Original Article

The challenges of prenatal care for Bangladeshi women: a qualitative study

M.K. Akter[1] RN, PhD, **S. Yimyam**[2] RN, PhD, **J. Chareonsanti**[3] RN, PhD & **S. Tiansawad**[4] RN, DSN

1 PhD Candidate and Nursing Instructor, Nursing Institute Mitford, Dhaka, Bangladesh, **2** Professor, **3** Assistant Professor, **4** Associate Professor, Faculty of Nursing, Chiang Mai University, Chiang Mai, Thailand

AKTER M.K., YIMYAM S., CHAREONSANTI J. & TIANSAWAD S. (2018) The challenges of prenatal care for Bangladeshi women: a qualitative study. *International Nursing Review* **00**, 1–8

Background: Maternal and infant morbidity and mortality are major issues in developing countries, but the literature reveals there are limited studies on the sociocultural issues affecting adequate prenatal care in Bangladesh.
Aim: To explore the sociocultural influences underlying perceived barriers to prenatal care among pregnant women in an urban area of Bangladesh.
Methods: A descriptive qualitative research was conducted with 20 women and 20 of their significant others in three purposively sampled hospitals using individual in-depth interview between November 2016 and March 2017. Content analysis was used for analysis.
Findings: Six themes emerged as follows: women's lack of opportunity to make decision; pregnancy as a normal life event; insufficient money for prenatal care; heavy family workload without family support; no permission to go to hospital without a guardian; and inconvenient transportation.
Discussion: Good prenatal care is vital for maternal and infant health, but our participants were challenged by a number of key issues as follows: they lacked empowerment to make their own pregnancy decisions, they were impoverished financially, struggled to get to their prenatal appointments by local transport and they lacked family understanding and support for necessary prenatal care.
Conclusion and policy implications: Based on the findings, it is recommended that promoting prenatal care adequacy among pregnant women in Bangladesh needs socioculturally sensitive health education programmes which target are not only pregnant women, but also their significant others who are authorized persons in the family. It should be established remote PNC services. Empowerment of women is vital in the country and free antenatal education programmes are needed through a variety of media. Findings provide information for nursing and health policymakers to develop policies to improve adequacy of prenatal care among pregnant women.

Keywords: Culture, Health Policy, Midwifery, Nursing, Prenatal Care, Qualitative Descriptive Research

Correspondence address: Susanha Yimyam, Head of Excellent Center of Nursing, Faculty of Nursing, Chiang Mai University, 110 Inthawarorose Street, Meaung District, Chiang Mai 50200, Thailand; Tel: +66-53-949034; Fax: +66-53-217145; E-mail: syimyam@gmail.com.

Funding
The Faculty of Nursing, Chiang Mai University, Thailand and Nursing Services and Ministry of Health and Family Welfare of Bangladesh and the Faculty of Nursing, Chiang Mai University. Provided funding for the first author complete this study at Faculty of Nursing, Chiang Mai University, Thailand.
Conflict of interest
There is no conflict of interest reported by the authors.

International Nursing Review

Background

Adverse birth outcomes constitute global health emergencies in developing countries including Bangladesh. It is estimated that 15 million babies worldwide are born prematurely each year. Among them, over one million babies die soon after delivery, and many of the remaining experience lifelong physical, neurological and educational disabilities (Adane et al. 2014). In addition, more than 20 million infants worldwide are born with low birthweight (LBW; Gajate-Garrido 2013). Babies with LBW are 40 times more likely to die during their first month of life (Daniels 2011). In Bangladesh, the maternal mortality rate is 176 per 100 000 live births (WHO 2017), and the infant mortality rate was 28 per 1000 live births in 2016 (UNICEF 2016) These statistics are no doubt influenced by the fact that around 85% of the poorest women still give birth at home (Das 2016) without trained birth attendants such as midwives, nurses and doctors. These statistics raise challenges for health professionals such as nurses and midwives to improve maternal and child health.

To reduce the ratio of maternal mortality and to improve overall birth outcomes, adequate prenatal care is recommended (Koch & Ballew 2014; Pandey & Karki 2014). Empirical evidence has recognized a number of sociocultural factors that hinder women's access to adequate prenatal care services. Some of these sociocultural factors include lack of decision-making power, long distances to health facilities, high cost of service, transportation problems, and cultural values, beliefs, and practices of women and family members (Ganle 2014). Women's sociocultural background plays crucial role in seeking and use of prenatal care (Azuh et al. 2015). In Bangladesh, maternal mortality is still high compared to other developing as well as developed countries from pregnancy-related complications (WHO 2017). Currently, there are few nurses and midwives working in the community outside hospital systems although the government is working to increase this. It is not surprising therefore that the majority of women (64%, urban and 80%, rural) receive inadequate prenatal care (Kamal et al. 2016) and when 36% of women do not receive any prenatal care from medically trained personnel (Sarker et al. 2016). Bangladesh is a male-dominated society where cultural values, beliefs and practices promote gender inequality (Sultana 2011). Women are treated as subordinates by their husbands and mothers-in-law and are economically and culturally dependent on them. A mother-in-law has a dominant force within a marriage and generally has great power over their daughter-in-law. Under male domination, women are usually not allowed to visit a health facility or care provider without being accompanied by an authorized person or a senior member of the family, or to make the decision to spend money without the approval of their husband (Shahabuddin et al. 2017). All of these factors highlight the need for nurses and midwives to work alongside government and health policymakers in Bangladesh to improve this situation for women if maternal and child morbidity and mortality rates are to be improved, and the country is to make progress in achieving the sustainable development goals (United Nations 2018), of reducing inequality and poverty, and improving gender equality and health and well-being. Critically, nurses need to be involved in determining and implementing policy solutions to influence better maternal care. In this first time study on the topic by nurses, the aim was to explore the sociocultural influences underlying perceived barriers to prenatal care among women who were post-partum in an urban area of Bangladesh.

Methods

Design

A descriptive qualitative study was conducted to identify the sociocultural issues among women immediately post-partum in three tertiary-level hospitals, Bangladesh. This was considered the best method to get an in-depth picture of the phenomena, to understand why people think, believe, react and behave in the way that they do (Talbot 2015).

Sample and setting

Participants were selected for in-depth interview using a purposive sampling technique based on their willingness and availability of their time. A total of 20 women and 20 their significant others, such as husband, mother or sister, underwent in-depth interviews in three purposively sampled large public teaching hospitals in the capital of Dhaka.

Data collection

Hospital head nurses put the principal researcher (PI) in contact with potential participants after the second day of giving birth, and after they agreed, a location and time were set for in-depth interviews. An in-depth interview guide was used to achieve a holistic understanding related to sociocultural issues, including the following: *Could you please tell about your experiences related to prenatal care? Who decided for you to visit prenatal clinic? Please explain any difficulties you might have had in receiving prenatal care?* The questions were changed for the significant others, for example, *Please could you tell me about your daughter's prenatal experience?* On average, each interview lasted about 30 min and was digitally

recorded. Interviews continued until data saturation occurred in interviews, that is when no new ideas and issues seemed to arise during analysis (Saunders et al. 2017). Field notes were also taken during the study.

Data analysis

The interviews were transcribed and analysed using the process of content analysis (Graneheim & Lundman 2004). Field notes were also subjected to content analysis. The data were prepared and verified prior to data analysis. This involved three main phases: preparation, organization and reporting of results and began as soon as possible following each interview. The in-depth interviews were transcribed verbatim into Bengali by repeatedly listening to the audiotapes. All transcribed data were read repeatedly until familiarity of data was achieved, to achieve a sense of the whole picture. Then, the transcriptions were translated into English by the PI. Both the Bengali and the English translations were then double-checked by a bilingual person to check the accuracy of the translations. This translated data were considered to be a unit of analysis (Elo et al. 2014). The keywords, phrases and sentences that relate to the sociocultural influence on the women were extracted and underlined as meaning units, and then they were coded and condensed by reading the transcript data line-by-line. When all interview transcripts had been coded, themes were developed by clustering together the condensed meaning units that shared common content (Graneheim & Lundman 2004). These codes and themes were then reviewed by the research team until consensus was reached.

Rigor and trustworthiness

The trustworthiness of the study was determined by both credibility and confirmability (Streubert & Carpenter 2011). Credibility was established through triangulation, member checking and peer debriefing (Holloway & Wheeler 2010). The process of data triangulation involved using different data sources of information to deepen the researchers' understanding about phenomenon (Carter et al. 2014). The researcher conducted data triangulation by gathering information from post-partum women and their significant others, as well as field notes, to enhance the validity of the data. Member checking is the procedure in which researchers' revisit the participants to verify their explanations and interpretations are accurate (Birt et al. 2016). Transcribed scripts were sent back to participants and who agreed with interview summaries based on their opinion. Thus, they confirmed the credibility of study findings.

In peer debriefing, the PI had an advisory team with expertise in the relevant issues to facilitate the consideration of methodological activities and to provide feedback concerning the accuracy and completeness of the data collection and analysis procedures (Streubert & Carpenter 2011). Confirmability refers to the maintenance of neutrality. This means the findings should be reflected in the participants' responses and circumstances of the investigation, and not through any potential biases, motivations, or perspectives of the researchers. In this study, confirmability was enhanced by the technique of an audit trail, through the process of checking and rechecking the raw data, and the analysis of the products and synthesis products (Elo et al. 2014).

Ethical considerations

This study was approved by Research Ethics Review Committee of the Faculty of Nursing, Chiang Mai University (Approval-077-2559) and the participating hospitals in Bangladesh. Prior to data collection, written consent was obtained from all participants who were informed about the purpose and methods of the study. Ethical principles such as autonomy of the participants, confidentiality and anonymity were upheld throughout the study. The women who had given birth were interviewed separately from their significant family members.

Findings

Demographic background of the women is given in Table 1. Twenty Bangladeshi pregnant women participated and their ages ranged from 20 to 34 years, with a mean age of 27.25 years. Most were Muslim (90%), while 65% had no education. Their monthly family income ranged from 4000 BD taka (around US$50) to 15 000 BD taka (around US $187.50) with a mean of 5850 (approximately US$73.13). All of them were housewives. By occupation, most of their spouses (85%) were day labourers. The majority (90%) reported that they resided from 5 to 17 km from the hospital, long distances considering the state of the roads and transport problems (See Table 1).

Demographic background of the women's significant others is given in Table 2. Twenty significant others participated in the qualitative phase of the study. Among them, nine were mothers, six were husbands and five were sisters. Their ages ranged from 19 to 50 years, with a mean age of 35.8 years. Most of them were Muslim (90%). In terms of marital status, almost all were married (95%) and half had a primary education (50%). In regard to occupation, the largest numbers (65%) were housewives, followed by day labourers (25%; See Table 2).

Six themes emerged and are discussed below. Quotes are followed by the participant number. (PP = post-partum participant).

Table 1 Demographic characteristics of the women (n = 20)

Characteristics	*Frequency*	*Percentage*
Age (years); (Mean = 27.25)		
20–30	16	80.00
31–34	4	20.00
Religion		
Muslim	18	90.00
Hindu	2	10.00
Level of education		
No education	13	65.00
Primary	7	35.00
Occupational status of women		
Housewife	20	100.00
Occupational status of spouse		
Day labour	17	85.00
Self Employed	2	10.00
Private work	1	5.00
Monthly family income (BD taka)*(Mean = 5850)		
<10 000	18	90.00
≥10 000	2	10.00
Distance between home and hospital (km.)		
<5	2	10.00
5–17	18	90.00

*Approximately 80 BD taka equals to 1 US$.

Table 2 Demographic characteristics of women's significant others (n = 20)

Characteristics	*Frequency*	*Percentage*
Relationship with pregnant women		
Mother	9	45.00
Husband	6	30.00
Sister	5	25.00
Age (years); (Mean = 35.80)		
19–30	7	35.00
31–40	6	30.00
41–50	7	35.00
Religion		
Muslim	18	90.00
Hindu	2	10.00
Marital status		
Married	19	95.00
Single	1	5.00
Level of education		
No education	7	35.00
Primary	10	50.00
Secondary	2	10.00
Higher secondary	1	5.00
Occupational status of significant others		
Housewife	13	65.00
Day labour	5	25.00
Private work	2	10.00

Theme 1: Women's lack of opportunity to make decisions

In this theme, participants confirmed that Bangladeshi women are not autonomous, lack equality with men, cannot make decisions on their own and are largely excluded from family decision-making. In Muslim culture, decisions related to women's mobility, health and healthcare expenditure are in the hands of husbands, or other senior family members. Women are controlled in their mobility to travel anywhere without a chaperone, so this constrained their prenatal visits, for example:

> It is my family tradition that, for each pregnancy, the decision of whether or not to use prenatal care is made by the husband, the mother-in-law, or the senior family members, rather than by the woman herself. (PP; 19)
>
> By culture, women are in the low position in society and have dependency on their husband, mother-in-law and father-in-law, especially financially and in the area of decision-making. If women get any health-care problem, they only seek treatment from a traditional healer. (Mother; 3)

Theme 2: Pregnancy as a normal life event

The participants reported that their authorized family members' beliefs and feelings did not support prenatal care because they thought it was unnecessary, or due to a lack of female doctors. Pregnancy was not considered an illness by these family members and is a normal life event. The term 'authorized family members' includes mothers-in-law, fathers-in-law, husbands, and other senior family members.

> My mother-in-law didn't agree with my obtaining prenatal care. She thinks that pregnancy is a normal process for all women. My husband was also not willing to send me for prenatal check-ups, because, most of the time, female doctors are not available in the prenatal clinic in our area. (PP; 2)
>
> I think that prenatal care is not important if women don't have any complications. (Husband; 2)

Theme 3: Insufficient money for prenatal care

Although the official fee for the prenatal care visit itself was low, such care could become costly when the doctors prescribed several laboratory tests and medications. Ninety per cent participants' families had a very low monthly income of <10 000 Bangladeshi Taka or US$125 per month Thus, the high cost of prenatal care was often unaffordable:

Although the official hospital fees for prenatal care are low, other expenditures are much higher, such as laboratory tests and money for medications. All of these are relatively expensive, so it is difficult for me to manage the cost. (PP; 11)

Prenatal care can become costly when the doctor prescribes several tests. Most of the people cannot afford it. (Mother; 3)

Theme 4: Heavy family workload without family support

Participants had a heavy burden of household work and could not manage the time for prenatal care visits. Those who had heavy household workloads were not treated well by their mothers-in-law at times when they could not finish their usual work on account of a prenatal visit. No one else in the family helped with their work, such as taking care of children and mothers-in-law, and performing household work, such as cooking, cleaning and washing:

I was busy with my household work, and I also needed to take care of my son, as well as my mother-in-law at home. I take my son to school in the morning and pick up him from school in the afternoons regularly. (PP; 2)

There is no one else in my house to help my wife. My mother is very old. Moreover, it is the tradition of our family that the mother does not do any work in the household after her son gets married. (Husband; 10)

Theme 5: No permission to go to hospital without guardian

According to the culture in Bangladesh, women are not allowed to go outside without a guardian, and they must practice *purdah* (modesty). For women, there is much cultural restraint on their movement. Muslims should adhere to the practice of *purdah* which requires that a woman cover up her body, including her head and face, when going outside her home. This practice limits women in the process of seeking health services:

In my family, there is a rule that women are not allowed to go outside for medical care without a guardian. Once, my son was very sick, but I could not go to the hospital without my husband. Being dependent *on my husband* is a problem, because in the daytime, he's normally gone to work. (PP; 5)

Furthermore, one of women's sisters also mentioned about cultural restriction on women's travelling:

It is the rule in my sister's family that women need permission from either their husband or their mother-in-law to go outside and women are not allowed to go outside without guardian. (Sister; 14)

Muslim woman practice purdah, (which) limits them to go outside for any purposes. (Mother; 20)

Theme 6: Inconvenient transportation

In the city, public transport services were neither easy nor accessible. Getting around with public transport is quite hard and takes long time, and is often very unsafe journey due to poor road condition, especially for pregnant women. The bus stations are far away from the hospital. Transportation is not often available, involves long wait times, and the high cost of transport fares to continue to discourage women from seeking prenatal care, for example:

I live far away from the nearest hospital. So it is inconvenient to access health care, due to the non-available transport involved. So if I travel many times to the hospital, I need a lot of money for transport and related expenses. (PP; 7)

The hospital is so far away from our home. The road is very narrow, so vehicles cannot easily access my community. Even sometimes when we want to go to the hospital, it is a major problem to get a car. (Husband; 4)

Discussion

This study examined how sociocultural issues hinder pregnant women's access to adequate prenatal care services in Bangladesh. Living in a patriarchal society, participants reflected on sociocultural norms and beliefs which are discriminatory and unfair against women's ability and willingness to access adequate prenatal care services despite these services being provided at low cost. Several of these issues are described below.

The first and most important theme under this topic is *women's lack of opportunity to make decision.* The vast majority of the participants reflected that women were not allowed to make decisions about prenatal care on their own. Underutilization of antenatal care is directly related to lack of women's autonomy and empowerment (Hossain & Hoque 2015). The sociocultural norms in society in Bangladesh enforce the variation in power among men and women within households, and the decision-making power of women in Bangladesh is generally limited to their households and a mother-in-law often has more decision-making power than her daughter-in-law. Women are dependent on their husbands in all areas of their lives, including the making of decisions. The above findings are supported by several previous studies (Azuh et al. 2015; Ganle et al. 2015; Shamaki & Buang 2014), which revealed that decisions related to the use of prenatal care were usually influenced by senior family members or husbands. In developing countries, especially in South Asia and parts of Africa, cultural norms mandate that young women listen to and obey senior family members. However, when women become older, their power increases in household decision-making (Simkhada et al. 2010).

Another theme was *pregnancy as a normal life event.* The attitudes of the family members, the significant others, were not positive towards pregnant women's prenatal care visits. Most of them thought that pregnancy is a normal life event for every woman, so there is no need to seek prenatal care unless complications occur. Family members did not understand the necessity of prenatal care and believed that prenatal care is more a burden than a benefit. This finding is supported by several previous studies in Pakistan (Mumtaz & Salway 2009), Bangladesh (Shahabuddin et al. 2017) and Nepal (Simkhada et al. 2010) which demonstrated that mothers-in-law and other family members believed that prenatal care is not essential during a normal pregnancy and often discouraged women from going on prenatal visits. Bangladesh, Pakistan, and Nepal are all highly traditional South Asian countries where unequal power relationships within families exist, based on gender and age. In all of these societies, mothers-in-law have strong power in their households (Simkhada et al. 2010).

Insufficient money for prenatal care meant that participants had limited or insufficient funds to always go to hospital for prenatal care services. The mere accessibility of healthcare services only does not guarantee its use; there is also the matter of affordability (Sarker et al. 2016). In Bangladesh, poverty is deep and widespread; almost half of the population lives on <US$1 a day (BBC News Asia 2012) so the affordability of health services is a major issue. Although the official fee of a prenatal care visit itself is low, the participants perceived that the financial burden for obtaining adequate prenatal care remains a challenge in Bangladesh. It is not surprising that in this current study, 90% participants had a very low monthly income of around <10 000 Bangladeshi Taka or US$125 per month. This finding is consistent with previous studies (Finlayson & Downe 2013; Ogundairo & Jegede 2016) where limited financial resources available were usually used for important daily needs, rather than for pregnancy care. Some possible explanations for this could include low family income; unemployment; and financial dependency on husbands.

Another theme was *heavy family workload without family support*. The participants were usually unable to take leave from their household responsibilities to go on prenatal visits, due to their heavy workload. Most women in Bangladesh are restricted to their homes to do housework. The younger women are normally expected to do household chores and to care for their children, husbands, and mothers- and fathers-in-law. The above findings were supported by those of some previous studies carried out in Gambia (Lowe et al. 2016) and Nepal (Simkhada et al. 2010). These results indicated that heavy household workloads were a major issue for most of the pregnant women who were not able to manage their time to utilize prenatal care (Lowe et al. 2016; Simkhada et al. 2010). Moreover, in families in Bangladesh, earning income is usually the responsibility of men, while women are mainly responsible for household work.

Another theme was *no permission to go to hospital without guardian.* Participants explained that women in Bangladesh, especially young, married women, are not allowed to go outside without a guardian and without observing the practice of *purdah.* Bangladesh is a Muslim-dominated country where it is believed that women should stay at home, or modestly cover their bodies from the view of males who are not closely related. These practices severely limit the mobility of women. These findings have been supported by a previous study (Mamba et al. 2017) which revealed that women are not permitted to visit their doctors without their husband being present. These beliefs and practices should be viewed as resulting from the general conservative sociocultural and religious background of people in Bangladesh and Malawi. Traditionally, in a patriarchal social system such as that in Bangladesh, men have the veto power and authority in family decision-making, rather than the women (Kalam 2014) and there is a great scope for the empowerment of women, and changing attitudes towards women and girls' education (Hossain & Hoque 2015) and freedoms.

Inconvenient transportation was a mitigating factor to accessing prenatal care for participants as public transport service is frequently unavailable, time-consuming and costly for those who are poor and living far from a hospital. The majority of participants reported that a lack of available transport hindered them from receiving adequate prenatal care, as found in other studies demonstrating that lack of available transport did not have a positive impact on maternal and child health (Atuoye et al. 2015; Qureshi et al. 2016). Bangladeshi roads are often narrow, broken and have drainage problems, and unplanned repairs causes traffic jams which waste valuable time and make travel very complicated and hard, especially for pregnant women.

Conclusions

There are various sociocultural issues underpinning participants' perceptions about prenatal care in Bangladesh not being affordable or easily accessed. Among these, the most important issues which emerged from data analysis are women's lack of decision-making ability about their health and every day affairs, unfavourable attitudes towards prenatal care by family members', insufficient funds for prenatal care, heavy family workload, no permission to go to hospital

without a guardian, and inconvenient transportation. There is great scope to increase Bangladeshi women's autonomy that will significantly enhance decision-making at the household level and within society. In traditional Bangladesh, the subordinated position of women makes them vulnerable within the family and society, and this is perpetuated when a large number of women are less educated or have no education, nor can move about freely in society. Many policies exist to improve women's autonomy in Bangladesh; however, their situation still appears miserable. Much needs to change if the UN's Sustainable Development Goals are to be achieved in the country.

Limitations

The study conducted the individual in-depth interview with 20 women post-partum and 20 of their significant others in three tertiary-level hospitals in urban area of Bangladesh, and may not be transferable to understanding the sociocultural issues affecting prenatal care among other populations in Bangladesh. Nevertheless, the rich finding shed light on the difficulties these women faced in their everyday lives. Another limitation is that interviews were not conducted with women who did not attend the hospital settings for prenatal care or childbirth. This population needs to be studied to understand their prenatal experiences which may be quite different to our study participants.

Policy implications

Nursing and health policymakers can apply these findings to the development of understanding the sociocultural mores of Bangladeshis, and to proper interventional programmes to increase the adequate prenatal care among pregnant women in Bangladesh. As mentioned above, nurses and midwives have a critical role to play in the development and implementation of policies in Bangladesh to increasing women's social status and decision-making role within the household as well as enhance women's autonomy for the obtained adequate prenatal care. Closing the gender gap and ensuring free compulsory and universal primary and secondary education is critical, especially for the girls. Nurses need also to be involved in policies and campaigns to provide culturally sensitive community education for society, to encourage relatives to understand the need for all women to obtain prenatal care services. Nurses and midwives can also be involved in providing prenatal care through the use of mobile clinics in suburban and rural areas. In addition, nurses and midwives can be employed in community nursing teams to provide home care and home delivery. Messages can be disseminated through the mass media, and health awareness campaigns. In addition, the findings highlight the need for prenatal care services to be prepared and delivered in such a way that is culturally appropriate, socially acceptable and culturally responsive.

Author contributions

Study design: KA, SY, JC, ST
Data collection: KA
Data analysis: KA, SY, JC, ST
Study supervision: KA, SY, JC, ST
Manuscript writing: KA, SY
Critical revisions for important intellectual content: KA, SY

References

Adane, A.A., et al. (2014) Adverse birth outcomes among deliveries at Gondar University Hospital, Northwest Ethiopia. *BMC Pregnancy and Childbirth*, **14** (90), 1–8.

Atuoye, K.N., et al. (2015) Can she make it? Transportation barriers to accessing maternal and child health care services in rural Ghana. *BMC Health Services Research*, **15** (333), 1–10.

Azuh, D., Fayomi, O. & Ajayi, L. (2015) Socio-cultural factors of gender roles in women's healthcare utilization in southwest Nigeria. *Open Journal of Social Sciences*, **3**, 105–117.

BBC News Asia (2012) *Bangladesh profile*. Available at: http://www.bbc.co.uk/news/world-south-Asia-12650940.html (accessed 14 February 2018).

Birt, L., et al. (2016) Member checking: a tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research*, **26**(13), 1802–1811.

Carter, N., et al. (2014) The use of triangulation in qualitative research. *Oncology Nursing Forum*, **41** (5), 545–547.

Daniels, P.V. (2011) *The Timely Use of Prenatal Care and its Effects on Birth Outcomes in Black Women of Low Socioeconomic Status in the South*. Doctoral dissertation, Georgia State University.

Das, T.R. (2016) Family planning program of Bangladesh: achievements and challenges. *South East Asian Journal of Public Health*, **6** (1), 1–2.

Elo, S., et al. (2014) Qualitative content analysis: a focus on trustworthiness. *SAGE Open*, **2014**, 1–10.

Finlayson, K. & Downe, S. (2013) Why do women not use antenatal services in low- and middle-income countries? A meta-synthesis of qualitative studies. *PLOS Medicine*, **10** (1), 1–12.

Gajate-Garrido, G. (2013) The impact of adequate prenatal care on urban birth outcomes: an analysis in a developing Country context. *Economic Development and Cultural Change*, **62** (1), 1–38.

Ganle, J.K. (2014) Addressing socio-cultural barriers to maternal healthcare in Ghana: perspectives of women and healthcare providers. *Journal of Women's Health, Issues & Care*, **3** (6), doi:http://dx.doi.org/10.4172/2325-9795.1000171

Ganle, J.K., et al. (2015) How intra-familial decision-making affects women's access to, and use of maternal healthcare services in Ghana: a qualitative study. *BMC Pregnancy and Childbirth*, **15** (173), 1–17.

Graneheim, U.H. & Lundman, B. (2004) Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education*, **24**, 105–112.

Holloway, I. & Wheeler, S. (2010) *Qualitative Research InNursing and Healthcare*, 3rd edn. Wiley-Blackwell, Chichester, UK.

Hossain, B. & Hoque, A.A. (2015) *Women empowerment and antenatal care utilization in Bangladesh*. Proceedings of the Australian Academy of Business and Social Science Conference.

Kalam, A. (2014) Social norms and impediments of women development in Bangladesh. *International Journal of Social Science Studies*, **2** (2), 100–109.

Kamal, N., Curtis, S., Hasan, M.S. & Jamil, K. (2016) Trends in equity in use of maternal health services in urban and rural Bangladesh. *International Journal for Equity in Health*, **15** (27), 1–11.

Koch, T.M. & Ballew, C. (2014) Adequacy of prenatal care utilization: pregnancy outcomes, Montana, 2008–2012. *Office of Epidemiology and Scientific Support*, 1–7.

Lowe, M., Chen, D.-R. & Huang, S.-L. (2016) Social and cultural factors affecting maternal health in rural Gambia: an exploratory qualitative study. *PLoS One*, **11** (9), 1–16.

Mamba, K.C., Muula, A.S. & Stones, W. (2017) Facility-imposed barriers to early utilization of focused antenatal care services in Mangochi District, Malawi–a mixed methods assessment. *BMC Pregnancy and Childbirth*, **17** (444), 1–8.

Mumtaz, Z. & Salway, S. (2009) Understanding gendered influences on women's reproductive health in Pakistan: moving beyond the autonomy paradigm. *Social Science & Medicine*, **68**, 1349–1356.

Ogundairo, J.A. & Jegede, A.S. (2016) Socio-cultural challenges in accessing antenatal care by pregnant fulani women in Ibarapa central local government, Oyo-State, Nigeria. *Annals of Public Health and Research*, **3** (3), 1–5.

Pandey, S. & Karki, S. (2014) Socio-economic and demographic determinants of antenatal care services utilization in Central Nepal. *International Journal of MCH and AIDS*, **2** (2), 212–219.

Qureshi, R.N., et al. (2016) Health care seeking behaviours in pregnancy in rural Sindh, Pakistan: a qualitative study. *Reproductive Health*, **13** (34), 75–81.

Sarker, B.K., et al. (2016) Reasons for preference of home delivery with traditional birth attendants (TBAs) in rural Bangladesh: a qualitative exploration. *PLoS One*, **11** (1), e0146161. https://doi.org/10.1371/journal.pone.0146161

Saunders, B., et al. (2017) Saturation in qualitative research: exploring its conceptualization and operationalization. *Quality & Quantity*, **52**(4), 1893–1907. https://doi.org/10.1007/s11135-017-0574-8.

Shahabuddin, A., et al. (2017) Exploring maternal health care-seeking behavior of married adolescent girls in Bangladesh: a social-ecological approach. *PLoS One*, **12** (1), 1–16.

Shamaki, M.A. & Buang, A. (2014) Sociocultural practices in maternal health among women in a less developed economy: an overview of Sokoto State, Nigeria. *Malaysian Journal of Society and Space*, **10** (6), 1–14.

Simkhada, B., Porter, M.A. & van Teijlingen, E.R. (2010) The role of mother-in-law in antenatal care decision-making in Nepal: a qualitative study. *BMC Pregnancy and Childbirth*, **10** (34), 1–10.

Streubert, H.J. & Carpenter, D.R. (2011) *Qualitative Research in Nursing: Advancing the Humanistic Imperative*, 5th edn. Wolters Kluwer: Lippincott Williams & Wilkins, Philadelphia.

Sultana, A.M. (2011) Factors effect on women autonomy and decision-making power within the household in rural communities. *Journal of Applied Sciences Research*, **7** (1), 18–22.

Talbot, D. (2015). *The importance of qualitative research and the problem of mass data gathering*. Available at: https://www.linkedin.com/. . ./importance-qualitative-research-problem-mass-data-gath (accessed 21 February 2018).

UNICEF, WHO, World Bank Group, & United Nations (2016) Levels & Trends in Child Mortality. Report 2016, Estimates developed by the UN Inter-agency Group for Child Mortality Estimation.

United Nations (2018) *Sustainable Development Goals: 17 Goals to Transform our World*. Available at: http://www.un.org/sustainabledevelopment/sustainable-development-goals/ (accessed 23 February 2018).

World Health Organization (2017) World health statistics 2017: monitoring health for the SDGs, Sustainable Development Goals. ISBN 978-92-4-156548-6