

Association between Background Characteristics and Maternal Health Literacy of Pregnant Women in the Central Region of Ghana

¹Millicent Osei-Agyemang (Mrs) ²Maureen Nkansah Asante (Mrs), ³Mary Adusei

¹Tutor, Atebubu College of Education, Box 29, Atebubu-B/A

²Tutor, Berekum College of Education, Box 70, Berekum, B/A

³HoD, Vocational and Technical department-Ofinso college of Education, Box 7 Offinso Ashanti

¹Corresponding Author: comfortserwaa843@gmail.com

ABSTRACT

The study examined some background characteristics and the association with knowledge on issues concerning maternal health, using pregnant women who attended ante-natal clinics at Central Regional and Asikuma District Hospitals. The study used descriptive cross-sectional survey design. A sample of 318 pregnant women was selected using simple random sampling. The main instruments designed for the data collection was questionnaire which was pre-tested. The data were coded and analyzed on SPSS, presented in tables of frequencies and percentages. The main findings were that, there were number of Teenagers among the respondents. In the case of education, respondents in the study had a comparatively high level of education. With the marital status, pregnant women without partners in the study lacked the support of their partners. Age range 16-20 years had low knowledge on maternal health issues. Respondents with formal education had high knowledge as against respondents with no formal education on maternal health issues. Pregnant women with spouses had high knowledge on maternal issues. Based on the study, as women go through a number of pregnancies, their knowledge on maternal health appears better. Pregnant women should try and complete formal education

before getting married so that they can get better paid jobs to take good care of themselves and eat good meals when they get pregnant. Formal education will also make them avoid adhering to taboos and superstitions concerning food, pregnancy and childbirth.

Key words: *Maternal Health, Maternal mortality, pregnant women, Teenagers, Central Region*

INTRODUCTION

Maternal health literacy is defined as the degree to which individuals have the capacity to obtain process and understand basic health information needed to make appropriate health decisions and services needed to prevent or treat illness (W.H.O, 2006). According to Liskan (1992), a woman's adequate knowledge on maternal literacy such as good nutrition, food sanitation, hygiene and compliance with the nutritional requirements help to achieve and maintain good maternal health (Liskan, 1992). Edwards (2001), suggested that, a woman's inadequate knowledge on maternal literacy such as good nutrition, food sanitation, hygiene and compliance with the nutritional requirements could lead to maternal morbidity, while sever morbidity could also lead to maternal mortality.

Maternal mortality is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or initiated by the pregnancy or its management but not from accidental or incidental causes (Kings & Burges, 1995). According to Aboyeji (1998), the estimated number of maternal deaths worldwide in 2000 was 529,000. The percentages of these deaths were almost equally divided between Africa with 47% (251,000) and Asia with 48% (253,000), with 4% (22,000) occurring in Latin America and the Caribbean and 1% (2,500) in the more developed countries. For every pregnant woman who dies, at least another 30 suffer serious injuries and often permanent disability.

From all indications, traditionally in any Ghanaian society, the most important thing that gives a couple or an individual a high social fame is child-bearing. In view of this belief, it is observed that some women think child-bearing is only about getting pregnant and waiting for the nine months to deliver. Usually, they pay little attention to what really needs to be done during the nine months journey, the failure to keep to certain principles in maternal health which can develop into serious complications, including death of mothers, children or even both. It can also be observed again that the death of a mother is a disaster for her family and the lives of surviving children are often put at risk; as WHO (2004) identified, the loss may reverberate throughout a community. WHO (2004) also revealed that for every woman who dies, about 20 others are seriously disabled, or chronically affected.

The health of women in Ghana is critical for national development. Women's health

issues in the country are largely centered on nutrition, reproductive health and family planning. According to the Ghana Demographic and Health Survey Report (2006), 65% of pregnant women and 45% of non-pregnant women are malnourished in Ghana. Reproduction is the source of many health problems for women in Ghana.

Global Trends in Maternal Mortality

According to WHO (1992), a maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy irrespective of the duration and site of the pregnancy from any case related to aggravated by the pregnancy. The trend of maternal death in the world at large is alarming each passing year with the highest rate. In 2000 the United Nations estimated global maternal mortality at 529,000 of which less than one percent occurred in the developed world (WHO, 2002).

The historical level of maternal deaths is probably around one in hundred births. Mortality rates reached unacceptable proportions in maternity institutions in the 1880s, sometimes climbing to 40% of birth giving women. At the beginning of the 1900s, maternal death rates were around one in hundred for live births. The number today in the United States is 11 in 100,000, a decline by orders of magnitude. Maternal Mortality Ratio is the ratio of the number of maternal deaths per 100,000 live births. The Maternal Mortality Ratio (MMR) is used as a measure of the quality of a health care system.

In 2003, the WHO and UNFPA produced a report with statistics gathered from 2000; the world average per 100,000 live births was 400, the average for

developed regions was 20 and for developing regions 440. The worst countries were: Sierra Leon 2,000, Afghanistan 1,900, Malawi 1,800, Angola 1,700, Niger 1,600, Tanzania, 1,500, Rwanda 1,400. WHO estimates that each year approximately 515,000 women in the world die from maternal health causes.

Table 1: The Regional Distribution of Maternal Death

Region	No. of deaths
Developed regions outside of Europe	800
Europe	1,700
Africa	251,000
Asia	253,000
Latin America & Caribbean	22,000

Source: World Health Organization, United Nation Children’s Emergency Fund & United Nation Population Fund (WHO/UNICEF/UNFPA, 2004).

Factors Influencing Maternal Health

Tenon (1988) has rightly observed that no one is more worthy of care than the pregnant woman who carries within her the support of empires and the gem of future generations. However, the factors are influenced by a range of multispectral factors, including, background characteristics (age, educational level, marital status and occupation), health systems, religious beliefs, geographical location, economic, foreign influence, technological advance, knowledge, household and community behaviors.

Household factors, including low status of girls and women: Women's access

to resources such as land, credit and education limits their engagement in productive work and ability to seek health care. Low status of women denies them the power to make decisions that affect their lives and is a big barrier to improving maternal health outcomes among the poor. Socio-economic dependency makes poor women more vulnerable to physical and sexual abuse, to unwanted pregnancy and sexually transmitted diseases including HIV/AIDS (Tenon, 1988).

Background Characteristics: Age. According to Chaibva (2008) a woman’s age might influence her decision to initiate late or not to attend ante-natal clinic at all. Chaibva claimed that pregnant adolescents might tend to hide their pregnancies because they might be unmarried, attending school, afraid of or prejudicial against health care providers or they might be simply too young and ignorant to appreciate the value of ante-natal clinic. According to Matua (2004) as cited by Chaibva pregnant adolescents might shun ante-natal clinic services for fear of being labeled “promiscuous”. On the other hand, older adolescent who have had uneventful pregnancies and deliveries with previous pregnancies might see no reason to attend ante-natal clinic. In 19 out of 26 developing countries, women who were 19 years or younger were reportedly less likely than older women to seek ante-natal clinic from health professionals (Reynold, 2006).

Educational level: Tenon (1988) also argued that there is a strong association between level of women's education and use of reproductive or maternal health services. Educated women are more likely to receive prenatal care including TT vaccination. They are more likely to use contraceptives to delay first pregnancy, increase child spacing and have fewer children. Poor

women with lower education are less likely to make use of available services and are at greater risk from birth and pregnancy related complications. The client's level of education could also influence pregnant women's utilization of the health facilities as well as the understanding of the importance of seeking health care promptly. In view of Mottew (1997), cited in Mathole (2005), low educational status has been identified as a major barrier to the utilization of health care services especially ante-natal clinic. These women could easily be persuaded by their grandmothers or TBA's not to attend ante-natal care and to deliver their babies at home. Lack of education can also negatively affect the women's comprehension of important information and the ability to make informed decisions including the awareness of their own rights while high educational levels of both husband and wife have been observed to promote positive health seeking behaviours (Matua, 2004).

Occupation: A high percentage of rural women in the world live in poverty of which 90% are in Africa and Asia (World Bank, 1994). Poverty levels in Africa are very high and in Ghana particularly, it has been estimated that forty nine percent of Ghanaians earn less than a dollar a day (UNICEF, 2000). In a study on the determinants of maternal health services in the rural India, it was found that, there is a correlation between household income and utilization of maternal health services (Sharif and Singh, 2002). It was evident that as a result of lack of productive resources for women, income earned by women had negative impact on utilization of antenatal care and post natal care which influences their health status.

Marital status: In many parts of Africa, decision making with regard to

maternal care is often made by husband or other family members (WHO, 1998). In a study conducted in Nigeria, it was found that in almost all cases, a husband's permission is required for a woman to seek health services, including lifesaving care. Men play a determining role in decision over when to seek treatment, be it traditional or orthodox in many cultural contexts (Baden, 1996). Marital Status could influence health care seeking behaviours. According to WHO (2003) cited by Chaibva (2008) unmarried pregnant women are less likely to seek ante-natal care services due to a lack of economic and social support from parents, guardians and spouses. Married pregnant adolescents may also lack social independent and decision making powers to seek ante-natal care. There may be pressure or oppression from the spouse or influential members of the extended family forcing pregnant women to accept the decision made on their behalf (WHO, 2003).

Community factors: McLaren (1992) is of the view that cultural norms and practices may negatively impact on maternal health. The perceptions of health and risks during pregnancy, birth and postpartum/newborn period strongly influence both health-seeking behaviour and appreciation of the quality of the available services. High fertility is still encouraged particularly in poor families in many societies where maternal mortality is high. In some cultures, son preference influences both fertility choices and health seeking behaviour for infants. In the view of Adowa (1991) culture and superstitions determine, to a large extent food patterns or habits. Foods are eaten with other foods in ways that were determined and perpetuated by our culture. Food patterns differ markedly from one culture to another. The food habits and

customs, which have become meaningful to the group are carefully held and do not change. It follows, therefore, that anyone who would change a food habit must first understand the deep meaning of the particular habit to the people.

Adowa (1991) again reported that throughout pregnancy, dietary practices frequently are influenced by culture and folk beliefs. Foods and herbs may be used in rituals to ward off evil spirits. Pregnant women may be encouraged to eat certain foods, foods of a certain temperature, or foods of certain colours and may be discouraged from eating other foods. Some foods are thought to be outrageous to the woman's body or to cause a rash or other problems in the infant. Other foods are thought to influence the position in which the baby is born. In some cultures, the amount of food eaten is prescribed in the belief that less food will produce a smaller infant and, therefore, an easier birth. Food cravings may occur, especially during the second trimester of pregnancy and then continue throughout the pregnancy.

Lack of hospitals, health centers and affordability: Official and unofficial user fees in many settings strongly influence the utilization of maternal-newborn health services. Exemption mechanisms rarely work properly. This is particularly the case for delivery and other pregnancy related emergencies. The unpredictability of total costs for pregnancy and the possible complications deter the poor from seeking the service of health personnel skilled. Opportunity costs of sickness and treatment is onerous on poor people who depend on daily wages, because the majority of poor women lack health insurance, high out of pocket expenditures on health care force families to slide into poverty.

Accessibility coverage of health facilities especially in rural areas remains a big barrier. Poor women in rural areas often walk more than an hour to the nearest health facility. Poor road infrastructure and lack of public transport make access difficult especially when there are complications. As a result poor women will seek health care from less trained providers who are more accessible.

Limited skilled human resources: Shortage of skilled providers to provide emergency obstetric care is common in public facilities, especially those serving poor and geographically remote areas. There is lack of incentives for skilled workers to live and work in rural areas, small urban areas and remote regions.

Quality of services: Poor quality of care and deficient services are the most common reasons that women and their families give for not using available health services. Poor women often receive the worst treatment and wait long hours to access the service because they have no voice and no alternatives.

Lack of emergency services: In countries with high maternal mortality, referral systems are weak and emergency coverage limited. Lack of blood, drugs and other supplies for emergency care contribute to maternal mortality.

Religious beliefs: Food plays an important part in many religious rituals. The type of food chosen, the complete exclusion of certain foods and the frequency of eating other foods may be dictated by religious preferences. Many religious beliefs permit certain foods either completely or partially on certain days. For example while some religions forbid the eating of pork, the Catholic Church for centuries forbade its members from eating meat on Fridays

especially during lent. Islam also calls for the slaughtering of cows and goats according to certain rituals before the meat can be considered clean for eating. Hence a Muslim will not eat meat unless he is sure that the animal was slaughtered by a person of his religion. Sometimes some Christians (and other religious groups) also fast on certain days and deny the body of everything except water for spiritual growth (Adowa, 1991).

Geographical location: Geographical location exerts a fundamental influence on food patterns. Even though foods may be imported, countries largely depend on locally grown products for their basic or staple foods. Some foods are growing well in certain geographical areas because the climate favours their growth. For example, in Ghana the climate of the Northern Region favours the growth of cereals like guinea corn and millet so these are their staple foods, whereas in the Ashanti and Western Regions plantain and the starchy roots grow well and are the staple foods of the people.

Economic: The income of any group of people determines their choice of food and eating habits. Rich people tend to eat more meat, fish, eggs and milk while poor people build their meal around cheaper foods like starchy roots and plantain. Diets are dependent upon the foods available and their cost in relation to the income and other expenditure of a family. Thus the acquisition of money influences food habits. As family gradually derives better incomes they start to change their food habits and to introduce new products to replace some of the local ones. For instance, they start making use of processed canned and bottle foods such as corned beef, sausages, peas, baked beans, apricot juice and jellies. However, increase in purchasing power is not necessarily

accompanied by the consumption of foods that are considered indispensable for proper nutrition (F. A. O., 1971).

Foreign Influence: Food habits have been influenced by contact with the outside world, thus, eating of bread, cakes, pastries, drinking of tea, coffee etc. are the result of contact with foreigners by Ghanaians (Adowa, 1991). Even though these foods are currently expensive, some people continue to consider them as essential. (Rowanberry, 1974) noted that outside influences affects the environment resulting in changes in food habits as well as other patterns of living, for example, the use of white flour and white sugar in developing countries. Even though brown sugar and whole grain flour are nutritional better many people in developing countries prefer white sugar and flour because these items were introduced to them as if no other forms existed.

Technological Advances; improved methods of food preservation have also helped to transport food from one area to the other. There are industries in Ghana that preserve fruits and vegetables for export to other countries. Air transportation has also changed food patterns. Ghanaians living in United States and United Kingdom can enjoy Ghanaian foods and vice versa. Technological developments are of course basic to the production of enough for all the people in a country. The use of fertilizers and insecticides, the making available of needed water, the supply of good seeds, the improvement of the methods of sowing, the use of improved cultivating and harvesting equipment, the provision of adequate marketing, facilities and the development of facilities to distribute the food produced. All these profoundly influence the foods available to people and therefore affect their food habits (Rowanberry, 1974).

MATERIAL AND METHODS

The study area, that is Central Region, occupies an area of 9,826 square kilometers, which is about 6.6% of the land area of Ghana. It is bounded in the south by the Gulf of Guinea, on the west by the Western region. The region shares a border on the east by the Greater Accra region and in the north with the Ashanti and the north east with the Eastern region. Viewed on the Ghana map, the region looks like a chicken. The capital is the historical city of Cape Coast.

The descriptive, cross-sectional survey design was used for the primary data collection. The cross-sectional survey design is a fact-finding design suitable for obtaining descriptive data. The survey design is a useful scientific tool to employ in studies such as this study, which is exploratory and relationships between variables are being determined. Cohen and Manion (1999) indicated that the descriptive design provides a meaningful picture of events, and in-depth, follow-up questions can be asked and items that are not clear can be explained using the descriptive design.

Population has been defined by McMillan and Schumacher (2001) as a group of elements or cases, whether individuals, objects or events that conform to specific criteria in research. In this study the target population was made up of all pregnant women who attended ante-natal clinic regularly at the time of the study.

From the interaction with some of the health personnel, it was disclosed that every pregnant woman is expected to visit the ante-natal clinics as soon as she notices that she is pregnant; usually twice in the first trimester and once in the second trimester. In the last trimester she is expected to visit the clinic every week until delivery. Records

collected from the two hospitals indicated that, the total number of pregnant women who visited the Maternal Child and Health Care (MCHC) in the two hospitals in July, 2009 was 553, 358 for the Central Regional Hospital and 195 for the Asikuma hospital.

Studying the whole population would have greatly enhanced the outcome of the study. However, this is most impracticable owing to the cost and time involved. Sampling therefore became the only effective means for conducting the study.

In determining the sample size from the total population of pregnant women, a table for estimating sample size developed by Morgan and Krejcie (1970) was used (see Appendix A). The only information needed for the estimation was the population size. In the Central Regional hospital the total population of 358 pregnant women in July 2009, required a sample of 186 and 195 at Asikuma hospital required a sample of 132, giving a total sample of 318 for the two hospitals. Simple random sampling procedure was used to select three hundred and eighteen (318 pregnant women). The researcher used numbers on a card ranging from 1 to 3. The researcher chose the pregnant woman who selected the number on the card three (3) to register the questionnaire.

Demographic Characteristics of the Pregnant Women in the Sample

The demographic characteristics in this study were focused on the age, educational level, marital status, number of pregnancies, and occupation of the respondents. The responses have been presented as frequencies and percentages in Tables 2 to 4.

Table 1: Age Distribution of Respondents in the Sample

Age respondent years	of Frequency in	Percentage
16 – 20	66	20.8
21 – 25	69	21.7
26 – 30	85	26.7
31 -35	75	23.6
36 – 35	23	7.2
Total	318	100

Source: Asikuma and Central region Hospital, July, 2009

Questionnaire was the main instrument designed for collection of data. The instrument designed was administered to pregnant women (through interview mode), with the questions made up of closed and open-ended questions. Closed-ended questions were used to control responses and open-ended questions to supply in-depth information relevant to the study.

Data Collection Procedure

Personal visits were made to hospitals, where permission was sought from the administration of the two hospitals for the collection of relevant data from the records department at the hospitals.

The data was collected only from those who were out-patients and regular attendants at the hospitals and not the referrals. The reason was because the referrals only reported to see the doctors. The month of July was selected from the

advice given by the nurses in Asikuma. They said that the attendance of pregnant women at the ante-natal clinic in Asikuma district hospital between January and June was not encouraging. The reason was that a lot of the women would be going to their farm for preparation and planting of their crops on their farms since farming is the main occupation of most of the people living in that district. They also added that those living in villages around might not have money to transport themselves to hospital since they had invested almost all their resources on their farms. The nurses felt that by July, they would have harvested some corn for sale and so the attendance of the women to ante-natal clinics would be better. In view of this, the data collection in Central Regional Hospital also had to be done at the same time.

In collecting data from the two hospitals, the purpose of the study was explained to the respondents before giving the research instrument. The midwives organized the pregnant women and made an announcement regarding the study and encouraged the pregnant women to give the needed support and cooperation. At each time of meeting the purpose of the study was again explained. The questionnaire was administered and conducted personally by the researcher, with the assistance of four research assistants and two nurses from each hospital. The assistants were first given orientation on how the questionnaire (administered through interview mode) should be done and how it should be filled. All the assistants translated the questionnaire (administered through interview mode) together to make sure the same words were used by each assistant. The interviews took place after ante-natal clinics and each of the interviews took an

average of 30 minutes. The interviews were done one on one basis. The questions were translated into the local language for easy understanding and accurate responses.

In order to get a fair distribution of the pregnant women in each sample, each sample was divided by the five days of the week for Maternal Child and Health Care (MCHC) clinic. Thus, on each day 19 women had to be interviewed at the Regional hospital, while about 13 women had to be interviewed at Asikuma hospital each day. Two weeks in July were used to collect data from the Regional hospital and another two weeks at Asikuma hospital. At the end of the data collection, 318 pregnant women were interviewed at the two hospitals, 186 pregnant women were interviewed at the Regional Hospital and the remaining 132 were interviewed at the District Hospital.

Data Analysis

The data collected were coded and processed using the statistical package for the social science (SPSS) version 17. Descriptive statistics were employed to answer research questions, where the researcher used frequencies and percentages in the presentation of the data collected to make the interpretation of the result more meaningful.

A marking scheme was prepared for marking the questions under the level of knowledge. Forty questions were set to test the level of knowledge of the pregnant women on issues concerning maternal health. Out of the 40 questions, 20 questions were on nutrition while the rest were on issues concerning maternal morbidity and mortality. Three marks were allocated to 20 questions on nutrition. There were two sets of questions, one set had questions which

the respondents had to tick the correct answers and in the second set they had to provide their own answers. The total mark here was 60. Two marks each were also allocated to the rest of the questions which were under the issues concerning maternal morbidity and mortality and these also added to a total of 40 marks. These two areas brought the total marks for the knowledge of pregnant on issues concerning maternal health to be 100 marks.

A cut-off point was determined for the level of knowledge. The total mark, 100%, was divided by three (3), since the level of knowledge was tested under three (3) categories, which gave 33.3%. It was determined that from 1 to 33.3 marks was for low knowledge, 33.4 to 66.6 marks for moderate knowledge and 66.7 to 100 marks for high knowledge.

RESULTS AND DISCUSSION

The data, as presented in Table 2 show that 66 (20.8%) of the pregnant women were aged between 16 and 20 years. Out of the 318 pregnant women who attended ante-natal clinic, 69 (21.7%) of them were between the ages of 21 and 25 years, while 85, representing 26.7%, of those pregnant women were aged between 26 and 30 years. On the other hand, those aged from 31 to 35 and 36 to 40 years were represented by 75(23.6%) and 23 (7.2%) respectively as seen in Table 1.

The data on the education level of pregnant women in the study areas are presented in Table 2. The table reveals that in the overall picture, only 38 (11.9%) out of the 318 pregnant women in the study had no formal education, meaning that 88.1% of them had had formal education and had been to school. Over half of them, representing

55.8%, had received at least basic or middle school, precisely, 27.9% had received first cycle of education and another 27.9% had also had the second cycle of formal education. As many as 102 (32.3%) had gone beyond the secondary level and so had tertiary level of education as seen in Table 2.

Table 2: Highest Educational Level of Respondents in the Sample

Respondents' highest educational level	Frequency	Percentage of the sample
No formal education	38	11.9
Basic/Middle School	89	27.9
Secondary/Tech/Vocational	89	27.9
Tertiary Level of Education	102	32.3
Total	318	100

Source: field survey, 2012

The data in Table 6 shows the responses of an investigation carried out to ascertain the marital status of the respondents. From a study of Table 6, it can be seen that 193 out of the total 318 respondents, representing 60.7% were married. On the whole, 24.2% were single and had never been married, while 15.1% of the respondents were either separated or divorced or widowed. The figures reveal that women who were going through pregnancy with husbands were more than those without husbands.

Table 3: Occupations of Respondents in the Sample

Respondents' occupational status	Frequency	Percentage
Unemployed	91	28.6
Civil Serv./ Nurses/Teachers	86	27.0
Traders	61	19.2
Food Processors/Caterers	55	17.3
Farmers	25	7.9
Total	318	100

Source: field survey, 2012

An examination of Table 3 reveals that the 91 out of the 318, representing 28.6% of the respondents, were unemployed which could mean that they were either housewives or they were not engaged in any economic activity. Civil servants, nurses and teachers were formed 86 out of the total sample of 318 respondents, which represented 27.0% of the sample. Sixty-one of the 318, representing 19.2% were traders, with 55 (17.3%) being either food processors or caterers and farmers had less than 20.0%.

Table 4: Respondents Number of Pregnancies with Knowledge Levels

Number of pregnancies	Low n (%)	Moderate n (%)	High n (%)	Total n (%)
1 – 2	(33.6)	(24.8)	(41.6)	(43.1)
3 – 4	(16.1)	(25.2)	(58.7)	(45.0)
5 and above	(10.5)	(28.9)	(60.5)	(11.9)
Total				(100)

Source: field survey, 2012

The data in Table 4 reveals that the women who had had five and above pregnancies had the highest knowledge of 60.5%. They were followed by those who had had three or four pregnancies, as they formed 58.7% of those who had high knowledge, while those who had had one or two pregnancies formed 41.6% of those with high knowledge. The result actually stemmed from the high number of the two groups.

Table 5: Level of Knowledge of Pregnant Women on Maternal Health

Level of knowledge On maternal health	Frequency	Percentage
High	164	51.6
Moderate	81	25.5
Low	73	22.9
Total	318	100

Source: field survey, 2012

A study of the data in Table 5 indicates that 164 out of the 318, representing 51.6% of the pregnant women from the study areas, had high knowledge on basic nutrition before and during pregnancy and issues on maternal morbidity and mortality, while 81 (25.5%) had moderate knowledge. Seventy-three (22.9%) had low knowledge based on the responses to questions put to them. It can be concluded from the table that 77.9% of the pregnant women in the sample had sufficient knowledge on maternal health, in terms of basic nutrition before and during pregnancy and issues on maternal morbidity and mortality.

CONCLUSION

The results clearly revealed there were associations between the background characteristics of the women and their background characteristics. The relationships between the age, educational level, marital status, number of pregnancies and occupation of the pregnant women and their knowledge on maternal health issues. The pregnant women had a relatively high level of knowledge on maternal health as indicated by the fact that 77.1% had high

and moderate knowledge and only 22.9% had low knowledge on maternal health. The overall responses from the women in the study indicated that 108 (34.0%) out of the 318 of the pregnant women ate twice daily and 90% of the respondents who skipped meals replied that they either skipped breakfast, snack or lunch. The reasons were mainly a) inability to afford the cost of food (45.5%); b) loss of appetite (30.1%); c) severe and frequent vomiting.

RECOMMENDATIONS

- i. Pregnant women should try and complete formal education before getting married so that they can get better paid jobs to take good care of themselves and eat good meals when they get pregnant. Formal education will also make them avoid adhering to taboos and superstitions concerning food, pregnancy and childbirth.
- ii. The health personnel should intensify the education of women generally so that they comply or follow instructions such as: eating well, sleeping under mosquito nets, and reporting at the hospital as soon as they realized they were pregnant.
- iii. Pregnant women should be educated through skit, role play, drama and peer education so that they do away with some personal beliefs resulting from taboos and superstitions which are detriment to their health.

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