Knowledge, attitudes and practices of urban Muslim mothers in choosing between health facility and home births: A cross-sectional study

Angela Marie Rosario B. Racoma, Jill Lynn B. Raga, Joy Michelle D. Rahayel, Ma. Hazel Antonette B. Ramores, Mary Jean V. Ramores, Stephanie Marie M. Simbe, Laura Anne S. Sison, Boss B. Sobremesana, Kristina Mae L. Solis, Joseph Patrick R. Sta. Ana, Kelly Ann P. Suanding

Abstract

Introduction The Philippines' high infant mortality rate and maternal mortality rate are influenced by numerous maternal and neonatal risk factors. The authors aimed to determine the socio-demographic data, knowledge, attitudes and practices of urban Muslim mothers in choosing between health professional-assisted births and traditional births.

Methods A cross-sectional study was conducted among urban Muslim mothers residing in Salam Mosque Compound in Quezon City. Respondents, chosen through convenience sampling, were interviewed using a structured questionnaire regarding their socio-demographic characteristics, knowledge, attitudes and practices in choosing between health professional-assisted births and traditional births. They were categorized as having adequate knowledge and positive attitude on the basis of predetermined cut-off scores for each domain.

Results Sixty percent of Muslim mothers surveyed had births in a health facility. Overall, 58.9% of the participants had inadequate knowledge on healthcare. Majority (84%) had a positive attitude towards healthcare, although 40.7% of them still opted to have home births. Mothers who preferred health facility births had their first prenatal checkup during the first trimester with more than seven prenatal checkups during their pregnancy. A greater number of participants also received supplements such as iron, iodine, calcium, and folate.

Conclusion Majority of the mothers have inadequate knowledge, positive attitudes, and varying practices toward healthcare. Higher level of maternal education, relatively higher income, and adequate knowledge on maternal health appear to influence preference for health facility birth over home birth.

Key words: KAP, urban Muslim, birth deliveries

Over the past two decades, the Philippines has shown improvement in reducing child mortality in the attempt to achieve Millennium Development Goal (MDG) 4.[1] Despite this progress, the maternal mortality remains at a critical level, making the MDG 5 unattainable.[2] Many risk factors contribute to the morbidity and mortality of neonates and mothers including mistimed, unwanted and unsupported pregnancy; inadequate care during the course of pregnancy; delivery unattended by a health professional (i.e., nurse, midwives and doctors); lack of access to emergency neonatal and obstetric

Correspondence:
Ma. Hazel Antonette B. Ramores, Department of Preventive and Community Medicine, College of Medicine, University of the East Ramon Magsaysay Memorial Medical Center Inc., 64 Aurora Boulevard, Barangay Doña Imelda, Quezon City 1113; E-mail: hazel.ramores@gmail.com

services; and, inadequate postpartum and neonatal care.[3] In the National Demographic and Health Survey (NDHS) 2013, the Autonomous Region in Muslim Mindanao (ARMM) was recognized as the region with the highest under-five mortality (55 deaths per 1000 live births). It is also the region with the highest proportion of women with no antenatal care (35%), where only 12% of births are delivered in a health facility, and where only one out of five births benefit from the services of a health professional.[4] ARMM is a predominantly Muslim area, home to numerous Muslim mothers with different health-seeking behaviors.[5] However, there is limited data regarding Muslim mothers in the Philippines and their preferences in the place of delivery and delivery assistance.

In an effort to contribute to reduce maternal and neonatal deaths, the authors believe that it is important to explore and understand the factors which may have predisposed Muslim mothers in their childbirth preferences in order to give researchers and health program developers a wider perspective on how to improve existing programs in Muslim communities. This study will also benefit educators and health professionals with regard to improving health education and information dissemination. Furthermore, it will supplement the scarce local literature on health-seeking behaviors of Muslim mothers. This study aimed to determine the socio-demographic data, knowledge, attitudes and practices of urban Muslim mothers of Salam Mosque Compound, Quezon City in choosing between health facility and home births.

Methods

A descriptive cross-sectional study design was used to determine the knowledge, attitudes and practices of urban Muslim mothers of Salam Mosque Compound, Barangay Culiat, Quezon City in choosing between health facility and home births through a guided interview using structured questionnaire. The site, one of the oldest base Muslim communities in Manila, was selected due to its large population and ethnic diversity. The major tribes are the Maranao, Maguindanao and Tausug, while the Iranon, Yakan and Sama constitute the minority groups.

Muslim mothers living in the compound whose latest delivery resulted in single or multiple live births, or single or multiple stillbirths, were recruited by convenience sampling. Women 60 years or older and those who refused to participate were excluded.

Data were collected through a guided interview using a structured questionnaire which was formulated by the researchers and validated through a pilot study to ensure comprehensibility. The questionnaire contained items regarding socio-demographic factors and the knowledge, attitudes and practices of Muslim women towards assisted deliveries. Items consisted of open-ended and multiple choice questions for the socio-demographic data, knowledge and practices and yes or no questions for the attitude part. All of the results were categorized into two groups: health facility births and home births. Health facility births were defined in this study as births delivered by health professionals in facilities including, but not limited to, hospitals, and lying-in clinics. Home births were defined as births delivered in houses or other places of residence.

Each question regarding data on knowledge was given a minimum passing score depending on its difficulty. All of the minimum passing scores were tallied and the total score was the minimum passing level (MPL). Adequate knowledge was determined with having at least a score of 15. Positive attitude was indicated with having a score of at least 60%. Results for knowledge and attitudes were interpreted as adequate or inadequate and positive or negative, respectively.

Results on the sociodemographic data, knowledge, attitudes, and practices were measured using frequency distribution. Central tendency, specifically the mean score, was also obtained for the knowledge and attitudes.

Results

Two hundred eighty women were recruited and agreed to participate in the study. Their average age was 32.8 years (range 15 to 60 years); almost 90% were married and most of them came from the Maguindanaoan (45%), Tausug (26%) and Maranao (13%) tribes. Fifteen percent of respondents were college graduates, 20% reached college and 25.7% were high school graduates. More than half of the respondents were unemployed (59%) while the rest were self-employed or working; 43% had household incomes less than PHP 40,000 annually. Households consisted of 3 to 5 persons in 46%, 6 to 8 persons

(30%) or at least nine persons (21%). Six out of 10 respondents delivered in a health facility. Figure 1 shows that 45 to 65% of mothers from all ethnic groups except the Sama tribe delivered in a health facility.

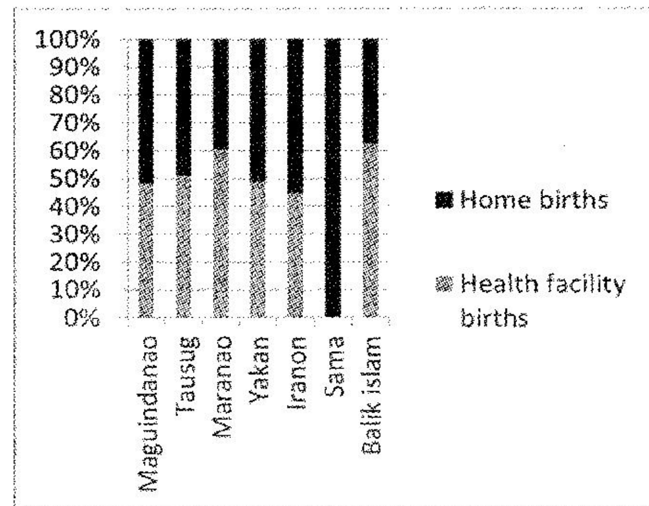

Figure 1. Distribution of health facility and home births according to ethnicity.

Figure 2 shows an increasing preference for a health facility birth with higher educational attainment, except for those mothers who never attended school - all delivered in a health facility. As seen in Figure 3, majority of the mothers who were not working or were self-employed delivered in a health facility while the working mothers delivered at home. Figure 4 shows that those mothers from all income groups, except the PHP 40,000 group, preferred a health facility delivery. Figure 5 shows a general trend towards home delivery with increasing household size.

Knowledge The mean knowledge score of the whole group is 13.9 out of 23, with 40% of respondents having adequate knowledge (MPL = 15). Among women with adequate knowledge, 70% opted for a health facility birth while a majority of the other group chose a home birth as seen in Figure 5.

Attitude The mean attitude score of the respondents is 6.7 out of 9, indicating that most of the Muslim mothers have positive attitudes towards health care. A larger proportion of those with a positive attitude (81%) preferred health facility births whereas those with a negative attitude had a slight preference for home delivery.

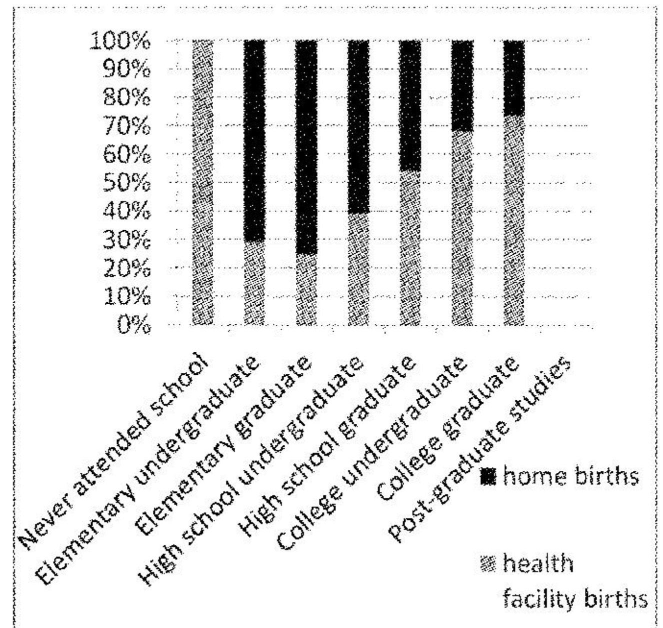

Figure 2. Distribution of health facility and home births according to level of education.

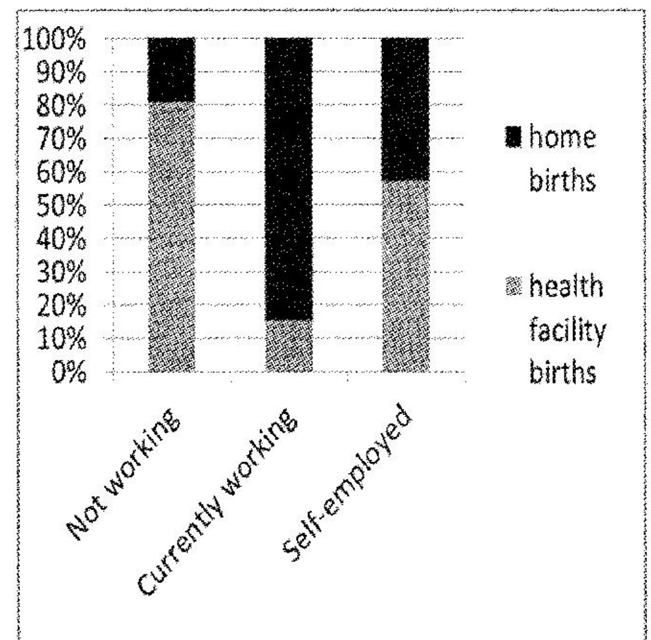

Figure 3. Distribution of health facility and home births according to occupational status.

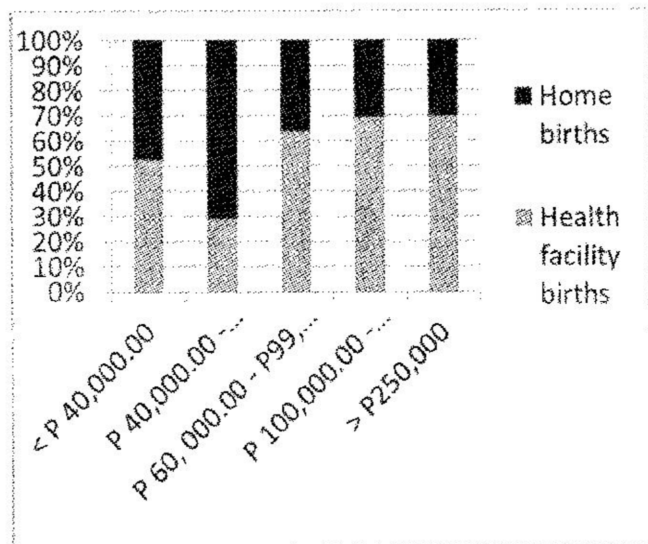

Figure 4. Distribution of health facility and home births according to annual household income.

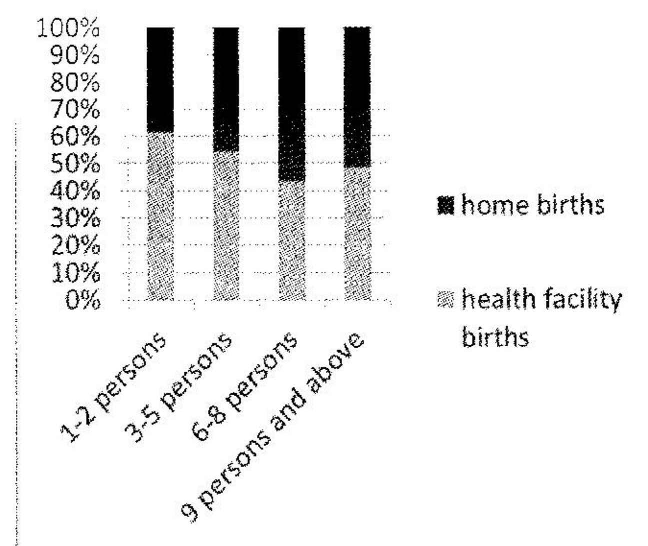

Figure 5. Distribution of health facility and home births according to household size.

Practice Around two-thirds of mothers aged 19 to 35 years delivered in a health facility. More than half of women with at least four prenatal visits delivered in a health facility (Figure 6); 66.2% of those who had their first prenatal visit in the first trimester of pregnancy delivered in a health facility. Almost all (97.5%) of latest deliveries resulted in a live birth, with 59.3% coming from a health facility. Supplementation of iron, iodine, folic acid and calcium was generally higher in mothers who preferred health facility deliveries. Tetanus toxoid was given to 83.6% of the population, of which 61% delivered in a health facility.

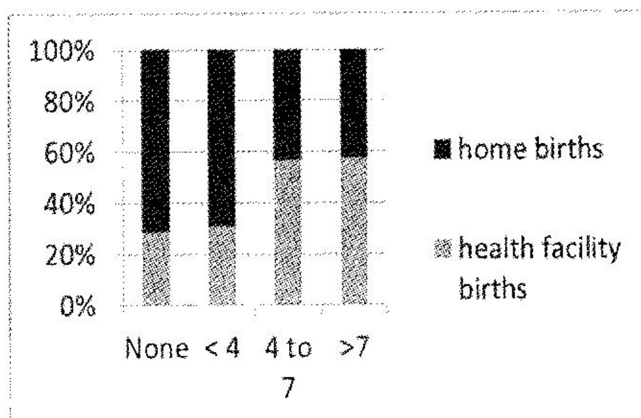

Figure 6. Distribution of health facility and home births according to number of prenatal checkups.

The main reasons for choosing health-professional assisted births were access to the obstetrician in case of birth complications (37%), trust in the health professional (25%), and concern for a clean delivery (21%). The other reasons were accessibility, decision of relatives, and need for cesarean section delivery. The top three reasons for choosing traditional births were inconvenience for going to a health facility (37%), inadequate finances (31%) and personal preference (18%). Other reasons for not choosing health professional-assisted births were absence of companion to the facility, emergency birth deliveries, and lack of transportation to health facility.

Discussion

Considering the cultural and gender minority status of Filipino Muslim women, together with the lack of research on their reproductive and maternal health, Filipino Muslim mothers continue to be underrepresented and their conditions, unrecognized. Current data on Filipino Muslim mothers are mainly represented by the data of ARMM which has a predominantly Muslim

population.[5] Despite the Quezon City Ordinance SP-2171 passed in 2012 which prohibits home births in Quezon City, the study showed that 40% of the respondents preferred home deliveries over health facility deliveries within the last three years.[6]

Majority of mothers who preferred health facility births were unemployed and self-employed whereas most of those who were currently working preferred home births. These results, inconsistent with previous findings, may be explained by the capacity of housewives to provide more attention and time to their pregnancies.[4] The results show that socio-economic status of the mothers influences the preference in seeking healthcare services. An Ethiopian survey showed a positive association between women's wealth index and utilization of health care services.[7] This shows that, in general, women with a higher income prefer health facility births than home births.

Receiving prenatal care was found to be associated with the level of education of mothers, with almost equal prenatal care availment for those with at least elementary education up to college education and a low percentage for those with no education.[7] In a local study, educational attainment of women was associated with the use of maternal care services.[8] The degree of education was directly proportional to the use of maternal healthcare services. Other foreign studies also support the positive effect of education on maternal health-seeking behaviors.[9,10]

Knowledge A study in rural Bangladesh revealed that one of the determinants of the use of maternal health services is the mother's knowledge in the utilization of health care services.[11] In contrast, this study found out that more mothers who had inadequate knowledge on maternal health utilized health care services by choosing birth deliveries assisted by a health professional. The discordance in the results of the present study may be explained by the educational attainment of the mothers. Low level of knowledge regarding the use of maternal health care services among urban and rural women appears to correspond to an equally low rate of utilization of health facilities for delivery and for family planning services.[12]

Attitude A study in England revealed that many Muslim women do not receive good quality maternity care.[13] This could be attributed to the lack of appropriate, easily understandable information on health care during pregnancy, childbirth and postnatal period, resulting in the lack of involvement and choice of Muslim parents. Poor quality and insensitive care received by many women appeared to be a result of some stereotypical and racist views. In this study, there was a higher proportion of participants with a positive attitude towards the health care facility. A larger proportion of those who had a positive attitude were mothers who preferred health facility deliveries. However, there was a substantial proportion of mothers who preferred home birth despite having a positive attitude towards healthcare. This may be attributed to the influence of other factors such as inadequate finances, busy schedules, and accessibility of the health facility.

Practices A higher proportion of mothers who preferred health facility births were seen in the 19 to 35 age range at last delivery. Seeking prenatal care may positively influence decision-making on birth deliveries due to awareness of possible complications for both the mother and the baby during delivery, accessibility of life support equipment and specialists for emergencies, and other health-related concerns. This study revealed that majority of the mothers, regardless of preference for either birth deliveries, had their first prenatal checkup during the first trimester, attended more than 7 prenatal consultations, and received supplements such as iron, iodine, folate and calcium. These reflect the women's good compliance with the DOH's recommended prenatal care.[3]

In a systematic review of literature of the factors affecting the utilization of prenatal care in developing countries, the best predictor of prenatal care visits is women's education, wherein women with better education were more likely to receive the recommended number of check-ups.[14] Higher household and economic status lead to adequate and early prenatal care visits. In this study, majority of the mothers had lower educational attainment, inadequate knowledge on maternal health, and lower socioeconomic status. Despite these factors, the majority of the women surveyed still had better health-seeking behaviors as evidenced by their earlier time of seeking prenatal check-up, higher number of check-ups during the whole course of pregnancy and good compliance in taking supplements. This highlights the importance of the women's positive attitudes towards health professionals since it is most likely the major factor that led them to have better health-related behaviors and decisions.

Results further showed that among mothers who had four or more prenatal visits, who had their first prenatal check-up during the first trimester, and who received supplements, a higher proportion had health facility births. In contrast, a higher proportion of mothers with first prenatal visit during the second or third trimester, with no check-ups at all and with less than four to no check-ups, had home births. Overall, the outcome of pregnancy is uneventful, as evidenced by 97.5% of deliveries being live births, with a higher proportion coming from mothers who chose health facility births. These findings suggest that from the onset of the pregnancy, those who had their prenatal care visits at an earlier time had been informed about what they need to know regarding their pregnancy (e.g., risks) and had planned their deliveries early on. This may have resulted in better compliance to check-ups and intake of supplements and may have also increased their confidence in choosing health facility deliveries. Consequently, mothers may have developed better attitudes toward healthcare, leading to availment of health service and possibly, less future maternal and neonatal complications.

Some of the factors that affect maternal and neonatal health are deliveries without assistance of a health professional and inadequate prenatal care. Despite the efforts of the Department of Health (DOH) to encourage mothers to engage in their program of safe motherhood, a percentage of the population still choose to give birth at home.[15] Most of the reasons of Muslim mothers who preferred to have home deliveries were inadequate financial support as reflected by the number of Muslim mothers who have low income; personal preference of giving birth at home due to convenience and traditions in the family; and far distance from healthcare facilities. Other reasons were absence of companion to the health facility, emergency deliveries, and lack of transportation to the health facility. These reasons reflect the inadequacy of knowledge of most Muslim mothers regarding the programs of the DOH which provide access to high quality maternal health services and cost-effective birth deliveries.

While some Muslim mothers chose home births, most preferred to have their deliveries in lying-ins or hospitals. Mainly, their reasons for seeking health-facility deliveries were access to the specialist in case of birth complications, trust in the health professional, and concern for a clean delivery. These reasons support the earlier finding that majority of the participants have positive attitudes toward health professionals.

Seeking adequate prenatal care is also essential since it highly affects ease of birth deliveries. Most of the Muslim mothers attended their scheduled prenatal checkups; however, some were not able to attend due to certain factors such as forgetting consultation schedules, fear of doctors, and preoccupation with other activities. These reasons suggest a slightly negative behavior of some of the mothers which may be explained by their inadequate knowledge on maternal healthcare. Inadequate knowledge may have predisposed them to being less confident and less able to make good decisions regarding their own health. Other factors that may have contributed to the low utilization of prenatal were financial constraints and cultural barriers. Previous studies found that one of the major factors that hinder women in developing countries from utilizing health services was the cost of service, including transportation and laboratory tests.[16,17] According to another study, one cultural factor that made Muslim women less likely to use reproductive and sexual health services was the lack of privacy (e.g., exposure of legs) that came with checkups.[18] Another barrier that limited prenatal care consultation use was that in some cultures, women perceived health care services to be for curative purposes only.[19]

Socio-demographic characteristics of urban Muslim mothers did not have much difference between those who chose health facility births and home births. Educational attainment and annual household income appeared to influence the choice of birth delivery, where participants who have higher education and higher annual household income showed a greater preference for health facility births.

Majority of the participants have positive attitudes towards maternal health care. Positive attitudes may have influenced the decision of the majority to choose health facility births. However, more than half of the participants have inadequate knowledge on maternal health. Due to inadequate knowledge, a portion of those with positive attitude still prefer home births, which may have been due to factors such as inadequate finances, personal preference, and/or inconvenience of going to the health facility. This reflects that despite the efforts of the Department of Health to encourage mothers to engage in their program of safe motherhood, most Muslim mothers

are still unaware and have inadequate knowledge of such programs.

This study recommends the promotion of maternal education and information dissemination in order for mothers to be more aware of the risks of complications during pregnancy, delivery and postpartum period. Maternal education is still of utmost importance towards better health-seeking behaviors of mothers.

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References

1. United Nations Development Programme. Reduce Child Mortality 2013. Available from: http://www.ph.undp.org/content/philippines/en/home/mdgoverview/overview/mdg4/. [Accessed Sept 17, 2014].
2. United Nations Development Programme. Improve Maternal Health 2013. Available from: http://www.ph.undp.org/content/philippines/en/home/mdgoverview/overview/mdg5/. [Accessed Sept 17, 2014].
3. Department of Health MNCHN Strategy Manual of Operations. Manila: De-partment of Health, National Center for Disease Prevention and Control. 2011 Mar 27; 8-9.
4. Philippine Statistics Authority. Philippines National Demographics and Health Survey 2013. Manila: Philippine Statistics Authority. Available from: https://dhsprogram.com/pubs/pdf/FR294/FR294.pdf. [Accessed Aug 4, 2015].
5. Autonomous Region in Muslim Mindanao: Nine in Every Ten Persons were Muslims. 2003 Jul 15 2003-001. Available from: https://psa.gov.ph/content/autonomous-region-muslim-mindanao-nine-every-ten-persons-were-muslims. [Accessed Aug 4, 2015].
6. Ordinance No. SP-2171, S-2012. 2012 Available from: http://quezoncitycouncil.ph/ordinances18th.php. [Accessed 2015 Oct 22].
7. Maternal health seeking behavior in Ethiopia: Findings from EDHS 2005. Ethiopian Society of Population Studies. 2008 Oct.
8. Rogan SE, Olveña VR. Factors affecting maternal health utilization in the Philippines. 2004 Oct 4 Available from: http://www.nscb.gov.ph/ncs/9thncs/papers/. [Accessed 2015 Oct 22].
9. Fapohunda B, Orobaton N. When women deliver with no one present in Nigeria: Who, what, where and so what? Plos One 2013; 8(7): e69569.
10. Babalola S. Fatusi A. Determinants of use of maternal health services in Nigeria - looking beyond individual and household factors. BMC Pregnancy and Childbirth 2009; 9(43): 1-13.
11. Chakraborty N, Islam M, Chowdhury R, Bari W, Akhter H. Determinants of the use of maternal service in rural Bangladesh. Health Promotion International 2003; 18(4): 327-37.
12. Yar'zever IS, Said IY. Knowledge and barriers in utilization of maternal health care services in Kano state, Northern Nigeria. Eur J Biol Medl Sci Res 2013; 1(1): 1-14.
13. Ali N, Burchett H, Sivagnanam R. Experiences of maternity services: Muslim women's perspective. Maternity Alliance 2004 Nov.
14. Simkhada B, van Teijenlingen ER, Porter M, Simkhada P. Factors affecting the utilization of antenatal care in developing countries: Systematic review of the literature. Adv Nurs 2008; 61(3): 244-60.
15. Department of Health. National Safe Motherhood Program 2011. Manila: Departmentment of Health. Available from: http://www.doh.gov.ph/content/national-safe-motherhood-program.htm. [Accessed Aug 5, 2015].
16. Adamu YM, Salihu HM. Barriers to the use of antenatal and obstetric care services in rural Kano, Nigeria. J Obstet Gynaecol 2002; 22(6): 600-3.
17. Overbosch G. Nsowah-Nuamah N. Van den Boom G. Damnyag L. Determi-nants of antenatal care use in Ghana. J Afr Econ 2004; 13(2): 277-301.
18. Mishra V. Muslim/Non-Muslim differentials in fertility and family planning in India. Population & Health Series. No 112. East-West Working Papers, East-West Center in Honolulu.
19. Magadi MA, Madise NJ, Rodrigies RN. Frequency and timing of antenatal care in Kenya: Explaining the variations between women of different com-munities. Soc Sci Med 2000; 51(4): 551-61.