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**ASSESSMENT OF HEALTH PROMOTION PRACTICES AMONG PREGNANT WOMEN
ATTENDING ANC SERVICES IN PUBLIC HEALTH INSTITUTIONS OF SHASHEMENE
TOWN, OROMIYA, ETHIOPIA, 2012**

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Table of Contents	pages
Acknowledgement	III
List of tables	VII
List of figures.....	VIII
List of Acronyms and Abbreviations	IX
Abstract.....	X
CHAPTER ONE - INTRODUCTION.....	1
1.1 Background	1
1.2 Statement of the problem	2
1.3 Significance of the study	5
CHAPTER TWO	6
2 LITERATURE REVIEW	6
2.1 Definitions and historical background of health promotion.....	6
2.2 Nutrition and pregnancy.....	7
2.3 Physical activities during pregnancy.....	11
2.4 Treatment preference during pregnancy	13
2.5 Future family planning needs during pregnancy.....	13
2.6 Preferences of place and attendance of delivery	14
2.7 PMTCT during pregnancy	15
2.8 Substance use during pregnancy	16
2.8.1 Cigarette (Tobacco) smoking.....	16
2.8.2 Alcohol.....	16
2.8.3 Caffeine.....	17
2.8.4 khat(chat)	17
2.9 Domestic abuse/violence.....	18
2.10 Mental health promotion	18
2.11 Measures taken to improve health promotion	19
2.12 Conceptual frame work of the study	20
CHAPTER THREE	21
OBJECTIVES OF THE STUDY	21

3.1 General Objectives	21
3.2 Specific Objectives	21
CHAPTER FOUR.....	22
METHODS AND MATERIALS.....	22
4.1 Study area.....	22
4.2 Study period	22
4.3 Study design:	23
4.4 Source populations.....	23
4.4.1 Study population	23
4.4.2 Study unit: - Individual woman	23
4.5 Sample size determination:	23
4.6 Sampling procedure:	24
4.7 Inclusion & exclusion criteria	25
4.7.1 Inclusion criteria	25
4.7.2 Exclusion criteria	25
4.8. Variables of the study.....	25
4.8.1. The dependent variables.....	25
4.8.2. The independent variables	25
4.9 Pretest.....	26
4.10-Data collection techniques	26
4.11 Data processing and analysis.....	26
4.12 Data quality assurance.....	27
4.13 Ethical considerations	27
4.14 Dissemination of the result.....	27
CHAPTER FIVE	28
5. RESULT	28
5.1 Socio-demographic characteristics of respondents	28
5.2 Health promotion practices	30
5.2.1 Nutrition during pregnancy.....	30

5.2.2	Physical activity and Treatment preferences.....	32
5.2.3	Future family planning need	33
5.2.4	Preferred place and attendance of delivery	35
5.2.5	PMTCT during pregnancy	37
5.2.6	Substance use during pregnancy	38
5.2.7	Domestic violence during pregnancy.....	38
5.2.8	Factors to promote components of health promotion	39
5.3	Association of selected factors with health promotion practices	40
5.4	Discussion.....	43
6.	Strengths and limitations of the study.....	49
6.1	Strengths of the study.....	49
6.2	Limitations of the study.....	49
7.	Conclusion and recommendations of the study	50
7.1	Conclusions	50
7.2	Recommendations	51
8	REFERENCES	52
9.	ANNEXES.....	55
9.1	Annex I- SUBJECT INFORMATION SHEET (English version).....	55
9.3	Annex III: ENGLISH VERSION OF THE QUESTIONER.....	57
9.4	Annex iv-SUBJECT INFORMATION SHEET (Amharic version).....	64
9.5	Annex V: AMHARIC VERSION OF THE CONSENT FORM	65
9.6	Annex VI: AMHARIC VERSION OF THE QUESTIONER.....	66
9.7	Annex viii. CV OF THE PRINCIPAL INVESTIGATOR	73
9.8	Annex ix. CV OF THE ADVISOR.....	75
9.9	Annex x. DECLARATION	77

List of tables

Table 1–socio-demographic characteristics of exit interviewee on health promotion practices during pregnancy in Public health institutions of Shashemene town; west oromiya March, 2012	29
Table 2, Reproductive history of women in Public health institutions of Shashemene town, March, 2012	30
Table 3, Health promotion practice regarding nutrition in Shashemene town, March 2012	31
Table 4, Regular physical activity and illness experience during pregnancy in public health institutions of Shashemene town, March 2012	32
Table 5, preferred places of delivery during pregnancy in public institutions of Shashemene March 2012	36
Table 6, substance use during pregnancy in public health institutions of Shashemene town, March 2012	38
Table 7 , Association of some socio-demographic factors with nutritional practice during pregnancy in public health institutions of Shashemene town, March 2012	40
Table 8 , Association of foods avoided during pregnancy with important variables of nutritional practice in public health institutions of Shashemene town, west oromia, March 2012	41
Table 9, Association of future plan to use contraceptives in institutions of Shashemene, March 2012	42
Table 10, Associations to delivery place preference in health institutions of Shashemene, March 2012	42

List of figures

Figure 1, Conceptual framework on health promotion practices among pregnant women during pregnancy.....	20
Figure 2, Schematic presentation of sampling procedure to assess women health promotion practices during pregnancy in public health institutions of shashemene town, 2012	24
Figure 3, Pie chart showing future plan for family planning use in public health institutions of Shashemene town, March 2012	34
Figure 4, Bar graph showing reasons for future contraceptive nonuse in public health institutions of Shashemene town, west oromia, march 2012	34
Figure 5, mentioned methods of PMTCT in public health institutions of Shashemene town, March 2012	37
Figure 6, Domestic violence during pregnancy in public health institutions of Shashemene, March 2012	39
Figure 7, Bar graph showing source of information related to health promotion practices during pregnancy in public health institutions of Shashemene town, March 2012.....	39

List of Acronyms and Abbreviations

AA	Addis Ababa
ACOG	American College of Obstetrics and Gynecology
AOR	Adjusted odds ratio
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal care
CDC	Central Disease Control
CI	Confidence Interval
CSA	Central Statistical Agency
COR	Crude Odds Ratio
EDHS	Ethiopian Demographic Health Survey
HIV	Human Immunodeficiency Virus
HCT	HIV Counseling and Testing
HTP	Harmful Traditional Practice
HPP	Health Promotion Practices
ICPD	International Conference on Population and Development
IMR	Infant mortality Rate
LTPA	Leisure Time Physical Activities
MCH	Maternal and Child Health
MM	Maternal Mortality
MTCT	Mother to Child Transmission
MOH	Ministry of Health
MDG	Millennium Development Goal
NGOs	Non-Governmental Organizations
PMTCT	Prevention of Mother to Child Transmission
PX	pregnancy
RH	Reproductive health
SNNPR	South Nation Nationalities People Region
STI	Sexually Transmitted Infection
STDs	Sexually Transmitted Diseases
UN	United Nation
WHO	World Health Organization

Abstract

Background:-A number of potentially modifiable risk factors are known to be associated with poor pregnancy outcomes. Health promotion generates living and working conditions that are safe, stimulating, satisfying and enjoyable. Systematic assessment of health impact of a rapidly changing environment – particularly in areas of technology: These include maternal lifestyle and behavioral factors such as nutrition, physical exercise, family planning, substance use, mental health promotion and domestic violence.

Objective:-To assess health promotion practices among pregnant women attending ANC services in public health institutions of Shashemene town, Oromiya, Ethiopia, 2012.

Method: An institution based descriptive cross-sectional study design was carried out, and data was collected from systematically selected 295 pregnant women, who are attending ANC service from governmental health institutions of Shashemene town.

Result- Almost half (**49.8%**) of total respondents have encountered deliberate food restrictions; to avoid one or more food items during pregnancy. Age of the women educational status shown significant associations with belief of balanced diet: **0.175** (0.001-3.812) and 57 (1.212-2.682) respectively. (**37.8%**) of mothers have experienced home delivery and this is significantly associated with delivery place preference of health institution. Surprisingly, mothers with previous institutional deliver were less likely to use health institutions again for current delivery, i.e those mothers with previous institutional delivery were preferred to have home delivery, AOR of **16.971**(5.311-54.234) at 95% CI.

Knowledge of mothers about PMTCT is relatively high (**35.6%**). About **88.1%** of the study participants drink coffee with the majority (70%) within range of 2-3 cups/day. Substance uses during pregnancy were found to be significantly associated with still birth, having a crud ratio of 3.243 (1.147-9.170) at 95% CI. **7.5%** of the respondents reported to have violence during pregnancy times; this Violence was strongly associated with ethnicity, religion, and mental status.

Conclusion-Although majority of pregnant women in the study, were practicing different health promotion practices, this study identified a number of individual, demographic, socioeconomic and health promotion related behavioral factors that influence the use of effective health promotion practices for better outcome of pregnancy and child birth.

Recommendation- The general recommendation of the study concerned on strengthening actions towards improving health promotion practices. MCH clinics to play a leading role in coordinating this effort and to put in place mechanisms. Other governmental and non-governmental organizations and various public associations, such as Farmers Associations and Women's Associations should also be actively involved in eliminating these nonscientific harmful beliefs towards pregnant women in terms of nutrition and safe delivery practice. Further studies to explore why some groups to differ in healthy behaviors, should be investigated,

CHAPTER ONE - INTRODUCTION

1.1 Background

Women and children are among the world most vulnerable in terms of unfavorable influences in the environment including insufficient nutrition, inadequate health care and poor education. In addition, Pregnancy brings those factors high risk for women. (1) Worldwide, it is estimated that more than 50 million women suffer from poor reproductive health and serious pregnancy-related illness and disability. Globally around 600,000 women die from complications of pregnancy and childbirth on annual basis (2). 99% of these deaths occur in developing countries and approximately three-quarters of them are considered avoidable through the implementation of appropriate health promotion practices. The situation is most dangerous for women in sub Saharan Africa, where one of every 16 women dies of pregnancy related complications, compared with only 1 in 2,800 women in the developed regions (3).

In Ethiopia, maternal mortality ratio is estimated at **676/100,000** live births (**EDHS 2012**). Only 5.3% of women had been attended at a health facility during delivery, pointing to possibility of a high maternal death ratio and disability (4, 5). The most recent studies point to socioeconomic and cultural factors as leading causes of prenatal deaths. For example, in the previous study (4&5) the authors state that a women's race, ethnicity, country of birth and age can be associated with her risk of dying from pregnancy complications. These same factors may affect her ability to avoid unintended pregnancy, or learn and successfully practice healthy behaviors.

The Millennium Development Goals (MDGs) adopted in 2000 address women's health in two of the eight goals. MDG5 focuses on improving maternal health by reducing by three quarters, between 1990 and 2015, the maternal mortality ratio. MDG6 focuses on combating HIV/AIDS, malaria and other diseases mostly through preventive aspects of health promotion practices. (6)

According to the Center for Disease Control and Prevention (CDC), health promotion is one of the main strategies to reduce maternal complications and maternal deaths. Health promotion as defined by the World Health Organization (WHO) as the process of enabling people to increase control over, and to improve, their health (7). It involves supporting personal and social development through providing information, health education, and life skill training, thereby increasing options for people to exercise more control over their own health and their environments, and to make choices conducive in health.

Health promotion generates living and working conditions that are safe, stimulating, satisfying and enjoyable. It is adapted to the local needs and possibilities of individual countries and regions to take in to account differing social, cultural and economic systems. Certain principles underline the concept of health promotion as an active process: self-responsibilities, nutritional awareness, and physical fitness. Systematic assessment of the health impact of a rapidly changing environment – particularly in areas of technology, work, energy production and urbanization – is essential and must be followed by action to ensure positive benefit to the health of the public.(8)

1.2 Statement of the problem

To reach a state of complete physical, mental and social well-being, an individual or groups must be able to identify sources, realize aspirations, satisfy needs, and to change or cope with the environment. Health is therefore, seen as a resource for everyday life, not the objective of living. It is a positive concept emphasizing social and personal resources, as well as physical capacities. Understanding the nature and scope of learning during pregnancy is the basis upon which educators can assist pregnant women during their learning as well as have a positive effect on pregnancy outcome. Therefore, health promotion is not just the responsibility of the health sector, but goes beyond healthy life-styles to well-being. It puts health on the agenda of policy makers in all sectors and at all levels, directing them to be aware of the health consequences of their decisions and to accept their responsibilities for health.

Lack of health promotion particularly, in pregnant women, can lead to reduced ability to find, understand and use health information. Thus, education as part of health promotion is an important determinant of health status in both the developed and developing world. Well educated individuals experience better health than the poorly educated, as indicated by high levels of self-reported health and physical functioning and low levels of morbidity, mortality, and disability. In contrast, low educational attainment is associated with high rates of infectious disease, many chronic noninfectious diseases, self-reported poor health, shorter survival when sick, and shorter life expectancy”. Furthermore, education may change women’ knowledge and perception of the importance of modern medicine in the care of their children and themselves.

Findings from numerous studies of infant and child mortality conducted in developing countries over the last decade show a nearly universal positive association between maternal education and child survival. Education can modify women's beliefs about disease causation and thus influences both childcare practices and the use of modern healthcare services.

While significant advances occurred in health promotion to address traditional early childhood diseases, tremendous challenges remain for improving the health status of school-aged children and adolescents. On the other hand, some studies indicate a gap on some practices of pregnant women that needs improvement. For example, a study of health care seeking practices of pregnant women in Cape Town indicate that the main reason why women did not book early were: relatively late diagnosis of pregnancy due to reliance on signs which appear later, perception that the right time to book was 3-5 months, difficulties arranging child care, transportation from far, delays because of considering terminations, and not wanting to be pregnant for the whole year (9).

According to a study by Sable and Herman, clinicians were not adequately implementing recommended health promotion into their practice with the exception of the recommendation to take prenatal vitamins 93% of the time. The other remaining content areas of health promotion were discussed less than 63% of the time. Regarding alcohol consumption, 39.4% of women surveyed were told to cut down or stop consuming alcohol. Advice to quit smoking was reported by 53.9% of the women and 47.1% received advice to stop illegal drug use. In addition, diet and nutrition advice was recalled as being received by 54.8% of the sample. Surprisingly, women recalled receiving weight gain advice only 62.1% of the time. From this study the researchers concluded health promotion is not sufficiently implemented in traditional prenatal care and has an inverse relationship with low birth weight. Therefore, health promotion action aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential. (10)

Much work has not been done on the impact of food taboos on maternal nutrition. A few studies undertaken in this direction, however, some studies show that food taboos play a negative role in maternal nutrition. For example, in Nigeria Ojofeitimi and Tanimowo (11) attributed the failure of 75% of the women to attain the recommended weight gain to the strong food taboos practiced in the area. In another study, also in Nigeria, Ojofeitimi and co-workers (1) observed that pregnant women who were not practicing taboos had significantly higher weight gain and heavier babies ($p < 0.02$) than the women practicing food taboos. (11)

Between 20-40% of all births occurring in developing countries are unwanted posing difficulties for families and potentially jeopardizing the health of millions of women and children. Another study reported that although 69% of women and 75% of men know that HIV can be transmitted by breast feeding, only around one-fifth of women and one-fourth of men know that the risk of mother to child transmission (MTCT) can be reduced through the use of certain drugs during pregnancy (12). Similarly, the Nutrition Unit in the Ministry of Planning and Economic Development of Ethiopia, indicated that women in the developing world, including those who are pregnant and lactating, are frequently engaged in moderate to high levels of physical activity that are not accompanied by increase energy intake, the combined effect of which is to cause low birth weight gain during pregnancy, impairment of intrauterine growth, and decreased ability to sustain milk production (13). Study from Central statistical Authority of Ethiopia indicated that there are substantial numbers of pregnant women in developing countries who are obligated to avoid specific foods due to cultural beliefs or impositions in developing countries (14).

To reach a state of complete physical, mental and social well-being in countries like our country, Ethiopia, where traditional practices outweigh the modern health care, together with this many factors endanger the health and life of the women. In area, where there is a difficulty to access a modern medication supply, an individual or group must be able to identify resources, to realize aspirations, to satisfy needs, and to change or cope with illness conditions; preventive approach of disease prevention is the only one best solution. To make this strategy real, an approach to health promotion study is the only ultimate way to survive. Even though there are few studies on some domains of health promotion practice, which show a gap on service practices. But as far as my search is concerned there were no studies done on health promotion practices among pregnant women. Therefore, this study aimed at assessing health promotion practices among pregnant women in Shashemene town.

1.3 Significance of the study

As part of perinatal care, health promotion practice with antenatal care is not assessed adequately to gain attention in our country. This study would be the baseline on this direction and also helpful for improving the nursing services in promoting health promotion practices in Ethiopia. Assessing the general practices of women during pregnancy is essential since the majority of maternal morbidity and mortality causes may be due to either failure of women to practice and utilize modern maternal health care services (like ANC and safe delivery utilization) or may practice in accord to the established traditions that may harm their health and babies. Identifying practices of women during pregnancy is helpful to avert harmful practices and to promote helpful ones by the front line health workers such as HEWs (health extension workers) at the grass root level.

This study would pose health promotion works through concrete and effective community action in setting priorities, making decisions, planning strategies and implementing them to achieve better health. It would also try to examine the major health promotion practices and affective factors for negligence of these practices.

Finally the finding of this study would enable policy makers' health professionals to plan for appropriate health promotion intervention for pregnant women. In addition this study is supposed to give some baseline information for the development of ANC care strategy. Besides; such type of study that assesses women's comprehensive practices during pregnancy is not done in the study area before. So addressing this important topic and coming up with necessary information may be helpful to improve maternal health and reduce maternal mortality which is a major public health concern in our country

CHAPTER TWO

2 LITERATURE REVIEW

Health promotion is a broad area of health prevention. Therefore, only the work that has been done are on specific aspects of health promotion among pregnant women has been the focus area, the literature review containing the major components of health promotion practice which have great association in the country Ethiopia as well as in the study area will only be included.

2.1 Definitions and historical background of health promotion:-

Health according to WHO; A state of complete physical, social and mental well-being, and not merely the absence of disease or infirmity. Within the context of health promotion, health has been considered less as an abstract state and more as a means to an end which can be expressed in functional terms as a resource which permits people to lead an individually, socially and economically productive life.

The primary health care concept and themes are currently being reviewed by WHO. Disease prevention covers measures not only to prevent the occurrence of disease, but also to arrest its progress and reduce its consequences once established (15). Disease prevention is sometimes used as a complementary term alongside health promotion. Although there is frequent overlap between the content and strategies, disease prevention is defined separately. Disease prevention in this context is considered to be action which usually emanates from the health sector, dealing with individuals and populations identified as exhibiting identifiable risk factors, often associated with different risk behaviors.

Health promotion also been defined as those activities that assist individuals in developing resources that will maintain or enhance wellbeing and improve the quality of life. These activities involve a person's efforts to remain healthy in the absence of symptoms and don't require the assistance of health care team member. The purpose of health promotion is to focus on a person's potential for wellness and to encourage appropriate alterations in personal habits, life style and environment in ways that will reduce risks and enhance health and well-being. (16)

Most notably, in October 1986 the First International Conference on Health Promotion was held in Ottawa, Canada, producing what is now widely known as the *Ottawa Charter for Health Promotion*. These conferences added greatly to understanding of health promotion strategies and their practical application, as well as more fully accounting for issues of relevance to developing countries. This was taken a step further at the Fourth International Conference on Health Promotion, New Era: Leading Health Promotion into the 21st Century, which was held in Jakarta, Indonesia, July 1997. (17)

Recent developments in health systems around the world have given new prominence to health promotion approaches. The increasing focus on health outcomes reconfirms the priority placed on investment in the determinants of health through health promotion. Several WHO programs and projects have been developed and implemented which have sought to translate health promotion concepts and strategies into practical action. These include the Healthy Cities, Villages, Municipalities and Islands projects, the networks of Health Promoting Schools and Health Promoting Hospitals, Healthy marketplaces and Health Promoting Workplaces projects, as well as WHO action plans on alcohol and tobacco, active living and healthy ageing. (17)

Health promotion includes proper nutrition with emphasis on weight control, regular physical exercise, Reduction of stress, treatment preference, family planning need, and preferred place of delivery, substance use, and Domestic violence, knowledge of HIV counseling and testing, PMTCT .etc. (18)

2.2 Nutrition and pregnancy

Nutrition and health are important dimensions which are used to assess the wellbeing of an individual. Malnutrition and sickness represent the main health problems in developing countries and often resulted from individual, household or community levels. Malnutrition among women is likely to have a major impact on their own health and their children. Besides her own health, a mother's nutritional status affects her capacity to successfully care for her children.

The World Health Report, 2003 states that, more attention should be given to maternal health and nutrition by governments and nongovernmental organizations. The United Nations meeting in 2006, on the critical role of nutrition for reaching the millennium development goal, also clearly established that poor maternal nutritional status has to be improved in order to achieve the MDG 5 (reducing maternal mortality by three quarters in the years between 1990 and 2015). Women in the reproductive group and children are most vulnerable to malnutrition due to low dietary intakes, inequitable distribution of food within the household, improper food storage and preparation, dietary taboos, particularly for women the high nutritional costs of pregnancy and lactation also contribute to poor nutritional status (19)

Feeding practices are differing from culture to culture and society to society. Consumption patterns are part of the culture of any given society and are related to traditions beliefs and taboos. Each culture whether traditional or modern, it has beneficial as well as harmful feeding practices. In most cases women and children are highly affected by food habits and dietary discrimination (20).

Food taboos recorded all over the world differ only in type and characteristics. In a survey carried out among the Chinese, Cambodian and Vietnamese women living in the United States, Fishman *et al.* observed that delivery produces ‘excessive cooling’ which needs to be offset by eating hot foods for 100 days after childbirth. Results of other local and national nutritional surveys suggest that diets of nursing mothers of low socioeconomic status are deficient in iron, zinc, and vitamins A and C. Therefore, it is indispensable that health professionals become more knowledgeable about the influence the culture has on breast-feeding, pregnancy and dietary behaviors and convictions that might be potentially harmful or dangerous during pregnancy and lactation. It is also important that personnel of baby-friendly hospitals are aware of the profile of mothers with food taboos. A supportive approach and efficient communication on this topic might reduce the gap between scientific recommendations and daily feeding practices of mothers willing to nurse their infants. (21)

The study done in South India, Pondicherry out of 339, 216 (63.7%) told that some vegetables/fruits should be avoided during pregnancy. There was no significant difference regarding this misconception between literates and illiterates. Most of the illiterates (91.3%) told that papaya should not be eaten during pregnancy in comparison to 83.9% of literates. Most common reason for restriction of specified fruits/vegetables was abortion. In a study done by Puri S and Kapoor S it was reported that 16.5% of the adolescent girls believe that papaya can cause abortion. A study among 1200 women from all districts of Tamil Nadu in India showed that 82 % of women avoided papaya during pregnancy. And also papaya is considered to be a fruit which is ‘hot’. Conventionally ‘hot’ food items are avoided during pregnancy as it is thought that it will cause abortion. Similarly ‘cold’ foods are avoided during lactation as it might affect the quality and quantity of milk production. (22)

Brems and Berg (13) from findings of 18 different cultures of food intake concluded that deliberate restriction of food intake during pregnancy is likely to have a small but significant effect on birth weight. In addition to cultural recommendations regarding an overall increase or decrease in food intake during pregnancy, particular foods may be encouraged or discouraged. While such dietary practices vary greatly from one culture to another, it is interesting to note that two food preferences during pregnancy mentioned across a number of cultural craving for dietary products, and distaste for caffeinated beverages and alcohol are beneficial examples for health of both women and infants. An issue of concern however, is the fairly widespread practice of discouraging consumptions of protein during pregnancy. Several studies have found that meat, or meat from particular animals is specifically withheld, but most frequently from pregnant or lactating women (13, 18-22).

The more frequent taboo was related to the simultaneous consumption of milk and fruits, such as mango, orange, pineapple, and nuts. They also considered eating eggs and fruits together harmful, as well as a combination of meat with fish. They mentioned that “combinations are harmful”, “combination kills”, and “mixing together causes indigestion and vomiting.” These restrictions were more frequent during the lactation period than during pregnancy. Food taboos adversely affect the daily consumption of protein, energy, and some nutrients during the first month of nursing. However, despite the poor intake of nutrients, women successfully fed their infants, and weight gain was satisfactory during the first month. (23)

In Sudan, pregnant women often have restricted food intake mainly due to morning sickness which is prevented and treated by eating little and limited items of food: and due also to the belief that a large fetus causing obstructed labor will result from eating unrestricted amount of food. In Sokoto state of Nigeria, the untrained traditional midwives advice pregnant women to avoid sugar and honey as they cause prolonged painful labor. They also advise pregnant ladies not to take local soda which is supposed to make the fetus slim. (24)

Malnutrition is a serious problem in Ethiopia in which women and children are highly affected by the condition. When we compare women’s nutritional status with other Sub-Saharan African countries, the average moderate and severe malnutrition in sub-Saharan Africa shows 13.3 percent (A. Mukuria, et.al, 2005). As of the 2005 EDHS report the condition of malnutrition in Ethiopia (26.5 percent) seems almost double when it is compared with other sub-Saharan African countries. A comparative study done (EDHS in 2005) data also revealed that, the prevalence of chronic energy deficiency in Ethiopia was among the highest from all Sub-Saharan African countries next to Eritrea. (12)

According to the ministry of health (MOH) in Ethiopia, pregnant women avoid specific food items due to several reasons: some pregnant women avoid as result of a strong dislike (aversion), other women avoid on medical grounds & most due to cultural beliefs or impositions. On this study, milk, eggs and goats meat are the major food items prohibited during pregnancy (12)

In most traditional society's food taboos are specifically directed toward women. The best and most nourishing portions of the food are served to the men. The nutritional deficiencies of most women are high particularly among pregnant and lactating women. Pregnant women are restricted from certain food staffs. For example, in the South South-Western and central part of Ethiopia, pregnant women are forbidden to take all foods which are white in color such as milk products, fatty meat, porridge and potato. Such foods are believed to be plastered on the body of the newly born baby. It is also assumed that the newly born baby and mother will have a bad smell if a pregnant woman eats vegetables. Green pepper is also prohibited with the assumption that a new born baby will become hairless. In the northern part of Ethiopia high carbohydrate and fat foods are forbidden for pregnant women with the assumption that it will bring about easier labor and smaller babies (23).

A study on 295 healthy pregnant women in Hadiya zone, southern Ethiopia indicates that a little over a quarter of them (27%) avoided at least one type of food due to food taboos. According to this report milk and chesse were regarded as taboo foods by nearly half of the women (44.4%) followed by linseed and fatty meat (16%, 11.1%) respectively. The reason for a voiding food includes fear of difficulty delivery (51%), disclosures of the fetus (20%) and fear of abortion (9.75%). (25)

Nutritional taboos and the restriction of pregnant women from consuming certain kinds of food which is usually rich in the required nutrients leads to the low nutritional status among most women and put them at high risk of material death. Low body weight, iron deficiency and anemia are one of the main causes of death in case of hemorrhage during labor, and it is common among women in developing countries. For instance in Ethiopia, the mean height of women is only 156cm, indicating severe past malnutrition, and puts women at high risk in delivery, and 30% of non-pregnant women have a body mass index less than 18.5, which indicates serious chronic energy deficiency (26).

2.3 Physical activities during pregnancy

Research has demonstrated that engaging in regular physical activity following pregnancy is associated with many physical and mental health benefits such as less pregnancy associated weight gain, decreased risk of postpartum depression and symptoms of depression, less anxiety and distress, and increased positive mood states. Unfortunately, studies have demonstrated that following pregnancy, women are at high risk for physical inactivity and generally show lower levels of leisure-time physical activity (LTPA) compared to pre pregnancy. Empirical estimates suggest that approximately two-thirds of postnatal women do not meet the current American College of Obstetricians and Gynecologists exercise recommendations (In the absence of either medical or obstetric complications, 30 minutes or more of moderate exercise a day on most, if not all, days of the week is recommended for pregnant women.(27)

Physical activity is a complex behavior that encompasses such disparate domains as sports and exercise, occupational tasks, and household chores. In the broadest sense, physical activity refers to any bodily movement produced by skeletal muscles that results in energy expenditure. Sedentary life style (physical inactivity) on the other hand is defined as engaging in no leisure-time physical activity (exercises, sports, physically active hobbies) in a two-week period. Regular physical activity, fitness, and exercise are critically important for health and wellbeing of people of all ages. Research has demonstrated that virtually all individuals can benefit from regular physical activity, whether they participate in vigorous exercise or some type of moderate health-enhancing physical activity. Physical inactivity can have serious implications for people's health, said the World Health Organization on the occasion of World Health Day, 2002. Approximately 2 million deaths per year are attributed to physical inactivity, prompting WHO to issue a warning that sedentary lifestyle could very well be among the 10 leading causes of death and disability in the world (28).

The American College of Obstetricians and Gynecologists (ACOG) recommends that women with low-risk pregnancies participate in moderate-intensity physical activity for 30 minutes or more each day on most, if not all, days of the week. These recommendations are based on research indicating that exercise during pregnancy may be associated with reduced rates of preeclampsia, gestational diabetes, cesarean sections, low back pain, anxiety, nausea, heartburn, insomnia, leg cramps, and possibly excessive weight gain. Currently, only 15.1% of pregnant women exercise at the recommended levels, which is significantly lower than the general population's 45%. (29)

Reasons for the low rate of exercise among pregnant women likely include the common perception that exercise during pregnancy is risky. Such concerns among the lay public have been reinforced by practitioners who have a history of discouraging women from exercising perhaps due to their own perceptions of increased risks of miscarriage, preterm labor and low infant birth rate. Previous recommendations from the ACOG may have also played a role in perpetuating such perceptions. (29)

In 1985, the ACOG published its first exercise-during-pregnancy guidelines, which stated that active pregnant women should stringently limit the type, duration, and intensity of their exercise to minimize both fetal and maternal risk. In 1994, the ACOG modified these recommendations to state that "during pregnancy, women can continue to exercise and derive health benefits even from mild to moderate exercise routines. Regular exercise (at least three times per week) is preferable to intermittent activity." However, the guidelines did not include any recommendations for inactive women. The most recent recommendations published in 2002 by the ACOG state that pregnant women without contraindications should exercise, and women who were inactive prior to becoming pregnant can start an exercise program. Despite the new ACOG recommendations encouraging pregnant women to exercise, pregnant women have been slow to take up exercise, and many physicians have been slow to deliver these recommendations to their patients. (29)

Hombø-ottesen et al. point to a number of studies that show lower pregnancy weight gain during the peak agricultural season, emphasizing that this is due to the combined effects of low energy intake and high energy expenditure. (13) The study conducted in four maternity units of France, revealed that occupation, but not working conditions affected the incidence of preterm birth. This result discordant with other studies which underlined the exercise of preterm births among women with strenuous working conditions (31).

In a prospective study, which was conducted in the Orebro country, women who reported heavily lifting did not have in general more unfavorable outcomes than other women, although the risk estimates varied between different occupational categories, lifting of weights >12kg more than 50 times per week increased the risk of preterm birth, but only among women who stopped working before the 32 week of pregnancy. (31)

2.4 Treatment preference during pregnancy

More than 90% of pregnant women take prescription or non-prescription drugs or use substance use (tobacco, and alcohol) or illicit drugs at some time during pregnancy (32). In general, drugs, unless absolutely necessary, should not be used during pregnancy because many can harm both the fetus and the women. About 2 to 3% of all birth defects results from the use of drugs other than alcohol. Study conducted in cape town indicate that pregnant women responded to symptoms in different ways depending on their perceptions of the severity of the problem, as well as the previous experiences, and either attended the afterhours clinic, pharmacy, a private doctor or followed self-healing practices. (10)

Studies in Ghana, Thailand, Brazil, and Philipins found that the percentage of illness episodes treated by self-medication ranges from 50-90%. In residents of western Kenya revealed that most residents begin treatment with herbal remedies or antipyretics for malaria. According to this study, anti-malarial are used as the initial treatment in only about half the cases (33). Among Kembata and Hadiya, Kosso Vermifuge (*hagenuabyssinica*) is taken at various stages of the pregnancy for the purpose of: cleaning the bowels, 'making space' for the fetus & keeping the fetus's weight down, as the delivery of a big baby would cause protracted and painful labor (34).

2.5 Future family planning needs during pregnancy

Family planning refers to a conscious effort by a couple to limit or space the number of children that they have. Contraceptive use reduces maternal mortality and improves women's healthy by preventing unwanted and high risk pregnancies and reducing the need for unsafe abortion.

Pregnancy also affects women's health: for each maternal death in developing country, more than 100 women suffer illness related to pregnancy and child birth. A significant proportion of these deaths could be avoided through the effective use of family planning services, it is estimated that 100,000 maternal deaths could be avoided each year if all women who said they wanted no more children were able to stop child bearing(35).

The Contraceptive Prevalence Rate (CPR) in Ethiopia observed in the 2011 EDHS has doubled from that reported in the 2005 EDHS (29 percent compared to 15 percent). While CPR among urban women has only slightly increased in the last five years (47 to 53 percent), CPR has doubled from 11 percent in 2005 to 23 percent in 2011 among rural women. (36).

2.6 Preferences of place and attendance of delivery

Lack of advance planning for use of skilled birth attendant for normal births, and particularly inadequate preparation for rapid action in the event of obstetric complications, are well documented factors contributing to delay in receiving skilled obstetric care.

Access to proper medical attention and hygienic conditions during delivery can reduce the risk of complications and infections that may lead to death or serious illness for the mother and/or baby. The study conducted in Nicaragua's Atlantic coast by Bruce Barrett indicate that traditional behaviors are related to all predictors, with higher retention of ethno medical practice among the poor, the less educated and the villagers(37). On this study, use of the hospital, is the higher among the urban (36%) than among the rural counterparts (23%).

In Ethiopia normal delivery care is provided in community by TBAs and others in health facilities by health workers. Fifty-one percent of births to urban mothers were attended by a health professional and 50 percent were delivered in a health facility, compared with 5 percent and 4 percent, respectively, of births to rural women. Mothers residing in Addis Ababa are the most likely to be attended to at delivery by a health professional (84 percent) and the most likely to deliver in a health facility (82 percent) compared with mothers of other regions. Mothers' educational status is highly correlated with whether delivery is assisted by a health professional and whether the birth is delivered in a health facility. For example, 5 percent of births to mothers with no education were attended by a health professional and delivered in a health facility compared with between 70 and 72 percent of births to mothers with some secondary education. Less than one percent of women were attended by a HEW at delivery. (38)

The majority of Ethiopian women deliver at home, with the help of one or more women birth attendants. The Shankila women give birth alone, often under a tree near river, cleans up alone and remains outside the compound until the end of the two months period. The Issa women also give birth alone, usually, while looking after cows (34). In urban areas of Jimma zone, south western area of Ethiopia, the proportion of health unit and home delivery was 47% and 53% respectively (38).

A study done in Ayssaita and Dubti towns, Afar regional state showed that absence of illness, lack of knowledge, lack of awareness on the danger signs of pregnancy are some of reasons for non-attendance of ANC and delivery care and institutional delivery (Melkamu, 2005) (39)

2.7 PMTCT during pregnancy

AIDS has known to become one of the leading causes of death in sub Saharan African countries and it has further worsened the morbidity and mortality of infants and children. HIV/AIDS awareness is universal in Ethiopia where 97 percent of women and 99 percent of men have heard of AIDS.

Awareness does not vary much by background characteristics except by education; those with no education being less likely to have heard of HIV/AIDS. Women in the Somali region are also less likely to have heard of AIDS (82 percent). Knowledge of HIV prevention methods has increased since 2005, especially among women. According to the 2005 EDHS, 35 percent of women knew that HIV could be prevented by using a condom and by limiting sexual partners; this compares with 43 percent in 2011. Among men age 15-49, this percentage increased from 57 percent in 2005 to 64 percent in 2011. As education levels increase, men are less likely to have had two or more partners in the past 12 months (3 percent of those with more than secondary education compared to 4 percent of those with no education). Among men who had two or more partners in the past 12 months, condom use during last sexual intercourse increases with education level; 54 percent of men with some secondary education used a condom compared with 14 percent of men with at least some primary education. (40)

Mother to Child Transmission (MTCT), which occurs during pregnancy, labor and breast feeding, is responsible for 90% of child hold HIV infection. The main objective of (PMTCT) is to reduce the transmission of HIV infection from HIV infected mother to their offspring. (41)

In a study done in north western Ethiopia, although the general awareness of HIV was high, correct knowledge of the virus and its mode of transmission was known in only 44% of adolescent boys and 41% of adolescent girls (41). The reason for increasing MTCT of HIV might include lack of knowledge of mothers on the risk of MTCT, lack of access to VCT and the benefits of preventive intervention, like ARV drugs and infant feeding options. Another study in Arbaminch Hospital revealed that among 484 mothers interviewed at antenatal follow up, 80% are aware of the prenatal transmission of HIV infection & these 213(55%) thought that there is a 100% risk of transmission of every conception. Out of all the mothers interviewed, 424(91%) agreed that HIV is not transmitted by mother to child physical contact, and 419(86.5%) have the knowledge that HIV is transmitted through breast feeding (42). It is to be noted that the use of ARV drugs in PMTCT was not known to be 386(80%) of the mothers. Even though 449(92.3%) of the mothers did not know their HIV sero-status, 360(74.4%) of all the pregnant mothers volunteered for HIV blood test at the first request.

2.8 Substance use during pregnancy

2.8.1 Cigarette (Tobacco) smoking

Smoking during pregnancy is major challenge to the mother and fetus. A cross sectional study among pregnant women in south Africa indicate that out of 796 women ranging from age 14-46, 45.9% were smokers, 14.7% were quitters and 39.4% were nonsmokers (43). From the total sample 83% of the women knew that nicotine is addictive, 76% knew the baby is subjected to nicotine, while 56% of the women were unaware that smoking may lead to miscarriage and 45% of women did not know that smoking during pregnancy can lead to premature labor.

Another study revealed that, although cigarette smoking harms both pregnant women and the fetus, only about 29% of women who smoke quit during pregnancy (32). The most consistent effect of smoking during pregnancy are a reduction in body weight, birth defects of heart, risk of sudden infant death, placenta previa, premature rupture of membrane ,preterm labor, ... (43)

Protection initiatives are designed to protect non-smokers and persons not actively engaged in smoking from the harmful effects of second hand smoke (SHS) through the development, implementation and enforcement of policies that prohibit smoking in public settings such as the workplace. These are generally supported by public health advocacy, education and media campaigns, as well as monitoring and enforcement activities.

2.8.2 Alcohol

Study by substance use and mental health administration report indicate that drinking alcohol during pregnancy is the leading cause of birth defects. Worldwide there are 5.2 million deaths from injuries every year and non-fatal injuries account for about one-tenth of the global burden of disease. (44)

The problem of alcohol-related injuries is particularly alarming in many low- and middle-income countries, while there is little doubt that alcohol consumption is associated with injury occurrence, less is known about the level of risk at which various drinking patterns, quantities of alcohol consumed, or drinking situations place the individual at risk for accidental injury. The risk of miscarriage almost doubles for women drinking alcohol, especially if they drink heavily.

The weight of the baby is substantially below normal for the woman who is drinking regularly. The average weight of a baby from alcohol drinking mother is 4 pounds compared with 7 pounds for normal baby. The most common and serious effect of alcohol during pregnancy is fetal alcohol syndrome, which occurs about 2 in 1000 live births for mothers drinking as few as three drinks per day. Alcohol has also bad effects on early neonatal death, (43)

2.8.3 Caffeine

How consuming caffeine during pregnancy harms the fetus is unclear. Caffeine which is contained in coffee, tea, some sodas, chocolate, and some drugs, do a stimulant that readily cross the placental barrier to the fetus and stimulates the fetal heart rate and decrease the absorption of iron thus anemia. Some evidences suggest that drinking more than seven cups of coffee per day may increase the risk of having still birth, low birth weight, and miscarriage (32)

2.8.4 khat(chat)

The leaves of the shurub *catchaedulis*(khat) are widely chewed as part of social life in several countries around the red sea in east Africa. The leaves possess stimulant properties and are also used by pregnant women. The effect of chat on birth weight has been studied; it was found that healthy full term, infant with lower average birth weight. A study conducted in Yemen, in 1,141 consecutive deliveries at the delivery centers in Yemen, the effect of chat upon the offspring have been studied, According to this report, nonusers of chat (n=4227) had significantly fewer low birth weight babies (<2,500gram) compared to occasional users (n=391). The chat chewing mothers had concomitant diseases. There was no difference in rates of still birth or congenital malformations. (43)

2.9 Domestic abuse/violence

Any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women. The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likely hood of resulting in injury, death, psychological harm and mal development or deprivation. Domestic abuses of pregnant mothers have an increased risk of having miscarriage, low birth weight, fetal and maternal injury and death.

According to studies in the United States, battered women are more likely than non-battered women to require psychiatric treatment and five times more likely to attempt suicide. They are also likely candidates for alcohol abuse. In Ethiopia, as study was carried out in the predominantly rural Meskan and Mareko District showed that: Nearly one half (49%) of ever-partnered women experienced physical violence by a partner at some point in their lives, and 29% during the past 12 months. Of women who had ever been pregnant, 8% reported physical violence during at least one pregnancy. Among women ever abused during pregnancy, 28% had been punched or kicked in the abdomen. In 98% of cases of physical violence by a partner during pregnancy, Sexual abuse of girls less than 15 years and forced first sex; about 17% of women reported that their first sexual experience was forced. (44)

2.10 Mental health promotion

Mental health problems are common both during pregnancy and after birth, with risk of relapse of a preexisting mental illness and an increased risk of new illness. Furthermore mental health illness during pregnancy such as depression can increase the risk of cognitive development deficits and psychiatric illness in the offspring (45).

2.11 Measures taken to improve health promotion

Safe mother hood begins before conception with proper nutrition and a healthy life style. It continues with appropriate prenatal care, the prevention of complication when possible, and the early and effective treatment of any complications (5).The actual influence of a husband's beliefs on a woman's health seeking behavior, however, may vary by a woman's background characteristics that are associated with variations in autonomy such as age and education. Women's autonomy in health seeking behavior has been shown in other studies to increase with age and education. Therefore, it is expected that a husband's approval will have less influence on the use of prenatal care among older and more educated women than among younger women and women who have little or no education. (46)

Smoking, drinking excess alcohol, poor nutrition and other lifestyle factors can lead to poor outcomes for mothers and babies. For Alcohol use during pregnancy the recommendation is that pregnant women should avoid drinking alcohol in the first three months of pregnancy due to the increased risk of miscarriage. Those who choose to drink during pregnancy should be advised to drink no more than 1 or 2 units twice per week. The provision of routine health promotion (including advice and education and sometimes screening tests) before conception may encourage changes to improve health, and may be an opportunity to identify risk factors such as infection that can be treated before pregnancy.

2.12 Conceptual frame work of the study

The conceptual framework is developed by the principal investigator, which is intended to represent the key factors that have been identified in many literature searches which are mostly mentioned to affect health promotion practices of pregnant women. Hence, health promotion practice is the dependent variable consisting of major factors like nutrition, regular physical exercise, treatment preference, and preferred place of delivery, future family planning need, domestic violence, substance use, PMTCT and the like. According to financial and feasibility issues it is not possible to study all variables that affect health promotion practices directly or indirectly.

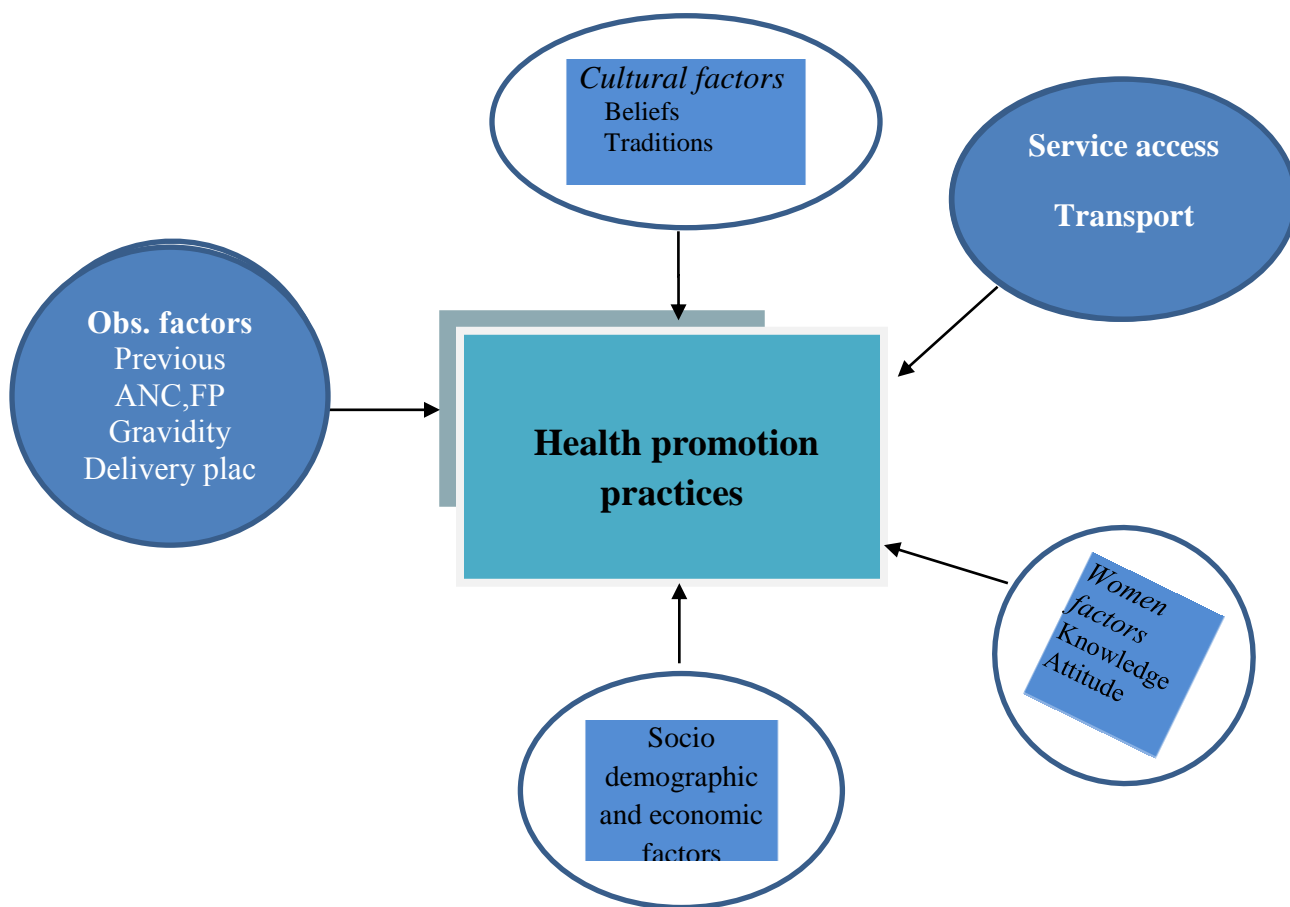


Figure 1, Conceptual framework on health promotion practices among pregnant women during pregnancy.

CHAPTER THREE

OBJECTIVES OF THE STUDY

3.1 General Objectives

To assess health promotion practices among pregnant women attending ANC services in public health institutions of shashemene town, oromiya, Ethiopia, 2012.

3.2 Specific Objectives

1. To identify cultural dietary taboos towards pregnant women in public health institutions of shashemene town
2. To determine preferred place of delivery by pregnant women in public health institutions of shashemene town
3. To assess socio demographic factors associated with health promotion practices of pregnant women in public health institutions of shashemene town.

CHAPTER FOUR

METHODS AND MATERIALS

4.1 Study area

Shashemene is selected because of different reasons like the town is a transition to many parts of Ethiopia, many rural and urban migrants are attracted for trading possibilities and seasonal employment and it is the most ethnically mixed town in Ethiopia, furthermore, the activities of informal sectors are targeted the large mobile people in the area so it is useful to see the picture of health promotion related practices in such multi-cultural town.

The town of Shashemene is a roadside town located in Oromiya administrative regional states, at Trans-African Highway to Cairo-Cape Town, about 160 miles (250 km) from the capital of Ethiopia, Addis Ababa, due south. Geographically, the town has latitude of 7° 12' north and a longitude of 38° 36' east. The study was carried out in all governmental health institutions of Shashemene Town which provide ANC service for the entire community. Currently, there is 1 General hospital, 3 health centers, and 20 private health institutions in the town which are currently providing the service. According to the Central Statistical Agency in 2005, the total population of Shashemene was estimated to reach over 93,156, of whom 46,882 were males and 46,274 were females. Among those females 35.2 % (16,288.5) were in reproductive age group (15-49), the total fertility rate was 4.2.

The town has been restructured into ten small administrative units called Kebele, which are managed by the Municipality. Having an estimated population density of 447.6 people per square kilometer, which is greater than the Zone average of 181.7 (CSA, 1996). It is the most densely populated woreda in the Eastern Shewa Zone. There are no figure showing approximate live births, maternal mortality and morbidity in the city. What makes shashemene different from other cities of Ethiopia, is the community of Rastafarians, who are located at the out skirt of the Shashemene town. The Rasta community in Shashemene currently numbers about four hundred total populations (including all family members) from Jamaica, Trinidad and Tobago, Barbados, Saint Vincent, Grenada, Guyana, New Zealand, Canada, Germany, Sweden, Ghana, Kenya, Australia, Guadalupe and Suriname.

4.2 Study period: the project was started from October, 2011 and ended on June, 2012 and the data collection period started from 1st February and ended on 15th March, 2012.

4.3 Study design:

An institution based cross-sectional descriptive study design.

4.4 Source populations:-All pregnant women in shashemene town attending ANC service from public health institutions are the source population.

4.4.1 Study population: - Pregnant women coming for ANC service utilization on study period in the selected health institutions who are members of inclusion criteria.

4.4.2 **Study unit:** - Individual woman

4.5 Sample size determination: The sample size is determined by using a single population proportion formula by using:

$$n_o = \frac{(Z_{\alpha/2})^2 P(1-p)}{d^2}$$

Where

n_o - desired Sample size (initial)

$Z_{\alpha/2}$ - is confidence interval at 95% =1.96

d- Desired or margin of error which is set at 0.05.

P - Is Proportion of population which is unknown and assumed to obtain maximum sample size 50% was used.

So, the Initial sample size (n_o) will be

$$n_o = \frac{(1.96)^2 (0.5 \times 0.5)}{(0.05)^2} = 384$$

Since, the total number of women visiting those four institutions was obtained to be **1700** (data obtained during preliminary survey).

Then, the final sample size (nf) is determined as follow:

$$nf = \frac{n_o}{[1 + n_o/N]} \Rightarrow \frac{384}{[1 + 384/1700]} = 295$$

4.6 Sampling procedure:

The study subjects were selected by using systematic sampling method among proportionally allocated sample of 295 pregnant women. From preliminary survey the total number of women visiting those four institutions is obtained to be 1700 on monthly basis. These total client flow is obtained from registration books and client cards. After determining the average number of women visiting those institutions on monthly and daily basis, the study subjects are proportionally allocated. Again from preliminary survey, the average numbers of clients visiting those institutions monthly are **540; 480; 380; 300** for the hospital, and the other three health centers respectively. The proportional numbers of study subjects allocated based on client flow were, **94; 83; 66; 52** for the hospital and the other three health centers respectively. Based on the condition, the sampling interval (K) was determined by dividing the number of units in the population by the desired sample size (N/n) for each health institution. The interval (K) is determined to be 6 for those all institutions. Prior to interview program, the sampling frame was prepared on basis of daily client flow and order of client registration. Taking individuals at fixed intervals (every Kth) were interviewed based on the sampling fraction, Starting point (random start), a number between one and K was selected randomly. And the selected number was the first number to be included in the sampled study. A total of sampled women were chosen by systematic sampling have an interview after or before received ANC care in government health institutions of the study area.

4.6.1 Schematic presentation of the sampling procedure

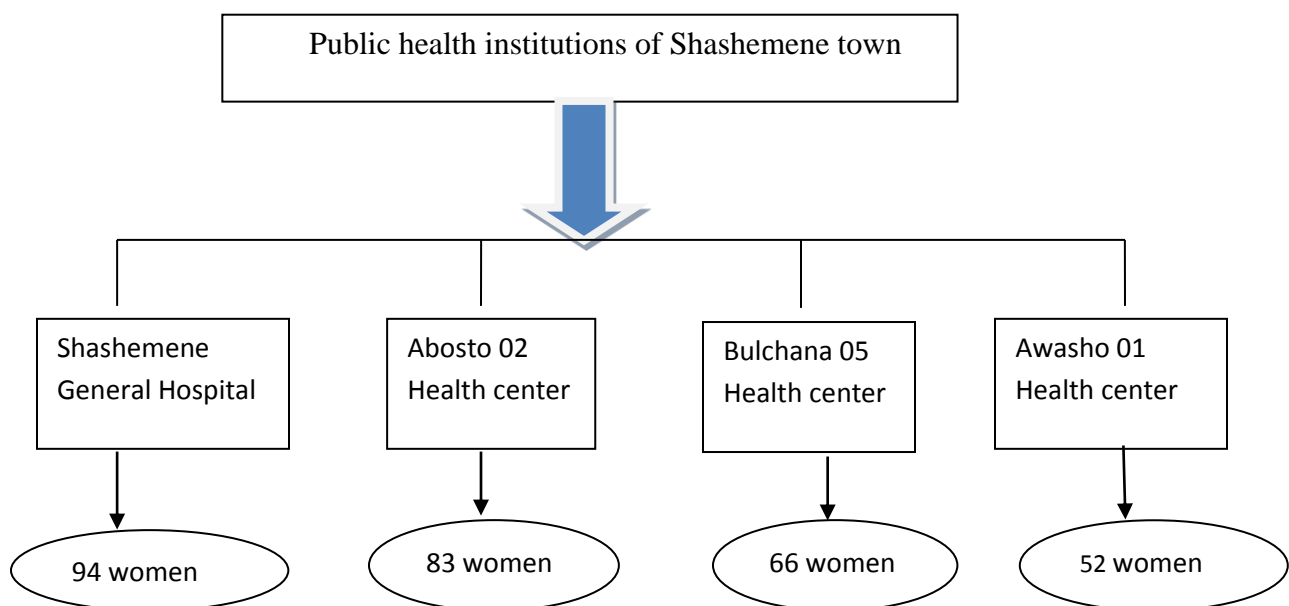


Figure 2, Schematic presentation of sampling procedure to assess women health promotion practices during pregnancy in public health institutions of shashemene town, 2012

4.7 Inclusion & exclusion criteria

4.7.1 Inclusion criteria: Pregnant women who visit selected health facilities during the study period for the purpose of ANC, being a member of sampling frame, able to communicate and willing to participate were included.

4.7.2 Exclusion criteria: - women who are coming for reasons other than ANC: women in labor and women who are not cooperative to participate in the study were excluded.

4.8. Variables of the study

4.8.1. The dependent variables:-*health promotion practices* (nutrition, physical activity, treatment preferences, future family planning need, and preference of place of delivery, mental health promotion domestic violence, substance use and knowledge of VCT/PMTCT)

4.8.2. The independent variables: - socio-demographic variables, such as address, income, age, religion, ethnicity, educational status, occupation, marital status and number of pregnancies.

4.8.3 Operational definitions

Health promotion practices- Any woman's usual activities or behaviors in relation to normal and complications of pregnancy performed by pregnant mother. Especially activities related to nutrition, physical activity, treatment preferences, future family planning need, Preferred place of delivery, mental health promotion, domestic violence, substance use and knowledge of VCT/PMTCT.

Substance use- is a mal – adaptive pattern of consuming substances resulting in repeated problems and adverse consequences on jeopardizing the health of the mother as well as the fetus

Severe/ serious health problems: A subjective description given for a health problem encountered during pregnancy and childbirth by a woman to differentiate such problems from the usual less severe/serious health problems like headache, minimal vaginal bleeding after delivery.

Tradition practice: Is a habitual or customary performance or operation of statements, beliefs, legends, customs etc.by the individual or community which are handed down from generation to generation.

Physical activity- less intensive exercise performed 30 minutes per day and 3-4 days per week.

Future family planning need- a willingness to have a contraceptive use after current pregnancy

Treatment preference- an intention to sought treatment from health institution or traditional basis

Preference of place of delivery- a desired place to give birth: health institution or home delivery

Mental health promotion- mental health promotion activities performed during pregnancy

Domestic violence- An act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to pregnant women

4.9 Pretest

Before the actual data collection phases a pretest on 5% (15) of the structured questioners which contains points such as interviewer approach to respondents, Verbalized response problems, non-response, partial response, mistakes in skipping patterns, time required for completing the interview, etc. were collected on selected pregnant women attending ANC services in Arsinegele town; out of the actual study institutions and the lessons obtained from the pretest were included in the final tool.

4.10-Data collection techniques

Data collection technique was face to face interview using the pre-tested, adapted and modified tool from study done in Adama town by Ali Adem (2009) (43). The data collectors were trained diploma and degree holder female nurses, who speak both Amharic and Afan Oromo fluently. The female nurses were not employee of the health centers. They were not appeared with uniform. This is preferred for facilitation of interaction between the respondents and data collectors which is important to generate accurate information. The data collectors have got half day training on research objective, data collection tools procedures, interviewing techniques and appropriate data recording systems. The collected data was carefully checked for completeness as well as consistencies. Any confusion on the data collection procedure and/or responses was handled timely. Any significant knowledge and practical gap against health promotion practices during data collection time was discussed with the respondent at the end of data collection.

4.11 Data processing and analysis

The collected data was processed by entering in to computer using the statical package epi info version 3.5.1; the data was analyzed by using SPSS version 16. Frequencies and proportions were calculated according to the various socio-demographic variables. Chi-square test was used to determine the association between dependent and independent variables. Both Crude and adjusted odds ratio (OR) were used to measure the strength of association and logistic regression was applied to control possible confounding factors. For compilation, summarization and comparison of data: frequency of data counts, cross tabulations and word expressions were used. Data cleaning was executed by using simple frequencies and cross tabulations to check accuracy, consistencies, and missing values. Accordingly, incorrect entries were identified and re-entered.

4.12 Data quality assurance

After adapting the questionnaire moreover, it was pre-tested and necessary amendments were considered. Before conducting the main study; data collectors have got half day training about data collection process and technique. Pre-test was carried out on 5 % (15) of Antenatal care seekers who were out of the main study. Based on the finding of pre-test, data collectors were reoriented and possible modifications were made on the data collection tool. Moreover, necessary amendments were considered. Data was collected by 4 Nurses/midwives and 2 supervisors and on the days of data collection, the principal investigator and supervisors were monitoring and evaluating the data collection process by checking its completeness of the data and if any problem happen the correction were taken immediately.

Data was checked again for its completeness before data entry and the cleaning process was done by running simple frequency after data entry for its consistency. If data were not consistent, they checked again by referring the hard copy of the questioner. Finally data analysis was made after completion of all these activities.

4.13 Ethical considerations

Topic approval was sought from nursing department research development team. Ethical clearance from Internal Review Board (IRB) of the college of health science department of nursing and midwifery was also obtained. A formal letter was written by Addis Ababa University School of nursing and midwifery to study areas. Permission and informed consent was obtained from the health institutions and study subjects respectively. After brief explanation of the purpose of the study, verbal consent was obtained from clients and confidentiality was assured by excluding the names and specific identifiers of the study subjects'. Privacy and confidentiality were maintained. The right not to participate or withdrawal at any point from the study was respected. The confidentiality of the data was safeguarded during and after the data collection and no one except the principal investigator accessed the data.

4.14 Dissemination of the result

After the data were analyzed and conclusions and recommendations were drawn, hard copies of the result were submitted to AAU College of health science school of nursing and midwifery. Hard copies for each health institutions and to those governmental and non-governmental organizations that potentially could benefit from the study were given and seminar or workshop presentation will be arranged accordingly. In addition, this finding and the extract of the article will be sent to local journals for possible publication.

CHAPTER FIVE

5. RESULT

5.1 Socio-demographic characteristics of respondents

A total of 295 antenatal care attendant women from urban and periurban areas of Shashemene Town were interviewed, 20[6.8 %] were from Shashemene Town and **275** [93.2%] from the periurban areas of shashemene. Of which; all **295** (100%) had complete data for analysis. More than half were above age of 24 years, 39%(115) were between age of 15 and 24, 42.7%(126) were between 25 and 34 years, number of women whose age were greater than 35 years was only 18.3% (54) and the mean age of exit interview was 27.5 +6.3 years.

The major ethnic groups among respondents were Oromo (56.9%), Guraghe (14.9%), Amhara (12.9) and others (Tigraye and wolyta) account 8.8%. More than half (61%) of the study subjects were Muslims, and the majority (93.2%) of the women were currently married.

Educationally, half of women **52.2%** cannot read and write 20.7% had attended an informal education and they can read and write, 13.2% attended primary school, while (13.9%) had attended secondary and above schooling. Greater than half (**56.4%**) of the study subjects had a monthly income below 500 birr.

Regarding respondents' occupation, most women were housewives (54.6%) followed by civil servant (16.3%), merchant (12.5%) and others (16.6%). About 19.3% of the study subjects, interviewed were primigravida, while about 80.7% women were multigravida. Those women were also assessed about their previous and current pregnancy status, and this study found that about 80.7% of women who ever gave birth the median number of births were 3 +SD 1.89, in addition more than 85% of the respondents had no abortion or stillbirth (Table 1 & 2).

Table 1–socio-demographic characteristics of exit interviewee on health promotion practices during pregnancy in Public health institutions of Shashemene town; west oromiya March, 2012

Characteristics	No.	Percent (%)
Residence		
Urban	20	6.8
Peri urban	275	93.2
Age(N=295)		
15-24	115	39
25-34	126	42.7
>35	54	18.3
Mean + SD		27.5+6.3
Religion		
Muslim	180	61
Orthodox	78	26.4
Protestant	37	12.5
Education		
No schooling	154	52.2
primary	100	33.9
secondary and above	41	13.9
Marital status		
* Currently Unmarried	20	6.8
Currently Married	275	93.2
Average income(n=172)		
<=200 birr	19	11
201-500 birr	78	45.3
501-1000birr	53	30.8
>1000birr	22	12.8
Mean <u>±</u> SD		698 <u>±</u> 576.4481
Occupation		
House wife	164	54.6
Civil servant	48	16.3
Farmer	24	8.5
Merchant	35	12.5
Others	19	6.3

* living as a couple, widowed, divorced, separated, single

Table 2, Reproductive history of women attending ANC services in Public health institutions of Shashemene town, March, 2012

Variables	Number	Percent (%)
Gestation		
First trimester	78	26.4
Second trimester	180	61.0
Third trimester	37	12.5
Number of birth		
Primi (<=1)	56	19
Multi (2-4)	156	52.9
Grand para(>=5)	83	28.1
Number of live birth		
Second or less	193	65.4
More than two	102	34.6
Abortion		
None	255	86.4
One	36	12.2
More than one	4	1.4
Still birth		
None	252	85.4
One	38	12.9
More than one	5	1.7
Previous ANC(n=239)		
Yes	151	63.2
No	88	36.8

5.2 Health promotion practices

5.2.1 Nutrition during pregnancy

From total respondents (82.4%) believe on importance of eating balanced diet during pregnancy. And only 33.2% of all respondents have made changes to their normal eating habit. (73%) women who have at least two visits failed to attain the recommended weight gain accordingly with their gestational age. More than one third (38.3%) of those pregnant women practice fasting during pregnancy, type of fasting includes restriction of some food items in orthodox and reducing feeding frequency in Muslims.

Half (49.8%) of total respondents, have mentioned to avoid at least one food items since pregnancy because they felt that it causes undesirable effects for the women or to the infant or both (i.e. Plastered on the fetal head, makes fatty baby and difficult delivery, fear of abortion, evil eye, fetal abnormality). Almost half of the respondents avoid one or more food items during pregnancy. Majority(50%) avoided more than two foods. food items are mentioned to be avoided were, linseed 92 times, honey 84 times, milk 67 times, fatty meat 63 times, eggs 50 times, fruits 41 times and vegetables 17 times.(table 3)

Table 3, Health promotion practice regarding nutrition among pregnant women attending ANC service in Shashemene town, March 2012

Nutrition during pregnancy (N=295)	number	percent (%)
Importance of balanced diet		
Yes	243	82.4
No	52	17.6
Change in feeding habit		
Yes	98	33.2
No	197	66.8
Fasting during pregnancy		
Yes	113	38.3
No	182	61.7
Foods not allowed for eating		
Yes	147	49.8
No	148	50.2
Food items not allowed (n=147)		
Milk/ yoghurt	67	22.7
Egg	50	16.9
Fatty Meat	63	21.4
Honey	84	28.5
Linseed	92	31.2
Fruits	41	13.9
Vegetables	17	5.8
Reasons for not eating those food items (n=147)		
Plastered on the fetal head	91	30.8
Fear of fatty baby and difficult delivery	90	30.5
Others (fear of fetal abnormality)	12	4.1

5.2.2 Physical activity and Treatment preferences

There were only **13** respondents responded as they practice regular physical exercise program to the recommended standard by ACOG; greater than 3-4 days per week and for 30 minutes per day. And 86% of respondents involve in working sternness activities, like farming, digging, cooking, fetching water, washing clothes and collecting fire woods which are not compensated by possible energy intake.

Concerning treatment preference during pregnancy, Out of the total respondents only 66 responded to have had disease experience once up on their pregnancy occasions. From those respondents **57.6%** have got medical treatment, the remaining 42.4% of the respondents haven't sought treatment because of expansive cost, far location of the institutions and lack of support from husband and relatives.

The distributions of areas to seek treatment were health institution (55.9%), traditional healers (27.1%) and self-treatment (10%). About 75.4% of the respondents who have a disease experience took drugs which are prescribed by health professional were as 33.9% of total respondents took drugs which are not ordered by health professionals. (table 4 below).

Table 4, Regular physical activity and illness experience during pregnancy in public health institutions of Shashemene town, March 2012

Variables	Number	Percent (%)
1. Physical activity		
A. having regular physical exercise program		
Yes	50	16.9
No	245	83.1
B. for how many days per week (n=50)		
<4 days	45	90
>=4 days	5	10
C. for how many minutes per day (n=50)		
<=30 minutes	45	90
>30 minutes	5	10
D. Involving in vigorous-intensity activities		
Yes	252	86
No	43	14

2. Previous illness experience

a. illness experienced		
Yes	66	22.4
No	229	77.6
b. sought medical support		
Yes	38	57.6
No	28	42.4
c. Place of preference for seeking treatment (n=57)		
Health facilities	31	10.5
Local herbal healer	16	5.4
Self-treatment	10	3.4
d. Following drug use instructions		
Yes	46	75.4
No	15	24.6
e. Taking drugs which are not ordered		
Yes	21	33.9
No	41	66.1

5.2.3 Future family planning need

Out of the total respondents 194 (65.5%) mentioned as they used contraceptives previously; The major contraceptives methods mentioned by those study participant were injection 75.8%, oral pills 33.5%, implants 20.6% and others like natural FP, condom, loop accounts 11.3%. And 230 (78%) of the total respondents have mentioned as they have future plan to use family planning options. The reasons given by those women who have no plan to use family planning option include; having desire for more children, religious prohibition, health concern/fear of side effect, Lack of husband willingness, and others like no desire to use, lack of knowledge, (see fig 3 & 4 below)

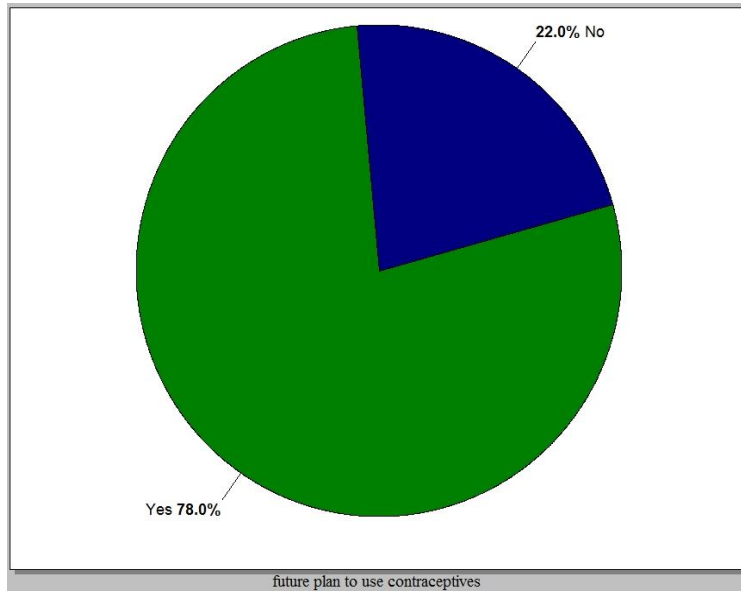


Figure 3, Pie chart showing future plan for family planning use in public health institutions of Shashemene town, March 2012

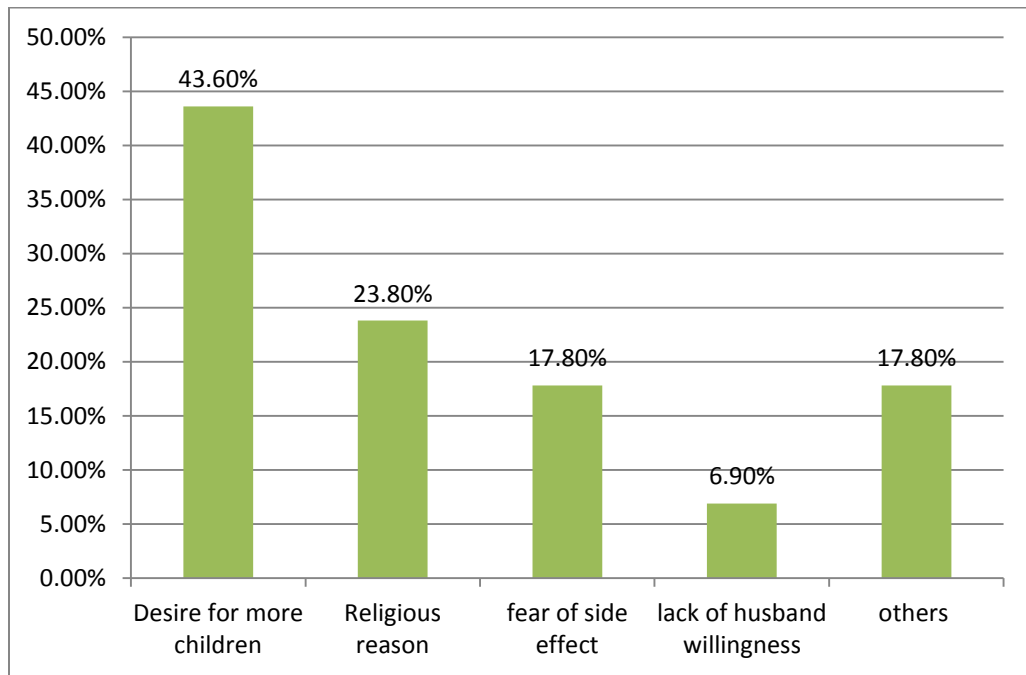


Figure 4, Bar graph showing reasons for future contraceptive nonuse in public health institutions of Shashemene town, west oromia, march 2012

5.2.4 Preferred place and attendance of delivery

One hundred fifty three (62.2%) of the total study participants, delivered in the health institutions during their last delivery, whereas (37.8%) of the total respondents delivered in their home with the majority (31.2%) were attended by TTBA followed by Neighbors (26.2%), family (23.7%), others like families and mothers in law (18.3%).

Concerning future preference of their birth place **78.6%** of those women planned to give birth in the health institutions.

From those mothers who gave birth in home, (29%) of All those home deliveries took a time duration of 12-24 hours and 5.4% took greater than 24 hours the rest (65.5%) took a time duration of less than 24 hours. of those home delivered mothers **37.6%** faced serious problems like excessive bleeding(48.6%), long stay of labor(28.6%), retained placenta(14.3%) and others (8.5%).

Concerning harmful traditional practices among women who had gave birth in their home (21.5%) responded as they have applied Harmful Traditional Practice, (35%) had practiced abdominal massage at the time of child birth, as a reason to correct the position of the fetus were as (35%) applied bad substance on the fetal umbilicus, (20%) washing new born immediately after birth and others like expression of colostrum accounts about (10%).

Concerning believes on negative effect of those HTP, about 65% of respondents believe on negative effect of HTPs on the fetus as well as themselves. (table 5 below)

Table 5, preferred places of delivery during pregnancy in public institutions of Shashemene March 2012

Variables	frequency	Percent (%)
a. Place of last delivery (n=246)		
Health institution	153	62.2
Home	93	37.8
b. Assistants during home delivery (n=93)		
TTBA	29	31.2
Neighbors	25	26.9
Family	22	23.7
Relatives	17	18.3
c. time taken to give birth at home (n=93)		
<12 hours	61	65.6
12-24 hours	27	29
>24 hours	5	5.4
d. serious problem faced during home delivery (n=93)		
Yes	35	37.6
No	58	62.4
e. serious problems faced (n=35)		
Excessive Bleeding	17	48.6
Retained placenta	5	14.3
Long stay of labor	10	28.6
Others	3	8.5
f. harmful traditional practice applied to the women (n=93)		
Yes	20	21.5
No	73	88.5
g. preferred Place for current delivery		
Home	24	8.1
Health institution	232	78.6
Others	39	13.3

5.2.5 PMTCT during pregnancy

One hundred forty (47.5%) of the respondents undergone HIV Counseling and Testing, while one hundred fifty five (52.5%) do not got the test. One hundred and five (35.6%) of the respondents know HIV transmission from mother to child could be prevented whereas one hundred ninety (52.5%) of the respondents do not know whether HIV transmission from mother to child can be prevented. Out of women who have knowledge of PMTCT, the majority (30.2%) of the respondents mentioned using medication as one method of prevention, institutional delivery with the help of professionals (11.9%), avoiding breast milk/bottle feeding (11.5%) and others like replacement therapy and exclusive breast milk (8.1%) (fig 5 below)

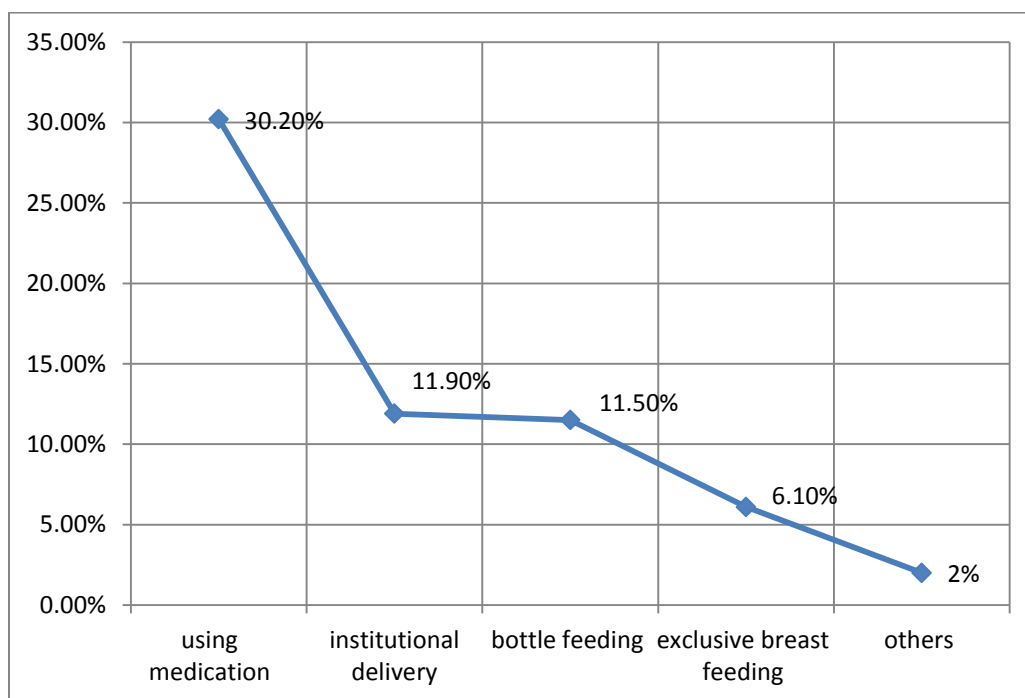


Figure 5, mentioned methods of PMTCT in public health institutions of Shashemene town, March 2012

5.2.6 Substance use during pregnancy

Two hundred sixty (88.1%) of the study participants included in this study drink coffee/caffeine with the majority (70%) within range of 2-3 cups/day. But only 18(6.1%) of the respondents consume other substances rather than coffee. From those consumed substances 13 (4.4%) use chat and others (2%) use substances like Alcohol, and combined use of chat with alcohol. (Table 6 below)

Table 6, substance use during pregnancy among pregnant women in public health institutions of Shashemene town, March 2012

Variables	Frequency	Percent (%)
1. substances used during delivery		
a. substances ever used rather than caffeine(n=18)	18	6.1
b. chat	13	4.4
c. Alcohol	3	1
d. Combination	3	1
2. reasons to with draw use of substance		
Harm the fetus	5	1.7
Affects my health	7	2.4
Others advise to stop the substance	6	2.0
Others (Unaffordability to buy)	1	0.3
3. drinking coffee		
Yes	260	88.1
No	35	11.9

5.2.7 Domestic violence during pregnancy

Totally there were 22 women (7.5%) who faced violence during their pregnancy time. Major types of violence mentioned by those women were: verbal abuse (4.4%), physical abuse/husband beating (5.7%) and rape/incest (1%) (See fig 6 below). Actions taken after Violence were reported to a police 8 times, sought health assistance 11 times, cultural/social resolution and marriage 12 times (fig 6)

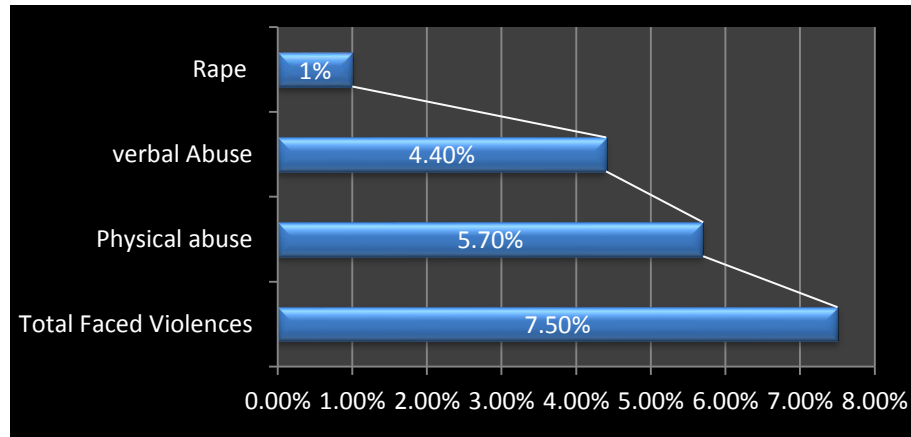


Figure 6, Domestic violence among pregnant women in public health institutions of Shashemene, March 2012

5.2.8 Factors to promote components of health promotion

The major sources of information to mentioned to increase the respondents knowledge of health promotion practice during pregnancy and delivery were taking with friends and elderly (60.7%),from the past experience pregnancy for multi gravida women (58.6%),and advice and guidance from health professionals during ANC visit were mentioned sources of information by many women(fig below).

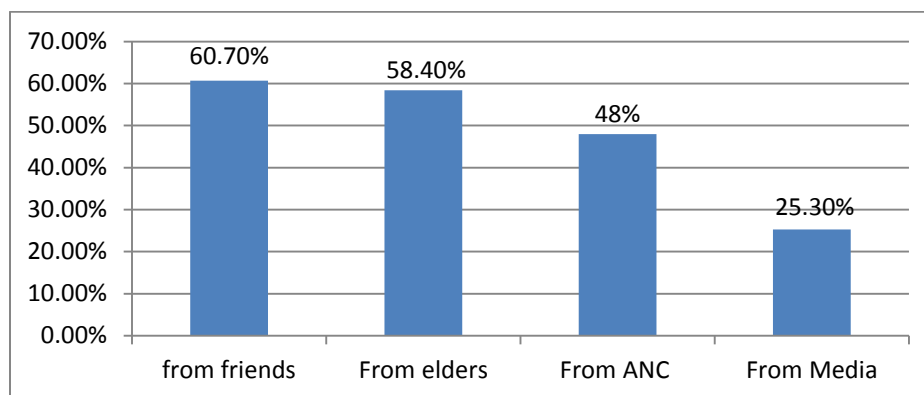


Figure 7, Bar graph showing source of information related to health promotion practices during pregnancy in public health institutions of Shashemene town, March 2012

Factors which hinder health promotion practice were: feel no need (21.4%), lack of information/knowledge (38.3%), financial unaffordability (55.3%), work load /being busy by different home responsibilities (20.3%) and lack of transportation due to fare location of health institutions was mentioned (35.9%) times as factors to lag health promotion practices back ward.

5.3 Association of selected factors with health promotion practices

The chi-square test result indicated that there is an association between some components of Health promotion practice and some of selected variables. Socio demographic variables were associated with each studied components of health promotion practice.

Concerning the belief about weather balanced diet is important during pregnancy for the mother as well as the fetus, it was found to be significantly associated with age groups, educational status, and previous ANC attendance. Women younger than 35 years are more likely to attend ANC and health education by taking women older than age 35 as referent category.

Educational status of the women is also showed a significant association with belief: women who can read and write are **57** times more likely to have knowledge of balanced diet than illiterate women.

Women having previous ANC attendance showed a significant association: women having previous ANC attendance were 3 times more in position to belief on balanced diet. (table 7 below)

Table 7, Association of some socio-demographic factors with nutritional practice during pregnancy in public health institutions of Shashemene town, March 2012

Background variables	Importance of balanced diet		Crude OR(95% CI)	Adjusted OR (95%CI)**	p-value
	Yes	No			
Age group					
15-19	14	4			
20-24	86	11	3.062 (1.297-7.232)		0.011
25-29	80	11	3.292 (1.397-7.759)		0.006
30-34	25	10	1.474 (0.42-5.171)	0.175(0.001-3.812)	0.049
>=35	38	16	1.00	1.00	
Educational status					
Illiterate	116	38	1.00	1.00	
Can read and write	59	2	9.664 (2.253-41.444)	57 (1.212-2.682)	0.40
Primary (1-8 th grade)	29	10			
Secondary	26	1	8.517 (1.118-64.89)		0.39
College and above	13	1			
Average income					
<=200	14	5	1.00		

201-500	71	7	3.622 (1.004-13.065)		0.049
501-1000	46	7			
>=1000	19	3			
Previous ANC					
yes	139	12	7.293 (3.517-15.123)	3.125 (1.178-8.291)	0.022
No	54	34	1.00	1.00	
Change in feeding habit					
Yes	95	3	10.484 (3.177-34.595)		0.000
No	148	49	1.00		
Fasting during Px					
Yes	103	10	3.090(1.482-6.445)		0.003
No	140	42	1.00		

N.B ** Adjusted for ethnicity, religion, marital status, level of education, weight change, reading food labels and change in feeding habit ,number of delivery

Food restrictions are significantly associated with Ethnicity, Oromo ethnic groups are shown significant association; 14 times more to avoid food items than wolayta ethnic groups (table 8 below)

Table 8, Association of foods avoided during pregnancy with important variables of nutritional practice in public health institutions of Shashemene town, west oromia, March 2012

Associated Variables	Foods avoided during px		Crude OR(95% CI)	AOR (95%CI)**	p-value
	Yes	No			
Ethnicity					
Oromo	119	49	23.07(5.176-102.834)	14.988 (1.681-133.644)	.015
Amhara	14	24	5.542 (1.12-27.425)		.036
Wolyta	2	19	1.00	1.00	
Changing feeding habit					
Yes	28	70	1.00	1.00	
No	119	78	3.814 (2.261-6.435)	4.099 (1.275-13.182)	.018
Fasting during Px					
Yes	69	44	1.00	1.00	
No	78	104	0.478 (0.296-0.772)	.271 (.096-.766)	0.14

** Also adjusted for family planning used, drinking coffee, linseed avoidance

Future family planning need was found to be significantly associated with previous contraceptive use and religious attitudes. women who have an experience of using those contraceptive methods are highly in a position (13 times) more likely to use it again for future, and women who do not used contraceptives as a reason of religious prohibition are 18 times less likely to use it for future pregnancy (table 9 below)

Table 9, Association of future plan to use contraceptives in institutions of Shashemene, March 2012

Variables	Plan to use contraceptive		Crude OR(95% CI)	Adjusted OR (95%CI)**	p-value
	Yes	No			
Employment					
House wife	122	39		13.132 (1.01-170.813)	0.49
Farmer	19	5		21.97 (1.256-384.423)	0.34
Unemployed	4	1		1.00	
Contraceptive ever used					
Yes	187	7	36.03(15.38-84.4)	13.35(3.115-57.224)	0.000
No	47	58	1.00	1.00	
Religion discourage					
Yes	2	23	1.00	1.00	
No	228	42	62.429 (14.18-274.7)	18.231(3.287-101.134)	0.001

** Also associated for need of more children, using injectable and using oral pills

Concerning preferred place of delivery, those mothers with previous institutional delivery were **17** times preferred to have home delivery for current delivery. (table 10 below)

Table 10, Associations to delivery place preference in health institutions of Shashemene, March 2012

Variables	Preferred Place of delivery		Crude OR(95% CI)	Adjusted OR (95%CI)**	p-value
	institution	Home			
last delivery					
Home	209	22	11.667(4.627-29.418)	16.971(5.311-54.234)	0.000
Health institution	47	18	1.00	1.00	
Expensive cost					
Yes	31	8		1.00	
No	248	8		0.069 (0.016-0.290)	0.000

** Also adjusted for ANC, and future plan to use contraceptives,

5.4 Discussion

This institution based cross-sectional study tried to assess factors affecting health promotion practice on Antenatal care seekers in public health institutions of Shashemene town. A total of 295 mothers were interviewed making a response rate of 100% which is relatively high. Other cross sectional studies have got 97.4% response rate, there for it is not consistent with methodologically similar studies (43). Study subjects in this study were between the age of 20-34 years with mean age of 27.5 and + 6.3 years. Compared to (EDHS, 2005) our study subjects are younger. The findings of median age of different studies on antenatal care were within similar range of this study finding (26 years). On the other hand the percentage of the interviewed women about 52.2% have no schooling and less educated which is inconsistent with (EDHS 2005) report this may be due to difference of data collection method between demographic survey and cross-sectional study. This study identified the major domains of health promotion practices in the area and measured the magnitude of this practice. (*See one by one*)

5.4.1 Nutritional practice during pregnancy

Importance of balanced diet was found to be significantly associated with age groups, educational status, and previous ANC attendance. As age of the women increases, the belief on the importance of balanced diet decreases showing a significant association of 0.175 (0.001-3.812). Consistent with other studies, women younger than 35 years are more likely to attend ANC and health education. The possible explanation could be; younger women may be more likely to accept modern health services since; they are more energetic, more likely to attend formal education. Older women on the other hand, tend to believe modern health care is not as necessary as the traditional one due to experience, confidence and knowledge from previous pregnancies and childbirths thus giving less attention to feeding balanced diet and ANC follow up. In addition aged women are more likely to have more children to care for. The 2005 EDHS also indicated women below 35 are more likely to utilize prenatal care than the older (36).

Educational status of the women is also showed a significant association with belief on balanced diet which is an adjusted odds ratio of 57 (1.212-2.682). This may be due to knowledge gain from education which may improve the awareness of those mothers to feed balanced diet during pregnancy.

Women having previous ANC attendance showed a significant association with belief on balanced diet with an adjusted odds ratio of 3.125 (1.178-8.291). This could be due to highly developed maternal awareness during ANC health education. Other factors like Average monthly income, number of delivery, change in feeding habit and fasting during pregnancy showed significant association in crude odds ratio but they have no significant association when they are manipulated for adjusted odds ration after correcting possible confounding factors.

An expectant mother needs a nutritionally balanced diet both before and during pregnancy. A poor diet may have adverse effects on herself and on her child in many ways. Fetal growth is affected by the quantity and quality of its nutrient supply. The effect of on diet on the fetus, its organs and specific cell types in the tissues will vary depending on the type of insult, the severity and duration of the insult, and the timing of insult.

Feeding practices are differing from culture to culture and society to society. Consumption patterns are part of the culture of any given society and are related to traditions beliefs and taboos. Food habits are mainly determined by the availability of indigenous food supply, socio-cultural and educational orientation of food processing and preparation methods. Each culture whether traditional or modern, it has beneficial as well as harmful feeding practices. In most cases women and children are highly affected by food habits and dietary discrimination (20).

Concerning diet changes during pregnancy, only 33.2% of all respondents have made changes of their normal eating habit compared to non-pregnancy period. The responded feeding changes include increasing feeding frequency (26.1) %, increasing food items (21%), were reported more frequently. A study in Sudan and many other studies indicated that one of the reasons not to eat different diet is that, this food items make the pregnant women fat so that their birth canal will be narrowed during labor. This reason is not significantly acceptable because there is no association between the foods eaten and direct attachment of the food to the fetus,during labor/delivery and narrowing of the birth cannal.

In addition to this belief which lead to deliberate food restrictions, **(49.8%)** of the respondents reported that they are obligated to avoid one or more food items during pregnancy. this study shows double increment from other study done in Adama town which is only 23.7% (43). In this study, **(73%)** women failed to attain the recommended weight gain accordingly with their gestational age which is consistent with other Studies undertaken in Nigeria, shown that **75%** of the women failure to attain the recommended weight gain that was due to the strong food taboos practiced in the area. **(11)**. This condition threaten the nutrient supply of the mother and the fetus(15) related to other study findings which shows higher percentage and variety of food restriction, are in line with this study (13, 25). but more than half (66.8%) did not have change in feeding habit from non-pregnancy period which together with the above factors worsen the nutrient supply of the mother as well as the fetus.

According to the study done in hadiya zone, Prevalence of food taboos observed in this study appears to be relatively high. It is speculated that the relatively high prevalence of food taboos observed in this study is due to the relatively low educational levels of the study participants as compared to the study done in hadiya zone, In which Over 76% of the studied women had gone to school, which is several times higher than female literacy rates in other parts (25).

The more frequent taboo reported were related to the simultaneous consumption of linseed (92 times), honey (84 times), milk (67 times) and fruits, such as mango, orange, Avocado, pineapple, and nuts. They also considered eating eggs and fruits together harmful, as well as a combination of meat with cheese was also reported to be harmful for the fetus as well as the mother. The reasons to avoid these food items were plastered on the fetal head, fatty baby and thus difficult delivery, fear of abortion and still birth. This finding is consistent with the study done in hadiya zone (25). Food taboos adversely affect the daily consumption of protein, energy, and some nutrients. (23) However, despite the poor intake of nutrients, and average weight gain was not satisfactory during survey which was less than 10% of their body weight.

In our study this food restrictions are significantly associated with Ethnicity, Oromo ethnic groups are shown significant association adjusted odds ratio of 14.988 (1.681-133.644) taking wolayta ethnic groups as referent category and 95% CI.

5.4.2 Regular physical activity during pregnancy

American Medical Association and American Heart Association recommends "a regular physical exercise should be done at least three to four times per week and 30 minutes per day" and Evidence from a variety of sources supports the belief that an increase in habitual physical activity promotes better health outcome. In our study, there were only 13 respondents interviewed to practice regular physical exercise program. But this activity mentioned by those women is not consistent with the given recommendation of ACOG (27). This study is inconsistent and much lower than report by ACOG showing 15.1% of pregnant women exercise at the recommended levels.

Concerning the daily work activity (86%) of the mothers involve in vigorous-intensity activity that causes large increases in respiration or heart rate like [carrying or lifting heavy loads, digging or construction work) the combined effect of which will be preterm delivery, low birth weight, preeclampsia (30).

5.4.3 Treatment preference during pregnancy

Compared to other studies (9,33,34,) which stated that more than half of all health seekers used traditional healers, lay/self-treatment, the utilization of medical treatment or health service is relatively higher (**57.6%**) in this study, but much lower than similar study done in Adama (43). The reason may be due to the nature of study participants who are women seeking care for ANC, average monthly income of low is highly associated with illness experience 0.67 (0.007-0.609), this may be due to mothers with low income are less likely to express their disease condition or illness experience and seeking for medical treatment. And this illness experience is strongly associated with location of the health institution, cost for treatment and number of birth. As number of birth increases illness experience also increases. This may be due to decreased immunity as evidenced by being grand parity is high risk condition.

5.4.4 Future plan to use contraceptives

Future family planning need was found to be significantly associated with contraceptive ever used 13.35 (3.115-57.224), and religious attitude 18.231 (3.287-101.134), This figure implies that those women who have an experience of using those contraceptive methods are highly in a position to use it again for future time. According to EDHS 2000, religious prohibitions are also known to have strong relationship with future plan to use family planning methods our study is in line with this report. This implies women with no religious prohibitions from using contraceptives were found to be strongly associated to use contraceptives in the future. Even though some studies (43) showed that there is a relationship between age and future family planning, there is no such significant relationship is observed in this study.

5.4.5 Preferred Place of Delivery

Preference of delivery place **78.6%** of those women planned to give birth in the health institution which is comparably high from study done in Adama (43); this may be due to nature of study participants which are only ANC seekers. from this study finding (37.8%) of mothers have home delivery and this have a significant association with delivery preference of health institution. were as those mothers with *previous institutional delivery were preferred to have home delivery* this may be due to decreased satisfaction on health services, professionals unwelcoming approach of care and decreased quality care provided in public health institutions. inconsistent with other studies, women who had ever given birth in the health facility are almost **six times** more likely to utilize delivery services at health facilities.

5.4.6 PMTCT during pregnancy

Most of the women in this study did not know their HIV sero-status, but one hundred five (47.5%) of all the pregnant mothers were volunteered for HIV counseling and blood test. Knowledge of mothers about prevention of MTCT is relatively high in this study (35.6%) compared to study finding in Arbaminch (42) which revealed 20% of mothers to have knowledge about PMTCT. And it is lower than study done in Adama (43) which revealed 54.4%. The majority (30.2%) of the respondents mentioned using ART medication as one method of prevention, which is very low compared to study done in Arbaminch, which mentioned by (80%) of the mothers. Institutional delivery with the help of professionals is mentioned by (11.9%) of respondents, avoiding breast milk/bottle feeding (11.5%) and others like replacement therapy and exclusive breast milk (8.1%). Knowledge of PMTCT is found to be significantly associated with mothers without previous HCT indicating 0.237 (0.090-0.626) of adjusted odds ratio at 95% CI. This is because mothers during HIV counseling and testing will have a high probability to seek knowledge on major meanness of PMTCT.

5.4.7 Substance use during pregnancy

A cross sectional study among pregnant women in South Africa indicates that about 45.9% were smokers, and 39.4% were nonsmokers (43), but the result in this study is much minimal (2%).

Some study findings shows that religion is significantly associated with substance use, but there is no relationship established in this study. There is evidence suggesting that drinking more than seven cups of coffee per day may increase the risk of having still birth, low birth weight, and miscarriage (32). In this study finding use of substance use during pregnancy was found to be significantly associated with *still birth*, having a crud ratio of 3.243 (1.147-9.170) at 95% CI and taking still birth No as a referent category.

About 88.1% of the study participants included in this study drinks coffee or consume caffeine with the majority (70%) within range of 2-3 cups/day.

5.4.8 Domestic violence during pregnancy

Of women who had ever been pregnant, 7.5% of them reported to have violence at least in one time of their pregnancy times. Among women ever abused during pregnancy, physical violence was reported 5.7%, verbal abuse 4.4% and Sexual abuse reported in about 1% of women. This study finding is consistent with another study (44)

Facing Violence during pregnancy was strongly associated with ethnicity, religion, and mental status. Concerning Ethnicity, being a member of Guraghe ethnic group is preventive adjusted odds ratio of 0.106 (0.015-0.748) at 95% CI and taking wolyta ethnic group as referent category. Muslim religious doctrine was also found to be preventive with adjusted odds ratio of 0.081(0.012-0.545) at 95% CI and taking protestant religious doctrine as a referent category.

Women with healthy mental status are less likely to be engage in domestic violence with adjusted odds ratio of 0.004(0.000-0.049) at 95% CI and taking women who reported to have mental illness as a referent category.

5.4.9 Measures to improve health promotion practice

Even though many previous studies had witnessed that women education is an important predictor of maternal health care utilization by increasing awareness and decision making ability of the women (15), in this study education is not significantly associated with prenatal health promotion utilization. The possible explanation for this might be the study is done in respondents from the rural community of the town where most of the respondents' ethnicity, education level and occupation etc are homogenously similar. The provision of routine health promotion (including advice and education and sometimes screening tests) before conception may encourage changes to improve health, and may be an opportunity to identify risk factors such as infection that can be treated before pregnancy begins. Women with no previous illness experience are more likely to search for knowledge of pregnancy with crud ratio of 1.822 (0.916-3.625) at 95%CI and taking women with illness experience as a referent category.

6. Strengths and limitations of the study

6.1 Strengths of the study

- ✓ In spite of time and budget constraint this study used probability sampling method which increased the representativeness of these study findings. Rather most of similar studies were done by using non probability sampling techniques.
- ✓ Use of logistic regression helped to control possible confounding factors in order to assess the relative effect of independent variables. On the other hand use of appropriate procedures of sampling helped to improve the validity of study.
- ✓ Taking data collectors who are health professionals working outside their working institution decreased possible interviewer and social desirability bias
- ✓ Including all public health institutions that provide ANC in the town would highly increase heterogeneity of the study participants
- ✓ Absence of nonresponse shows how much the study subjects are voluntary to participate in the survey.

6.2 Limitations of the study

- ★ Reliability of answers and sensitivity of the subject. Since the study is a cross sectional study, it has some limitations in establishing the cause and effect relationship.
- ★ Absence of similar studies for further comparison and discussion
- ★ Even though the study area is urban most of study subjects were from periurban and this may not represent a typical urban setting

7. Conclusion and recommendations of the study

7.1 Conclusions

Not much has been studied about the cultural, socioeconomic and demographic determinants of health promotion. However, it is only logical to expect that lack of education in general and lack of ANC education in particular are the most important factors contributing to observance of low health promotion achievements. This fact is confirmed in this study. The less educated women are, the more they observe food taboos. The less educated women are, the more likely they are poor and at the same time observe more food taboos. This observation underscores the importance of educating women and providing nutrition education aimed at changing mothers' attitudes towards appropriate feeding practices. The impact of such endeavors has been evaluated in Nigeria, where women who were educated and changed their wrong food attitudes showed significantly better nutritional status compared to women who continued to observe food taboos (25).

Although majority of pregnant women in this study, were practicing much more of health promotion practices, the study identified a number of individual, demographic, socioeconomic and health promotion related behavioral factors that influence the use of effective health promotion practices for better outcome of pregnancy and child birth. In this study mothers with previous institutional delivery were preferred to give birth in their home for the current pregnancy.

Half of the women in this study are obligated to avoid specific food items due to cultural views. And Problems which should be targeted for intervention includes ,wrong belief about the importance of balanced diet, no change of feeding habit, fasting, involving in hard work, home delivery and physical as well as verbal violence and low awareness about PMTCT. The most predictive factors were place of residence, gravidity, age, women's education, household wealth, previous ANC visits and the fact that the woman has been counseled about pregnancy complications during the antenatal care visits. Many findings are congruent with other similar studies reported in Africa and other developing countries.

7.2 Recommendations

The general recommendation of this study is concentrated towards eliminating food taboos in the area. MCH clinics must play a leading role in coordinating this effort. They should also put mechanisms that can routinely identify women observing food taboos, assess the reasons and provide appropriate nutrition education services. Other governmental and non-governmental organizations and various public associations, such as Farmers Associations and Women's Associations should also be actively involved in aimed at eliminating these harmful beliefs.

Based on the study findings the following are recommended:

- ANC health education was found to improve educational opportunity for women: This is, however, along term investment. As an alternative in short term, health promotion programs that centered on women with little or no education should be planed.
- Encouraging communication between health professional and client more in nutritional taboos, worry about its pregnancy outcome should be established.
- Younger women need education, while the older women need behavioral change on major health promotion practices.
- Since domestic violence is significantly associated with ethnicity and religion health education on multiple harmful effects should be given specially by religious leaders.
- Preferred place of delivery is associated with previous delivery place, (37.8%) of mothers having home delivery was preferred health institution, were as, those mothers with previous institutional delivery were preferred home delivery. This controversy needs further study to explore why those mothers preferred home delivery, in spite of institutions
- As this study was limited in several aspects (time, finance and other logistics) more in-depth investigations could not done. Therefore, the authors strongly recommend more investigations; in particular, prospective studies covering the whole extent of different health promotion dimensions, rural population should be done.

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9. ANNEXES

9.1 Annex I- SUBJECT INFORMATION SHEET (English version)

You are invited to participate in a research study to be conducted by MSc student from Addis Ababa University, college of health science, department of nursing and midwifery.

Please listen the following statements and ask any unclear questions before you agree to participate.

1. **Topic-** Assessment of health promotion practices among pregnant women attending ANC services in public health institutions of shashemene town.
2. **Objectives of the study-** The objective of this study is to assess health promotion practices of pregnant mothers attending ANC services in public health institutions of shashemene town. The information you provide will help us better understand what people know, think and say about their pregnancy practice and plan strategies to improve health promotion practices of pregnant mothers.
3. **Participation guideline:** the data interviewer will ask you some questions concerning your pregnancy practices. And you have a right to ask any unclear ideas before giving your response. The information you provide will kept completely anonymous.
4. **Right to refuse or withdraw-** your participation is voluntary, and there is no penalty for your refusal to participate. The study is based on the voluntary participation and all clients have the right to withdraw from the study participation. This means that you are free to stop at any point or to choose not to answer any particular question or all the questions.
5. **Rights as a participant:** you have a right to have any questions about this project get answered. The study will have no risk on participants since it is confidential and keeping the privacy of clients. Please direct any questions to the principal investigator, Nejimu Biza. Cell phone [0910046821](tel:0910046821).
Email: nejimu.biza93@gmail.com
6. **Agree to participate:** Yes -----NO-----

9.2 Annex II: individual consent form

Hello! My name is-----, I am data collector in this study.

We are conducting a study on women coming for Antenatal care attendances during pregnancy. The aim of this study is to assess health promotion practices among pregnant women attending ANC services in public health institutions of shashemene town. During the interview you will be asked some short questions about your socio-demographic background, health promotion practices: nutrition, physical activity, future family planning need, PMTCT during pregnancy, etc. Your answers will be recorded on a survey questionnaire. No personal identifiers will be attached/ recorded to the interview. All the data obtained will be kept strictly confidential by using only code numbers and will be stored in locked file cabinets to be accessed only by the principal investigator (destroyed immediately when the study is finalized). Your participation in the study is upon purely voluntary basis. No information concerning you, as an individual will be passed to another individual or institution without your agreement. What we learn from this study will be used to generate information necessary for the planning to improve maternal and child health. The interview will be conducted in private and may take **10-15** minutes. During the interview (discussion) period, if you feel inconvenient, you can interrupt and clarify inconvenience, appoint to other time or even withdraw any time after you get involved in the study. Your honest and genuine participation in responding to the questions prepared is very important & highly appreciated. If you are willing to participate in this study I will start my interview.

Are you agreed to participate?

If **Yes** (-----) proceed,

If **No** (-----), thank and stop here.

N.B make **x** or \surd sign on the appropriate space according to the response given by those respondents.

Name of interviewer _____ Signature_____ Date-----

Name of supervisor _____ Signature_____ Date-----

9.3 Annex III: ENGLISH VERSION OF THE QUESTIONER

Identification

01. Serial no. ____02. Questionnaire code ____03. Code of the institution ____04. Residence ____

Part-I, Questionnaire on socio-demographic characteristics

1. Back ground information of the client

1.1 Age of the Client _____

1.2 Ethnic Origin?

1) Amara 2) Oromo 3) Tigre 4) Guraghe 5) Wolyta 6) others---

1.3 What is your religion? 1) Orthodox Christian 2) Muslim 3) Protestant 4) other ---

1.4 Marital Status

1) Married

2) Never married/single

3) Divorced

4) Widowed

5) Separated

1.5 Educational Status

1) Cannot read and write

2) Can Read and write

3) Primary education

4) Secondary education

5) Higher educational certificate

1.6 Occupation

1) House wife

6) merchant

2) Civil servant

7) others (specify).....

3) Farmer

4) Unemployed

5) Student

1.7 What is your/ family Average income per month? -----birr

1.8 Gestational age_____trimester

1.9 Number of visits_____

1.10 Gravida__Para ____still birth____Abortion_____

1.10.1 If there is death, age at the time of death-----

1.10.2 Place of delivery, 1. Health facility 2. Home 3. Others/ specify

1.10.3 weight during delivery_____

1.11 Have you ANC follow up for your last previous pregnancy 1. Yes 2. No

Part II. Health promotion practices during pregnancy

1. Nutrition during pregnancy

2.1 Do you believe that eating balanced diet is important? 1. Yes 2. No 3. I don't know

2.2 Is there any change in your eating habits since pregnancy? 1. Yes 2. No

2.3 If yes, what kind of changes did you make?

1. Increasing feeding frequency
2. Decreasing feeding frequency
3. Increasing food items
4. Decreasing food items
5. Other changes/specify

2.4 weight change _____kg

2.5 During pregnancy, are there foods not allowed to eat? 1. Yes 2. No

2.6 If yes, which of the following foods were not allowed to eat? (please tick all that apply)

Food items	Not allowed	Why it's not allowed
Milk yoghurt		
Egg		
Meat		
honey		
Linseed		
Fruits (orange, Mango, papaya, avocado)		
Vegetables (Green pepper)		
Others/specify		

2.7 During your pregnancy, were you fasting for religious reasons? 1. Yes 2. No

2.8 If yes, to question no. 2.8, in which period of your pregnancy were you fasting?

1. First trimester (from conception till 3 months)
2. Second trimester (4-6 months)
3. Third trimester (7- 9 months)

3. Physical activities during pregnancy

3.1 Do you participate in regular physical activities when you were pregnant? 1. Yes 2. No

3.2 If yes, for how long per day-----

3.3 and for how many days per week-----

3.4 Does your work involve vigorous-intensity activity that causes large increases in respiration or heart rate like [carrying or lifting heavy loads, digging or construction work?) 1. Yes 2.No

4 Treatment preferences during pregnancy

4.1 During your pregnancy, have you ever experienced serious illness? 1. Yes 2. No

4.2 If yes, have you sought medical support for the illness? 1. Yes 2. No

4.3 If No, for question no.4.2, why you did not sought for treatment? Because of:

1. I don't thought as it was necessary
2. Lack of husband willingness
3. Fare location of the institution
4. financial unaffordability
5. Health professionals have no good manner.
6. I know the medicine
7. Traditional healers are more curative than others.
8. Others(specify)

4.4 If the answer to question 4.2 is yes, where did you seek treatment?

1. Health institutions
2. local herbal healer
3. home self-prepared medication

4.5 do you follow drug use instructions? 1. Yes 2. No

4.6 do you took drugs which are not ordered by health professionals? 1. Yes 2. No

5 Future Family planning needs during pregnancy

5.1 Have you ever used any contraceptive methods? 1. Yes 2. No

5.2 If yes, which methods?

- a. Condom b. Oral contraceptives c. Injectable d. implant e. Loop

5.3 If **No** to question no.5.1, what was the reason not to use contraceptives? Because:

- a. Lack of husband willingness
b. Fear of the side effect
c. Religious attitude
d. You want to have more children
e. Lack of knowledge on contraceptives

5.7 have you any future plan to use the contraceptives? 1. Yes 2. NO

6. Preference of place and attendance of delivery

6.1 Where did you give birth for your last delivery?

- a. Health institutions b. home C. Other places (specify)

6.2 If your delivery was at home,

6.2.1 Who assisted you? A. TTBA B. neighbors c. relatives d. others (specify)_____

6.2.2 how long did the labor took_____

6.2.3 Did you face any serious problem 1. yes_____ 2. No -----

6.2.4 If yes, what was the problem_____

6.3 Was there any harmful traditional practice (HTP) applied on you? 1. Yes----- 2. No-----

6.4 If yes, please mention the practice? _____

6.5 Do you believe that (HTPs) have negative effects on health? 1. Yes_____2. No_____

6.6 Where do you prefer to give birth for current pregnancy?

1. Health facilities
2. home
3. accordingly based on labor onset
4. others specify

7 PMTCT during pregnancy

7.1 Have you ever counseled & tested for HIV during pregnancy? 1. Yes___ 2. No___

7.2 Do you think that HIV transmission from mother to child can be prevented?

1. Yes 2.No

7.3 If the answer to question no 7.2 is yes, what preventive methods do you know?

1. Medication usage
2. Only bottle feeding
3. Replacement therapy
4. Delivery by health institutions with the support of professionals

8 Substance use during pregnancy

8.1 Have you ever used?

1. Cigarette 2. Alcohol 3. Chat 4. Mixed use 5. Others---

8.2 If yes, to one of the above substances, for how long did you used it/them? _____

8.3 If yes, to question 8.1, how many/much of it/them do you consume per day? _____

8.4 If yes, to question 8.1, are you still using this substance?

1. Yes 2. No

8.5 If no, to question 8.4, what was your reason to stop using these substances? Because:

1. You think they will harm the fetus.
2. you think they may affect your health
3. you cannot afford buying them
4. Some bodygave you an advise to stop it/ them
5. Others/specify_____

8.6 Do you like to drink coffee? 1. Yes 2. No

9 Domestic violence during pregnancy

9.1 did you face any of the following violence types:

1. Psychological/Verbal abuse
2. Physical abuse/beating from husband
3. Sexual abuse, rape/ incest
4. None of them
5. Others/specify_

9.2 If any, what action did you took after the abuse?

1. Reported to the police
2. Health assistance
3. Social resolution
4. Engaged in marriage with him
5. Nothing
6. Others

10 Mental health promotion

10.1 Have you had any history of psychiatric /mental illness? 1. Yes 2. No

10.2 If yes what type? _____

10.3 Have you had any family history of psychiatric /mental illness? 1. Yes 2. No

10.4 Which of the following have you ever experienced in your times of pregnancy?

1. Depressed mood or hopelessness.
2. Lack of interest for doing daily activities
3. Loss of sleep
4. No such severe problem
5. Others/specify_____

11. Measures to improve health promotion practices

11.1 From which of the following sources do you learn about your pregnancy?

1. From reading books, mass media, magazine, articles
2. Knowledge from previous pregnancy
3. Talking with friends/elders
4. From ANC
5. Others/specify-----

11.2 Which of the following do you think to affect health promotion practice during pregnancy?

1. Feel no need
2. Lack of information
3. Financial problems
4. Lack of resources
5. Other, please specify

11.3 What practice do you think to promote health of women during pregnancy?

-
1. health information/education
 2. increasing service access
 3. avoiding substance use
 4. others/specify

9.4 Annex iv-SUBJECT INFORMATION SHEET (Amharic version)

በአዲስ አበባ ዩኒቨርሲቲ፣ ጤና ሳይንስ ኮሌጅ፣ በሚድዋይሬሪ ትምህርት ክፍል ፤ በእናቶች እና ሥነ-ተዋልዶ ጤና ትምህርት ዘርፍ፤ በነፍሰጡር እናቶች ጤና እንክብካቤ ዙሪያ ላይ ለሚደረግ ጥናታዊ ጽሁፍ መረጃ ለመስጠት የቀረበ ለተጠያቂው የሚነገር ማብራሪያ፡- ፈቃደኝነቱን ከመግለፅ በፊት የሚከተሉትን ነጥቦች ያዳምጡና ግልፅ ያልሆነሎትን ይጠይቁ፤

1. **ርዕስ-** በሻሸመኔ ከተማ በሚገኙ የመንግስት ጤና ድርጅቶች ውስጥ ለነፍሰ ጡር ክትትል የሚመጡ እናቶች በእርግዝና ወቅት ጤንነትን ለማሻሻል የሚያደረጋቸው ተግባሮችን አሰሳ
2. **የጥናቱ አላማ፡** በሻሸመኔ ከተማ ውስጥ በሚገኙ የህዝብ ጤና ድርጅቶች ውስጥ የቅድመ ወሊድ ክትትል የሚመጡ ነፍሰጡር እናቶች በእርግዝና ወቅት የሚያደረጋቸው ወይም የሚደረግላቸው አጠቃላይ ተግባራት/እንክብካቤዎች (ጤና እንክብካቤ፣ ሰነ ምግብ፣ የሰውነት እንቅስቃሴ፣ የቤተሰብ ምጣኔ፣ ኢኮኖሚያዊ ና ማህበራዊ ህይወት፣ ...) በጤንነታቸው ላይ ያለውን አዎንታዊ ሆነ አሉታዊ ተፅዕኖችን ለማወቅ ነው።
3. **በጥናቱ ለመሳተፍ የሚያስፈልጉ መመሪያዎች፡** የሚመልሱልኝ መልሶች ሁሉ በሚስጥር ይጠበቃሉ ማለትም ስሞም ሆነ መለያዎ ከየትኛውም መጠይቅ ጋር አይያያዝም። በተለያዩ ምክንያቶች መጠይቁን ለማቆም ቢፈልጉ ከፍላጎት አይገደዱም።
4. **በጥናቱ የአለመሳተፍ ሙብትን በተመለከተ፡** በጥናቱ መሳተፍ ፍጹም በፈቃደኝነት ላይ የተመሰረተ ሲሆን በአለመሳተፍ ምንም የሚያጋጥሞት ችግር አይኖርም። ይህ ማለት በማንኛውም ሰዓት መጥይቁን የማስቆም ሙብትን ያጠቃልላል።
5. **የጥናቱ ተሳታፊዎች ሙብት፡** ማንኛውም የጥናቱ ተሳታፊ ግልጽ ያልሆነለትን ጥያቄ የመጠየቅ ሙብት አለው። ማንኛውም ጥያቄ መጠየቅ ሲፈልጉ በሚከተሉት አድራሻዎች የጥናቱን ባለቤት ማግኘት ይችላሉ።
ነጅም ብዛ፣ ስልክ 09-10-04-68-21 ወይም፣ Email: nejimu.biza93@gmail.com
6. **ለመሳተፍ ፍቃደኛ ነዎት፡** አዎ----- አይደለሁም-----

9.5 Annex V: AMHARIC VERSION OF THE CONSENT FORM

የስምምነት ቅፅ:

ጤና ይስጥልኝ! ስሜ _____ እባላለሁ::

በአዲስ አበባ ዩኒቨርሲቲ ጤና ሳይንስ ኮሌጅ፣ በሚድዋይሬሬ ትምህርት ክፍል፣ በእናቶች እና ሥነ-ተዋልዶ ጤና ትምህርት ዘርፍ፣ በነፍሰጡር እናቶች ጤና እንክብካቤ ዙሪያ ላይ ለሚደረግ ጥናታዊ ጽሁፍ መረጃ ሰብሳቢ ነኝ:: የዚህ ጥናት አላማ በሻሸመኔ ከተማ ወስጥ በሚገኙ የህዝብ ጤና ድርጅቶች ወስጥ የቅድመ

ወሊድ ክትትል የሚመጡ ነፍሰጡር እናቶች በእርግዝና ወቅት የሚያደረጋቸው ወይንም የሚደረግላቸው አጠቃላይ

ተግባራት/እንክብካቤዎች (ጤና እንክብካቤ፣ ሰነ ምግብ፣ የሰውነት እንቅስቃሴ፣ የቤተሰብ ምጣኔ፣ ኢኮኖሚያዊ ና ማህበራዊ

ህይወት፣...) በጤንነታቸው ላይ ያለውን አዎንታዊም ሆነ አሉታዊ ተፅዕኖችን ለማወቅ ነው::

በዚህ ጥናት ስለ ግል ህይወት፣ ስለ ምግብ አወሳሰድን፣ ስለ እናቶች ጤና እንክብካቤ፣ የሰውነት እንቅስቃሴ፣ የቤተሰብ ምጣኔ አገልግሎት አጠቃቀምና ስለ ልማዳዊ ድርጊቶች እንዲሁም ስለተለያዩ ጉዳዮች ይጠይቃሉ::

ይህ ጥናት ለህብረተሠቡ ከሚሰጠው አስተዋጾ አንፃር በዚህ ቃለ-ምልልስ እንድትሳተፍ በትህትና በመጠየቅ ለትብብር በቅድሚያ

ልናመሰግንዎት እንወዳለን::ከዚህ ቀጥሎ የተለያዩ ጥያቄዎችን የግል ባህሪዎን የተመለከቱን በማስቀደም እጠይቃለሁ፤ አንዳንድ ጊዜ

ለስሜት የማይመቹ ጥያቄዎች ሊጠየቁ ይችላሉ:: ሆኖም የርስዎን ማንነት የሚያመለክት መረጃ ፈጽሞ አይመዘገብም:: የሚሰበሰበው

መረጃ ተጠቃሎ በዋናው አጥኝ በጥንቃቄ የሚቀመጥ ሲሆን ጥናቱ ሲጠናቀቅ ማንም ሰው በማያገኘው ሁኔታ ይወገዳል:: መጠየቁ

የሚካሄደው እርስዎ ሙሉ ፈቃደኛ ሲሆኑ ነው:: ከዚህ ጥናት የሚገኘው ውጤት ለወደፊቱ የእናቶችና ህፃናትን ጤና ከማሻሻል አንፃር

የሚኖረው አስተዋጾ እጅግ በጣም የነላ ነው:: በአጠቃላይ መጠይቁ ከ 20 – 25 ደቂቃ ሊወስድ ይችላል:: በትዕግስትና በጥሞና

አዳምጠው ለመመለስ የሚያደርጉትን ጥረት እያደነቅን በቅድሚያ ክልብ እናመሰግናለን::

በጥናቱ ለመሳተፍ ፈቃደኛ ነዎት?

አዎ! ____.

አይደለሁም! ____.

ፈቃደኛ ከሆኑ ይቀጥሉ::

ፈቃደኛ ካልሆኑ አመስግነሽ አሰናብች::

የመጠይቁ አቅራቢ ስም: _____ . ፊርማ _____

9.6 Annex VI: AMHARIC VERSION OF THE QUESTIONER

01. ተራ ቁጥር _____ 02 የጤና ድርጅቱ ኮድ _____ 03 የመጠይቁ መለያ ኮድ _____ 04 አድራሻ _____.

ክፍል 1: በእናቶች ማህበራዊ ኑሮ ላይ ያተኮሩ መጠይቆች

ተ.ቁ	የሚጠየቁ መረጃዎች	የሚሰጡ መልሶችና የኮድ ቁጥሮች	ወደ ተመለከተው ዝላይ
101	እድሜ	-----	
102	ብሔረሰብ	አሮሞ-----01 አማራ-----02 ትግሬ-----03 ጉራጌ-----04 ወላይታ-----05 ሌላ/ ካለ ይጠቀስ-----97	
103	ሐይማኖት	አርቶዶክስ ክርስቲያን-----01 ሙሥሊም-----02 ኘሮቴስታንት-----03 ሌላ ካለ ይገለፅ-----97	
104	የጋብቻ ሁኔታ	ፈጽሞ አላገባሁም-----01 በትዳር ነዉ ያለሁት-----02 ተፋትቻለሁ-----03 ተለያይቻለሁ-----04 ባለቤቴ በሕይወት የለም-----05	
105	የትምህርት ደረጃዎ	ማንበብና መጻፍ የማትችል-----01 ማንበብና መጻፍ የምትችል-----02 የአንደኛ ደረጃ ት/ት-----03 የሁለተኛ ደረጃ ት/ት-----04 ኮሌጅ/ዩኒቨርሲቲ ተመራቂ-----05	
106	የስራዎ ሁኔታ/ስራዎ ምንድን ነው	የቤት እመቤት-----01 ተቀጣሪ-----02 ተማሪ-----03 አርሶ አደር-----04 ነጋዴ-----05 ለጊዜዉ ሥራ የሌለኝ-----06 ሌላ ካለ ይጻፍ-----97	
107	የቤተሰብዎ ወይም የእርስዎ ወርቃዊ ገቢ በብር	-----ብር	

ክፍል 2: በእርግዝና ወቅት ጤንነትን ለማሻሻል የሚረዱ ተግባሮች የሚመለከት መጠይቅ

2. የምግብ አወሳሰድን በተመለከተ

201	በእርግዝና ወቅት የተመጣጠነ ምግብ ለጤንነቶ አስፈላጊ ነዉ ብለዉ ያምናሉ	አዎን-----01 አይ-----02 አላዉቅም-----03	
202	በእርግዝናዎ ወቅት የአመጋገብ ሥርዓቶ ከሌላዉ ጊዜ ልዩነት ያደርጋሉ	አዎን-----01 አይ-----02	አይ ካሉ ወደ 204
203	ምን አይነት ለዉጥ የደርጋሉ፣ቢያብራሩልን	የመመገብያ ጊዜን መጨመር-----01 የመመገብያ ጊዜን መቀነስ-----02 የምግብ አይነቶችን መጨመር-----03 የምግብ አይነቶችን መቀነስ-----04 ሌሎች ለዉጦች-----97	
204	በእርግዝና ወቅት ሀይማኖታዊ የም ይያማሉ	አዎን-----01 አይ-----02	አይ ከሆነ ወደ 205
205	በየትኛዉ የእርግዝናዎ እድሜ ነበር የምት	በመጀመሪያ 3 ወር/1-3ወር/-----01 በሁለተኛ 3 ወር/4-6ወር/-----02 በሦስተኛዉ 3 ወር/7-9ወር/-----03	
206	የ እርግዝናዎ እድሜ	-----	
207	ስንተኛ ክትትሎ ነዉ	-----	
208	ክብደት ለዉጥ	-----	

209	በእርግዝና ወቅት የማይፈቀዱ የምግብ አይነቶችን ቢጠቅሱልን		
	የምግብ አይነት	አይፈቀድም	ካልተፈቀደ ለምን
ሀ	ወተት		
ለ	እንቁላል		
ሐ	ሥጋ		
መ	ማር		
ሰ	ተልባ		
ረ	ፍራፍሬዎች(ማንጎ፣ፓፓያ)		
ሠ	አትክልቶች(ቃሪያ)		
ሸ	ሌሎች ካሉ ይጠቀሱ-----		

3. በእርግዝና ወቅት የሚከናወኑ ስራዎች (የሰውነት እንቅስቃሴዎች) የተመለከቱ መጠይቆች

301	በእርግዝናዎ ወቅት ቀለል ያሉ እንቅስቃሴዎችን ያደርጋሉ	አዎን-----01 አይ-----02	አይ ካሉ ወደ 303 ይሂዱ
302	ለምን ያክል ቀን እና ሰዓት	ለ-----ቀናት በሳምንት፤ ለ-----ሰዓት በቀን	
303	ስራዎች ከበድ ያሉ እንቅስቃሴዎች ይፈልጋል	አዎን-----01 አይ-----02	

4. በእርግዝና ወቅት የመድሀኒቶች አጠቃቀም የተመለከቱ መጠይቆች

401	በእርግዝናዎ ወቅት ታመዉ ያዉቃሉ	አዎን-----01 አይ-----02	አይ ካሉ ወደ 405 ሂዱ
402	ለእነዚህ የጤና ችግሮች እርዳታ አግኝተዋል?	አዎን-----01 አይ-----02	አይ ካሉ ወደ 404 ሂዱ
403	የትኛው ድርጅት ነበር በመጀመሪያ የሄዱት?	የጤና ተቆም-----01 የባህል ሀኪሞች ዘንድ-----02 መድሀኒቱን እራሴ አዘጋጅኼ-----03 ሌላ ካለ ይጻፍ-----97	
404	ለእነዚህ የጤና ችግሮች ለምንድን ነው የህክምና እርዳታ ያልፈለጉት	አስፈላጊ ነው ብዬ አላሰብኩም-----01 ባለቤቴ ስላልፈቀደ----- 02 የጤና ድርጅቱ በጣም ሩቅ ነው-----03 የቤት ውስጥ መድኃኒት በመውሰድ-----04 የህክምና ዋጋው ወድ በመሆኑ-----05 የት እንደሚከድ ባለማወቅ-----06 ተጨማሪ ካለ ይጻፍ-----97	
405	የታዘዘሎትን መድሃኒት በአግባቡ ወስደዋል/ይወስዳሉ	አዎን-----01 አይ-----02	
406	በመድሃኒት ላይ የተጻፍትን የአጠቃቀም መመሪያዎች በአግባቡ ያነባሉ/ያስነብባሉ	አዎን-----01 አይ-----02	

5. የቤተሰብ ምጣኔና ሥነ-ተዋልዶ በተመለከተ የቀረቡ መጠይቆች

501	በአጠቃላይ ስንት ጊዜ አርግዘዋል?	-----	
502	ካረገዙት ውስጥ ስንቱ በሕይወት ተወለዱ?	-----	
503	ካረገዙት ውስጥ ስንቱ ካለቀኑ ሞተው ተወለዱ?	-----	
504	ከፀነሱት ውስጥ ስንት ወርጃ ነበረዎት?	-----	
505	የመጨረሻዉ ህፃኖ ክብደት ስንት ኪ.ግ ነበር	-----	
506	ለእርግዝናዎ፣የነፍሰጡር ክትትል ነበረዎት?	አዎን-----01 አይ-----02	
507	ይህ እርግዝና ፈልገዉት ነዉ ያረገዙት	አዎን-----01 አይ-----02	አዎን ካሉ ወደ 509 ሂድ
508	ያረገዙበት ምክንያት ምን ነበር	የእርግዝና መከላከያዉ ስላልሰራ-----01 የእርግዝና መከላከያ ስላልወሰድ-----02 ባለቤቴ መከላከያ ስለማይቅድልኝ-----03 ሌላ ካለ ይጻፍ-----97	
509	የ እርግዝና መከላከያዎችን ተጠቅመዉ ያዉቃሉ	አዎን-----01 አይ-----02	አይ ካሉ ወደ 511 ሂድ
510	ምን አይነት ዘዴዎችን ተጠቅመዋል	ኮንዶም-----01 በአፍ የሚወሰድ እንክብል-----02 መርፌ-----03 በክንድ የሚቀበር-----04 በማህፀን የሚገባ-----05	
511	ለወደፊት የእርግዝና መከላከያዎችን ለመጠቀም ዕቅድ አለዎት	አዎን-----01 አይ-----02	አዎን ካሉ ወደ 601 ሂድ
512	የ እርግዝና መከላከያዎችን ላለመጠቀም ምክንያት ምንድነዉ	ባለቤቴ መከላከያ ስለማይቅድልኝ-----01 መከላከያዎቹ በጤና ላይ ጉዳት ስላላቸዉ-----02 ሀይማኖቴ ስለማይፈቅድልኝ-----03 ልጅ መወለድ ስለምፈልግ-----04 ስለ መከላከያዎቹ በቂ እዉቀት ስለሌለኝ-----05 ሌላ ካለ ይጻፍ-----97	

6. የመወለድ ቦታና አዋላጅን የተመለከተ መጠይቅ

601	የመጨረሻውን ልጅዎን የወለዱት የትኑው?(ወልደዉ የሚያወቁ ከሆነ)	ቤት -----01 ጤና ተቆም -----02	02 ከሆነ ወደ 609 ይሂዱ
602	ከቤት ዉስጥ ከወለዱ ማን ነበር ያዋለዱት	የሰለጠነች ልምድ አዋላጅ -----01 ቤተሰቦች -----02 ጎረቤት-----03 ዘመድ-----04 ሌላ ካለ ይጻፍ -----97	
603	በአጠቃላይ ለመወለድ ምን ያክል ሰዓት ፈጀቦት	-----	
604	በወሊድ ሰዓት ያጋጠሙት የከፋ ችግር ነበር	አዎን-----01 አይ-----02	
606	በወሊድ ጊዜ ልማዳዊ ድርጊት ተደርጎበዎታል/አድርገዋል	አዎን-----01 አይ-----02 አላወቅም-----98	አይ ካሉ ወደ 609
607	ምን ልማዳዊ ድርጊት ተደርጎቦታል/አድርገዋል	-----	
608	እነዚህ/ይህ/ ልማዳዊ ድርጊት በጤና ላይ ጉዳት አለዉ ብለዉ ያምናሉ	አዎን-----01 አይ-----02 አላወቅም-----98	
609	አሁን መወለድ የሚፈልጉት የት ነዉ	ቤት -----01 ጤና ተቆም-----02 ሌላ ካለ ይጻፍ -----97	

7. ከእናት ወደ ፀንሰ የሚተላለፍ HIV/AIDS በሽታን የተመለከተ መጠይቅ

702	የ HIV ቫይረስ ከእናት ወደ ልጅ እንዳይተላለፍ መከላከል የሚቻል ይመስሎታል	አዎን-----01 አይ-----02 አላወቅም-----98	
704	የትኞቹን የመከላከያ ዘዴዎችን ያወቃሉ፣ይግለጹልን	መድሃኒት በመጠቀም-----01 የልጅ ጡጦ ብቻ በመጠቀም-----02 በጤና ተቆም በባለሙያ መወለድ---03 ሌላ ካለ ይጻፍ-----97	

8. በእርግዝና ጊዜ ንጥረ ነገር መጠቀምን የተመለከተ

801	ከሚከተሉት ንጥረ ነገሮች ውስጥ የትኞቹን ተጠቅመዉ ያወቃሉ	ሲጋራ-----01 አልኮሆል-----02 ጫት-----03 ደባል ሱስ-----05 ከሱስ ነፃ ነኝ-----06	06 ከሆነ ወደ 806 ይሂዱ
802	ለምን ያህል ጊዜ ተጠቅመዉታል	-----	
803	በቀን ምን ያክል ይጠቀማሉ	-----	
804	አሁንም መጠቀም አላቆሙም	አዎ-----01 ትቻለሁ-----02	አዎ ካሉ ወደ 806 ይሂዱ
805	ለምንድነዉ ያቆሙት	ፅንሱን ስለሚጎዳው-----01 እራሴን ስለሚጎዳኝ-----02 መግዛት ስላልቻልኩኝ-----03 ሰዎች እንዳቆም ስለመከፋኝ-----04 በሌላ ምክንያት-----97	
806	ቡና መጠጣት ይወዳሉ	አዎ-----01 አይ-----02	
807	አልኮል ተጠቃሚ ከሆኑ፣ ምን አይነት አልኮል ይጠቀማሉ	-----	

9. የታዊ ጥቃት/ትንኮሳን የተመለከተ

901	የትኞቹ የታዊ ጥቃቶችን ደርሶበት ያወቃሉን	ማንነትን የሚነካ መጥፎ ሰድብ-----01 ከባድ የአካል ድብደባ-----02 አስገድዶ መደፈር-----03 ምንም ደርሶብኝ አላወቅም-----04 ሌላ አይነት ጥቃት/ይጠቀስ-----05	04 ካሉ ወደ 10.1 ይሂዱ
902	ከዚህ ጥቃት በኋላ ምን አደረጉ	-----	

10. የሥነ-አዕምሮ ጤና እንክብካቤን የተመለከተ

10.1	የሥነ-አዕምሮ ህመም አለብኝ	አዎ-----01 አይ-----02	አይ ካሉ ወደ 10.3 ይሂዱ
10.2	ምን አይነት ህመም	-----	
10.3	ከቤተሰብ ውስጥ የአዕምሮ ህመም ያለበት ሰው አለ	አዎ አለ -----01 አይ የለም-----02	
10.4	ከሚከተሉት ውስጥ የትኞቹን በእርግዝናዎ ወቅት አጋጠዎት	ድብርት/ ተስፋ መቁረጥ-----01 የስራ ፍላጎት እጦት-----02 የእንቅልፍ እጦት-----03 ሌላ ችግር/ይጠቀስ -----04	

11. በእርግዝና ወቅት የሚተገበሩ የጤና እንክብካቤዎችን ለማሻሻል ስለሚረዱ ተግባራት የተመለከተ መጠይቅ

11.1 ስለ እርግዝናዎ የሚመለከት ማንኛውን እዉቀት ከየት ይማራሉ

- 1) ከመፅሀፍት፣ከመገናኛ ብዙሀን፣ከጋዜጦች....
- 2) ካለፍት የእርግዝና ተሞክሮዎች፣
- 3) ታላቆችን በመጠየቅ ፣ በመነጋገር
- 4) ከቅድመ ክትትልና ምርመራ
- 5) ሌላም ካለ ይግለፁልን-----

11.2 ከ ሚክተሉት ዉስጥ የትኞቹ መንገዶች አጠቃላይ የእናቶች ጤናን ለማሻሻል መሰናክል ናቸዉ ብለዉ ያምናሉ፤

- | | |
|--------------|----------------------------|
| 1. የፍላጎት እጦት | 5. የትራንስፖርት እጦት/የአቅርቦት እጦት |
| 2. የመረጃ እጦት | 6. ከቤተሰብ/ገደኛ እርዳታ ማጣት |
| 3. የገንዘብ እጦት | 7. ያለመማር/ያለማወቅ |
| 4. የጊዜ እጦት | 8. ሌሎች መሰናክሎች |

11.3 በአጠቃላይ የእናቶች ጤናን ለማሻሻል ምን መደረግ አለት ብለዉ ያምናሉ?

- 1. የጤና ትምህርት መስጠት
- 2. አገልግሎቱን ማስፋት
- 3. የተለያዩ ዕፅ ነገሮችን ከመጠቀም መቆጠብ
- 4. ሌሎች መፍትሄዎች/ይጠቀሱ

9.7 Annex viii. CV OF THE PRINCIPAL INVESTIGATOR

CURRICULEM VITE (CV)

1. PERSONAL INFORMATION

Name NEJIMU BIZA
 Date of birth 15thJAN, 1988
 Sex MALE
 Marital status Married
 Nationality ETHIOPIAN

2 . EDUCATIONAL BACKGROUND

Level of education	Educational Institution	Location	Years of attending	Award received
Higher Education	Addis Ababa university faculty of medicine	Addis Ababa Ethiopia	May,2002- may,2004	MSc candidate on maternal and Reproductive health
	Hawassa University, Health Science College	Awassa Ethiopia	Oct,1999- Jul,2001	Bachelor of Science in comprehensive Nursing
Preparatory Education	Shashemene Preparatory School	shashemene Ethiopia	Sep,1997- Jul,1998	Ethiopian Higher Education Entrance Certificate
Secondary Education	Arekit Secondary School	SNNPR, Ethiopia	Sep,1995- Jul,1996	Ethiopian General Secondary Education Leaving Certificate

3. COMMUNICATION SKILL

Language	Understanding		Speaking	Writing
	Reading	Listening		
English	Excellent	Excellent	Excellent	Excellent
Amharic	Excellent	Excellent	Excellent	Excellent
Arabic	Good	Beginner	Beginner	Beginner

4. PROFESSIONAL EXPERIENCE

A one year experience on Coordinating, Teaching, Curriculum development and participation in different meetings on behalf of Samara University

5. PROJECT EXPERIENCES

- Final year research project entitled “Assessment of pattern of Trained Traditional Birth Attendants Training (TTBAs) in Wonago wereda.”
- Four phase professional practicum in Hawassa referral hospital.
- Final year professional practice in Yirgalem hospital of Yirgalem town.
- Community based training program (CBTP) in shashemene town
- Team Training Practice (TTP) in Wonago wereda of sidamo zone.

6. DUTIES AND RESPONSIBILITIES

- Active participation in socio-cultural relationships among students and community members
- Delivering lecture, Coordinating, coaching and advising, students
- Active participation in problem solving activities
- Proposal development and report writing

7. SPECIAL SKILLS

- Delivering lecture, roll play, coaching and advising, students
- Basic computer knowledge
- Project proposal development and report writing

8. HOBBIES

- I am “just a nurse.” I just make deference between life and death.
- I am “just a nurse.” That makes the deference between client staying home and going to a nursing home.
- Active participation in problem solving and socio-cultural relation ships
- Helping people who are in need of my assistance
- Motivation to adapt new technology

9. ACADEMIC ACHIVMENTS

Overall I am pleased with my academic record (3.67/4.00) and I believe that it has prepared me very well to overcome my responsibility.

10. REFFERENCES

- Professor Assrat Demisse, Addis Ababa university nursing dep’t Head
[Tel:+251-911-20-11-35](tel:+251-911-20-11-35) E-mail: Asrat_dem@yahoo.com
- S/r Frehiwot G/mariam (MPH), Hawassa University ,nursing dep’t
[Tel:+251-911-42-87-15](tel:+251-911-42-87-15) E-mail: ferehiwetbasha@yahoo.com
- Mr. Abdurehman Ali, Ethiopian nurses association (ENA) chief executive officer
[Tel:+251-911-63-37-77](tel:+251-911-63-37-77) E- mail: Abdurahmanali@yahoo.com

9.8 Annex ix. CV OF THE ADVISOR

Full Name Workinsh Sinishaw Abebe Tferi
Place of birth Gojjam
Marital status Married
Date of birth January 18 1968.Gc
Nationality Ethiopian
Current address; p o .box 4412

Telephone (Home) 0116290633, Mobile phone **0912063554**

I-Level of Education

Education	Institution	Years	Awards
1-MPH in reproductive health	Addis Ababa University	2004-2008	MPH
2-Bsc Nursing	Jimma institution of health	1994-1996	Nursing Degre
3-Midwifery	Asmera midwifery school	1990-1991	Diploma in midwifery
4-Comprehensive nursing	Centralized school of nursing	1984-1987	Diploma in nursing
9 th -12 th grade	Damot secondary school	1979-1982	Certificate
7 th -8 grade	Dembech junior Primery school	1978 double promotion	certificate
1-6 th greed	Arbegheh Elementary school	1974-1977	certificate

II- Short Courses and Training

- 1 -Safe mother hood training in Egypt for three weeks in 2010
- 2-Research Methodology for 7 days in 2010
- 3-Skill training and teaching method for three consecutive days each year from in 2008- 2010
- 4-Prevention of mother to child transmission of HIV PMTC one week in 2005
- 5-Post abortion care and harmful traditional practices in 2000

III-Work experience

Year	Place	Position/Responsibility
2009-2011	-Addis Ababa university Department of nursing	Lecturer
1996-2010	>> >>>	
1992-1993	-Centralized school nursing -Entoto health center	- Assistant lecturer Basic Nursing Art theory and demonstration
1991-1993		<ul style="list-style-type: none"> ★ Medical surgical and obstetric nursing &gynecology theory ★ Family health Nursing ★ Clinical practice instructor in medical surgical, obstetrics and gynecology nursing practicum.
1981-1988	Fenote selam Hospital	-As a staff nurse
1987-1988	Metekel settlement center	As staff and acting head nurse of the health center

III-Other experiences

I have participated in preparation and conducting Nurses National examination for two consecutive years starting from 1997-1998

IV-Research Activities

Title;

1-Assessment of attitude and knowledge of women towards the delivery care in Jimmia hospital as a partial fulfillment of BSc in nursing

2- Assessment of quality antenatal care at the primary care unit in Addis Ababa as a partial fulfillment of MPH degree .in reproductive health, 2008

References

1-Ato Asrate Demisse (Assistant professor), BSc nursing and Msc in education (Nursing education)

2-Ato Brehan G/kidn (Assistant professor)

3-Dr Negusie Daressa MD, MPH Advisor

9.9 Annex x. DECLARATION

I, the undersigned declare this thesis, entitled “*Assessment of health promotion practices among pregnant women attending ANC services in public health institutions of Shashemene town*” is my original work and has not been presented for a degree in any other university and that all sources of materials used for this thesis have been duly acknowledged.

Name - Nejimu biza

Signature _____

Place – Shashemene

Date of submission- 20th June 2012 GC

This thesis has been submitted for examination with my approval as University Advisor;

Name, Sr. Workinesh Sinishaw signature_____ date, 20th June 2012