gulmezoglu A, Souza J. Surgical procedures for evacuating incomplete miscarriage. *Cochrane Database Systematic Review*. 2010;(9):CD001993.
9. Kinoti SN, Gaffikin L, Benson J, Nicholson LA. Monograph on complications of unsafe abortion in Africa. Arusha, Tanzania: Commonwealth Regional Health Community Secretariat for East, Central and Southern Africa; 1995.
10. Bleek W. A field work experience from Ghana. *Population and Development Review*. 1987;13:314-322.
11. Bernstein PS, Rosenfield A. Abortion and maternal health. *International Journal of Gynaecology and Obstetrics*. 1998;63:115–22.
12. Holloway I. *Qualitative Research in Health Care*. Open University Press; 2005.
13. Bowling A. *Research methods in health, 2nd edition*. Open University Press; 1997.
14. Idana I. Queen Elizabeth Central Hospital as a centre of excellence in service provision, teaching and research: is memorandum of understanding the solution? (PhD dissertation); 2006.
15. Lema VM, Thole G. Incomplete abortion at the teaching hospital, Blantyre, Malawi. *East African Medical Journal*. 1994;71:727-735.
16. Strauss A, Corbin J. *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, Sage;1998.
17. Sommer B, Sommer R. *A Practical Guide to Behavioural Research, tools and techniques*. 4th edition. Oxford University Press; 1997.
18. Morse JM, Field PA. *Qualitative research methods for health professionals, 2nd edition*. Sage; 1995.
19. Boyatzis R, *Transforming qualitative information: thematic analysis and code development*. Sage Publications; 1998.
20. Silverman D. *Interpreting qualitative data*. Sage, London; 2004.
21. Tolhurst R, Theobald S, Kayira E, Ntoya C, Kafulafula G, Nielson J, van den Broek, N. 'I don't want all my babies to go to the grave': perceptions of preterm birth in Southern Malawi. *Midwifery*. 2008;24:83-98.
22. Bansah M, O'Brien B, Oware-Gyekye F. Perceived prenatal learning needs of multigravid Ghanaian women. *Midwifery*. 2009;25:317-326.
23. Haws RA, Mashasi I, Mrisho M, Schellenberg JA, Darmstadt GL, Winch PJ. These are not good things for other people to know. How rural Tanzanian women's experiences of pregnancy loss and early neonatal death may impact survey data quality. *Social Science & Medicine*. 2010;71:1764-1772.
24. Van der Sijpt E, Notermans C. Perils to Pregnancy: On Sorrows and Strategies Surrounding Pregnancy Loss in Cameroon. *Medical Anthropology Quarterly*. 2010;24:381-398.
25. Wijesinghe PS, Herath RP, Abeysondara ID. A qualitative study on patients' perceptions of expectant management of first trimester incomplete miscarriage. *Ceylon Med J*. 2012;57(4):145-9.
26. Engender Health Report. *Postabortion Care for Adolescents: Results from Research in the Dominican Republic and Malawi*. EngenderHealth; 2004.

27. Smith LF, Frost J, Levitas R, Bradley H, Garcia J. Women's experience of three early miscarriage management options; a qualitative study. *British Journal of General Practice*. 2006;56:198-205.
28. Levandowski BA, Kalilani-Phiri L, Kachale F, Awah P, Kangaude G, Mhango C. Investigating social consequences of unwanted pregnancy and unsafe abortion in Malawi: The role of stigma. *International Journal of Gynecology and Obstetrics*, 2012;118:167-171.
29. Tripathy P, Nair N, Barnett S, Mahapatra R, Borghi J, Rath S, et al. Effect of a participatory intervention with women's groups on birth outcomes and maternal depression in Jharkhand and Orissa, India: a cluster-randomised controlled trial. *Lancet*. 2010;375:1182-1192.
30. Darney BG, Weaver MR, VanDerhei D, Stevens NG, Prager SW. One of those areas that people avoid a qualitative study of implementation in miscarriage. *BMC Health Serv Res*. 2013;13:123.
31. Grimes DA, Benson J, Singh S, Romero M, Ganatra B, Okonofua FE, et al. Unsafe abortion: the preventable pandemic. *Lancet*. 2006;368:1908–1919.
32. Manandhar DS, Osrin D, Shrestha BP, Mesko N, Morrison J, Tumbahangphe KM, et al. Effect of a participatory intervention with women's groups on birth outcomes in Nepal: cluster-randomised controlled trial. *Lancet*. 2004;364:970-979.

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