Addis Ababa University

College of Education and Behavioural Studies

Department of Curriculum and Instruction

The Role of Mothers' Health Education in Improving Maternal and Child Health inWereda Eight Health Center, Addis Ketema Sub-City, Addis Ababa City

Eliana Bogale

A Thesis Submitted to the Department of Curriculum and Instruction in Partial Fulfillment of the Requirements for the Degree of Master of Arts in Adult Education and Community Development

June, 2018

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Declaration

I declare that the thesis *The Role of Mothers' Health Education in Improving Maternal and Child Health in Addis Ababa City, Addis Ketema Sub-City, Wereda Eight Health Center* presents my own original work, and that it has not been submitted for any other degree or diploma in any university elsewhere, and that all sources I have used for the thesis have been duly acknowledged and indicated in the reference.

Eliana Bogale,

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Dedication

This thesis is dedicated to my whole family who supported me in all of my life journeys.

Abstract

The objective of this study is to assess how mother's health education improve the health of mothers and children under age five by focusing on the health education given to mothers in Wereda 8 Health Center, Addis KetemaSubcity, Addis Ababa City. Specifically, the study explored how the environmental factors on mothers' health education affect child and maternal health; inspected how mothers get access to health education; examined how mothers apply their health related knowledge and skill to improve their health as well as their children. To achieve these objectives, qualitative method was used during data collection and analysis. Snowball sampling was used to select participants from which the data was gathered. Using this method twenty-one mothers and seven health station workers were selected. The results of the study revealed that maternal health education has contributed to increased knowledge and awareness of mothers about better maternal and child health practices with regards to immunization, nutrition, breastfeeding, and hygiene. The results have also indicated that the health education provided by the health center is affected by factors like style of delivery (usage of technical language that could be difficult for the women to understand) and training schedules that do not take the women's life style into consideration. Also, beside the health education provided by the health center, this study has found out that mothers also benefit from health education disseminated through varied media like TV and radio which employ communicative styles that facilitate the delivery in a way relatable way for them; the social knowledge gained from their communities and social circles about maternal and child health. The study, thus, is concluded by stating that the health education program has a great advantage in improving mothers' and children's health status albeit there are a number of factors contributing to the hindrance of its perfect achievement. Additionally, a recommendation is given to policymakers and practitioners in the field of medical sociology and other relevant areas.

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List of Acronyms and Abbreviations

AAP	American Academy of Pediatrics
EDHS	Ethiopian Demographic and Health Survey
FMOH	Federal Ministry of Health
HEW	Health Extension Workers
HIV	Human Immune Deficiency Virus
MOH	Ministry of Health
SCT	Social Cognitive Theory
UNICEF	United Nations International Children's Emergency Fund
WHO	World Health Organization

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Maternal health, as defined by the World Health Organization (WHO, 2012), refers to the health of women during pregnancy, childbirth, and in the postpartum period and Child health generally refers to the health of children from birth through adolescence, although the specific age range varies. According to the National Association for the Education of Young Children, early childhood spans the human life from birth to age eight (UNICEF, 2005). Newborn health captures the health of babies from birth through the first 28 days of life. These are most often considered in concert since they are integrally related to one another. Maternal health has a large impact on whether a child survives and thrives. When a mother dies, her children are three to ten times as likely to die as well (WHO, 2005).

The Millennium Development Goals had embarked reducing child mortality by two-thirds, between 1990 and 2015, and improving maternal health by reducing the maternal mortality ratio by three-quarters, between 1990 and 2015. Ethiopia is among the high performing African countries which had successfully reduced child mortality and improved maternal health according to the standards set by the UN's Millennium Development Goals by 2012 ahead of schedule. Similarly, Malawi and Tanzania are among the countries that managed to achieve their goals as well. Whereas Niger, South Sudan, and Uganda are among the few African Countries which are on track to reduce the under-five mortality rate as stated in the MDGs. (UNECA, 2014)

Most of the causes of child and maternal mortality are preventable. Lack of information and knowledge on prevention, shortage of health facilities within accessible distance, and insufficient skilled health personnel to deliver services have been contributing factors to high rates. Malaria, HIV/ AIDS, TB, waterborne diseases, and respiratory infections remain among the top ten killer diseases. The Federal Ministry of Health (FMOH, 2003) of Ethiopia launched the Health Extension Program (HEP) in 2003 and it became operational with the 2004–2005 graduation of 7136 Health Extension Workers (HEW), trained to work mainly in disease prevention and health promotion in rural villages and city areas. The program was expected to help accelerate the country's progress in meeting Millennium Development Goals (MDG) and (reduce child

mortality; improve maternal health; combat HIV/AIDS, malaria and other diseases). Now it is the country's major health program: by 2010, there were 30,578 HEWs serving almost all villages in rural and city areas centering community participatory health services consuming approaches. In the past trends and consideration Ethiopia is a country with more than 85% of the people living in rural areas and the remaining 15% only are town residents. But presently, to a great extent mass of the migrants have been flowing from rural to town areas searching food and or wages and bountiful numbers of the city residents live in confined slouch and shanty with poor hygiene. Due to these and the other related factors, now a days people who live in city areas have been suffering from health related factors. (FMOH, 2010)

Maternal and childhood mortality are still among the highest in Africa: under-five mortality was 205 per 1000 children in 1990, falling to 59 per 1000 in 2015. Maternal mortality was 1250 per 100,000 live births in 1990, dropping to 353 per 100,000 in 2015 (https://data.unicef.org/country/eth/#).

The pace of progress needs to be accelerated in order to achieve the new Sustainable Development Goal (SDG) target for child survival and maternal health. The SDG target is to achieve an under-five mortality rate of 25 or fewer deaths per 1000 live births by 2030. And achieving the target of less than 70 maternal deaths per 100,000 live births by 2030 (https://sustainabledevelopment.un.org/sdg3).

Education and health are complementary. Better education results in better health; and better health results in increased learning potential.Ethiopia as one of Sub-Saharan countries with high rate of illiteracy suffers all the challenges from high number of uneducated citizens and highly back warded social and economic situation. According to the Ethiopian Demographic and Health Survey, (CSA, 2011) report, there are still 775 million illiterate adults in the world whom two-third were women. The literacy rate for the Ethiopian population over fifteen years of age has been increased from 23.4% in 1994 to 39.0% in 2008. "Newborns with less educated mothers are 6 times more likely to die during the first month compared to those born to mothers with higher education." (UNICEF, 2015)

To narrow this gap, particularly designing maternal health responsive education system, since a decade up to now Ethiopia has been implementing community health extension service by using trained Community Health Workers to provide care for its population a broad range of health

issues. In other words, since 2003 the government of Ethiopia has been deploying specially trained new cadres of community based health workers named Health Extension Workers (HEWs). This initiative has been called the Health Extension program (CSA, 2011)

1.2 Statement of the Problem

Maternal Mortality Rate (MMR) in Ethiopia is significantly high with 353 deaths per 100,000 women (UNICEF, 2015). Maternal deaths are mostly caused by obstructed/prolonged labor, which accounts for 13% of the maternal death. Ruptured uterus (12%), severe pre-eclampsia/eclampsia (11%) and malaria (9%) are among the major causes of maternal death and 6% of maternal deaths were due to complications from abortion. Lack of skilled midwives, poor referral system at health center levels, insufficient availability of BEmONC and CEmONC equipment and shortage of finance of the health service are main challenges of supply side which hamper maternal health improvement. Furthermore, cultural norms and societal emotional support to mothers', distance to functioning health centers and financial constraints are also categorized as the major causes of maternal deaths.

Infant Mortality Rate (IMR) has been 28/1000 (UNICEF, 2015). Child mortality rate of under-five years has been 59/1000 in the year 2015 (UNICEF, 2015). Malaria, pneumonia, diarrhea and nutrition deficiencies are among the major causes of child mortality. A high mortality and disease burden from nutrition-related factors is also prominent among children aged under 5 years. The percentage of children who are underweight is eight times higher in children with mothers with no education compared with children whose mothers have more than secondary education. The levels of mortality are worsened particularly by poverty, inadequate maternal education, lack of safe water supply and sanitation, and high fertility and inadequate birth spacing (FMOH, 2015).

According to the national health promotion and communication strategy of Ethiopia (NHCSE, 2016), the health education program at community level should meet certain standards in terms of quality, effectiveness, capacity, participation and accessibility.

However whether the actual delivery of services meet these standards and whether mothers and children at the grassroots level are benefiting from the health education services given at the health centers has not been studied. To the best of my knowledge, there are no local researches

done on this similar topic. Accordingly, this thesis is expected to fill the gaps in the literature in the specific area.

1.3 Research Questions

- ✓ How is mothers' health education organized and delivered?
- ✓ How is mothers' health education related to child and maternal health improvement?
- ✓ How do mothers get access to health education?
- ✓ How do mothers apply their knowledge of health education?

1.4 Objectives

1.4.1 General objective

The major objective of this study is to assess how mother's health education improves the health of mothers and children under age five.

1.4.2 Specific Objectives

- ✓ To explore how mothers' health education is organized and delivered;
- ✓ To find out how maternal health education is related to mothers health improvement;
- ✓ To find out how mothers get access to health education
- ✓ To examine how mothers apply their knowledge of health education.

1.5 Significance of the Study

The findings of this study will bring the recommended results and which may benefit maternal health education service users, governmental and non-governmental organizations and especially the Ethiopian Ministry of Health (MOH) will use the result to boost maternal health improvement in the study area as well as other part of the country.

The primary beneficiaries of these findings are the maternal health care education services users in Millennium Health Center (Wereda 8) and the sub city inhabitants, and researchers to refer for further investigation.

1.6 Delimitation of the Study

This research focuses on the health education given to mothers in Wereda 8 Health Center, Addis Ketema Sub City, Addis Ababa City. This study only includes mothers who gave birth more than once in the health institution because mothers who deliver more than once have repeated exposure to health education.

1.7 Limitation of the Study

The national health promotion and communication strategy of Ethiopia has set a wide range of quality standards or principles to increase health literacy among the public. In this study only a few of the factors such as quality, participation, accessibility and effectiveness were taken into consideration to review the performance of the health education undertaken by the Wereda 8 Health Center, Addis Ketema Sub City. Although Addis Ketema Sub City has 10 Weredas this study only focuses on Wereda 8 health Center.

1.8 Organization of the Thesis

This thesis is comprised of five chapters. The first chapter presents an introduction of the thesis. The second chapter deals with review of related literature. Chapter three discusses the methodology and procedures of data collection and data analysis. Subsequently, while the fourth chapter covers presentation and analyses of the data, chapter five offers conclusions drawn from the data analyses and suggests recommendations for further studies. Finally, followed by the appendixes of extracts, the reference section offers acknowledgements to the rightful scholars whose works are used as a reference in this study paper.

CHAPTER TWO: LITERATURE REVIEW

2.1 Health Education

Health education has been defined in many ways over the years. For example Green L &KreuterM in their earlier work (Green L, Kreuter M., 1980) concluded that health education was limited to conscious health-directed behavior and was most effective when “people were clearly oriented to solve a discrete and immediate behavioral or health problem of importance to them” (Green L, Kreuter M., 1991) (for example immunization programmes in which people want to avoid an imminent threat or family planning programmes in which people want to delay or avoid pregnancy). Shortly after this definition was proposed, a growing recognition emerged that much of the more pervasive behavior had to do more with patterns and conditions of living than the simple imparting of information directed at a specific health behavior.

Health behavior, after all, is not based solely on isolated acts under the autonomous control of the individual, but rather is defined by patterns of living that are socially conditioned, culturally embedded and economically constrained. Controversy, as a result, emerged in the literature among health researchers as to If we are ill, how can we get the best medical care? Reflection/behavior prevention and treatment are mutually enriching partners in a common enterprise health education: theoretical concepts, effective strategies and core competencies 59 where the focus should lie: individual versus social responsibility for health; facilitating individual behavior change versus broader institutional and social change; behavioral versus ecological strategies; healthy people versus healthy cities and healthy policies; blaming the victim versus blaming the manufacturers of illness. Subsequently, Green and Kreuter (Green L, Kreuter M., 1991) modified their definition of health education to “any combination of learning experiences designed to facilitate voluntary actions conducive to health”. Combination emphasizes the importance of matching the multiple determinants of behavior with multiple

learning experiences or educational experiences. Designed distinguishes health education from incidental learning experiences as a systematically planned activity. Facilitate means predispose, enable and reinforce. Voluntary means without coercion and with full understanding and acceptance of the purposes of the action. Action means behavioral steps taken by an individual, group, or community to achieve an intended health effect.

Health education therefore provides the consciousness-raising, concern-arousing, action-stimulating impetus for public involvement and commitment to social reform. It emphasizes the imparting of accurate information to set the stage for the adoption of sound health practices or the abandonment of poor ones. It focuses on acquainting people with the causes of disease, on health practices to reduce and avoid risk and on ways to detect a developing problem. Health education is usually embedded in health promotion or other programmes such as patient education in medical care programmes, occupational health education in industrial safety programmes or school health education in school programmes. Alternative labels used for health education programmes and activities include social marketing, mass communications, behaviour modification, in-service training, patient education and some forms of health counselling.

According to Green and Kreuter (1991), the defining characteristic of health education is the voluntary participation of learners in determining their own health practices. The authors argue that, “cognitive and behavioral changes depend on the degree of active rather than passive participation of the learner”, and that by emphasizing the voluntary nature of health education, “it helps to avoid public reaction to programmes that might be perceived as propagandist, manipulative, coercive, politically or commercially directed, paternalistic, or threatening” (Green L, Kreuter M., 1991). WHO defines health education as “consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, what is health education? Health education is a social science that draws from the biological, environmental, psychological, physical and medical sciences to promote health and prevent disease, disability and premature death through education driven voluntary behavior change activities. Health education is the development of individual, group, institutional, community and systemic strategies to improve health knowledge, attitudes, skills and behavior the purpose of health education is to positively influence the health behavior of

individuals and communities as well as the living and working conditions that influence their health (WHO, 1998).

The WHO document describes health education as not limited to the dissemination of health-related information but also "fostering the motivation, skills and confidence (self-efficacy) necessary to take action to improve health" as well as "the communication of information concerning the underlying social, economic and environmental conditions impacting on health, as well as individual risk factors and risk behaviours, and use of the health care system." A broad purpose of health education therefore is not only to increase knowledge about personal health behavior but also to develop skills that "demonstrate the political feasibility and organizational possibilities of various forms of action to address social, economic and environmental determinants of health". Health education has been used as a term to encompass a wider range of actions including social mobilization and advocacy. These methods are now encompassed in the term health promotion (WHO, 1998). Clarke (Clarke B, 2002) believes that one of the goals of health education is to produce health literacy. This occurs by fostering: • the capacity of individuals to obtain, interpret and understand health information and services (impart knowledge) • competence to use such information and services in ways which enhance/maintain health of self and family members (developing decision-making skills).

2.2 Health education theory

2.2.1 Individual-Based Theory

The Health Belief Model

The health belief model (HBM) was established in the early 1950s to understand why many people do not adhere to preventive health efforts. It has been one of the most widely used conceptual frameworks in health behavior research and interventions (Viswanath et al., 2008). HBM suggests that individuals will take action if they perceive themselves to be susceptible to the illness or condition (perceived susceptibility), that this illness will have serious consequences (perceived severity), a course of action will minimize consequences (perceived benefits), and the benefits of taking action will outweigh the costs or barriers (perceived barriers) (Janz& Becker, 1984). In a 10-year review, Jan and Becker (1984) found that perceived barriers were the most powerful predictors across all studies and perceived susceptibility was a strong predictor of

preventive health behavior. Nevertheless, HBM has been criticized as a psychosocial model; it is limited to only what can be explained by individuals' attitudes and beliefs. HBM leaves out things such as the habitual nature of many behaviors, that many people take on behaviors for non-health-related outcomes, and that people are often constrained from making rational choices because of their environment. Additionally, the model is based on the premise that most people value health and their behaviors are driven by health goals (Janz& Becker, 1984). Despite these critiques, the Health Behavior Model is still a widely used and helpful model, particularly for traditional preventive health behaviors such as screening and immunization.

2.2.2 Social/Ecological Theories of Health

2.2.2.1 Social Cognitive Theory

The social cognitive theory (SCT) was built on the understanding of the reciprocal interaction between an individual and their environment and addresses both what determines health behavior and how to promote change. While most behavioral and social theories emphasize individual, environmental, and social factors that influence behavior, SCT posits that there is a dynamic interplay between these factors and that the relationship between people and their environment can be both subtle and complex. This emphasis on reciprocal determinism, as Bandura labels it, calls for an understanding of the continuous interaction between individuals, their environment, and their behavior. Thus, while environments can influence how people behave, people can also alter and construct environments to suit their purposes (Bandura A., 1986).

In addition to this interactive dynamic, Bandura also explains a range of personal cognitive factors that affect behaviors and the environment. It lays out that people's actions are not only based on an objective reality but rather their perceptions of it. First, knowledge of health risks and benefits are the precondition for change, as people need to know how their lifestyle habits affect their health in order to embark to change habits that they enjoy (Bandura A., 2004). People often learn about certain behaviors by observing others (observational learning), marking the importance of peer influence and social norms on health behavior. Second, people place value on expectations, such that in order to embark on a new behavior, they need to understand what the potential outcome will be when the behavior is repeated. These expectancies are greatly influenced by the environment of the observer and highlight the importance of understanding the motivations behind different behaviors. Third, and most importantly, is the concept of self-

efficacy. Self-efficacy is one's belief in their ability to perform a behavior. Bandura states that self-efficacy is the most important prerequisite to behavior change and will greatly affect how much effort is placed into the task. People with high self-efficacy are more likely to take on challenges and recover quickly from setbacks and disappointments, while those with low self-efficacy are less confident and thus less likely to embark on tasks deemed to be difficult. Meta-analyses have shown that self-efficacy plays an influential role across multiple domains of health functioning and indeed is the focal determinant. It affects people's goals and aspirations, how they view barriers, and shape the outcomes people expect to produce (Bandura A., 2004).

2.2.2.2 Ecological Model of Health Promotion

A broader view of health behavior takes into account an individual's lifetime exposure to the influences of family, community, and society (Glass &McAtee, 2006). The ecological model of health promotion, having its roots in the earliest iterations of public health, presents health as an "interdependence between the individual and subsystems of the ecosystem" (Green, Richard, & Potvin, 1996). It acknowledges multiple levels and dimensions of determinants of health, ranging from environmental, policy, social, and psychological. Because of this explicit consideration of multiple levels of influence, interventions stemming from this model are more comprehensive. At its core, the ecological model of health promotion presents health "as the product of the interdependence between the individual and subsystems of the ecosystem" (Green, Richard, & Potvin, 1996). These subsystems include intrapersonal (psychological, biological), interpersonal (social, cultural, family), community, physical environment, and policy (McLeroy, Bibeau, Steckler, &Glanz, 1988).

The four main principles of the ecological perspective are the following: (1) there are multiple levels of factors that influence health behavior and some concepts cut across levels such as sociocultural factors and physical environment; (2) there is interaction across levels such that variables work together; (3) multi-level interventions are most effective in changing behavior and having sustaining effects; and (4) ecological models are most useful when they are behavior specific. The ecological approach posits features of the social and built environment above and before the individual that constrain, limit, reward, and induce the behavior of the individual (Glass &McAtee, 2006). The ecological model takes into account the importance of contextualizing individual behavior. People act differently in different environments, and

effectiveness of any health promotion strategy depends on its fi t to the specific environment in which the intervention is to be applied. Educating and providing skills to change behavior is not sufficient if the existing environment and policies stand in the way of making healthy choices. Thus, one can teach and motivate people to eat healthy foods and exercise, but if their environment does not consist of places to purchase healthy food or safe places to exercise, much of the "choice" behind the behaviors disappears.

One critique of the ecological model is that it offers limited guidance on the dynamic interactions of these factors and the unique elements of settings (Livingood et al., 2011). Because of its complexity, the model lacks specificity about what is most important and burdens the health professional with the task offiguring out what the critical factors are for each health behavior. The ecological model makes it difficult to create testable hypotheses and is challenging to manipulate experimentally. Thus, while it broadens the perspective of understanding health, it is problematic to operationalize. Additionally, the ecological perspective is that everything influences everything, leading many to throw their hands up in despair at the lack of parameters or control over these complex, intertwined systems (Green, Richard, & Potvin, 1996).

2.3 Health Literacy

Health literacy generally refers to the ability of individuals to access and use health information to make appropriate health decisions and maintain basic health. For health and education researchers, the concept is a broad one. It includes whether individuals can read and act upon written health information, as well as whether they possess the speaking skills to communicate their health needs to physicians and the listening skills to understand and act on the instructions they receive (Health literacy in Canada, 2007). Clarke (Clarke B, 2002) views a health literate person as being one who: • can think things through and make health choices in solving his/her own problems as well as family member problems • is responsible and makes health choices that benefit him/herself and family members • is in charge of his/her own health learning and teaches family members to do the same • can use communication skills to express needs, questions and concerns to health care providers and staff. Studies over the years have repeatedly demonstrated a strong link between literacy, level of education and level of health (Schillinger D et al., 2002). Health and learning are closely intertwined, and the interaction between them is evident at all ages, from early childhood through to the later stages of life. The equation is a simple one: the

higher a person's education status and ability to learn about health, the better that person's health (Schillinger D et al., 2002). Researchers and policy-makers in the health and education fields consider health literacy to be a critical pathway linking education to health outcomes, as a causal factor in health disparities between different population groups and as a predictor of overall population health (Schillinger D et al., 2002). Although the term "health literacy" was first used in health education about 30 years ago, it has only recently been proposed as an important concept in health promotion as a whole (Nutbeam D., 2000 ; Kickbusch I. 2001).

WHO defines health literacy as "the cognitive and social skills which determine the motivation and Health education: theoretical concepts, effective strategies and core competencies 63 ability of individuals to gain access to, understand and use information in ways which promote and maintain good health" and that it "implies the achievement of a level of knowledge, personal skills and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions". Therefore health literacy means more that simply reading health pamphlets and making an appointment to see one's physician, but rather it implies "improving people's access to health information, and their capacity to use it effectively, health literacy is critical to empowerment" (WHO, 1998). According to Rootman, (Rootman I, 2002) this definition represents a considerable expansion of functional definitions of health literacy such as "being able to apply literacy skills to health related materials such as prescriptions, appointment cards, medicine labels, and directions for home health care", (Parker RM et al., 1995) or the following US National Network of Libraries of Medicine definition of health literacy: "the degree to which people can obtain, process and understand basic health information and services they need to make acceptable health decisions" (US Department of Health and Human Services, 2000).

The scope and nature of the expansion becomes clearer when we consider Nutbeam's differentiation between three types or "levels" of literacy — basic/ functional, communicative/interactive and critical (Nutbeam D., 2000). His definitions are: (1) Basic/functional literacy: "sufficient basic skills in reading and writing to be able to function effectively in everyday situations" (2) Communicative/interactive literacy: "more advanced cognitive and literacy skills which, together with social skills, can be used to actively participate in everyday activities, to extract information and derive meaning from different forms of

communication, and to apply new information to changing circumstances" (3) Critical literacy: "more advanced cognitive skills which, together with social skills, can be applied to critically analyse information, and to use this information to exert greater control over life events and situations". In particular, the latter two types or "levels" of literacy suggest the expansion of the notion of health literacy into the domain of health promotion through their connection with the concept of "empowerment" (Rootman I, 2011). Moreover, these ideas have been expanded even further as a result of a series of meetings or workshops on the conceptualization of health literacy including one at the Fifth WHO Global Conference on Health Promotion that "resolved to widen the glossary definition to include dimensions of community development and health related skills beyond health promotion, and to understand health literacy not only as a personal characteristic, but also as a key determinant of population health" (Kickbusch I. 2001).

Public health must base its messages on the theories and principles of health education (e.g., what the message says,) health communication (e.g., how the message is delivered), and the health literacy of the intended audience (e.g., whether the message is accessed and understood) (Gazmararian J et al., 2005).

Health education: theoretical concepts, effective strategies and core competencies 64 Lifestyle (lifestyles conducive to health) The lifestyle construct has its roots in anthropology, sociology and clinical psychology, where it is used to describe patterns of behaviour that have an enduring consistency and are based in some combination of cultural heritage, social relationships, geographic and socioeconomic circumstances, and personality (Breslow L, Egstrom J., 1980; Epstein S., 1979). Green and Kreuter (Green L, Kreuter M., 1991) observe that the term lifestyle has been eroded by its widespread misuse in describing single acts and temporary practices and that some have gone so far as to equate lifestyle with behaviour of any kind related to health. Rather, they view lifestyle as "a complex of related practices and behavioural patterns, in a person or group, that are maintained with some consistency over time". Considering its complexity and the interdependency of each kind of behaviour related to health, they argue that a comprehensive approach to health education and health promotion requires "a combination of educational, organizational economic, or other environmental supports rather than only persuasive appeals for change in each specific behaviour". Documentation by WHO (WHO 1998) supports this view. "If health is to be improved by enabling individuals to change their

lifestyles, action must be directed not only at the individual but also at the social and living conditions which interact to produce and maintain these patterns of behaviour." WHO defines lifestyle as "a way of living based on identifiable patterns of behaviour which are determined by the interplay between an individual's personal characteristics, social interactions, and socioeconomic and environmental living conditions". Caution is advised however, in recognizing that patterns of behavior are continually being interpreted by the individual and therefore are not fixed and that there is no optimal lifestyle that transcends across all cultures, incomes, ages, physical abilities and environments.

2.4. Primary health care

The WHO Alma-Ata Declaration defined primary health care as "essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible … at a cost that the community and country can afford" (WHO, 1978). In many countries primary health care involves incorporating curative treatment given by the first contact provider along with promotional, preventive and rehabilitative services provided by multidisciplinary teams of health care professionals working collaboratively (Andersen NA et al., 1986; Crampton p & Brown MC, 1998). The Alma-Ata Declaration also emphasizes that everyone should have access to primary health care, and everyone should be involved in it. The primary health care approach "encompasses the following key components: equity, community involvement/participation, intersectorality, appropriateness of technology and affordable costs" (WHO, 1978).

International studies show that the strength of a country's primary care system is associated with improved population health outcomes for all-cause mortality, all-cause premature mortality and cause-specific premature mortality from major respiratory and cardiovascular diseases. This relationship is significant after controlling for determinants of population health at the macro level (gross domestic product per capita, total physicians per 1000 population, percentage of elderly) and micro level (average number of ambulatory care visits, per capita income, alcohol and tobacco consumption). Furthermore, increased availability of primary health care is associated with higher patient satisfaction and reduced aggregate health care spending (WHO, 2004).

As a set of activities, WHO reports that “primary health care should include at the very least health education for individuals and the whole community on the size and nature of health problems, and Health education: theoretical concepts, effective strategies and core competencies 65 on methods of preventing and controlling these problems” (WHO, 1978). Other essential activities include the promotion of adequate supplies of food and proper nutrition; sufficient safe water and basic sanitation; maternal and child health care, including family planning, immunization, appropriate treatment of common diseases and injuries, and the provision of essential drugs. Despite numerous documents oriented toward defining primary care, Hogg (Hogg W et al., 2007) concluded that it “is in a state of evolution”. New definitions of primary care draw upon interdisciplinary perspectives, but there appears to be some consensus that primary care is the first level of contact of individuals and families with the national health system, bringing health care as close as possible to where people live and work. As a result, “there is great scope for both planned and opportunistic health promotion through the day to day contact between primary health care personnel and individuals in their community. Through health education with clients, and advocacy on behalf of their community, PHC personnel are well placed both to support individual needs and to influence the policies and programmes that affect the health of the community” (WHO, 2004).

Health education does have a role to play at the community level. One community level health education theory is the diffusion of innovations theory, which addresses how new ideas, products and social practices spread within a community. Diffusion of innovations Health education practitioners who want to make efficient use of resources must attend to the reach, adoption, implementation and maintenance of programmes (Rimer B, 2005). Diffusion of innovations is the “process by which an innovation is communicated through certain channels over time among the members of a social system” (Rogers EM, 1995). Diffusion can be thought of as a special type of communication in which messages are about a new idea, product or service (Campbell C., 2001). If a health education programme is viewed as an innovation, this theory could describe the pattern the target population would follow in adopting the programme.

The process of adoption is viewed as a classic bell curve, with five categories of people as adopters: innovators, early adopters, early majority adopters, late majority adopters, and laggards. The categories are characterized as follows: • innovators are active information seekers

of new ideas • early adopters are very interested in the innovation but not the first to sign up • early majority need external motivation to get involved Health education: theoretical concepts, effective strategies and core competencies 36 • late majority are sceptics and will not adopt an innovation until most people in the social system have done so • laggards typically have limited communication networks and are the last to become involved, usually with the help of a mentoring programme or through constant exposure. When an innovation is introduced, the majority of people will either be early majority adopters or late majority adopters; fewer will be early adopters or laggards, and very few will be innovators (the first people to use the innovation). By identifying the characteristics of people in each adopter category, practitioners can more effectively plan and implement strategies that are customized to their needs (Rimer B, Glanz K., 2005).

Another aspect of time considers the rate of adoption, which is the speed with which an innovation is adopted by members of a social system. When the number of individuals adopting a new idea is plotted on cumulative number or percentage of adopters over time (the prevalence), the result is an s-shaped curve. Most innovations have this s-shaped rate of adoption. However, the slope can be very steep, as when a new idea diffuses rapidly, or more gradual in a slower rate of adoption. Innovators 2.5% Early Adopters 13.5% Early Majority 34% Late Majority 34% Laggards 16% (Rogers EM, 1995). Diffusion of innovations: process of adoption Health education: theoretical concepts, effective strategies and core competencies 37 Saturation Take-off Innovation Adoption of innovation Time. The innovation adoption curve a number of factors determines how quickly, and to what extent, an innovation will be adopted and diffused. By considering the benefits of an innovation, health educators can position it effectively, thereby maximizing its appeal. Specifically: relative advantage of an innovation shows its superiority over whatever it has been designed to replace. Is the innovation perceived as better than the idea it attempts to replace? Compatibility refers to the appropriateness of the fit with the intended audience. Is the innovation consistent with the existing values, past experiences and needs of the potential adopters? Complexity is concerned with the ease of implementing the innovation. Trial ability asks whether the innovation can be tried on an experimental basis. Observability examines whether the innovation will produce tangible results. Can the results be seen by others? (Rogers EM, 1995).

Diffusion of innovations: process of adoption

Innovators 2.5%

Early Adopters 13.5%

Early Majority 34%

Late Majority 34%

Laggards 16%

Source: (41)

2.5. Health Education Planning and Implementation

Components that appear to be essential to effective community-based health education and prevention strategies include the following (Pancer SM, Nelson G., 1990).

Participant involvement - Community members should be involved in all phases of a programme's development: identifying community needs, enlisting the aid of community organizations, planning and implementing programme activities and evaluating results. Wide and comprehensive representation of community members on programme planning bodies provides for a sense of ownership and empowerment that will enhance the programme's impact.

Planning - Many programmes take two or three years to move from original conceptualization to the point at which services are delivered. Planning involves identifying the health problems in the community that are preventable through community intervention, formulating goals, identifying target behaviour and environmental characteristics that will be the focus of the intervention efforts, deciding how stakeholders will be involved and building a cohesive planning group.

Needs and resources assessment - Prior to implementing a health education initiative, attention needs to be given to identifying the health needs and capacities of the community and the resources that are available. Health education: theoretical concepts, effective strategies and core competencies.

A comprehensive programme - The programmes with the greatest promise are comprehensive, in that they deal with multiple risk factors, use several different channels of programme delivery, target several different levels (individuals, families, social networks, organizations, the community as a whole) and are designed to change not only risk behaviour but also the factors and conditions that sustain this behaviour (e.g. motivation, social environment).

An integrated programme - The programme should be integrated; each component of the programme should reinforce the other components. Programmes should also be physically integrated into the settings where people live their lives (e.g. worksites) rather than solely in clinics.

Long-term change - Health education programmes should be designed to produce stable and lasting changes in health behaviour. This requires longer-term funding of the programme and the development of a permanent health education infrastructure within the community.

Altering community norms - In order to have a significant impact on an entire organization or community, the health education programme must be able to alter community or organizational norms and standards of behaviour. This requires that a substantial proportion of the community's or organization's members be exposed to programme messages, or preferably, be involved in programme activities in some way. • Research and evaluation - A comprehensive evaluation and research process is necessary, not only to document programme outcomes and effects, but to describe its formation and process, and its cost-effectiveness and benefits.

2.6. Contents of Childbirth Education

According to American Academy of Pediatrics and the American College of Obstetricians and Gynecologists (1997), the content of childbirth education should include minimum basic information, with additional information available through community programs or supplemental materials in the physician's office. An outline of the content follows. It is not intended to be all inclusive but serves as an example of information that would be included during the course of routine prenatal care.

Preconception

- Reproductive anatomy and physiology

- Nutritional evaluation and information
- Genetic risk evaluation and counseling
- Medical conditions: immunity status, medications, acute and chronic illness
- Risk factors associated with pregnancy risk: smoking, alcohol, recreational and over-the counter drugs
- Environmental/work hazards counseling regarding safe sex, pregnancy planning, spacing of children, and contraception

First Trimester

- Content and timing of prenatal visits
- Reproductive anatomy and physiology, calculation of estimated date of confinement
- Nutritional needs of pregnant women, vitamins, iron supplements
- Genetic counseling/referral
- Physiologic and psychological changes of pregnancy
- Body changes: breast growth, acne, weight gain
- Common discomforts**:** nausea/vomiting, fatigue, constipation, headache, indigestion, faintness
- Self-help remedies for discomforts
- Fetal growth and development
- Laboratory and ultrasound testing/screening: standard and optional testing, advantages and disadvantages
- Smoking, drugs, alcohol, caffeine, Nutra-Sweet and other food additives, avoidance of teratogens and infectious disease
- Pregnancy risks, Individual risk factors and management

- Travel guidelines
- Health habits: hygiene, exercise, Seat belt use, dental care, rest and sleep
- Sexual relations, safe sex
- Warning signs of the first trimester: bleeding, cramping, fever, severe vomiting

Second Trimester

- Physiologic and psychological changes
- Body changes: abdominal growth, striaegravidarum, chloasma
- Common discomforts: backache, constipation, hemorrhoids, indigestion, ligament pain, vaginal discharge
- Mood swings
- Self-help remedies for discomforts
- Fetal growth and development, quickening
- Laboratory and ultrasound testing and screening: standard and optional testing
- Weight gain
- Travel restrictions (if any)
- Health habits: exercise, body mechanics, rest and sleep
- Sexual relations, safe sex
- Promotion of breast-feeding
- Warning signs of the second trimester: premature labor, vaginal bleeding, or fluid loss
- Introduction to outside resources
- Childbirth education classes

- Social services: Supplemental Food Program, housing support, financial support
- Substance abuse referral to treatment center
- Mental health treatment referral

Third Trimester

- Physiologic and psychological changes
- Body changes: see second trimester changes
- Common discomforts: constipation, shortness of breath, edema, heartburn, backache
- Fetal growth and development, tests for fetal wellness
- Ultrasonography
- Nonstress testing, contraction stress tests
- Fetal movement counts
- Laboratory and ultrasound testing: standard and optional testing
- Continuation of second-trimester instructions
- Signs of labor: contractions, rupture of membranes, bloody show
- Analgesia and anesthesia for labor and birth
- Discussion of birth plan: routine procedures for labor and birth
- Contacting the physician or midwife for labor, where to go
- Family roles and adjustment

- Warning signs of the third trimester: severe edema, headache, visual disturbances, abdominal pain, vaginal bleeding, premature labor, premature rupture of membranes

Postpartum

- Warning signs for immediate postpartum period

- Physiologic and psychological changes
- Body changes: weight loss, return of menses, resumption of intercourse
- Psychosocial adaptation to parenthood
- Family planning
- Child spacing
- Contraception
- Postpartum depression screening
- Nutrition, weight loss
- Health habits: hygiene, rest, exercise
- Health maintenance: breast self-examination, annual gynecologic examination, immunizations
- Resources
- Return to work

2.7. Methods of Childbirth Education

Current childbirth education programs have evolved throughout the past century from two distinct needs: better prenatal self-care and a means to cope with childbirth (Hassid P, 1984). The American Red Cross first recognized the need for better prenatal health care, hygiene, and infant care in the early 1900s. Organized classes were set up and taught to entice women to care for themselves better during pregnancy. This public health approach grew to include other organizations, such as the Maternity Center Association in New York and the Chicago Maternity Center. This type of childbirth class continues currently, offered by community groups, hospitals, and some private offices. They are generally informational in nature, with few details offered on specific mechanisms to cope with the pain of labor.

The second need that forwarded the development of childbirth education was the desire to find a means with which to cope with childbirth without the use of analgesics or anesthetics. In the 1930s, a British obstetrician, Dr. Grantley Dick-Read, recognized the need to assist women through childbirth without the use of medication. He observed that women who anticipated the pain of childbirth were more fearful. He surmised that their resulting tension interfered with the labor process and ultimately increased their pain. Dick-Read described his fear-tension-pain syndrome in his book, *Childbirth without Fear*, published in 1944 (Dick-Read G, 1944). He strongly advocated education and emotional support to reduce fear and break the fear-tension-pain cycle. His teaching included total body relaxation, as well as female anatomy and physiology, nutrition, hygiene, and breathing techniques. Unfortunately, Dick-Read was sharply criticized by his colleagues for his lack of scientific evidence and the spiritual nature of his writings. However, his work had a significant impact on current childbirth practices because it was the beginning of a more humanistic approach to women during childbearing.

The Russians experimented with hypnosis in the early 1900s but with limited success. They then began to explore the application of Pavlovian principles of behavior modification to the childbirth experience. Negative and painful responses to childbirth stimuli were deconditioned and replaced with other responses, such as breathing techniques and attention focusing. Introduced as the psychoprophylactic method of childbirth by the Russian Velvovsky, it was observed by Dr. Fernand Lamaze, a French obstetrician visiting the Soviet Union for a professional conference in 1951. Lamaze returned to France and adapted the psychoprophylactic method for use in his clinic, the Maternite de Metallurgiste. In his book, *Painless Childbirth*, Lamaze described a method that included teaching female anatomy, physiology of pregnancy, labor and birth, breathing techniques, and other exercises (Lamaze F, 1955). Psychoprophylaxis as a method for childbirth spread rapidly throughout Europe and China and was introduced to the United States through the efforts of Karmel (Karmel M, 1959) and Bing (Bing E, 1967) and referred to as the Lamaze method. At a time when women were heavily sedated and husbands excluded from the birth process, Karmel and Bing promoted medication-free, prepared childbirth with active support from the husband. A few years later, the American Society for Psychoprophylaxis was founded. This organization set up official teacher training programs for the psychoprophylactic method. Classes include reproductive anatomy and physiology, nutrition,

the process of labor and birth, anesthesia and analgesia, and cesarean birth. Relaxation and complicated altered breathing exercises are taught for coping with the various phases of labor. The husband actively participates as coach and support to the laboring woman.

Another method of childbirth originated in the late 1940s, conceived by an American obstetrician, Dr. Robert Bradley. The Bradley method was based on his observations of the natural instinctual behavior of all mammals bearing their young and emphasizes a truly natural childbirth. Use of analgesia or anesthesia is strongly opposed, as is most routine obstetric interventions, such as intravenous fluids, continuous electronic monitoring, amniotomy, and episiotomy. Deep relaxation and a natural diaphragmatic breathing are taught for coping with labor, as well as female anatomy and physiology, exercise, nutrition, process of labor and birth, breast-feeding, and child care. Instructors are trained and certified by the American Academy of Husband-Coached Childbirth. Couples are usually extremely well prepared for the birth, understanding and anticipating common variations of labor and possible management. A birth plan is designed and presented to the physician or midwife weeks before the birth so that any conflicts can be worked through. Although some professionals find the Bradley method antagonistic to the medical profession, it is well known for its very consumer-oriented classes.

Other less popular methods of childbirth education are offered using various approaches. Hypnosis has been used since the 19th century to prevent or reduce pain, usually as an adjunct to other preparatory classes. A holistic or psychophysiologic approach is described by Peterson in her book, *Birthing Normally* (Peterson G, 1981). This method focuses on self-growth and an integration of mind and body to call on one's own resources to cope with birth. The Gamper method, originated by Margaret Gamper in 1946, is based on the Dick-Read teachings and has been adapted over time to embrace the family-centered approach. Preparation for birth is accomplished through instillation of self-determination and confidence in the woman's ability to work with the natural forces of labor (Gamper M, 1987). A psychosexual approach promoted by Kitzinger also is based on the early work of Dick-Read. This method uses the body's tactile and auditory sensory memory of past experiences to elucidate relaxation. Pregnancy and birth are viewed as only a part of the entire psychosexual life cycle; thus, the woman's relationships with her husband, parents, and children also are explored (Kitzinger S, 1982). Other classes, best

referred to as *nonmethod*, teach pertinent information, relaxation, and breathing techniques but do not conform to any one childbirth pain theory.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Research Design

In this research qualitative case study research design is employed. A case study is an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident. (Yin 2009). Case studies are useful method when: - "how" or "why" questions are being posed, the investigator has little control over events, and the focus is on a contemporary phenomenon within a real-life context. (Yin D., 2009).

3.2 Subjects

The target population of this research was mothers who have attended health education program in Wereda 8 health center.

3.3 Sampling Technique

The sampling method which was used in this study is snowball sampling method. Snowball sampling (also known as chain-referral sampling) is a non-probability (non-random) sampling

method used when characteristics to be possessed by samples are rare and difficult to find. For example, if you are studying the level of customer satisfaction among elite, you will find it increasingly difficult to find primary data sources unless a member is willing to provide you with contacts of other members.

Snowball sampling uses a small pool of initial informants to nominate, through their social networks, other participants who meet the eligibility criteria and could potentially contribute to a specific study. The term "snowball sampling" reflects an analogy to a snowball increasing in size as it rolls downhill. *(David L., Morgan, 2008)*

This sampling method involves primary data sources nominating another potential primary data sources to be used in the research. In other words, snowball sampling method is based on referrals from initial subjects to generate additional subjects. Therefore, when applying this sampling method members of the sample group are recruited via chain referral.

Also, snowball sampling is the most popular in business studies focusing on a specific company that involve primary data collection from employees of that company. Once you have contact details of one employee she/he can help you to recruit other employees to the study by providing contact details.

Consequently, using the snowball sampling method, the study has gathered the required information from 17 mothers who attend mothers' health education, as well as 4 health station workers who give the training for those mothers and analyzed the collected data.

3.4 Data Collection Instrument

In terms of data collection, primary and secondary sources were used to conduct this research. Through the primary data collection, I have used interview. Moreover, the type of interview was in-depth interview, which had allowed open-ended question that generated more of the experiences of the participant in explanatory and descriptive way. In addition, the style of the interview was semi-structured interview. Semi-structured interviews fall somewhere between structured and in-depth interviews and semi-structured interview schedules contain many open-ended questions, with lots of suggestions for prompts and probes (Margaret Alston and Wendy Bowles, 2003).

3.5 Data Collection Procedure

Using the snowball sampling method, the aforementioned number of participants was selected. The participant mothers were selected based on two criteria. The first criterion was by taking the list of the mothers who attend the health education. The list was gained from the health institution's health education trainers. The second criteria was that, after the list of the mothers was gained, the voluntariness of those mothers was asked and the mothers who were found volunteer for the participation in the study were interviewed. The second group of subjects was the health station workers. All the health education workers who give the training on maternal and child health care were involved in this study because all of them had showed the willingness to be part of the study. The interviews had taken an average duration of 30 minutes for each participant.

3.6 Ethical Consideration

The confidentiality of the participants of this study is kept at all costs. According to Richards and Schwartz (2002) the term 'anonymity' is to mean that no personal information is to be revealed, and it involves elaboration of the form of outcome that might be expected from the study.

First and for most informed consent was respected and briefly explaining the purpose of the study and their willingness to participate on the study. I did also inform the participants whatever information they provide for the sake of the study will be kept in confidentiality. Their right to privacy is also respected. The names of the participants are not mentioned in the research not to risk their identity to be known.

3.7 Data Analysis

Qualitative data is analyzed by using in depth interview and through the organizing of the books and articles that I have used. Based on the informed consent of the participant the interview has been recorded and the interview was conducted in Amharic language. The data that I collected through the interview was translated in to English language without losing its genuine and true form and the interview has been transcribed.

The analysis of this study is made through using thematic analysis. After the necessary data was collected, the replies of both the mothers and the health education trainers were categorized into themes. The themes were comprised based on the research questions or/and specific objectives which are raised at the beginning of the study. Since the interview questions were formulated the research questions or/and specific objectives, categorizing the themes under these two was the best in answering the questions and achieving the specific objectives.

CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

In this section of the study, the questionnaire and interview data that were collected from health station workers and mothers in relation to the objectives of the study are analyzed and interpreted accordingly. Hence, this section dealt with the analysis of how mother's health education contributed to the improvement of maternal health and child health, the analysis of how policy related and environmental factors affected maternal health education, the analysis of how mothers gained access to maternal health education and the analysis of how mothers applied their health related knowledge gained from maternal health education in their lives to improve their health as well as their children's.

4.1 The Contribution of Mother's Health Education

A. Health Station Worker's View

All of the health station workers who engaged in the activity of educating mothers on maternal health matters consider that health education has benefited in creating awareness that surpasses cultural and religious beliefs and beyond the economic status of mothers. In our contemporary maternal society, where science has been overlooked, the creation of awareness in mother as regards the health knowledge they need has surmounted the challenges that were posed by cultural and religious limitations.

The building and creating of health awareness to mothers has been indicated by the station workers to be of crucial significance as it has an advantageous outcome later in the maternal

lives. Hence, they believe that health education has improved the health of babies and the mothers as well. One of the health trainers indicated that;

> *"Of course! The difference is visible before they joined the training and after. And I believe it will get better and better."* (HSW 1, 32 years old, 27/3/2018)

Another health trainer also indicated that;

> *"Yes there are changes definitely. I can tell there is better health status of mothers and children"* (HSW 2, 42 years old, 27/3/2018)

B. Mothers' Perspectives on the Contribution of Health Education

Mothers who participated in the study have also voiced their opinions with regard to the contribution that maternal health education has provided to them. This view was perceived from two perspectives where maternal health education has been found to be crucial by the mothers.

- Family planning and
- ANC
- Cost effective

The majority of the mothers who participated in the study said that maternal health education has changed their views about their family planning perspectives. This contribution of health education to mothers has created awareness in several cases, they said. In many cases, mothers have indicated that their usage of contraceptives to balance their family plans was highly limited. However, upon the acquisition of knowledge about the matter from health stations, the mothers tended to employ several strategies in their family planning including contraception.

Furthermore, the mothers have indicated that their awareness of ANC before and after health education has changed. They have indicated that having acquired the necessary knowledge about ANC, they have made repeated visits to health stations before birth or during their pregnancy periods in order to get the relevant consultancy.

Generally, the contribution of maternal health education was significant in improving the mothers' lives and thereby their children's.

Indicating the cost effectiveness, one mother said;

"I really appreciate the support that the government is providing. You can see private health stations they don't give the training plus it's very costly but when you come to government health station they teach us every month and you can get the service with low price." (Participant mother 1, 32 years old, 28/3/2018)

4.2 Environmental Factors that Affect Maternal Health Education

As far as policy is concerned, there are no challenges except for the delivery of health education by health station workers. The problem which most mothers complained of was the usage of technical and scientific terminology by the health station workers. Even when translated, the mothers said that the employment of these technical jargons such as ANC, PNC etc has affected their full understanding of the concepts.

The mothers have also indicated that the usage of medical jargons has impeded their full comprehension of the ideas being communicated during the maternal education session. Since these medical jargon require professional knowledge, the majority of the women were 10+ level of education and hence unable to grasp them. Hence, the only policy related challenge was the impediment of mothers' understanding of health education with the usage of unfamiliar and purely scientific terms. This usage was manifested in interpersonal communication; television broadcasts and brochures said the mothers.

4.2.1 Environmental Factors that Affect Health Education

A. Preoccupations and Health Education

The majority of the mothers have indicated that several preoccupations they had have affected their effective involvement in health education sessions. The most important ones were classes, home occupation and works.

As regards attending classes, some of the mothers have indicated that their classes clashed with their attending of health education in their free time. Due to being preoccupied with assignments, study hours and classroom sessions, the mothers said that it was hardly possible for them to go to health stations and access health education and consultancy. Due to the fact that they were involved in classes, there has been conflict of time in simultaneous with the health education

being delivered. Therefore, most of them have indicated that they were unable to attend and engage in maternal health education programs.

One mother said this regard:

> *"They give the training once a month. But sometimes, I can't attend the class because of my work condition."* (Participant mother 13, 31 years old, 28/3/2018)

With regard to house activities and chores, most of the mothers were housewives, the majority of the women in participation of this study have voiced their view that their over involvement in house related matters has significantly affected the way they access or gain health education programs. Despite the fact that door to door services were delivered to educate mothers, most of the mothers said that their already involvement with house chores such as taking care of children, cooking meals and doing sanitary works has made them too preoccupied to give attention to the education.

Due to that, their otherwise involvement has made them absent minded to the session at hand. Because of being mentally occupied with several house works, their full attention was diverted from the session and this has significantly affected their comprehension of the information being delivered. Therefore, it can be clearly seen that preoccupations with house matters has significantly deterred the efficacy of maternal health education.

The third environmental factor is work. Most of the mothers in participation of this study were employed in different sectors. They have indicated that their work has dominantly affected their access to the maternal health education program. For instance, most of them were unable to attend door to door health education sessions due to being at work most of the time. Still, others have also complained of not being able to consult the service due to spending much of their time at work.

> *"Right now, I am not breastfeeding my children because they are old for that. But back then, I breastfed them for three months every 2 hour without any additional food. Although, I should have done that for 6 months, I was not able to do so because I had to get back to work. As a result, after 3 months, my baby had to take additional food."* (Participant mother 1, 32 years old, 28/3/2018)

B. Social Factors

Besides the aforementioned factors, several social factors have been found by the mothers to be co challenging in their effective attendance of health education. The mothers have indicated that the most significant social factors were:

- The belief of having many children
- The dependence on family relatives' advice and consultancy
- Culture, religion and economy

On the one hand, the belief of having as many kids as possible has been central to our society the mothers said. Since this belief has been culturally and socially motivated, the acceptance and implementation of family plans regarding the number of children mothers should have has been severely deterred by such beliefs.

On the other hand, most of the mothers have indicated that consulting family relatives was more relevant than going to health stations. This belief was largely and widely held by the mothers. They said that the advices of their elder relatives were more important than the health education. This misconception can be said to have significantly affected the way health education is perceived the mothers. One mothers comment can better elaborate this issue;

> *"Well, basically, it is from the health center. In addition to that, I ask my mother about child care because she is better with experience. You know what I mean. Even though I have a better educational status, she has raised many children, so there are lessons I take from her." (*Participant mother 12, 29 years old, 28/3/2018)
>
> *"I don't use any family planning because I don't think it's very necessary for me. I don't use family planning because of religion." (*Participant mother 12, 29 years old, 28/3/2018)

One health trainer has also indicated that their learning is also affected by religion and culture;

> *"After they are educated, of course they will have the awareness but it doesn't mean their attitude towards everything will change because there is the influence of culture, religion, and economy."* (HSW 2, 42 years old, 27/3/2018)

The effect of several beliefs and culture has also impeded health education and its acceptance. For instance, one worker said;

> *"Yes... but there are many "gurages" around here and they want to have many kids so they most of the time don't like the idea of family planning. We are trying to educate them and avoid this problem."* (HSW 2, 42 years old, 27/3/2018)

4.3 Mother's Access to Health Education

Based on the data that was gathered from mothers and health care workers, it has been found that maternal health care was accessed by mothers from two perspectives;

- Method of delivery and
  - Door to door sessions
  - Health station sessions
  - Televisions, radio and brochures
- Style of delivery
  - Exemplification
  - Story telling
  - Question and answer session
  - Advice and consultancy

As regards the methods, both the workers and the mothers have shown that the most common method of health education was through door to door interaction where health station workers go to the houses of mothers to deliver their services. This method, said the workers, increases the availability of the service irrespective of finances and social circumstances. However, due to the factors we mentioned before such as works, house chores and classes, some mothers were unable to attend this session with the utmost attention.

> *"The health extension workers have to go door to door everyday but honestly they probably do it once a week."* (HSW 4, 33 years old, 27/3/2018)

The second method through which mothers gained access to health care education was by going to health institutions. Here, they said they consult health station workers who then provide them with the desired information as regards maternal and child health. However, this has also been affected by the mothers' preoccupations such as works and house chores. Due to works, classes and housewife activities, the efficacy of this method in delivering the required health knowledge was severely affected said the mothers in participation of this study.

Furthermore mothers go to health stations for several purposes including vaccines and other treatments. One mother said the following;

> *"I go to the station for immunization for my kids and myself before and after giving birth in different length of time. The education helped me to seriously follow up the vaccination at the right time without any delay because I know what the consequence would be."* (Participant mother 10, 31 years old, 29/3/2018)

Other methods included as reported by the mother's televisions broadcasts, radio transmissions and printed brochures. These media have been indicated to be fruitful to mothers because they go beyond time and space limits. They can read brochures at work or listen to the radio while being preoccupied with house works. Some mothers have also indicated that they use the internet to access health information.

> *"Yes I get information from radio and TV sometimes."* (Participant Mother 4, 26 years old, 28/3/2018)

> *"Yes I also listen to radio for example there is this program called "Tenadam" I get many good information on health related issues."* (Participant 16, 32 years old, 31/3/2018)

> *"Yes from the radio"* (Participant 7, 35 years old, 29/3/2018)

As regards the styles of delivery through which the service was conducted, the mothers as well as the workers indicated that there were various ways. The first one is exemplification. In this style the workers indicated that they use several examples to illustrate points made in the health education session with mothers. Mothers have also indicated that this usage of examples in relation to the topics at hand has made the information easily understandable. The workers

achieved this by using examples that relate to the lives of the mothers so that they feel deeply interested and consider the matter to be important.

As regards examples, one mother said the following;

> *"Yes, it is very clear for me they make it easy to understand. They teach us by using examples which makes it unforgettable and they give us broachers that we can refer on at home."* (Participant mother 7, 35 years old, 29/3/2018)

Another style reported by the health care workers was telling specific stories. In these cases, the workers presented specific occurrences to indicate the relevance of a specific health related information to the mothers. This was very crucial in helping mothers get deeper insights into stories that revolve around health issues. They said that when the health station workers used stories that are interesting and relatable to their lives, they felt more enthusiastic and wanted to know more. Hence, the usage of stories in such cases can be proven to be of high significance in facilitating the way mothers gain access to the maternal health education.

One health worker said in this regard;

> *"We give them brochures. I personally tell them my own story; how knowing this helped me; how I and my children are healthy because of the knowledge. Plus, they ask questions if it's not clear for them."* (HSW 1, 32 years old, 27/3/2018)

One mother also claimed

> *"Yes it is easily understandable. And whenever it's not clear, we ask questions and they give us a clear explanation using examples."* (Participant mother 11, 31 years old, 29/3/2018).

The third delivery style which the mothers and the workers reported to be significant was question and answers session. Here, the health station worker asks several insightful questions to which the mothers replied accordingly. Similarly the mothers were given chances to ask their own questions whenever uncertainties arise. This helped build interpersonal bond and a feeling of mutual interest.

"Once a month. In addition to that when I go for vaccination they used to give me some advice and I as well ask questions about health issues." (Participant mother 8, 32 years old, 29/3/2018)

The final style of delivery as indicated by the mothers and health station workers in participation of this study was advices and explanations. Issues related to maternal health were elaborately explained by the workers and several advices were given as desired. Through advices, mothers were told to do or not to do things related to maternal care. Through explanations, they were able to gain deeper insights into health knowledge's.

4.4 Mothers' Application of Health Knowledge

The mothers who participated in the study have indicated that they applied and implemented several maternal health knowledge after health education sessions. These included;

- Breastfeeding
- Nutrition
- Hygiene
- ANC
- Family planning

A. Breastfeeding

The perception of mothers on breastfeeding who participated in this study has significantly changed before and after the health education. Before the health knowledge, the mothers said that their views on breastfeeding were limited and somewhat negligent. However, having been informed of the health benefits of breastfeeding, the mothers said that their outlooks have been changed as they began to implement their health knowledge to feed their babies. Before their knowledge, some mothers said that they used to feed their babies too much of milk powder shakes and too little of breast milk. However after their knowledge about breastfeeding, most of them have responded that they fed their babies with breast milk for at least five to seven months. They also indicated that their decision in this regard has contributed to the improvement of their health as well as their babies.

“As a result of the health education I received I fed the first breast milk which will be produced immediately after delivery which is called “colostrum”. I didn’t do that for my first child because I thought I should avoid that first.” (Participant mother 5, 34 years old, 28/3/2018)

B. Nutrition

The participant mothers have also indicated that nutritional knowledge gained during and after health education has been applied both to their babies and the mothers themselves. To themselves, they have indicated that they have changed their eating patterns during pregnancy as recommended by the health workers. To their babies, they have indicated that upon upbringing they have selected desirable nutritional foods important to the health of their infants and toddler.

One worker indicated that mothers are implementing their knowledge effectively as mentioned below;

> *"We can tell from the health status of their children and the mother herself. For example, if the child has nutrition deficiency or if they keep getting sick, well, that means they are not using their knowledge effectively because, if so, none of these would happen. But we haven't encountered such cases and hence it can be said that mothers are practicing their knowledge."* (HSW 1, 32 years old, 27/3/2018)

A participant mother also indicated that:

> *"Nutrition wise, as they taught us, I feed them different types of food which contain protein and vitamin like Fafa, fruits and the like… As they taught us, I feed them different types of food which contain protein, vitamin like corn flour, cabbage, egg I try to apply all of this."* (Participant mother 2, 33 years old, 28/3/2018)

Another mother also indicated that;

> *“I try my best to give them nutritional food because when you feed them nutrient food to your children, they will become stronger, healthier, and fluffy. As they taught us I feed them different types of food which contain protein, vitamin like corn flour, cabbage, egg I try to apply all of this.”* (Participant mother 4, 26 years old, 28/3/2018)

C. Hygiene

The mothers have also indicated that the way they took care of themselves during pregnancy and their babies after birth was largely affected and improved by the health care knowledge the gained. From a sanitary perspective, they have indicated that they bathe their babies at least twice per day and once themselves during pregnancy. After the health knowledge they gained, mothers have said that their hygiene plans have been improved and thereby the health of the babies as well.

> *"I take good care of my and my children's' hygiene. For instance, whenever I breastfeed them, I always clean my breast with a wet towel, I wash my hands before I make food and I am teaching them to wash hands after using restroom."* (Participant mother 11, 31 years old, 29/3/2018)

Below are some of the responses from the mothers regarding hygiene.

> *"I wash their body; I try to make everything clean. Especially water sanitation is very important for the kids. I use 'whagar' so that my children do not get diarrhea."* (Participant mother 17, 37 years old, 31/3/2018)

D. ANC

The majority of the mothers have also responded that their application of ANC and their attention to it has been changed once they have gained knowledge on the matter. Before the health education, most of them did not consider going to health stations during pregnancy a significant matter. However, after hearing information on the radio and viewing broadcasts on televisions, mothers have repeatedly visited health stations during pregnancy and this awareness has helped them in maintaining a healthy maternal time. This in turn has made mothers to extend their limited visits to almost a routine activity whereby they usually and regularly visit health station. This, they say, has been the result of the knowledge they gained from several health education resources and services.

> *"I can say I have attitudinal change about ANC visit after the education. Before, I was not aware ANC care is more important for kids and mothesr than post natal care visit. Now I know the wellbeing of the mother is the wellbeing of the baby as well."* (Participant mother 1, 32 years old, 28/3/2018)

“Before I took this training, I never knew when to take vaccination unless I hear from people around me. But now, thanks to the trainers, I know exactly when to go for vaccination.” (Participant mother 2, 33 years old, 28/3/2018)

"Yes, because of the training, now I know I have to follow up not only after giving birth. ANC visit is as important as post natal care visit." (Participant mother 3, 39 years old, 28/3/2018)

"I carefully went for ANC visit. I was able to know the status of my baby and mine. Me and my children never missed the vaccination. I used to be immunized while I was pregnant every month for 6 months and after I deliver my child, I carefully have him take the vaccination." (Participant mother 4, 26 years old, 28/3/2018)

E. Family Planning

In terms of family planning, the participant mothers have given the following insights.

“I have learned many things about family planning. I, myself, use family planning which has less side-effect.” (Participant mother 1, 32 years old, 28/3/2018)

“I am planning use family planning from now on because I don’t have a plan to give birth anymore.” (Participant mother 9, 29/3/2018)

“I used to use injection method. But now, I am planning to use a loop because it was the first contraceptive method that made me gain weight, and as I learnt loop is the best of all which has no side effect, that’s why I chose it.” (Participant mother 10, 36 years old, 29/3/2018)

“I gave birth to second child one year after I gave birth to the first one. Now I am already using family planning for the sake of my health and my children’s.” (Participant mother 14, 34 years old, 30/3/2018)

“I know that using family planning is not only useful for the mother, but also for the kids. So I am using one of the contraceptive methods.” (Participant mother 17, 37 years old, 31/3/2018)

Mother's application of their health knowledge can be asserted in different cases. For instance one health station worker said;

> *"It's not like before. The number of kids that gets seriously sick has decreased; number of abortion has decreased because many people use family planning There is only one child death record with in the last five years. So I can say 'yes'. There is no maternal death record with in the last five years."* (HSW 2, 42 years old, 27/3/2018)

CHAPTER FIVE: CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary of Findings

The first part of the analysis presents the results of the contribution of mothers' health education. The health extension workers' replies have indicated that health education has benefited in creating awareness that surpasses cultural and religious beliefs and beyond the economic status of mothers. Most of the participant mothers have also indicated that the maternal health education has changed their views about their family planning perspectives. Improvement of awareness in ANC was also the other change implied by the mothers.

In terms of policy and institutional environment factors that affect maternal health education, while delivery of health education is mentioned by the health extension workers as the only challenge, the usage of medical jargons is found to be the main encounter to the mothers' understanding of the health education. As environmental factors that hinder effective health education, classes, home occupations, and works are identified as obstructions. Social factors such as the belief of having many children, the dependence on family relatives advices and consultancy, culture, religion and economy have been found by the mothers to be co challenging in their effective attendance of health education.

As for the health education access to the mothers, method of delivery (door to door 1sessions, health station sessions, and televisions, radio and brochures) as well as style of

delivery (exemplification, storytelling, question and answer session, and individual advice and consultancy) were used in addressing the mothers' needs of the program. In terms of the application of the health knowledge, according to the participant mothers, breastfeeding, nutrition, hygiene, ANC, and family planning have been applied and implemented by them as a result of maternal health knowledge after the health education sessions

5.2 Conclusions

This study, after and in-depth analysis of the interview data, has concluded several points.

- First of all, maternal health education has contributed to the awareness and knowledge implementation of mothers health education in their lives and this has changed and improved their health as well as their babies. The knowledge they gained has contributed to their awareness as well as to the improvement of their lives from a health perspective.
- Secondly, there had been policy and environmental challenges or factors that hindered the efficacy of health education. The policy related matters involve the style of delivery as regards the usage of languages and it can be concluded that language barriers between professionals and non-professionals affects their communication, thereby affecting the efficiency of the material being imparted. The environmental factors included the social, economic and work related matters that contradict with the way the service is delivered.
- Thirdly, mothers are accessing health education which is being disseminated through several media including TV radio and brochures. Along with these media, several communicative styles that facilitate the delivery are being employed including question and answers, narrating a story, giving examples and the like.
- Lastly, but not least, mothers have also implemented their knowledge in their lives to a considerable degree. They have applied it to breast feeding, nutrition, hygiene and ANC.

5.3 Recommendations

Having considered the relevant findings, the following recommendations were made.

- First of all the practice policy of health care education should reconsider its implementation at institutional level. Since the door to door service only takes place once a week while the policy says it should be conducted on a daily basis. Similarly the use of professional language needs to be considered by policy makers because professional jargons are not likely to be understood by ordinary mothers with poor educational backgrounds. Therefore the method of health education delivery needs to be reconsidered as miscommunication can affect the implementation of the health knowledge that mothers should get.
- Secondly, practitioners in the field of medical sociology and other relevant areas are recommended to conduct further studies in other parts of the nation. Especially rural areas need also be investigated with the same purpose. Since the availability of health education decreases in rural areas, an assessment of its practice should also be considered by professionals in the field.

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APPENDIX I: INTERVIEW QUESTIONS

A- INTERVIEW QUESTIONS FOR MOTHERS

1. Age
2. Educational level
3. Marital status
4. What is your income level?
5. How many children do you have?
6. How old are your children?
7. How long has it been since you start participating in health education?
8. How often do you attend?
9. How often Health Extension Workers come and visit your home and village?
10. What other means do you use to get health related information?
11. Is the health education easy to understand?
12. As a result of the health education you received, what changes did you make in your health seeking practice?
    a. ANC visit
    b. Child immunization
    c. Breast feeding habit
    d. Child nutrition
    e. Hygiene
    f. Family planning

ቃለመጠይቅለእናቶች

1. ዕድሜ?
2. የትምህርትደረጃ?
3. የጋብቻሁኔታ?
4. የገቢመጠን?
5. ያለዎትየልጅብዛት?
6. የልጆችዎእድሜ?
7. በጤናጣቢያየሚሰጠውንትምህርትመከታተልከጀመሩምንያህልጊዜሆነዎት?
8. ትምህርቱንበምንያህልጊዜይከታተለሉ?
9. የጤናባለሙያዎችበምንያህልጊዜወደቤትዎወይምወደአካባቢዎይመጣሉ?
10. ከጤናጋርተያያዥነትያላቸውንአገልገግሎቶችለማግኘትሌላአማራጭይጠቀማሉ?
11. የሚያገኙትየጤናትምህርትለርስዎበሚገባዎትመልኩየቀረበነው?
12. የጤናትምህርቱንበመከታተልዎያመጡትለውጥ?
    12.1. ቋሚየህክምናክትትልማድረግ
    12.2. የልጅዎበሽታየመከላከልአቅም
    12.3. የጡትማጥባትልምድ
    12.4. የህጻናትየተመጣጠነምግብአሰጣጥ
    12.5. ንጽህናአጠባበቅ
    12.6. የቤተሰብምጣኔ

B- INTERVIEW QUESTIONS FOR HSW

1. How often are health educations sessions are held in this health center?
2. How many women do attend these sessions on average?
3. How many health extension workers are available to undertake health education by visiting homes?
4. How often are visits made to homes of expecting mothers and under five children?
5. What adult education methodologies are used to make the health education easily understandable?
6. Do the women show interest and ask questions?
7. What follow up methods are used to find out the effectiveness of health education?
8. Are there changes in knowledge, attitude and practice of mothers as a result of health education?
9. What changes are observed in KAP (knowledge, attitude, practice?
10. What changes are registered in improvements in MCH (mothers and child health)?
11. Was there a reduction in infant (under five) mortality in the geographic area covered by the Health Station, in the past five years?
12. Was there a reduction in maternal mortality in the geographic area covered by the Health Station, in the past five years?
13. Was there a reduction in fertility rate of women in the geographic area covered by the Health Station, in the past five years?
14. Can these changes be attributed to the health education provided by the Health Station and the Health Extension work?

ቃለመጠይቅለጤናባለሙያ

1. በየስንትጊዜነዉየጤናትምህርትየምትሰጡት?
2. ምንያክልሴቶችይሳተፋሉባማካኝ?
3. ምንያክልየጤናኤክስቴንሽንሰራተኞችአሉየቤትለቤትክትትልየሚያደርጉ?
4. ለነፍሰቱርሴቶችእናከ 5 አመትበታችለሆኑህፃናትበየስንትጊዜየቤትለቤትክትትልታደርጋላቹ?
5. ምንአይነትየትምህርትአሰጣጥዘዴነዉየምትጠቀሙትቀለልባለመልኩእንዲረዷቹ?
6. እናቶችለሚሰጣቸዉትምህርትፍላጎትያሳያሉ? ጥያቄስይጠይቃሉ?
7. የጤናትምህርቱተግባርላይመሆኑንእንዴትነዉየምትከታተሉት?
8. በእዉቀት፣አስተሳሰብእናተግባርላይለዉጥአለከትምህርቱበኋላ
9. በእዉቀትአስተሳሰብናተግባርላይለዉጥታይቷል?
10. በእናቶችእናበልጆትጤናላይምንአይነትለዉጥታይቷል?
11. ባለፉትአምስትአመታትዉስጥየህፃናት(ከ 5 አመትበታች) ሞትቀንሷልእዚአካባቢ?
12. ባለፉትአምስትአመታትዉስጥየእናቶችሞትቀንሷልእዚአካባቢ?
13. ባለፉትአምስትአመታትዉስጥየወላድነትምጣኔቀንሷልእዚአካባቢ?
14. ያለዉለዉጥከምትሰጡትየጤናትምህርትጋርይያያዛልብለዉያስባሉ?

APPENDIX II: EXTRACTS

A- EXTRACTS FROM THE MOTHERS

"I really appreciate the support that the government is providing. You can see private health stations they don't give the training plus it's very costly but when you come to government health station they teach us every month and you can get the service with low price."

"They give the training once a month. But sometimes, I can't attend the class because of my work condition."

"Right now, I am not breastfeeding my children because they are old for that. But back then, I breastfed them for three months every 2 hour without any additional food. Although, I should have done that for 6 months, I was not able to do so because I had to get back to work. As a result, after 3 months, my baby had to take additional food."

"Well, basically, it is from the health center. In addition to that, I ask my mother about child care because she is better with experience. You know what I mean. Even though I have a better educational status, she has raised many children, so there are lessons I take from her."

"I don't use any family planning because I don't think it's very necessary for me. I don't use family planning because of religion."

"I go to the station for immunization for my kids and myself before and after giving birth in different length of time. The education helped me to seriously follow up the vaccination at the right time without any delay because I know what the consequence would be."

"Yes, it is very clear for me they make it easy to understand. They teach us by using examples which makes it unforgettable and they give us broachers that we can refer on at home."

"Yes it is easily understandable. And whenever it's not clear, we ask questions and they give us a clear explanation using examples."

"Once a month. In addition to that when I go for vaccination they used to give me some advice and I as well ask questions about health issues."

"Nutrition wise, as they taught us, I feed them different types of food which contain protein and vitamin like Fafa, fruits and the like… As they taught us, I feed them different types of food which contain protein, vitamin like corn flour, cabbage, egg I try to apply all of this."

"I take good care of my and my childrens' hygiene. For instance, whenever I breastfeed them, I always clean my breast with a wet towel, I wash my hands before I make food and I am teaching them to wash hands after using restroom."

"I try my best to give them nutritional food because when you feed them nutrient food to your children, they will become stronger, healthier, and fluffy."

"I wash their body; I try to make everything clean. Especially water sanitation is very important for the kids. I use 'whagar' so that my children do not get diarrhea."

"I can say I have attitudinal change about ANC visit after the education. Before, I was not aware ANC care is more important for kids and mothesr than post natal care visit. Now I know the wellbeing of the mother is the wellbeing of the baby as well."

"Before I took this training, I never knew when to take vaccination unless I hear from people around me. But now, thanks to the trainers, I know exactly when to go for vaccination."

"Yes, because of the training, now I know I have to follow up not only after giving birth. ANC visit is as important as post natal care visit."

"I carefully went for ANC visit. I was able to know the status of my baby and mine. Me and my children never missed the vaccination. I used to be immunized while I was pregnant every month for 6 months and after I deliver my child, I carefully have him take the vaccination."

"I have learned many things about family planning. I, myself, use family planning which has less side-effect."

“I am planning use family planning from now on because I don’t have a plan to give birth anymore.”

“I used to use injection method. But now, I am planning to use a loop because it was the first contraceptive method that made me gain weight, and as I learnt loop is the best of all which has no side effect, that’s why I chose it.”

“I gave birth to second child one year after I gave birth to the first one. Now I am already using family planning for the sake of my health and my children’s.”

“I know that using family planning is not only useful for the mother, but also for the kids. So I am using one of the contraceptive methods.”

B- EXTRACTS FROM THE HEALTH EDUCATION WORKERS

"Of course! The difference is visible before they joined the training and after. And I believe it will get better and better."

"After they are educated, of course they will have the awareness but it doesn't mean their attitude towards everything will change because there is the influence of culture, religion, and economy."

"Yes... but there are many "gurages" around here and they want to have many kids so they most of the time don't like the idea of family planning. We are trying to educate them and avoid this problem."

"They have to go door to door everyday but honestly they probably do it once a week."

"We give them brochures. I personally tell them my own story; how knowing this helped me; how I and my children are healthy because of the knowledge. Plus, they ask questions if it's not clear for them."

"We can tell from the health status of their children and the mother herself. For example, if the child has nutrition deficiency or if they keep getting sick, well, that means they are not using their knowledge effectively because, if so, none of these would happen. But we haven't encountered such cases and hence it can be said that mothers are practicing their knowledge."

"It's not like before. The number of kids that gets seriously sick has decreased; number of abortion has decreased because many people use family planning There is only one child death record with in the last five years. So I can say 'yes'. There is no maternal death record with in the last five years."