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Maternal and Child Health Survey in Kometa Sub-locality, Mizan-Aman Town, Southwest Ethiopia

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Abstract

Background: Maternal and child health problems gained greatest attention due to their preventability and are the key indicators of development. Greater than two-third of world population constitutes women and children who are highly vulnerable to preventable health problems and death.

Objective: The community based survey was designed to assess maternal and child health problems in Kometa Sub-locality, South West Ethiopia.

Methods: A community based maternal and child health survey was conducted from September 12 to 15, 2014. The representative households were drawn based on systematic random sampling method. Interviewer administered questionnaire was used. The raw data were electronically encoded into EpiData 3.1 and exported to STATA 13 and SPSS 20 statistical software windows version. Descriptive analysis was used to determine epidemiological characteristics.

Result: A total of 198 households that comprised of 840 individuals were involved in this survey. About 160(86%) households reported. It is common practices in this community to give birth before reproductive organs maturity in 41(26%) of respondents (less than 18 years). Generally 118(79.2%) of women in marriage relationship were using one or a combination of temporary birth control methods, being depo provera users were the highest comparatively. Most of those pregnant women 8(53.3%) made a complete course of the third antenatal visit and fourth antenatal visit 4(26.7%). Among under-five children, one in 56(90.3%), two in 5(8.1%), and four in 1(1.6%) of households had immunization card. Harmful traditional practices were reported.

Conclusion: High quality care services affects greatly effective utilization and hence, more likely to divert concerning maternal and child health problems. Harmful traditional practices which are deeply embedded within cultural beliefs demands efforts of professionals to control them.

Keywords: Survey; Maternal health; Child health; Child marriage; Harmful traditional practices

Introduction

Generally, reproductive age women and children are highly vulnerable groups of society in developing countries. Poor maternal, newborn and child health care remains a significant problem in low and middle income countries. Good maternal health care and nutrition are important contributors to child survival; maternal infections and other poor conditions often contribute to indices of neonatal morbidity and mortality. Despite of the fact that most maternal and child deaths are preventable using current knowledge, the burden of mortality and morbidities is considerably high [1-3].

It is estimated that greater than 150 million women become pregnant in developing countries each year and nearly 500,000 of them experience death only from pregnancy-related causes. Complications during giving birth and gynecological problems are the major causes for more than 7 million women to experience stillbirths or infant deaths within the first week of life [1,2].

Early maternal death within 15-49 years may result in serious socio-economic difficulties, particularly for the family and beyond that to country as a whole. High occurrence of maternal problems are precipitated by risk factors in developing countries, like lack of access to modern health care services and increase the magnitude of death from preventable problems. A larger proportion of maternal morbidity and mortality is ascribed to the development of pregnancy-related complications, including complications from abortion and, the management of pregnancy, delivery, and the postpartum period [2].

However, interlinked multifactorial causes increasingly contribute to low level health status of women in the developing countries including Ethiopia. These factors include socio economic development, educational backgrounds, and cultural issues. For example, a girl who is not fed properly during her early years will be stunted and therefore more likely to have obstructed labor. Also, a woman's risk of dying from infection and hemorrhage is increased considerably when being malnourished [2]

Family planning can reduce maternal deaths from all causes, by reducing the fertility rate, and especially, unwanted pregnancies, and thus unsafe abortion. Monitoring of pregnant women through antenatal care visits also helps reduce risks and complications during pregnancy, delivery and the postpartum period. The health care that a mother receives during pregnancy, at the time of delivery and soon after delivery is important for the survival and well-being of both the mother and the child. Marriage is the principal indicator of women's exposure to the risk of pregnancy in Ethiopia. Early age at marriage in a population is usually associated with a longer period of exposure to the risk of pregnancy and higher fertility levels and whereby the early initiation of childbearing associated with early marriage may also adversely affect the health of both women and children. Age at first marriage is often used as a proxy for first exposure to intercourse and risk of pregnancy [2]

Globally, up to 14 million children under-five year of age death is reported per year, which constitutes large share of total death in developing countries. The under-five death accounts for 40% of all deaths in developing countries and 30% of all deaths in worldwide. The wide discrepancy in death of children indicates the existence of underlying causes and their preventability. Accordingly the major determinants that contribute to child death include low immunization status (bouts of childhood infections), malnutrition, poor quality child care services, wide spread use of harmful traditional practices, and hygienic practices of the community [2-4].

Diarrheal diseases are most often reported in children, especially those between 6 months and 2 years of age. Risk of diarrhea is far commonest and so severe in children with undernutrition. Malnourished children then become more vulnerable to infections, creating the potential for a vicious cycle of malnutrition and infection. Breast milk plays an important role in both the prevention and treatment of infant diarrhea [2].

Therefore the aim of this community based survey was to assess maternal and child health problems in Kometa Sub-locality, South West Ethiopia.

Methods

Study area

The community based survey was conducted in Kometa sub-locality that is located in Mizan-Aman, which is the administrative city of Bench Maji zone which is about 561 km far from capital city, Addis Ababa.

Study design and study period

A Community based Maternal and child Health survey was conducted among permanent residents in Kometa locality. Primary data were collected from September 12 to 15, 2014 with well-structured questionnaires.

Sampling techniques

The households of Kometa locality in this community survey were drawn based on principle of systematic random sampling method.

Sample size estimation

The sample size for this study was estimated by applying single population proportion formula. Thus, the 192 households from this sample were included in our study

Study variable

Maternal health (Antenatal and delivery care utilization, postnatal care utilization, pregnancy, history of age at first marriage and giving birth, contraceptive use Vs role of husband & religion, fertility preferences, fertility measures, and Toxoid immunization status);

Child health(Breastfeeding and infant feeding practice, vaccinations utilization, harmful traditional practices (tonsillectomy, uvulectomy, and milk teeth extraction)

Data collection procedures

The data from study participants were recorded into well-structured standard questionnaires in English version. During data collection, the health professional made home to home visits to collect information related to maternal and child health. The data quality data was produced via training of data collectors, developing standard tool, close supervision, checking of completeness of questionnaires and missing data, double entry & data cleaning, and careful data analysis.

Data analysis

The raw data from the survey were stored electronically into Epidata version 3.1 and exported into STATA 11 for windows version to analyze. Independent continuous variables were statistically analyzed by using mean calculation with corresponding 95% confidence interval. Pearson correlation calculation also used to measure association of explanatory and outcome variables. Frequency analysis was appropriate statistics for most study variables which was applied extensively. In general, a vast majority of variables were analyzed descriptively and some were analyzed inferentially so that generalizable statistics could be drawn for study populations.

Ethical considerations

The ethical clearance was obtained from College of Health Sciences ethical committee, Mizan-Tepi University, and additional from administrative body of the study area. The participants or households respondents were made clear of the purpose of this study to increases quality of data and win their cooperation in data collection process. All data were collected, after participants give consent to be involved in survey process. Overall, the data were handled confidentially and anonymized in every process of study.

Results

Socio-demographic differentials

A demographic and health survey was conducted in a total of 198 households that constituted 840 individuals. The male represented 48.57% of participants and the mean age of individuals was 21.26 ± 14.72 years. Greater numbers of participants were in age category of 10-14 years. The analysis of marital status showed that 336(40%) of participants were married.

Approximately 111(13.2%) of the study participants were reported as illiterate. Of all population, 61(7.3%) of them achieved higher education. However, greater than 117(13.9%) populations were categorized as underage and have not yet started learning. Educationally, higher achievers in educational level were male population.

Maternal and child health

About 160(86%) of participants reported that there were married women in their family. Early marriage was very common practices in study populations that showed under fifteen years of age at first marriage in 25(16.34%) and between 15 and 18 years of age at first marriage in 83(54.25%). The findings also showed that age pattern of mother at first birth, less than fifteen years 9(6%), between 15 and 18 years in 32(21.48%). The birth history in six months back of them showed that 16(8.3%) women in sample households had given birth. Regarding the number of children respondents noted, 1 child in 10(62.5%), 3 children in 3(18.75%) and 4 children in 3(18.75%) households. Of those births, 12(70.59%) births occurred at health facility by assistance of health professionals.

As shown below in Figure 1, 118(79.2%) of women in marriage relationship were using one or a combination of temporary birth control methods, being depo provera users were the highest comparatively. The data showed that in most instances women said they decided to withdraw contraceptive measures due to need of more children 12(52.2%), disinterest of their husband 5(21.7%). Of those non-users of contraceptive measures, 13(46.4%) of whom reported they were in need of higher number of children but lack of knowledge about contraceptives in 4(14.3%), fear of un safeness/sterility problems in 7(25%) and disinterest of their husband in 3(10.7%) were the main reason why they were not using it.

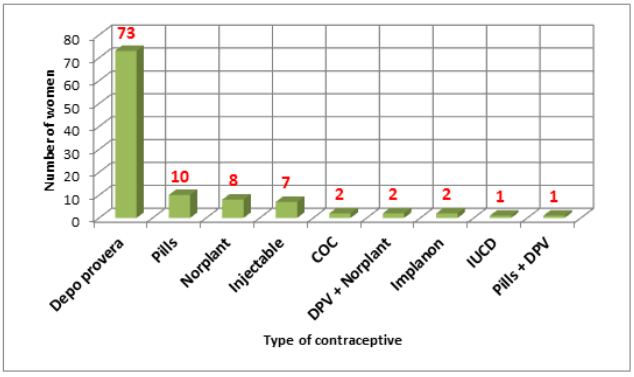

Figure 1: Contraceptive measures in population of kometa sub locality, September 2014.

Based on our survey, 7(4.4%) of women reported that they had one or more history of abortion in their previous conceptions. Of those, 5(71.4%) of women experienced one risk of abortion and two or three events of abortion observed less frequently, 1(14.3%) each. Eighty three percent of abortion occurred in health care facility by assistance of health professionals but only one abortion was occurred at home by assistance of trained attendant. Eleven percent of the households reported that there was pregnant woman in their family. Most of those pregnant women 8(53.3%) made a complete course of the third antenatal visit, fourth antenatal visit 4(26.7%), first antenatal visit 2(13.3%), and one second antenatal visit. The main problem in use of antenatal care services was absence of quality services in more than eight three percent of study participants. Additionally, the media coverage in antenatal care services also suggested as affecting utilization of women.

Eleven women (45.8%) reported they were not receiving postnatal care services after giving births. Thirteen women (54.2%) made postnatal visits after giving births. A brief summary of women immunization status presented below in Figure 2.

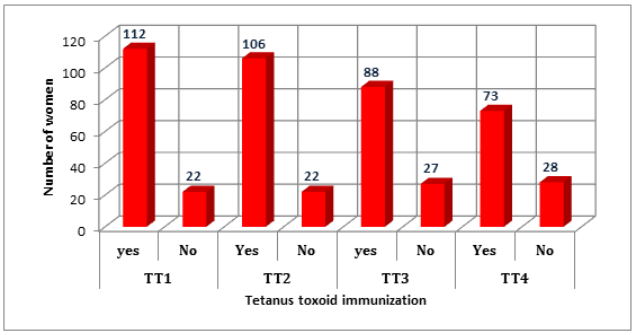

Figure 2: Tetanus toxoid immunization level of women in Kometa sub locality, 2014.

According to this survey, no one under-five child in 78(71.6%), two in 10(9.2%), and three in 1(0.9%) of households in study area were reported. Three under-five child deaths (4.1%) were observed in the area and no clear clinical findings were given in the three death events by households. Harmful traditional practices in under-five children also observed, no one in 17(24.3%), one in 47(67.1%), two in 5(7.1%),and four in 1(1.4%) of participants reported child tonsillectomy. Similarly, no one in 39(73.4%), one in 13(24.5%), and four in 1(1.9%) of households reported uvulvectomy. One in 50(67.6%) and two in 6(8.1%) of respondents had milk teeth extraction but 17(23%) of respondents were free of such practices. Study participants were interviewed for under-five immunization history and whether their child received card for courses of immunization programs. Among under-five, one in 56(90.3%), two in 5(8.1%), and four in 1(1.6%) of households had immunization card. Vaccination of under-five children against vaccine-preventable disease are briefly given below in Figure 3.

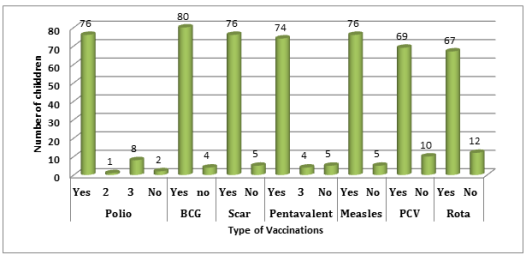

Figure 3: Level of vaccination of under-five children in Kometa sub locality, 2014.

Discussions

Findings of this study demonstrated that early marriage was predominant practices in study populations. Many studies in developing countries also found results that agree with child marriage practices. Higher prevalence of early marriage is widely found in many ethno-cultural characteristics of Ethiopian society in marked degree of variation. Marriage occurred earlier than reproductive organs maturity contributes significantly to adverse outcomes of pregnancy but majority of women in this study entered into marriage relationship earlier than eighteen years. As most commonly viewed, main obstetric complications are frequently observed in younger than in later marriage and marriage at age of consent control family size to reduce multiple birth effects [5-13]

Antenatal care is more beneficial in preventing adverse pregnancy outcomes when received early in the pregnancy and continued through delivery. Early detection of problems in pregnancy leads to more timely referrals for women in high-risk categories or with complications. In present study, there was low coverage of and quality of antenatal services in study households and most often reported reason of low level utilization was lack of standard health care services. Our evidences also showed there was no health seeking behaviors in the community as a whole and in child bearing age women in particular. The high occurrences of maternal associated events were totally ascribed to social determinants and low coverage of maternal health care services in most areas. Social characteristics are mainly incriminated to undermine the objective of minimizing adverse maternal and fetal outcomes of pregnancy. There is a large body of evidence from routine statistics and special studies that are suggestive of women who have received prenatal care experience lower rates of maternal mortality. Many previous studies from different parts of developing countries, including Ethiopia consistently reported results consistent with our findings. Level of maternal services utilization was directly related to social behaviors and traditional knowledge. On other hand, the educational level of women was a key component of determinants that significantly affected their use of services [6-13].

Sufficient information about the advantages of family planning is very important to seek access of services timely and use in effective manner. The wide use of available contraceptive methods is best indicator most frequently used to assess the success of family planning programmes. Modern methods of contraception are more commonly used by the interviewed women in this study but no response in natural methods of birth controls. Modern methods of contraception are widely used in more than three fourth of study participants and in agreement with universality of contraception in Ethiopia. Their reproductive behavior in desire for more children was reported primarily reason for drop out or underutilization of family planning services. Effective utilization of the contraception are amongst measures that reduce unwanted pregnancy, and complications due to unsafe abortion [6-13]

Child immunization is the safest and most effective measures to prevent morbidity and mortality rate. Immunization has to be sustained as a high priority to further reduce the incidence of all VPDs, control measles, eliminate tetanus and eradicate poliomyelitis. Full immunization (i.e. received one dose of BCG, three doses of DPT, Hep-B and OPV each and one dose of Measles before one year of age) gives a child the best chance for a healthy life .Even though immunization is a key strategy to child survival, the analysis of children health survey showed there was partially immunized and non-immunized children. The gaps in immunization status may be the manifestation of strong association with health seeking behaviors of community and limited coverage of immunization [14-17].

In addition to providing essential nutrients to infants, exclusive breastfeeding has benefits to both child and mothers. Breastfeeding prevents child illness like Vitamin A deficiency, Diarrhea, acute respiratory infections and reduce variances in weight distribution. In this study, however important to provide child breastfeeding, there was in consistence in schedule of weaning child and nutritionally care for children by supplementary feeding after six months of age. Well-nourishment is very important to children for optimal growth, resistance to diseases and preventing long term consequence of early mal-nutritional problems. A great variety of underlying causes of child mal-nutritional problems have also been reported in previous nutritional statistics [14-17].

Another risk behavior in the study population was very common harmful traditional practices to give child health care. Despite their harmful nature and their violation of international human rights laws, such practices persist may be because of low penetration of behavioral change communication and resistance due to cultural influences. The root causes of harmful traditional practices are in particular cultural and social norms, beliefs, and interpretations of religion. A variety of body of evidences in previous studies also found out results in consistent with current revelations of these area problems. In many reports, harmful traditional practices are so varied as cultures in which they occur, but in most instances they are related to modernity of living standards of society [6,12,14-17].

Conclusion and recommendations

Overall, pregnancy outcomes directly dependent on completeness of antenatal care services received which in turn affected by level of satisfaction of clients and education backgrounds. Low number of antenatal care visits increasingly associated with content of care provided and accessibility of standard quality services. It is also widely reported that harmful traditional practices are barriers to seek for modern medical care and increased risk of pregnancy related complications. The proportion of births that take place at health facilities varies according to socio-cultural characteristics and development of society.

In modern medical care, harmful traditional practices persist in higher level that are becoming primary barriers and predisposing many to risk of infections. Even though harmful traditional practices in most societies are found difficult to tackle them because they perceive HTPs to be culturally sensitive, it demands all effective and appropriate measures to reduce prevalence. In reality, it is often difficult for people to challenge beliefs and practices, which are deeply embedded within their own cultures; however, control of external forces is required and enabling community to develop health behaviors.

Improvements in maternal health care services are required to meet MDG (4, 5, 6& 7) of by 2015. Strengthening the current efforts to control maternal health measure that would possibly reverts the upward trend in level of occurrence. Many interventional measures that target standard of child care services increase in use of three maternal services, and preventing those causes of high risk problems and effectively safeguards population. Progress in previous years to reduce environmentally-produced diseases, maternal and child health problem should continue to achieve desired level.

Conflict of Interest

The author declares that there is no conflict of interests.

Acknowledgements

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