Original Research Article

DOI: http://dx.doi.org/10.18203/2394-6040.ijcmph20174811

Maternal mortality in Ghana: an exploration of partners' perception about factors that contributed to their wife's death

Diana Mawuko Adika¹, Muhammad Chutiyami²*, Hamina Dathini³, Haruna Adamu³

Received: 03 September 2017 **Revised:** 06 October 2017 **Accepted:** 07 October 2017

*Correspondence: Muhammad Chutiyami,

E-mail: mchutiyami@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Many programmes were put in place internationally and locally to curtail the menace of maternal mortality, but little achievement has been made in certain parts of the world, particularly in sub-Saharan Africa. A number of literatures exist, which investigate into the predisposing factors of maternal mortality in Ghana, however, no published evidence as the time of conducting this study explore the perception of men with respect to maternal mortality. This study aims to explore the perceptions of men who have lost their wives about the factors that contributed to their wife's death in Accra, Ghana.

Methods: A qualitative phenomenological approach was adopted, using an in-depth semi-structured interview conducted via a phone call, which was recorded and transcribed. Ten men participated in the study. The data was analysed using narrative synthesis through identification of themes/sub-themes.

Results: It was identified that physical, cultural and socio-economic factors were responsible for the death of men's wives on the course of pregnancy. The major physical factors include direct causes of maternal mortality notably haemorrhage, delay in reaching health facility and delay from the health facility. The cultural factors mainly include seeking care from unskilled attendants and use of traditional preparations to aid delivery. Lastly, poor socio-economic status was blamed by majority of the participants, which impedes them from accessing quality care within shortest period of time.

Conclusions: Men perceived factors predisposing to maternal mortality in Accra, Ghana were avoidable with quality health care services and improved access to the health facilities.

Keywords: Men, Perception, Factors, Maternal, Mortality, Accra, Ghana

INTRODUCTION

A direct link exist between maternal health and male involvement, particularly in sub-Saharan Africa, whereby men are traditionally perceived to be superior to women and eventually interfere with their decision making process, including that of access to healthcare services. ¹⁻⁴ Evidence from different intellectual contexts have

recommended that encouraging male participation in such traditional societies influences reproductive health results for women mostly through women's reliance on financial and other help from their husbands to get reproductive health care services.⁵ Gabrysh and Campbell further establish that women's use of maternal health services was attributed to advanced awareness of the husbands, perhaps due to well-informed men's optimistic attitudes to contemporary health care, wider understanding on the

¹Ghana Tourism Authority, Post Office Box GP 3106, Accra-North, Ghana

²College of Nursing and Midwifery Damaturu, Yobe State, Nigeria

³Department of Nursing Science, College of Medical Sciences, University of Maiduguri, Nigeria

essence of trained attendance at birth, and possibly less constraint to wife's movement. Moreover, the intensity of intimate partner aggression throughout pregnancy in Africa is a health and collective risk that has a connotation for any male involvement programme. Thus, encouraging male attachment has been revealed to be connected with improved use of experienced attendance at birth, contraceptive use, change in behaviour to favour the usage of a condom and enhanced infant feeding strategies. Beegle et al, also concluded that, the overall factors contributing to maternal health includes the social, economic and educational stability surrounded by the couple and the entire family.

Even though, researchers have recommended male involvement in pregnancy and child bearing process as a possible remedy to reducing maternal mortality, the perception of men about factors contributing to maternal death has not been well-established. To our knowledge, there is no single research study in this subject area in Ghana. Looking at evidences from the wider Sub-Saharan African SSA region, only one related study explore the perception of men as regard to maternal mortality in Nigeria. This study therefore aims to explore the perception of men in Ghana in order to add to the existing literature, thus contribute towards building a lasting solution to the problem of maternal mortality in Ghana and SSA region as whole.

METHODS

The study adopted a qualitative phenomenological study design, which aims to investigate into the subjective perception of the participants based on their experiences. The study recruited participants in Accra, the capital city of Ghana. The selection criteria are; men, English speakers, identify themselves as Ghanaian, living in Accra, lost their wives/partners in Ghana through pregnancy/its complications. The fact that many men that lost their wives exist in the area of the study and it is practically impossible to base the study on all of them, the study adopted a snowballing sampling technique leading to selection of ten men, who voluntarily agreed to participate in the study. The study was conducted from January 2017 to June 2017.

Interview was used as the instrument for data collection, which was conducted using a phone call, recorded and transcribed third later by a party (www.transcribeit.co.uk). The interview was structured and in four sections; the socio-demographic information of the respondents (section A), perception on physical/physiological factors (section B), perception on cultural factors (section C) and perception on socioeconomic factors (section D). The participants were fully sensitised about the nature of the questions and rationale of the study and assured of their anonymity/confidentiality of information.

Data collection was done by the first author, starting with one participant at a time. A self-introduction was first given to the respondents and asked to confirm their consent to participate in the study, having signed a written consent letter initially. Those who agreed to continue were re-briefed about the various sections of the interview and the estimated time to complete the interview. Participants were still asked if they were willing to continue with the interview, after which they were given the chance to ask any question before the interview progresses and that they are free to withdraw at any time. At the end of each section, participants were still asked if they do not wish to continue and at the end, they were given another chance to asked questions. Finally, participants were appreciated and thanked for their cooperation. The data was analysed using a narrative synthesis approach through identification of themes/sub-themes.

RESULTS

Demographic characteristics of respondents

A total of 10 men participated, out of which 9 were from Christianity religion and one from Islamic religion. In line with Anderson (2010), all the respondents were given a pseudonym in order to honour the confidentiality agreement signed before the data collection. These include; Adam, Anthony, Benedict, Elijah, Jonathan, Johnson, Mathew, Paul, Peter and Solomon. Specific detail of each respondent is given in Table 1.

| Respondent's pseudonym | Age | Educational level | Profession | Religion | Years living in Accra |
|------------------------|-----|-------------------|-------------------|--------------|-----------------------|
| Adam | 37 | First degree | Teaching | Christianity | 5 |
| Anthony | 48 | - | Accountant | Christianity | - |
| Benedict | 34 | First degree | Public Servant | Christianity | - |
| Elijah | 41 | First degree | Business | Christianity | - |
| Jonathan | 36 | First degree | Management | Christianity | - |
| Johnson | - | - | - | Christianity | - |
| Mathew | 35 | First degree | Armed Force | Christianity | 25 |
| Paul | 35 | Masters | Quality Assurance | Catholic | - |
| Peter | 36 | First degree | - | Christianity | - |
| Solomon | 48 | - | Business | Muslim | 48 |

Table 1: Characteristic of respondent.

Family background

The participants are men, who are formally re-married at the time of the study or have been married before and live as widowers after losing their first wife. They all indicated to have children ranging from 0 to 3, from both sexes. All of them lost their first wives during third trimester of pregnancy, during birth or afterbirth as a complication of the pregnancy. Specific detail of each respondent's family is presented in Table 2.

Table 2: Respondent's family background.

| Respondent's No. of | | Children's Sex | | Wife's death | Stage of pregnancy | Place of death |
|---------------------|----------|----------------|--------|--------------|---|-----------------|
| pseudonym | children | Male | Female | whie's death | Stage of pregnancy | Trace of death |
| Adam | 3 | - | - | 2 years ago | Labour | Way to Hospital |
| Anthony | 1 | 1 | 0 | 8 years ago | Postpartum | Home |
| Benedict | 3 | 2 | 1 | 5 years ago | Labour | Hospital |
| Elijah | 2 | 2 | - | 7 years ago | Labour | Hospital |
| Jonathan | 0 | 0 | 0 | 4 years ago | Post-Term (10 th month) | Hospital |
| Johnson | 3 | 0 | 3 | 1 year ago | 3 rd Trimester (7 th month) | Hospital |
| Mathew | 1 | 0 | 1 | 3 years ago | 3 rd Trimester | Hospital |
| Paul | 2 | 1 | 1 | 1 year ago | Postpartum | Hospital |
| Peter | 2 | 2 | 0 | 3 years ago | 3 rd Trimester | Hospital |
| Solomon | 3 | - | - | Unspecified | Labour | Way to hospital |

Perception about physical/physiological factors that contributed to wife's death

Death associated with physical conditions such as haemorrhage

About half (Adam, Anthony, Benedict, Elijah) of the participants directly linked their wives death to bleeding arising before, during or after birth.

"So in the course of delivery, I couldn't get car as quick as we can so as soon as a car came, we put her in there, she gave birth in the car and due to excessive bleeding, I couldn't get to the hospital on time and where I'm living, it's very far from the main hospital, so by the time we got there, she had already passed away due to excessive bleeding" Adam

Three of the women (Adam, Benedict and Elijah's wives) experience the bleeding problem during labour while one was after delivery.

Two respondents (Paul and Mathew) directly reported anaemia based on doctors report

"...the doctors said she was anaemic so during the delivery, she lost blood and due to that, they were trying to monitor her, to bring her alive but I think, God knows, she couldn't make it" Paul.

Paul's wife experiences the problem during postpartum period while Mathew's wife was within her third trimester.

Single participant reported having malaria at the time of the pregnancy "Once, she reported to me saying she had malaria..." Elijah

The malaria was diagnosed during her antenatal visits and before labour. However, it was not established if the malaria was the cause of her death.

Another respondent reported heart problem as the leading course of his wife death

"her condition was about a heart issue, so she had a heart problem and then when she took seed, doctors advised that with the heart condition and the baby, she would have it (pregnancy) tough... the baby took energy from the heart so her heart becomes very weak, so she could not wait it out, then when they took the baby out, she couldn't survive" Johnson.

Johnson lost his wife at 7 months following the heart problem (unspecified) but the baby was put in an incubator and survived. She is the last born among his three children.

Similarly, a respondent reported gestational diabetes as the leading cause of his wife's death

"She was diagnosed with gestational diabetes, which my wife didn't take good care, manage it well, so I think that caused that problem" Solomon.

According to Solomon, his wife got pregnant few months after her last child, a time when the gestational diabetes was said to have set in and diagnosed in the clinic.

Delay in reaching health facilities

Many participants (Adam, Mathew, Paul and Solomon) expressed delays in reaching designated health facilities

due to circumstances beyond their control, which consequently contributed to their wives death during labour.

"...all the taxi drivers we spoke with said, "Oh we can't go at this time", "we can't go at this time", so it took me also a time to talk to people before they can agree to send her to the bigger hospital which, by the time I got that, I think she was gone already" Solomon.

Although, all the participants do not own a personal car, both Adam and Solomon wives died along the way to a hospital. On the other hand, Mathew and Paul's wives reached the hospitals and died onward.

Delay from health facility staff

Two respondents (Anthony and Paul) indicated delays due to lack of qualified staff to look after their wife following pregnancy complication. It takes hours to get an experienced staff to look after the labouring woman, hence some died shortly after the care was rendered.

"they didn't have a medical officer there at that point so the nursing officer was also not around, so they have to call her because she was not on duty at that moment, they have to call the senior nursing officer to come and help when they realised that the condition was very critical... It took about an hour 20 minutes or an hour 30 minutes"

Both women died during the postpartum period, but Anthony's wife died at home while Paul's wife died in the hospital.

One participant described the delay as a "usual" attitude from the health staff in Ghana.

"They (health workers) always say "I'll be with you in a minute", "I'll attend to you, hold on, let me get a doctor" or find this person, "go take this form, fill this", you know, that kind of situation" Peter.

The fact that peter's wife died in the hospital, the death could be directly associated with delay from the 'usual' attitude of the health workers as described by peter.

Certain respondents (Solomon, Johnson, Mathew and Paul) expressed poor satisfaction with health staff regarding their confidence and quality of care rendered.

"for two to five days (of admission), I can tell you it was trial and error, their trial and error and I think on the fourth or the fifth day, I took her to do echo, they do a chest x-ray of the heart, so it was the chest x-ray that came out directly that she has a pneumonia, there's a leak in the heart also, so for the first four days she had been at the hospital, the doctors were doing trial and error, they couldn't figure out" Johnson.

Of these respondents, only (Solomon) is from Islamic faith and the others from Christian faith. Therefore, perceived lack of confidence or quality of care by the respondents is not affected by religion.

Two respondents (Peter and Solomon) indicated disrespect toward pregnant women by nurses/midwives.

"I remember my wife, during her second pregnancy, she told me an incident at the clinic when she went there and they harass her that she didn't shave her private parts and other stuff, so she was harassed by the nurse or the midwife" Solomon.

Although, the two respondents had same experiences, peter was in the hospital while Solomon was in clinic as he did not reach the hospital when his wife died.

Use of ante-natal care (ANC) services

Three men (Adam, Mathew, Solomon) expressed that their wives were not attending antenatal services regularly.

"In my wife's case, after she died, I realised she skipped hospital meetings with the doctor, she skipped hospital, the routine, when it's scheduled for her she doesn't go...Yes, the antenatal, she skipped those care and so I would tell my friends and the husbands, that they should always be vigilant, see what is going on, they should go through their folder and see what is going on, they should go to the care with them, their wife and they shouldn't leave them alone" Mathew.

Despite the fact that all the women had poor antenatal care attendance, Mathew's wife has no prior experience in delivery while Adam and Solomon's wife have given birth three times before that pregnancy. Hence, parity does not determine use of ANC services.

Perception about cultural/traditional factors that contributed to wife's death

The need to seek for care from traditional healers/unskilled attendants.

Two of the respondents (Adam and Benedict) indicated the necessity to seek for maternity care from traditional birth attendants, who are mostly unskilled to handle moderate to severe pregnancy complications. However, some are of the opinion that it is justifiable considering the limited number of available health facilities.

"Unfortunately I agree. Herbalists and traditional birth attendants maybe doing something themselves because our health facilities do not really match up to the number of people..." Benedict.

Both Adam and Benedict had similar family background considering the fact that both deceased wives had three children and had lost their lives during labour. The previous pregnancy experiences could explain their beliefs to seek for care from traditional or unskilled attendant.

One participant opined that traditional birth attendants do better job than the hospital staff, considering the fact that some traditional healers have spiritual and/or supernatural powers.

"...especially in my village, that's what we believe in, that there is one woman... she is spiritually, she helps the women to deliver, so that's where most of them, that's where they go, instead of going to hospital..." Adam.

Adam had one of the highest numbers of children among the study participants, which could be associated with his strong belief on supernatural powers of traditional birth attendance.

Cultural influence during pregnancy

Some cultures (Solomon and Paul) prescribe certain herbs/concoction for the woman to take while pregnant, which might have a positive impact at the time of the pregnancy but a negative outcome in the long run.

"In my culture... she needed some spiritual protection and herbal medication to redeem her from that (pregnancy complications), which she didn't do it so these are all contributing factors" Solomon.

Both Solomon and Paul have different background, while Paul is educated at masters' level and work as a civil servant, Solomon is not educated at university level and work as a business man. Therefore educational background and profession does not impact on the use of traditional concoction in the study area.

Men perceived roles as determined by culture

Some men (Adam, Anthony, Peter, Benedict and Johnson) expressed that their culture prescribed duties for women and sometimes for men, but they don't go by the culture. Thus, they perform any role as necessary, despite the fact that some societies look at such men as inferior to their wives.

"You are right there, our culture... it is the woman that takes care of the running of home but it did not prescribe to me what I should do... a family where everybody had a role to play, if one is not there, the other can cover, so there is nothing like the woman lives in the kitchen, anybody can cook, anybody can do whatever..." Anthony.

Most of these respondents (Adam, Benedict, Peter) were educated up to university level and almost all of them (Adam, Anthony, Benedict, Peter) were civil servants. Therefore, their actions to go against their culture could be related to their educational background.

However, some participants (Mathew, Paul and Solomon) felt they should not help with domestic works that are culturally meant to be done by their wives, even during pregnancy.

"She is supposed to cook, we believe that... so as Ashanti person as you're talking about, I believe my wife is supposed to cook and put food on my table" Paul

The respondents were from different faith and different educational levels, but have similar views; hence perceived wife's duty is not explained by religion/educational status in Accra, Ghana.

Perception about socioeconomic factors that contributed to wife's death.

Two respondents (Adam and Solomon) think if they had a better earning, they would have prevented their wives death. These participants therefore blame the death of their wives on poor socioeconomic status.

"if I had money to buy myself a car, I don't think this would have happened, I could have put her in the car, straightaway we go to the hospital and because as a teacher, I get a Mickey Mouse amount, very small" Adam

Both Adam and Solomon have small earnings as Adam has teaching as a profession he sorely depends on while Solomon depends on a small business. Therefore, their small income would not afford them a better means of transportation and there is no functional ambulance service in the area.

Half of them (Benedict, Johnson, Mathew, Paul, Solomon) expressed the need to have enough money in order to get the required healthcare services or face a premature death.

"All my days in Ghana, if you don't have money when you to go hospital, you go to die and I tell you that, if you don't have money going to hospital, you're going to die" Johnson.

Most of these participants (Benedict, Mathew and Paul) were educated at degree levels and have monthly salaries from the government, thus can afford to pay some of the hospital bills demanded for their wives treatment. Therefore, a person with less income cannot afford such treatment and eventually have to resort to another means of treatment.

Two participants (Benedict and Jonathan) blame financial constraint as a predisposing factor to use of traditional healers services or concoctions.

"...because of these financial problems or they're handicapped financially, they will keep the issue at home, they will not attend to, you know, the appropriate

healthcare facility, to have the support of healthcare, they resort to drinking some concoctions and tinctures..." Benedict.

Considering the fact that both Benedict and Johnson lost their wives in the hospital and have 3 kids each, which by implication have the largest nuclear family among the respondents. This therefore can expose them to such experiences.

DISCUSSION

Ghana as a Sub-Saharan Africa (SSA) country face one of the highest maternal mortality rates, hence a number of studies were conducted in the country to identify these factors.4 However, most of the studies conducted were quantitative studies and concentrate on identifying the causes from mothers or health workers points of view, while ignoring men who lost their wives following pregnancy. Therefore, this study fills in this gap by specifically targeting this group of men and using a qualitative approach to explore their views about factors contributing to maternal mortality in Ghana. To the authors' knowledge, this is the first study in this field in Ghana from the perspective of men (husbands). Responses were generated from approximately 450 minutes of recordings from the 10 respondents that participated in the study, each lasting an average of 45 minutes.

Exploring the factors contributing to the women's death, the findings of this study indicated three broad categories of factors including physical/physiological, cultural/ traditional and socioeconomic factors. It was identified that physical factors were the major factors contributing to mother's death in Accra part of Ghana, which is in line with many other evidences across Africa and other nations.4,10-12 developing From the responses, haemorrhage is the major physical factor contributing to the women's death, whereby about half of the respondents reported bleeding arising before, during or after birth, most of which were related to labour or delivery occurring at home or on the way to the hospital. This is in line with other findings in Ghana, which indicated haemorrhage as a major cause of maternal mortality.^{13,14} Considering the three delays identified by Thaddeous and Maine, as delay in seeking care, delay in reaching health facility and delay from the health facility, the finding of this study indicated the last two delays as prevalent in Accra, Ghana. 11 While delay in seeking for care remain a problem in many rural regions of Ghana, delay in reaching health facility and delay from the health facility remain the major problem in Accra.² This might be closely associated with high literacy rate in the urban region (Accra), which makes people seek for medical care as soon as possible. The finding of this study also indicated poor antenatal care attendance as a factor contributing to mother's death in the study area. About one-third of the respondents clearly stated that their wives

do not attend antenatal appointments regularly, leading to a number of complications they experienced during pregnancy and eventually death. This is in line with many other evidences in sub-Saharan Africa. 4,12,15

Looking at cultural related factors, the finding of this study indicated many respondents giving preference to traditional or cultural means of handling pregnancy rather than medical. One-fifth of the respondents indicated the necessity to seek for maternity care from traditional birth attendants, who are mostly unskilled to handle moderate to severe pregnancy complications. Hence, the need to go to the hospital is only seen when complications developed, which in most cases could be too late because the extent of damage has gone deep. However, some of the respondents are of the opinion that it is justifiable to seek for the care from the traditional birth attendants considering the limited number of available health staff in the hospitals. Belief in traditional birth attendant is also seen in other regions in Ghana as noted by Eades et al, who recommend the need to train TBAs in Ghana. 16 The situation is similar in many other African countries. 17-19 Socioeconomic related factors were also significant root causes of maternal death as outlined in this study. About half of the respondents expressed the need to have enough money in order to get the required healthcare services in the country. This means socio-economic status determines health of Ghanaian mothers, including the basic maternity services that are meant to be readily available to every person according to the Alma Ata Primary Healthcare declaration in 1978.²⁰ Financial problem was also linked to unhealthy practices like use of concoctions or seeking care from of traditional healers. Even in situations whereby TBAs felt the need to refer the patients, financial difficulties was the major reason given by many women for their failure. 15 A major limitation of the findings of this study is its limited number of participants, which might not give a clear picture of the whole situation in Accra, Ghana. However, this was associated with difficulties in identifying potential respondents who are willing to participate voluntarily.

Based on the findings, it was concluded that the perceived factors predisposing to maternal mortality in Accra, Ghana were avoidable with quality health care services and improved access to the health facilities. Furthermore, the identified factors were similar with those identified in other sub-Saharan African countries. It is thus recommended that the Ghanaian government and its partner agencies should take these factors into consideration in order to achieve the sustainable development goal of reducing maternal mortality in Ghana.

Funding: No funding sources Conflict of interest: None declared

Ethical approval: The study was approved by the

Institutional Ethics Committee

REFERENCES

- 1. Kritz M, Makinwa-Adebusoye P. Determinants of women's decision-making authority in Nigeria: the ethnic dimension. Sociol. Forum. 1999:14(3):399–424.
- 2. Amoakohene U. Violence against women in Ghana: a look at women's perceptions and review of policy and social responses. Social Sci Med. 2004:59(11):2373–85.
- 3. Fotso JC, Ezeh AC, Essendi H. Maternal health in resource-poor urban settings: how does women's autonomy influence the utilization of obstetric care services? Reproductive Health. 2009:6:9.
- 4. Kyei-Nimakoh M, Carolan-Olah M, McCann TV. Mellennium Development Goal 5: Progress and Challenges in reducing Maternal Deaths in Ghana. BMC Pregnancy and Childbirth. 2016:16:51.
- 5. Amooti-Kaguna B, Nuwaha F. Factors influencing choice of delivery sites and use of prenatal and delivery care in Indonesia. Studies in Family Planning. 2000:32:130–46.
- Gabrysh S, Campbell OMR. Still too far to walk: Literature review of the determinants of delivery service use. BMC Pregnancy and Childbirth 2009:9(34):1–18.
- 7. Shamu S, Abrahams N, Temmerman M, Musekiwa A, Zarowsky C. A systematic review of African studies on intimate partner violence against pregnant women: Prevalence and risk factors. PLoS ONE. 2011:6(3):1-9.
- 8. Farquhar C, Kiarie JN, Richardson BA, Kabura MN, John FN, Nduati RW, et al. Antenatal couple counseling increases uptake of interventions to prevent HIV-1 transmission. J Acquired Immune Deficiency Syndromes. 2004:37:1620–6.
- 9. Beegle K, Frankenberg E, Thomas D. Bargaining power within couples in Rakai district of Uganda. Social Sci Med. 2001:50:203–13.
- Lawoyin TO, Lawoyin OO, Adewole DA. Men's perception of maternal mortality in Nigeria. J Public Health Policy. 2007:28(3):299-318.
- 11. Thaddeus S, Maine D. Too far to walk: maternal mortality in context. Social Sci Med. 1994:38:1091–110.

- 12. Ahmed S, Creanga AA, Gillespie DG, Tsui AO. Economic status, education and empowerment: implications for maternal health service utilisation in developing countries. PLoS One. 2010:5(6):e11190.
- 13. Lee QY, Odoi AT, Opare-Addo H, Dassah ET. Maternal mortality in Ghana: a hospital-based review. Acta Obstet Gynecol Scand. 2012:91:87–92.
- 14. Asamoah BO, Moussa KM, Stafstrom M, Musinguzi G. Distribution of causes of maternal mortality among different socio-demographic groups in Ghana: A descriptive study. BMC Public Health. 2011:11:159.
- 15. Cross S, Bell JS, Graham WJ. What you count is what you target: the implications of maternal death classification for tracking progress towards reducing maternal mortality in developing countries. Bull World Health Organ. 2010:88(2):147–53.
- 16. Eades CA, Brace C, Osei L, LaGuardia KD. Traditional birth attendants and maternal mortality in Ghana. Social Sci Med. 1993:36(11):1503-7.
- 17. Gyimah SO, Takyi BK, Addai I. Challenges to the reproductive-health needs of African women: On religion and maternal health utilization in Ghana. Social Sci Med. 2006:62:2930–44.
- 18. Takyi BK. Religion and women's health in Ghana: Insights into HIV/AIDS preventive and protective behaviour. Social Sci Med. 2003:56:1221–34.
- 19. AbouZahr C. Safe motherhood: A brief history of the global movement 1947–2002. Br Med Bull. 2003:67:13–25.
- 20. World Health Organization. Fact sheet: Trends in maternal mortality: 1990 to 2013. Estimates by WHO, UNICEF, UNFPA, The World Bank and the United Nations Population Division, 2014. Available at: http://www.who.int/reproductive health/publications/monitoring/maternal-mortality-2013/en. Accessed on 10 October 2017.

Cite this article as: Adika DM, Chutiyami M, Dathini H, Adamu H. Maternal mortality in Ghana: an exploration of partners' perception about factors that contributed to their wife's death. Int J Community Med Public Health 2017;4:4018-24.