

# Factors Affecting Women's Utilization of Prenatal Care Services in Gumuz Community

Dagne Yiradu Almaw

Faculty of Social Sciences, Bahir Dar University, Ethiopia.

**\*Corresponding Author:**

Dagne Yiradu Almaw, Faculty of Social Sciences, Bahir Dar University, Ethiopia.

**Submitted:** 18 Nov 2022; **Accepted:** 13 Dec 2022; **Published:** 21 Dec 2022

**Citation:** Almaw, D. Y. (2022). Factors Affecting Women's Utilization of Prenatal Care Services in Gumuz Community. *J Math Techniques Comput Math*, 1(3), 206-231.

## Abstract

Underutilization of prenatal care services is one of the major hindrances which contribute for poor maternal health situations in Ethiopia. Studies with detailed investigation of factors influencing the prenatal care services especially in those remotely located communities in the country are limited. Therefore, the very purpose of this study was to explore factors affecting women in utilizing antenatal care services in Gumuz community. Moreover, making statistical measures on some identified variables to support the qualitative findings was another purpose. To attain these objectives, the study used Sequential Exploratory Mixed Method design. In-depth interview, focus group discussion, key informant interview and Survey questionnaires were used to gather data, thematic analysis was used for the qualitative data and descriptive, bivariate and multivariate analysis was used for the quantitative data.

The findings showed that lack of knowledge about the services and negative attitude towards prenatal care services were identified as factors affecting women's utilization of prenatal care services. Besides, women's commitment to traditional ways of life, use of Gafias (local Magicians) treatments, using the local food taboo as a treatment and religious influences were identified as socio-cultural factors affecting women in using modern health care services. The results of the bivariate and multivariate analysis supported that knowledge and attitude have associations and significant effect on the service utilization. The study concludes that lack of knowledge, negative attitude, women's commitments to traditional ways of life, Gafias treatments, local food taboo, religious influences, are the major factors affecting Gumuz women in using modern health care services. The finding of this study has important implications for further research, practice and policy and they are indicated in the paper.

## Introduction

### Background of the Study

Prenatal care service is one of the basic components of health services, which contribute to the maternal health care efforts particularly when women are getting into periods of pregnancy. Prenatal care service is the first phase of care service given for a pregnant woman targeting at making a serious follow up on changes in relation to both women's and the fetus's health status. Basically, such follow up is very vital to check whether there is life threatening cases and abnormalities on both the fetus and mother. The purpose is to take timely medical measure or action before such cases are causing women to have pregnant related complications that expose women to serious illness and death [1]. Therefore, to reduce pregnancy related deaths and enhance maternal health conditions, prenatal service utilization is inevitably important.

According to the 2003 WHO report countries with better prenatal

care service utilization experiences have better chance of minimizing maternal deaths and improving maternal health conditions. On the contrary, those countries with low or poor prenatal care service utilization level can have poor maternal health condition and high pregnancy related deaths. In developed countries, the pregnancy related mortality rate is around 5 to 10 per 1000, and the rate in poorer countries is greater than this figure which implies the need for great attention for antenatal care service utilization of such countries.

Some of the reasons associated with low utilization of prenatal care services in most developing countries are inadequate health infrastructures, limited information access about the services and socio-cultural related factors. Grown, Brawnstien and Malhotra point out that socio cultural conditions in which the pregnant women exist can have a serious impact on women's prenatal care service utilization behavior [2]. Socio-cultural factors associated

---

with prenatal care service utilization may encompass traditional ways of life which disfavor pregnant women; isolation of pregnant women right from their labor till delivery, traditional beliefs about modern health care services, societal perception about pregnant women [3].

The 2006 WHO report revealed that there are different international conventions and human right laws clearly put the need for a better attention for maternal health care. This report further points out that especially CEDAW under article (12) clearly stated that there should not be any sort of discrimination based on gender in accessing health facilities. This article further recommends special rights for pregnant women to be treated in the right ways and in areas of good health facilities during the time of prenatal, post-natal and time of delivery. The report concludes that despite these international conventions and laws, the problem is not mitigated especially in the least developed countries. Here, the report asserted that socio-cultural factors such as societal beliefs towards prenatal care services, traditional medication practices and religious influences are the main contributors for the problem to be perpetuated.

According to the 2003 WHO report, pregnancy related death rate is over 728 per 100,000 live births in the country. The reasons behind this figure are lack of information about the services, misconceptions about the services, inequitable distribution of health care infrastructures and the socio-cultural factors play significant role in shaping and influencing the societal attitude and beliefs towards prenatal care Services. Moreover, through the courses of individuals' lives; families, social institutions and the society as a whole contribute their share in shaping their behavior. Therefore, people in the same society tend to have common behavior patterns and ways of thinking [4]. Specially, women's prenatal care service utilization behavior can be affected significantly by these factors either at individual or communal level and the corresponding consequences could have a great magnitude. Again, most African societies are tradition bound societies and practitioners of most socio-cultural practices [5].

A study conducted in one of the districts of Kenya on prenatal care service utilization and associated factors found out that knowledge of pregnant women about the service, negative attitude towards health providers, economic and socio-cultural factors were identified as important factors that affect the utilization of prenatal care services in the district. Among these, economic and socio-cultural factors were the most influencing factors of prenatal care service utilization in that particular area [6].

In addition to those socio-cultural factors, the prenatal care service utilization of women can be affected by other related factors. One of the factors is women's lack of participation in decision making process to use the service. According to Ajaegbu, the major factors contributing for the poor prenatal care service utilization in most African countries are low educational level and limited knowledge about prenatal care services [5]. The report also stated that a wom-

an that is not educated has a great probability to have limited or no knowledge about the benefit of using prenatal care services.

A study by Shemshedin in Harari region indicated that the main reason for non-utilization of prenatal care services in the area was lack of knowledge about the purposes of prenatal care services [7]. The findings showed that out of the total number of non-user respondents, about 35.9% of them gave reason for non-utilization as having no knowhow about the service. Another research undertaken in EphratanaGidim district of Northern Showa of the Amhara regional state indicated that knowledge of the respondents about prenatal care service utilization was identified to be one of the main reasons for non- utilization [8].

Decision making power to use prenatal care service is another factor to influence prenatal care service utilization of women. Whenever women lack to control over their own life or health condition, other family members most often husbands, mother-in law or other family members make decisions whether to use prenatal care services or not. In Pakistan, for example, a study found that two-thirds of women not used prenatal care services because the husbands forbid scientific prenatal care service utilization in their country [9].

A research undertaken by Melkamu found out that any woman in Assaita and Dubti towns needs a husband's permission to visit a health service centers, or must be accompanied, particularly when the husbands are away from home [10]. This tradition can severely limit women's ability to use prenatal care services even in the nearby prenatal care service centers. Findings of another research conducted by Belay in Yirgalem town of the Southern Nations and Nationalities Peoples Region indicated that the decision-making power of women in issues related to health and family planning in the area is over imposed by their husbands [11]. Moreover, this research revealed that in the majority of household cases especially in decision to use prenatal care services, male partners or husbands have a vital role to play than women.

Attitude of women towards prenatal care services can also affect them in using the prenatal care services in their respective localities. According to Stock cited in Melkamu, attitude of women towards prenatal care services also influence their prenatal care service utilization in developing countries [10]. A study undertaken in Wolayita Zone showed that the risk of non-attendance was high for those pregnant women whose attitude towards prenatal care services was negative [12].

However, most of these studies gave a due emphasis on demographic variables and they overlooked other factors which might have a direct or indirect influence on prenatal care service utilization of women. Again, none of these researches explored and looked in detail socio-cultural factors affecting the prenatal care services utilization of women in distinct communities like Gumuz. Hence, exploring in detail those context specific factors affecting

---

women's prenatal care service utilization as well as making statistical tests on measurable variables which are identified in the first phase of this study to generalize about the population is the main focus of this study.

### Statement of the Problem

Various factors can affect women's prenatal care service utilization. However, those factors related to access to information and socio-cultural factors are among the most dominant factors to affect the prenatal care service utilization of women especially in those countries which are weak both in economy as well as technology. This is because these countries have limited capacity to inform or create awareness about the issue and most African countries are under this problem including Ethiopia. Most Ethiopian women have limited or no experiences of utilizing prenatal care services, and their utilization level is much lower than most African countries. As a result, most women in Ethiopia especially rural women are exposed to pregnancy related deaths [13].

Although few existing empirical studies conducted at national level indicated that factors such as knowledge, attitude, women's decision making power and socio-cultural factors are among the main hindering factors for antenatal care service utilization, there are no studies that intended to investigate the influence of such factors on Gumuz women. Studies which tried to explore factors affecting women's prenatal care service utilization are scanty especially in those communities that are remotely located in the country including Gumuz. On top of these, most of the communities in such remote areas of the country have their own distinct socio-cultural manifestations which have not been well studied yet and ultimately need attention and detailed research on such issues.

The researcher from his previous experience in the area observed that Gumuz community consists of socio-cultural practices which are against the modern prenatal care services available in the area. Therefore, this study was intended to explore in-depth such factors that hinder Gumuz women in utilizing the prenatal care services and investigate in detail how these factors affect Gumuz women. This research was also intended to make statistical measures on some variables which are identified in the first phase of this research (through the qualitative approach) to make inferences about the population.

### Objectives of the Study

The general objective of this Research was to study factors affecting Gumuz women in using prenatal care services. This Study has specific Objectives:

- To explore factors affecting women's utilization of prenatal care services including context specific socio-cultural factors.
- To investigate in-depth how such factors, affect women's service utilization
- To measure the association between the identified variables and women's prenatal care service utilization.
- To identify the more determinant factors in affecting

women's prenatal service utilization.

### Research Questions

According to the identified gaps in the previous sections, this study is intended to answer the following research question/s according to the identified gaps in the previous sections

- What are the factors affecting the service utilization of women in the study area?
- What are the contexts specific socio-cultural factors affecting the service utilization of women in the study area?
- How do such factors affect women in that particular context?
- Do these factors have an association with prenatal care service utilization?
- Which factors are more determinants to affect the prenatal care service utilization of Gumuz women?

### Significance of the Study

Sustainable development recommends the involvement of all people in all activities to benefit all. Hence, for this to happen there should be equal and full participation among men and women without any discrimination in all activities. So, local and national development policy makers may use the findings of this study as a source of information to formulate maternal health policies which takes in to consideration challenges from the socio-cultural perspective. Moreover, this study may give a clue for other individual researchers who have interest to undertake studies on similar issues in the area. Again, the recommendations which have been made based on the findings of this study may be used as a mirror for the government or other practitioners to see the situation and design their intervention programs to address the problem.

Finally, since there is limited study made in Gumuz community, this study may have a special significance for non-governmental and civic society organizations which have interest to intervene in maternal health sector. Here, it might provide them with important information to design and implement their short- and long-term projects.

### Delimitations of the Study

Incorporating all woredas of Gumuz Community in this study seems to be uneconomical and can take a considerable time to be accomplished. Hence, taking this and other practical difficulties in to consideration, the researcher tried to limit the research to focus on studying factors affecting women in using prenatal care services in the three selected kebeles of Dibatie woreda namely, Qido, Wobigish and Gesses. Here, the rationale for preferring Dibatie woreda to other woredas is due to the fact that this particular district has kebeles with relatively Gumuz dominant population which is the nucleus of this study, accessible kebeles for transport which can ease mobility to undertake the study. Besides, the researcher has long term working experience with the community and is familiar with the area to conduct this research properly.

The target participants of this study were women with experienc-

es of pregnancy or child birth, under the reproductive age of 18-49 years and who have access to service centers. The researcher prefers this age category to get authentic data as the regional and national family laws state as the minimum age for marriage is 18 years old and biologically most women cease bearing children around the age of 49 years old. Due to the very interest of the researcher to study factors apart from accessibility factors, he selected those women who have access to service centers. Moreover, the researcher included those key informants from different categories to strengthen the findings through interview and focus group discussion.

### Delimitations of the Study

Incorporating all woredas of Gumuz Community in this study seems to be uneconomical and can take a considerable time to be accomplished. Hence, taking this and other practical difficulties in to consideration, the researcher tried to limit the research to focus on studying factors affecting women in using prenatal care services in the three selected kebeles of Dibatie woreda namely, Qido, Wobigish and Gesses. Here, the rationale for preferring Dibatie woreda to other woredas is due to the fact that this particular district has kebeles with relatively Gumuz dominant population which is the nucleus of this study, accessible kebeles for transport which can ease mobility to undertake the study. Besides, the researcher has long term working experience with the community and is familiar with the area to conduct this research properly.

The target participants of this study were women with experiences of pregnancy or child birth, under the reproductive age of 18-49 years and who have access to service centers. The researcher prefers this age category to get authentic data as the regional and national family laws state as the minimum age for marriage is 18 years old and biologically most women cease bearing children around the age of 49 years old. Due to the very interest of the researcher to study factors apart from accessibility factors, he selected those women who have access to service centers. Moreover, the researcher included those key informants from different categories to strengthen the findings through interview and focus group discussion.

### Limitations of the Study

According to Berihun (2004) cited in Meseret (2011), research undertakings were not adequate in Ethiopian peripheries until recently [3]. This fact also applies to particular border land people like Gumuz community about which very little is known. This was the main limitation the researcher has encountered. Specifically, the problem of accessing adequate sources not only on factors affecting the prenatal care service utilization of Gumuz women, but also about the Gumuz community in general. Moreover, the findings of this study may not be representative to all areas inhabited by Gumuz people as the study focused on a specific area due to time and financial constraints. On top of these, language barrier might have its own impact on the reliability of data even though the researcher has tried his best to use translators with great care.

### Operational Definitions of Concepts and Terms

These Terms and concepts are defined and explained contextually to help the readers understand their meanings and concepts in their respective functions.

- Reproductive Age of women: This is the age category from 18 to 49 years which is legally stated in the regional as well as national law as the minimum age for marriage is assumed to be 18 years. Moreover 49 years is a biologically accepted age to cease bearing children, menopause stage (Regional Family law).
- Knowledgeable: refers to a person who has familiarity, awareness or understanding of someone or something [14]. In this study it refers those respondents who tried to answer three and above questions out of the four questions which were constituted to measure knowledge
- Not Knowledgeable: refers to a person who has no familiarity, awareness or understanding of someone or something [14]. In this study it refers those respondents who tried to answer less than three questions out of the four questions which were constituted to measure knowledge.
- Positive Attitude: A person's optimistic perspective towards a specified target and way of saying and doing things [15]. In this study it refers to those respondents who answered all of the two questions which were prepared to measure Attitude
- Negative Attitude: A person's pessimistic perspective towards a specified target and way of saying and doing things [15]. In this study it refers to those respondents who answered one or none of the two questions which were prepared to measure Attitude
- Prenatal Care Service Utilization: refers to the regular medical and nursing care recommended for women during pregnancy [1]. In this study it refers to those respondents who have at least single prenatal care service utilization history in their life.
- Prenatal Care service non-Utilization: In this study it refers to those respondents who have no any prenatal care service utilization history in their life.
- Musa: It is the creator and Savior of the whole life in the traditional religion of Gumuz Community (Community's Definition)
- Gafia: The 'wise' man or women ('Tenkuay') who are assumed to heal and give solution for those people with different problems including pregnant women who need care and treatment in Gumuz Community (Community's Definition)
- Kima: The traditional food prepared from roots and leaves of the local herbs which is mostly recommended for pregnant women to have healthy pregnancy (Community's Definition)
- Bordie: The local alcoholic drink in Gumuz community which is considered both as alcohol and food as the same time (Community's Definition)

### Review of Related Literature

#### Prenatal Care Service Utilization

Pregnancy has three major phases which need a medical follow

---

up and treatment based on scientifically observable changes up on woman and/or her fetus; these are the prenatal, intra partum and postpartum periods. Prenatal care service is a treatment which ought to be given for a pregnant woman in the first phase of her pregnancy that is in the prenatal period. Prenatal care treatment is one of the basic components of public health that contribute for maternal health care. In other words, Prenatal care service is the first phase of care service given for a pregnant woman targeting at making a serious follow up on changes in relation to both women's and the fetus's health status. Basically, such follow up is very vital to check whether there is life threatening cases and abnormalities on both the fetus and mother [16].

The purpose is to take timely medical measure or action before such cases cause women to have pregnant related complications that expose women to serious illness and death. As a social phenomenon prenatal care service is recently incorporated under the general framework of public health issues. This is because the issue of maternal health care is the vital element of public health issues that contributes for the cumulative out comes of social well-being [1].

Therefore, prenatal care service utilization can have different features in accordance with culture, economy, political and social realities across the globe. This is to mean that prenatal care service accessibility, availability and level of utilization vary across cultures, societies, countries, continents, regions and sub regions. This indirectly shows that prenatal care service utilization behavior and opportunity is the direct effect of social, cultural, economic and political realities of that specific society [16]. According to Greer and his friends (2007), cited in Meseret, the prenatal care service utilization level in developing countries is significantly lower than the utilization level in those countries which are more advanced in economy and civilization [3]. International studies on prenatal care service utilization revealed that disparity in terms of utilization of these services among the developing and advanced countries is due to limited health infrastructure and physical barriers to service delivery sites. These studies have said nothing in detail about possible factors which contribute for the creation of this big rift in utilization of prenatal care services among developed and developing countries. However, they roughly estimated that 80% of pregnancy related deaths in developing countries occurred as a result of lack of prenatal care service utilization of women in their localities [3].

The result of a research conducted on prenatal care service utilization of women in one of the developed nations, Kahm district of Japan, only 46.1% of the pregnant women got the prenatal care service and the associated reasons for this poor utilization are no time (93.4%), not necessary (83.8%), feeling embarrassed (74.3%), and living far away from the ANC facility (71.3%). In addition, educational level, income, cost of transportation, cost of service was found to be significant predictors of prenatal care service utilization in this particular district. The research concluded

that educational level, economic status, cost of services in addition to physical inaccessibility and limitation in health infrastructure have a great contribution for the inadequate utilization of the service in that particular area [17].

The 2006 WHO report indicated that the major contributing factors determining the utilization of prenatal care services in developing countries are mentioned to be the socio-demographic characteristics of women, cultural contexts and accessibility of these services. According to that particular report, awareness level of women and their education level also determine their utilization behavior of the service. The report further points out that the prenatal care service utilization level in developing countries is much lower than those of the developed countries as most women in developing countries are less educated, culturally bound and victims of different harmful traditional practices. This is because socio-cultural factors and traditional practices of societies have the power to alter the intention and behavior of women to use prenatal care services in their localities. Due to such and other hindering factors the issue of prenatal care service needs due attention in less developed countries than the developed ones.

According to an article by Ajaegbu (2013), the major factors contributing for the poor prenatal care service utilization in most African countries are expected to be even beyond the above-mentioned factors [5]. This article reported that in a study of maternal mortality in Addis Ababa, women who did not receive prenatal care were often poor, illiterate, and with limited knowledge about prenatal care services. The report also stated that a woman that is not educated has a great probability to be economically poor and not to be aware of the benefit of using prenatal care services and even when the awareness is there, there are some cultural practices that tend to limit the ability of the woman from accessing prenatal care services.

In addition, the use of different health services and medical need is determined not only by the presence of physical disease but also by cultural perception of illness. That is why in most African rural communities, prenatal care services coexist with indigenous health care services; and therefore, women in those communities are forced to choose and use between these two options. The use of modern health care services in such a context is often influenced by individual perceptions of the effectiveness of modern prenatal care services and the religious beliefs of individual woman. Moreover, in many parts of Africa, women's decision-making power is extremely limited, particularly in matters of reproduction and sexuality. In this regard, decisions about prenatal care often made by husbands or other family members [5].

According to the findings mentioned above apart from the economic, educational, and physical and availability factors, in most developing countries, especially in Africa, the socio-cultural factors are very decisive in affecting the utilization of prenatal care services. On top of these, the indigenous care services, which are

---

given by the local community affect women and put them in dilemma as to which services they are going to use for effective care. Ajaegbu recommended that the socio-cultural factors specially the belief and attitude of a particular society to wards prenatal care services need to be identified to intervene for better utilization level [5]. Moreover, the local traditional care services, which have been practiced parallel with the scientific care services, have to be explored according to their contexts. This is because they can be varied across culture, society, nations and even regions.

### **Prenatal Care Service Utilization in Ethiopia**

Different international conventions and human right laws clearly put the need for a better attention for maternal health care. Especially CEDAW under article (12) clearly stated that there should not be any sort of discrimination based on gender in accessing health facilities. This article further recommends special rights for pregnant women to be treated in the right ways and in areas of good health facilities during the time of prenatal, post-natal and time of delivery. The report concludes that despite these international conventions and laws, the problem is not mitigated especially in the least developed countries. In Ethiopia, in terms of pregnant related deaths, it has remained at 676/100,000 which one of the highest among the world [18].

The possible causes that aggravate women's death include shortage of lack of inadequate availability of health infrastructures, cultural norms and societal emotional support bestowed to mothers, distance to functioning health centers and financial barrier were found to be the major causes [13].

Here, the major contributing factors determining women's health status are the socio-cultural factors which mainly determine the health seeking behavior of women. According to EGLDAM, most of the pregnant related problems of Ethiopian women are associated with cultural and religious beliefs, norms, traditions and lack of adequate health care services [4]. According to EGLDAM's assertion, Ethiopian women are suffering from many harmful traditional practices and beliefs which contribute to the poor maternal health conditions. Some of them are, shaking a woman after delivery, food discrimination of pregnant women, massaging the abdomen in labor, drastic measures to enhance expulsion of placenta, isolating and perceiving women unclean during menstruation and child birth etc. are some of the harmful traditional practices conducted against the reproductive health of Ethiopian women.

The lower social position of women which is highly related with the unequal gender power relationship, contributed a lot to the existence of these harmful traditional practices which directly caused ill reproductive health of women. Due to their subordinate socio economic and cultural status, most women in the country do not have alternatives to lead their own life choices except accepting and being part of traditions and practices that are constructed against their reproductive health [4]. The same report also points out that, Ethiopian women's suffering caused by harmful tradition-

al practices is perpetuated by women themselves because it is their only way for survival in an environment where the economic dependency on their husband is their only choice in life.

Some Ethiopian women also face additional disadvantages in health. According to the 2012 UN report, prenatal care service utilization in Ethiopia is found at its infant stage that is the utilization level is so low and most women in the country have been suffering from pregnant related illness and deaths. The health policy of the country is still dependent on the provision of primary health care services. According to this report the pregnancy related deaths in the country is about 590/100,000 live births. This means with in every 100,000 live births, there is 590 maternal deaths are recorded. Again, this same report also indicated that in 2011, out of the total potential pregnant women, only 10 percent of them were attended by skilled health personnel.

The factors behind this lower level of health service utilization particularly prenatal care service mentioned to be poverty, restricted access to health care services due to financial constraints and sociocultural influences. This report indicated that economic and financial constraints together with sociocultural factors restrict women from accessing prenatal care services. The report again pointed out that low level of income for women and less availability of the health service infrastructure are contributing factors for the low level of prenatal care service utilization in the country [19].

The findings of a study on factors affecting prenatal care service utilization in Addis Ababa also revealed that educational status, income and marital status have a strong association with prenatal care service utilization in the particular research site. In this study socio-cultural variables have been overlooked and great attention has been given to those demographic factors such as marital status, income level and educational status of women [20].

Another study undertaken by Gurmessa in Metekel zone of Benishangul Gumuz regional state found that the utilization level of prenatal care services in the area was about 49.8% [21]. This means out of 100 pregnant women in the area, there are about 50 women have at least a single visit in their prenatal period. The determinants factors responsible for this level of utilization mentioned to be low awareness level about the prenatal care service, low maternal education, and non-availability of health infrastructures in the area. However, this study lacked to show additional variables which might have direct impact on the service utilization behavior in the area; including religion, decision making power of women, and socio-cultural factors. Therefore, to better understand the situation of prenatal care service utilization of women under their specific socio-cultural context in Gumuz Community, there is a need for a research to explore factors and identifying variables for further investigation on the issue.

Some of the reasons associated with insignificant utilization of

---

prenatal care services in most developing countries are inadequate health infrastructures, limited information access about the services and socio-cultural related factors. Beyond this, the socio-cultural conditions in which the pregnant women exist can have a serious impact on women's prenatal care service utilization behavior [2].

Sociocultural factors associated with prenatal care service utilization include the belief or perception of women about prenatal care service, the attitudes of the families specially the husband towards prenatal care service, different traditional medication practices to care women in the area and other discriminatory activities due to gender. Grown, Brawnstien and Malhotra further explained that even though different international conventions and human right laws clearly put the need for a better attention for maternal health care. For instance, CEDAW under its article (12) states that "there should not be any sort of discrimination based on gender in accessing and utilizing health facilities [2]. The article further recommends special rights for pregnant women to be treated in right ways and in areas of good health facilities during the time of prenatal, post-natal and time of delivery." However, despite such international conventions and legal frameworks, the problem is not yet mitigated due to such sociocultural factors.

### **Knowledge of Women about Prenatal Care Services**

Concerning the knowledge of women on the prenatal care service utilization there have been studies made in different parts of the country to show their corresponding results. For instance, a study conducted in Assayta and Dubti towns of Afar regional state clearly shown that among the prenatal care service non-users, the majority that is 563(87.7%) reported that they did not know the benefit of prenatal care check-up at all, while 33(5.1%) mentioned its benefit only for the health of the child, and another 16(2.5%) mentioned that it is beneficial for the health of mother only [10].

According to the research result of a study in Harari region, the main reason for non-utilization of prenatal care services in the region was not having enough knowledge about the purposes of prenatal care services. Out of the total number of non-user respondents, about 35.9% of them gave reason for non-utilization as having no knowhow about the service [7]. Another research undertaken in EphratanaGidim district of Northern Showa of the Amhara regional found that out of the 599 study respondents, 382 (63.8%) did not know about pregnancy related risks and prenatal care services [8].

Another study which investigated factors determining the prenatal care service utilization of women in Metekel zone of Benishangul Gumuz regional state revealed that among the 521 non-users, lack of knowledge was mentioned by 268(51.4%) and absence of health problems during pregnancy by 213(40.9%) as reason for not using prenatal care services. This study was also supplemented by the qualitative data and the qualitative data also showed that prenatal care service is not well utilized as expected because the community is not knowledgeable about prenatal care services and

its importance [21].

### **Attitude of women towards Prenatal Care Services**

Attitude of women towards prenatal care services may or may not affect the utilization of prenatal care services. Results of some studies indicated as attitude of women towards prenatal care services significantly affect their prenatal care service utilization where as some others revealed as their attitude had nothing to do with their prenatal care service utilization. For instance, according to Yoshida, Rashid and Yang, attitude of prenatal care services had significant effect on prenatal care service utilization of women in Japan [17]. The result of another study by Melkamu indicated that attitude of women towards prenatal care services in Assaita and Dubti towns had a significant effect on prenatal care service utilization of women in that particular area [10].

On the other hand, the findings of a study by Abiyot in Sheka Zone of SNNPR indicated that attitude of women towards prenatal care services had no significant effect on prenatal care service utilization in Sheka zone [22]. The findings of another research in Amhara regional state also indicated that attitude of women towards prenatal care services had no significant effect on prenatal care service utilization of women in that respective area [23].

Decision making Power of Women in using Prenatal Care Services Decision making power to use prenatal care service is one major factor to influence prenatal care service utilization of women. Whenever women lack to control over their own life or health condition, other family members most often husbands, mother-in-law or other family members make decisions whether to use prenatal care services or not. In Pakistan, for example, a study found that two-thirds of women do not used prenatal care services because the husbands or other family members forbid modern prenatal care service utilization in their country. A research undertaken in Afar regional state found that any rural woman in Afar needs a husband's permission to visit a health service center, particularly when the husbands are away from home. This tradition can severely limit women's ability to use prenatal care services even in the nearby prenatal care service centers [10].

Another research conducted by Belay in Yirgalem town of the Southern Nations and Nationalities Peoples Region indicated that the decision-making power of women in using the prenatal care services in the area is over imposed by their husbands [11]. It revealed that in the majority of household cases especially in decision to use prenatal care services, male partners or husbands have a vital role to play than women. The researcher further explained that the main reason behind the incapability of women in making decisions even on their own health affair could be the imbalance of power relationship between women and men created through the socialization process in the society. In contrast to the above research findings and claims, a study conducted on similar topic in Amhara regional state showed that women's decision-making power did not show significant influence on prenatal care service

---

utilization [23].

Generally, these Studies did not explore in-depth factors that have a direct or indirect influence on prenatal care service utilization of women in their specific areas. Moreover, even though most of them indicated as socio-cultural factors are the determinant factors to affect women in using the prenatal care services, these studies again did not show what these socio-cultural factors are and how they affect women under their contexts. Again, none of these researches explored and looked in detail socio-cultural factors affecting the prenatal care services utilization of women in Gumuz community. Hence, exploring in detail those context specific factors affecting women's prenatal care service utilization is the main focus of this study.

## Research Methods

### Philosophical Assumptions

Before a researcher plans to undertake research, he/she has to be impressed and motivated with the actual problem in the study area. Besides, the researcher has to give due attention for a problem and decided to address this problem in any alternative ways to best address the problem [24]. In light of this, the idea of this study steamed from Pragmatic philosophical assumption, and it is mostly called the pragmatists' world view.

Those individuals who have Pragmatic philosophical view do not see the world as an absolute unity. Hence, this group of people does not accept the idea of one reality and believe that there is a need to check this reality in a certain context as it is influenced by actions, situations and experiences of that particular society. According to the Pragmatists' stand, the overall goal of a research relay on actions, situations, and consequences rather than procedures. In addition, this philosophical assumption or world view, gives a great emphasis to understand the problem rather than methods and there is freedom of choice for methods, strategies and procedures to best address a problem [25].

Therefore, due to the very interest of the researcher to see the situation and reality of the problem in different angles in the new context (Gumuz Community) and his intention to collect the diversified type of data on the issue, this study ultimately takes the pragmatists view to meet the overall and specific objectives.

### Brief Description of the Study Area

Metekel zone is one of the three major administrative zones in Benishangul Gumuz Regional State. It consists of seven woredas and Dibatie woreda is one of these woredas with in this zonal territory. Dibatie Woreda is located at 546 kilometers northwest of the Country's Capital, Addis Ababa. It is also located at 223 kilometers southwest of Bahir Dar on the way to the Great Renaissance Dam of Ethiopia. The neighboring woredas of Dibatie include; Bulen in the west, Yaso in South and South Eastern, the Amhara regional State in north east and Mandura woreda in north (See the Map in Annex-1). The total population of the woreda is estimated

to be 81,976 out of this figure, 39,345 (48 %) are women. The total number of Gumuz people in the woreda is about 23,987 of which 11,347 (47.3%) is women. This woreda consists of twenty-nine kebeles.

Here, the researcher has selected three kebeles namely Wobigish, Gesses and Qiddo out of the twenty-nine kebeles in the woreda purposely as they are consisting of predominantly Gumuz population at which the primary target of the study rests. The rationale for preferring Dibatie woreda to other woredas is due to the fact that this particular district has kebeles with relatively Gumuz dominant population which is the nucleus of this study. Besides, the researcher has long term working experience with the community and he knew the existence of different factors including socio-cultural practices affecting pregnant women in using prenatal care services. Hence, the researcher was also interested in exploring these context specific Practices in this particular area.

### Research Methods

To undertake this particular study, the researcher used the mixed method approach which combines both qualitative and quantitative methods. The rationale for preferring mixed method to other methods to conduct this study is arising from the very nature of the research questions identified in the research. Here, this study consists of research questions that need qualitative exploration and investigation as well as quantitative measurement. As it is explained by Creswell, exploration requires going deep in to people's day to day life, interactions and expression of past experiences that can better be captured through gathering qualitative information [24]. Therefore, to explore deep into participants' opinion about factors influencing prenatal care service utilization in their natural settings qualitative inquiry was used. Moreover, in this study questionnaire was developed to provide broader base to some factors hindering women's utilization of prenatal care services identified qualitatively. To this effect, questionnaire was designed to measure knowledge, attitude and decision-making power of women in using prenatal care services for extra explanation.

As Dawson explained mixed research method is useful in minimizing the weaknesses in either the quantitative or qualitative approach as these methods complement to each other to address the problem in a study [26]. Hence, mixed approach is found to be more preferable for valid and reliable findings. To sum up, the rationale for selecting mixed method for this specific research could be the nature of the research questions which need both qualitative as well as quantitative techniques to address them and its advantage to minimize weaknesses or maximizing validity of data. Due to these reasons, mixed method is much more important and convenient than others to address the research questions of this particular study.

### Research Design

There are a number of designs or strategies under mixed method approach to be used by researchers based on the objectives of their



---

research. To undertake this study, sequential exploratory is found to be a more useful design. This is because the Objectives of this study focus on exploring factors affecting women first and then doing statistical measures among the identified themes to support the qualitative findings. This design consists a qualitative method followed by a quantitative one. First the qualitative method was used to explore factors affecting women's Prenatal Care Services in-depth in the study area. Second, the quantitative method was used to quantify some factors identified through the qualitative approach to make generalization about the population. More emphasis was given to exploration and investigation of factors due to the fact that the study area is expected to have its own distinct socio-cultural influences that need investigation. Hence, this specific study used qualitative methods to explore and investigate factors and the quantitative one to measures some identified variables sequentially.

### Data Sources

There are two major sources for any study to gather data using the more appropriate data gathering instrument, these are primary and secondary sources. The primary data sources are those from which afresh and a first-time data could be available, and thus happen to be original in character. The secondary data sources, on the other hand, contain those data which have already been collected by someone else and which have already been passed through the statistical process [27].

Here, exploration and in-depth study of factors influencing Pregnant Women and making statistical measurements on some identified variables basically need firsthand information. Accordingly, for the realization of the objectives of this study, the researcher gathered information from primary sources such as interviewees, key informants, focused group discussants and Respondents.

### Data gathering Methods and Instruments

As a mixed study, in this typical research there are different kinds of tools employed to gather information from primary sources. Major data gathering methods used to gather information for this particular study were in-depth interview, focused group discussion and questionnaires.

### Interview

In-depth interview was employed in this particular Study to gather detailed information about factors affecting women's prenatal care service utilization. Both semi-structured and unstructured interviews were used to produce views and opinions from women participants. According to Thomas interviews are useful to see different perspectives, attitudes or behaviors about some topics of interest [28]. One of the major advantages of interview according to him is its key role to gather data with minimum time, energy and in a less restrictive as well as less standardized way. Here, key informant interviews were prepared to gather information from those individuals selected as key informants by the researcher on the specific criteria. These key informants were selected based on the

criteria being knowledgeable at least in the topic under discussion and be in continuous relationship with the researcher to exchange information [29].

Hence, three informants were selected; from health extension workers, religious leaders and Dibatie worda health personnel. This is due to the fact that these individuals from different categories could have a diversified knowledge on the issue. Therefore, key informant interview was used in this particular study to gather detailed information about factors hindering women in using prenatal care services and context specific socio-cultural factors through semi structured and unstructured interviews. Here, the purpose of using this interview is to strengthen the findings through interview and focus group discussion.

### Focused Group Discussion

Focused Group Discussion is the second major data gathering method which was employed in this exploratory research. Thomas, Bloor and Robson (2001) explained that focus group discussion gives the researcher a privilege to access group conversations which contain 'indigenous' terms and categories in the identified issues [28]. Moreover, it used to study group norms and group understanding concerning a certain issue.

Practically, the researcher in this study conducted a focus group discussion with Semi-structured and unstructured interview guidelines to get information or group understanding on factors affecting women's prenatal care service utilization particularly context specific socio-cultural factors in the area. However, it is to be expected that deviant experiences will be overlooked. Hence, to get individuals' ideas, attitudes and feelings which are deviated and muted during the focus group discussion, the researcher also used independent in-depth interview.

### Questionnaires

As Gorard explained, Questionnaires are mostly used to generalize about the population from the findings of samples [30]. Considering this, the researcher developed questionnaires with closed ended or structured questions from qualitative findings and gathered information on some factors. In other words, questionnaires were developed and used to gather information on knowledge status of women about the prenatal care services, their attitude towards these services and their decision-making power to use such services.

Here, the rationale for quantifying the three themes out of the total factors identified in the first phase of this study was that these themes are emerged from both the data and literature review and these are easy to compare with findings of studies with same variable elsewhere in the country unlike the rest factors which might be peculiar to other places in the country [14].

### Sampling Techniques

According to Singh, in probability sampling, each member of a

target population has equal chance of being selected and included in the sample whereas in non-probability sampling each member of a target population may not have equal chance of being selected and included in the sample [31]. In this research both probability and non-probability sampling methods were used. Purposive sampling technique was employed to select research participants of the qualitative method. The rationale for selecting purposive sampling technique for this research was that due to the need for personal judgments as to what level these participants are important to meet the objectives of the study.

Here, the inclusion criteria for women interview participants and focus group discussants were; women with experience of pregnancy or child birth and with access to health centers in the age category of 18 to 49 years. The rationales for these inclusion criteria were; in the first-place women in this age category were expected to have experience for pregnancy and birth. In the second case, as it is clearly indicated in the delimitations and problem statement part of this study, the focus was made to explore those factors apart from accessibility. Key informants were selected from different categories expecting that they have a diversified knowledge to deal with the problem and willing to have continuous relationship with the researcher.

To select respondents for the questionnaires, systematic random sampling was used. The rationale for preferring systematic random sampling in this particular research is that the sampling frame of the target participants was well known and the sample size had been determined. Hence, fulfilling such conditions, systematic random sampling is much easier and more cost effective than the rest techniques [26].

### Sampling Size

To gather the necessary data for the qualitative inquiry, a researcher should continue interviewing them until he/she no longer hears or sees new information about the phenomenon from participants. This stage is known as data saturation. Here, after the ninth interviewee the researcher believed that saturation was reached and stopped interviewing another informant. As Dawson's recommendations which justify that the number of group discussants in a group should be 6 to 8 individuals, six (6) women participants were selected to undertake the group discussion [26]. To supplement the findings through interview and focus group discussions three (3) key informants were selected. Totally, 18 research participants were selected to undertake the qualitative part of this study.

On the other hand, to gather quantitative data on some selected variables, the researcher has adopted the statistical consensus for sequential exploratory studies from Heran which recommends selecting 10% of the total target population in the area [32]. Again, Costello and Osborne (2005) indicated that 10% of the total subjects with minimum number of fifty (50) is the advisable sample size in sequential exploratory researches. Accordingly, the researcher selected 60 sample respondents from the sample frame

of 602 women (the total number of women who are living in the three selected kebeles). To distribute these 60 women participants among the three kebeles, the researcher used the proportionate sampling technique formula:

$n = N_i/N * n$ , where;

$n_i$  = Number of women selected from each sampling frame (kebele)

$N_i$  = Sampling frame of each kebele

$N$  = Total sampling frame

$n$  = Total sample size.  $n_i = N_i/N * n$ , from Qido;  $n_i = 250/602 * 60 = 25$  women

$n_i = N_i/N * n$ , from Gesses;  $n_i = 175/602 * 60 = 17$  women

$n_i = N_i/N * n$ , from Wobigish;  $n_i = 177/602 * 60 = 18$  women, total;  $25 + 17 + 18 = 60$

### Sampling Procedures

To access and communicate the participants of this study, the researcher used health extension workers as they are very close to these women. Moreover, these health workers are responsible for creating awareness about prenatal care service and its advantage at each kebele. Therefore, individual women for interview were selected purposely based on the inclusion criteria and women with interest and willingness to share their ideas were given priority. Again, key informants from different categories have been selected by the researcher assuming that they could have a direct or indirect connection and diversified knowledge on the problem.

Lastly, to select questionnaire respondents, a house to house survey was used in each kebele to find and register those women who are eligible according to the inclusion criteria. The criteria included those women with experience of pregnancy or child birth under the reproductive age of 18- 49 years and with access to service centers. Then final selection was made from each kebele using systematic random sampling technique. That was done after selecting a random starting point, every 10th household based on the formula ( $N/n_{th} = 602/60_{th}$ ) was taken. When there was no eligible woman at the specified interval, the nearest household that satisfies the criteria was taken [26]. For those households more than one eligible woman, interview was done by selecting a woman using lottery method.

### Procedures for Data Collection

Prior to any communication with the local administrators and participants of the study, the researcher had got a legal letter of cooperation from Bahir Dar University to facilitate data collection processes. As a first step towards data collection, data collecting instruments were developed. Accordingly, interview and focus group discussion with semi structured and unstructured guiding questions have been developed to gather the necessary data on the issue. In addition to this, selection of translators and data collectors was done to make conditions very convenient for data collection. Here, the researcher together with local individuals recruited 6 (six) female health extension workers as data collectors and translators from Amharic to Gumuzgna and vice versa during

---

data collection process in their respective kebeles. This was done intentionally as these individuals are familiar with Gumuz women to get authentic data.

Completing the recruitment process, the researcher gave orientation on the general purpose of the study and how to collect data to have a common understanding about the study. Having done this, the researcher has made a pilot test on the developed interview and focus group discussion guiding questions using 5 (five) selected women in a nearby kebele (Berber) to check their clarity. The data gathering instruments were modified based on the comments given by the data collectors and the participants in the pretest.

The interview and focus group discussion responses have been put both in the actual responses of the interviewee and in narration form and according to these responses' codes have been established to categorize them into themes. The responses from key informant interviews were gathered at all time in the course of data collection and analysis part of the study. All the data collected in these tools was organized and integrated for analysis to show the actual findings of the qualitative part. Based on the findings of the qualitative method, the researcher designed the structured questionnaire, translated into Amharic and pre-tested and administered it to gather the quantitative data. The qualitative data was gathered for 10 consecutive days (2-11/08/ 2006 E.C) by the researcher supported by translators. On the other hand, the quantitative data was gathered for 8 days (16-23/08/2006 E.C) by trained data collectors who speak the local language and the total data collection took 18 days. Then each filled questionnaire was checked manually for its completeness and clarity. Having done this, each questionnaire had been coded and entered in to SPSS software version.20 for further process.

### **Data Analysis Techniques**

The data gathered using different instruments were recorded as field notes, audio records and filled questionnaires. From these records the data was organized and presented using various types of data presentation mechanisms like tables, percentage compilations and narrations that made ready for analysis. In analyzing the qualitative data, the researcher has created codes for each response and categorized them into themes to better understand the findings. Specifically, thematic analysis has been employed in this particular study to meet the corresponding specific objectives.

On the other hand, the quantitative data analyzed using descriptive, bivariate and multivariate analysis methods. The descriptive analysis used to summarize the characteristics of each variable to support the qualitative findings. Moreover, bivariate analyses were used to compare categories and measure the association of each independent variable with dependent variable. However, a bivariate association between two variables does not necessarily imply a significant causal relationship between them, because in real life situation more than one predictor variables operate to influence the response variable.

Therefore, multivariate analysis had been done. Specifically, Chi-square test has been undertaken to check the association of the identified variables with prenatal care service utilization of women. The researcher prefers Chi-square as the dependent variable or prenatal care service utilization is a dichotomous variable with two options, utilized or not utilized. Again, in this study, Binary Logistic Regression model has been used as it functions for non-parametric tests with categorical variables and due to the dichotomous nature of the dependent variable [33]. Finally, the findings of the quantitative methods were incorporated into themes to draw conclusions and recommendations.

### **Ethical Considerations**

In the first place, the respect for participants is a fundamental ethical consideration of this study and informed consent was obtained before the beginning of the study with each participant. Here, the purpose of the study was properly expressed to the participants as they were given their free consent to participate in the study and they were told that they have the right to withdraw from being interviewed at any time. It is based on this consent participants gave to the researcher; he identified himself and his address to the participants. On the other hand, participants were told that, the information they provided would be used for research purpose only and their name will be kept anonymous and all their names in the research finding will be represented through codes and other techniques.

Moreover, participants were told about procedures to be used in the data collection, the expected impact the research will bring their privacy particularly while they were interviewed and as they have the right to ask questions. Finally, the researcher explained to the participants as the data used for this research will be kept for reasonable time only and will be discarded and assured as it will not fall in to the hands of other researchers.

### **Trustworthiness of the Data**

The trustworthiness or validity of this study was preserved in a number of ways throughout the research process right from the design to the completion of the research activities in the actual research site. In the beginning, pilot test was made on qualitative data gathering instruments before using them to collect the main data and based on the comment found in the area some modifications were made on these instruments. Moreover, to enhance the validity of the study, data source triangulation was done that is cross checking the data through different sources used such as interviewees, focus group discussants and key informants.

Again, in the quantitative part of the study, reliability test has been done to refine questions to best describe the identified variables specifically knowledge and attitude. Accordingly, the cronbach's alpha value for variables in knowledge was about 0.82 and that of attitude was 1.00 (See Table 3 in Annex: 3). Hence, according to George and Mallery, the cronbach's alpha value for knowledge is good and for that of attitude was excellent [34]. In other words,

those questions which are less descriptive were removed and those best described knowledge and attitude were incorporated. Lastly,

statistical tests were made to maximize validity of the findings through those qualitative instruments.

**Results of the Study**

**Table 1: Demographic Characteristics of Interviewee, focus Group Discussants and Key Informants**

<b>Background Characteristics of Interviewees</b>					
Code	Age	Educational Status	Religion	Marital Status	Number of children
1	27	Illiterate	Traditional	Married	
2	34	Only read and write	Traditional	Married	4
3	28	Illiterate	Traditional	Married	3
4	35	Illiterate	Orthodox	Married	5
5	25	Illiterate	Traditional	Separated	1
6	37	Illiterate	Traditional	Married	5
7	31	Only read and write	Traditional	Married	1
8	28	Illiterate	Orthodox	Married	2
9	21	Illiterate	Traditional	Widowed	pregnant
<b>Background Characteristics of Focus Group Discussants</b>					
Code	Age	Educational Status	Religion	Marital Status	Number of children
1	42	Illiterate	Traditional	Married	4
2	32	Illiterate	Traditional	Married	3
3	37	Illiterate	Orthodox	Separated	5
4	29	Illiterate	Traditional	Married	3
5	39	Illiterate	Traditional	Married	5
6	23	Only read and write	Traditional	Married	2
<b>Background Characteristics of Key Informants</b>					
Code	Sex	Age	Educational Status	Religion	Marital Status
1	M	39	College Diploma	Orthodox	Married
2	M	57	Illiterate	Traditional	Married
3	F	45	Only read and write	Traditional	Married

Source: Interview Results of this Study

The background information of the participants of the interview, focus group discussion and key informant interview was registered and according to this profile, all of the participants of the interview fall between the age range of 21 and 37 years old and when we see the educational status of these participants, two of them can only read and write and seven of them were illiterate. Seven of the participants of the interview were traditional religion followers and the remaining two were Orthodox Christians. Seven of them were married followed by one separated and a widowed woman.

On the other hand, the back-ground characteristics of the group discussants indicated that all of them fall between the age of 23

and 42 years and five of them were traditional religion followers and only one woman was Orthodox Christian. Again, five of the focus group discussants were illiterates and only a woman can read and write. In addition, five of them were married and one woman was separated. Lastly, the key informants fall between the age of 39 and 57 years and one of them was with college diploma, another one can read and write and the last informant is illiterate. Again, two of the informants were traditional religion followers and one was Orthodox Christian and all of the three informants were married.

**Table 2: Demographic Characteristics of Survey Respondents**

Variables	Frequency	Percentage/%/
Maternal Age		
18-25	18	30
26-33	17	28.3
34-41	16	26.7
42-49	9	15
<b>Total</b>	<b>60</b>	<b>100</b>
Maternal Education		
Illiterate	45	75
Only read and write	11	18.3
Elementary	3	5
Secondary and above	1	1.7
<b>Total</b>	<b>60</b>	<b>100</b>
Religion		
Orthodox	10	16.7
Catholic	8	13.3
Protestant	1	1.7
Traditional	41	68.3
<b>Total</b>	<b>60</b>	<b>100</b>
Marital Status		
Married	50	83.3
Separated	6	10
Widowed	3	5
Never Married	1	1.7
<b>Total</b>	<b>60</b>	<b>100</b>

Source: Survey Result of this Study

Questionnaires were distributed and filled by sixty (60) respondents selected proportionately from the three target kebeles in the woreda. Accordingly, 30% of them were found under the age group of 18-25 years and most of the respondents are said to be illiterates as they constitute about 75% of the total number of respondents. Moreover, most of the respondents (68.3%) are followers of the local traditional religion in the area and 83.3% of the respondents were married (See Table 2 for detail).

The data gathered on factors affecting women's utilization of prenatal care services in Gumuz community was organized and analyzed. At the beginning, codes were given to interview and focus group discussion participants to know who said what and arrange the responses accordingly. The data gathered through interview and focus group discussion was put in the form of field notes and tape records. Then reading these notes and hearing the audio records repeatedly, the actual responses or quotes of the interviewees and discussants were arranged in categories according to their similarity to form some pattern.

Again, these categories were further generalized based on their sense or descriptions to form what we call themes. Therefore, Knowledge, attitude of women towards prenatal care and their decision-making power in using prenatal care services were emerged out of both the data of this study and the literature review. On the other hand, women's commitments to traditional ways of life, treatment of 'Gafia' as an option to care pregnant women, food taboo as a means for treatment and the religious influences were emerged out of the data of the study.

#### **Knowledge of Women about Prenatal Care Services**

The participants of the interview described their view about their knowledge concerning prenatal care services during the interview. Accordingly, with the exception of two interviewees who described as they have knowhow about prenatal care services, even though they could not use the service, the remaining seven told to the researcher as they do not have knowledge about it. Moreover, these seven interviewees justified that since they did not have any experience and knowledge about the prenatal care services so far, they tend not to use these services.

Even there was a woman who had never heard of the term itself. A woman of 37 years old expressed her ignorance about prenatal care services as follows:

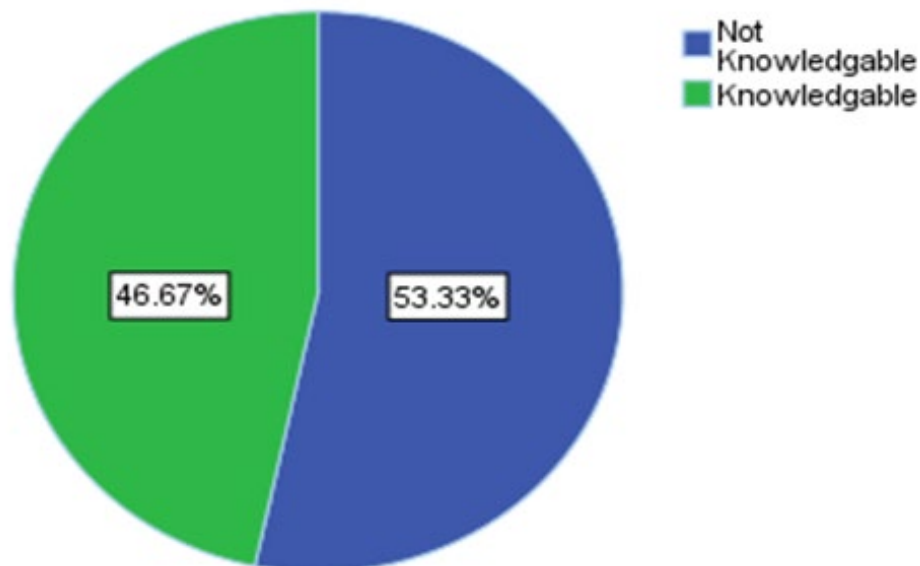
I am not educated, and an illiterate person like me always needs information and message from those who have better understanding on the issue. However, getting such information is not an easy task for a woman with family responsibilities like me. Therefore, due to my ignorance about the prenatal care services given and their corresponding benefits, still, I have not used the service and I gave birth to all of the five children without attending prenatal care services. If I were educated I would be able to differentiate the good from bad and I could be knowledgeable about the services which benefit me.

The major obstacle that stands in her way to use the prenatal care service was her ignorance about the prenatal care services as she has no opportunity for such information due to her family responsibilities. Again, from her speech the researcher recognized that she needs awareness and knowledge about the services even though she is unable to acquire it.

The result of the focus group discussion also showed that most of the Gumuz women have no basic knowledge about prenatal care services particularly its benefit for themselves and their fetus. All of the group members agreed that they are non-users of the prenatal care services as they have inadequate knowledge about these services. The key informants also told to the researcher as most of the Gumuz women are ignorant about the modern prenatal care services given in the health institutions and as a result most of them are reluctant to use the service on their own will.

The result of the descriptive statistical analysis showed that from the total respondents of this study, 53.33% of them had been recognized as not knowledgeable about the prenatal care services and the remaining 46.67% were identified as knowledgeable. Moreover, the result of the bivariate analysis indicated that out of the total respondents of 34 women who were non-users of the service, 28 (82.3%) were recognized as not knowledgeable about the services.

### Knowledge of Participants about Prenatal care Services



**Chart 1:** Knowledge Status of Respondents about Prenatal Care Service  
**Source:** Survey Result of this Study

Again, the Chi-square test result revealed that there was an association between the prenatal care service utilization and the knowledge of women about these services with chi-square of 26.548 and  $p=0.000$  ( $<0.05$  which is significant). On the other hand, the result of the multivariate analysis through binary logistic regression showed that knowledge of respondents about prenatal care services was significantly affect the prenatal care services utilization of women in Gumuz Community with  $OR=.131$ ,  $P=.021$  and

$CI=0.023 - 0.737$ (See Table 4 & 5 in Annex 3). Here, respondents who were not knowledgeable about prenatal care services had less likely to use the service compared with those who were knowledgeable about prenatal care services by the factor of 0.13. In other words, respondents who were knowledgeable about prenatal care services had more likely to use the service compared to those not knowledgeable about prenatal care services by the factor of 0.13.

---

To sum up, Gumuz women have no adequate knowledge about prenatal care services provided in health institutions. The key informants explained the reasons for their ignorance as inadequacy of formal educational centers in the area, the mobile nature of the community members, which is inconvenient to give information properly and their resistance to know about the service due to cultural factors. Hence, lack of adequate knowledge about the modern prenatal care services can cause Gumuz women to have lower expectation about these services and this indirectly affects them not to use the services.

#### **Attitude of women towards Prenatal Care Services**

According to the result from the interview, three of the interview participants described as these prenatal care services have a great importance for their health. The remaining six of them believe that the modern prenatal care services available in different health institutions are not that much important for them. This is because they assume that these prenatal care services cannot be effective as those traditional treatments given to them locally. Two of these six interviewees believed even these services could create problems on them. Moreover, they believe that the service providers in these modern prenatal care services are not caring and cannot keep the secret during their checkup. One of the interview participants with 21 years old described her own attitude towards prenatal care services with big intonation like this:

I remember my neighbor who passed away as a result of the treatment given in our kebele's health post. If she had been used the traditional treatments given by the local relatives and healers, she would have been alive. That was happened merely because these services are not helpful rather caused her to lose her life, from that event on, I do not believe those services given in our local health posts. Now I have been using the traditional treatment given by my relatives to care me since the last three months of my pregnancy. I have also friends of mine who were using traditional care givers during their pregnancy and gave birth without any problem during their delivery.

From the above description one can easily see how she had been misled by taking a single incidence on an individual who might have other reasons for her death in the health institution and this incidence has impacted this woman to have a negative attitude towards prenatal care service utilization in her locality.

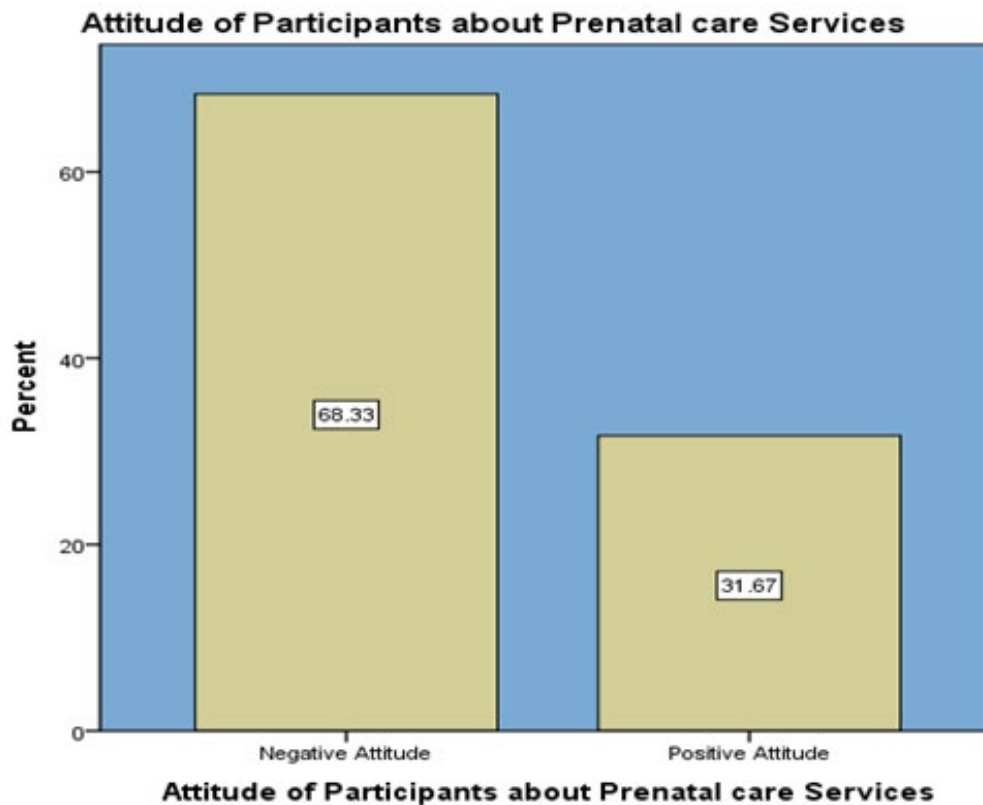
Another women interviewee with 34 years old also told the researcher her attitude towards the prenatal care services as follows: I do believe on the effectiveness of the services in the health institutions and I have decided to use the service in the next pregnancy. However, what still exists in my mind is that those service providers in those health institutions may not treat me as those traditional care givers in our localities. This is because the traditional care givers are usually my relatives and elderly individuals who can understand and keep my secretes. Due to this, I will not be shy of them to show my nude body to them but prenatal care service givers in health posts are strangers for me and they are mostly out of Gumuz ethnic group and I feel that these individuals might harm me.

The above explanation indicated also that even though the woman is in a position to use the prenatal care services knowing its advantage for her, the expectation she has about the individuals who are care service providers influences to have negative attitude towards prenatal care services.

The result of the focus group discussion also supported the findings through the interview and four of the focus group discussants explained as they do not need to use the service and their reason for this was their mistrust on the service compared with what they get from the traditional community. However, there were two individual group discussion participants who reflected their own view in contrary to the majority of the discussants. According to these later individuals, they have experience of using the prenatal care services and they will continue to use them as they have positive attitude recognizing its benefit for their health as well as their fetus.

Key informants also informed the researcher that most of the Gumuz women have no interest to use the prenatal care services in their localities this is due to the negative attitude they have towards the service without any scientifically justifiable evidence.

The quantitative part of the study through descriptive statistics indicated that out of the total number of respondents, 68.33% of them were having a negative attitude towards the prenatal care services and the remaining 31.67% were reported as they have a positive attitude towards the prenatal care services.



**Chart 2:** Attitude of respondents towards prenatal care services

The result of the bivariate analysis also showed that out of the total number of non-utilizers (34 women respondents), 32 (94.1%) of them were with negative attitude. Moreover, the chi-square test revealed that there was an association between the prenatal care service utilization and attitude of Gumuz women towards prenatal care services with chi-square of 24.106  $p=0.000$  ( $<0.05$  which is a significant value).

The result of the multivariate analysis through binary logistic regression revealed that attitude of the respondents towards prenatal care services had a significant effect on the prenatal care service utilization of Gumuz women in the particular area with  $OR=0.118$ ,  $p=0.047$  ( $<0.05$  which is significant) and  $CI=0.014 - 0.969$  (see Table 4 & 5). Here, respondents who have negative attitude towards prenatal care services had less likely to use the service compared with those who have positive attitude towards prenatal care services by the factor of 0.13. In other words, respondents who have positive attitude towards prenatal care services had more likely to use the service compared to those respondents with negative attitude towards prenatal care services by the factor of 0.13.

Generally, most Gumuz women have a negative attitude towards prenatal care services given in different health institutions and the reason for this is the societal belief towards these services that perpetuates for centuries and even more than that in the community. This negative attitude of women due to traditional influences may

urge women to stay at home without any prenatal care service utilization as they thought these services are irrelevant and unsafe for them.

**Decision Making Power of Women to use Prenatal Care Services**  
 The result of the interview indicated that except a woman interviewee who described as she has a freedom to use the services, eight interviewees of this particular study described as they have no any say about their own reproductive health. Especially about whether to use prenatal care services or not. According to these interviewees, most often the husband is with full power to permit them to use the prenatal care services and usually, their husbands are not volunteering to allow them to use the services rather they give priority to family care. A 31 years married Gumuz woman interviewee explained how much she is voiceless in making decisions to use prenatal care services in the nearby health posts as follows:

In my first pregnancy, I had been told to use the prenatal care services from the nearby health post by the kebele health extension workers. I had also decided to use the service as they told me all the advantages of the services as well as the fetus. However, when I told to my husband he disagreed with the new idea that I got from the health extension workers in the kebele. I tried to convince him to allow me to use the prenatal care services but at the end of the day he warned and even started beating me with silly things as revenge to my request to go to use the prenatal care services in my



---

local health center. As a result of this, I gave birth without being attended by health professionals even though I had an interest to use it. Now, I am a four-month pregnant woman conceiving for the second time and still my husband is not willing to send me to the health post to get the prenatal care services and I cannot predict what will happen to my health as well as the unborn baby.

From the above descriptions, it is possible to see that the woman even with information and knowledge about the prenatal care service utilization is not in a position to use the service as she failed to make self-decisions on whether to use these services or not. Another married woman interviewee with 28 years old described the situation of her decision-making power in using the prenatal care services in a big cadence like this:

I gave birth to three children; in my first pregnancy I had no information about the availability of prenatal care services and their benefit for my health. However, when I conceived for the second time, my friend in my village told me all about prenatal care services and she pushed me to use the service together with her. Despite this, my husband told me as I could not go there to get the service as the service needs the woman to be nude and touched by health professionals and he stressed as he will never allow me to be seen nude by other individuals other than him. Therefore, fearing his strong and last warning, I had never used the prenatal services even though I knew what it means and whom it benefits for.

From this second woman's story, it is also possible to understand that the woman with information and knowledge about the prenatal care service utilization is not in a position to use the service as she has been under full control of her husband who is in sexual jealousy to send her to health centers to get the services.

The result of the focused group discussion also supported the findings through the interview and four of the group members agreed that most Gumuz women have no full authority to decide on their own utilization of prenatal care services and they are under their husbands' and other individuals' will to use it or not. These individuals described that their dependency on their husband and other individuals to decide on their own reproductive health has been adopted from the tradition of the community that has been perpetuated for a long period of time. However, there were two discussants who disagreed with the above group consensus and according to these individuals they have full power to decide on whatever issues including the utilization of prenatal care services in the area. These later individuals agreed that even though the majority of Gumuz women lacking decision making power, there are some women like them who have power in decisions related to prenatal care service utilization.

Key informants also gave their view on Gumuz women's decision-making power to use the prenatal care services in their areas. According to them, almost all of the pregnant women in Gumuz community are not free to decide by themselves to use the service rather they are under the decision of their husbands, their father/mother in-laws and husband relatives.

One key informant described the situation as follows:

I have been growing in the area since my teen age and working as a health staff in the woreda health office for the last seven years. I knew the tradition of the community very well and women are not self-decision makers in almost every activity including the decision in relation to their reproductive health particularly the prenatal care service utilization. For this reason, most Gumuz women need their husbands' consent to use the available services in the nearby health posts. As a matter of chance, most Gumuz husbands are reluctant to permit their wives to health institutions to get the services and the justification they always give is that their wives' body should not be seen and touched by other individuals specially by those as they call them "whites" (non-Gumuz Community members).

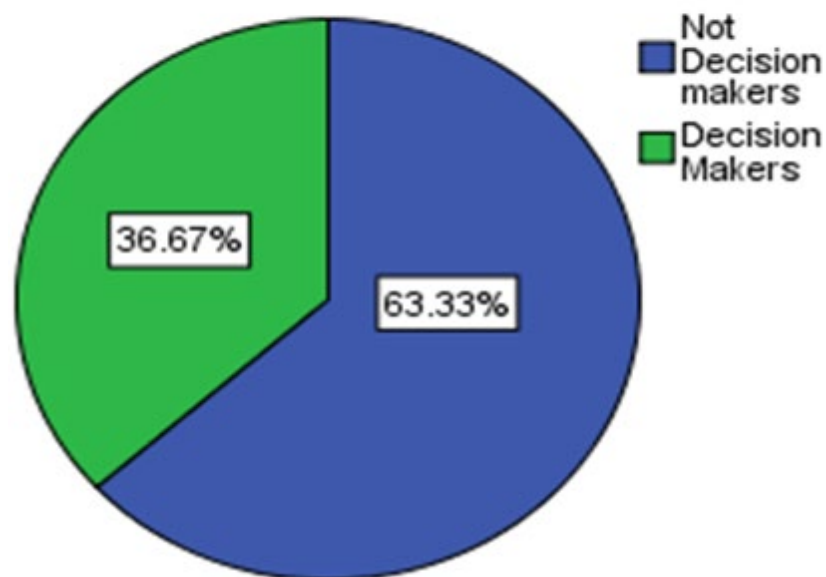
He further elaborated how Gumuz women are voiceless not only in maternal health issues but also in other social matters in the community as follows:

Even in those social affairs, women are given less weight and major social decisions like marriage agreements and conflict resolution steps are mostly done by husbands. Women have no room for deciding except accepting their husbands' decisions. In my opinion, Gumuz women have been subordinated and even muted to say something about their own health care choices and service utilization due to the tradition of the community which gives lower social status for them as compared with men.

His explanation clearly shows that in Gumuz community women have relatively lower participation in decision making to use the prenatal care services and their husbands take the lead to decide on issues specially to use the prenatal care services in their respective areas.

The result of the quantitative study through the descriptive statistics shows that out of the total number of respondents (60), only 22 (36.7%) of them reported as they have power to decide on using the prenatal care services and the remaining 38 (63.3%) of the respondents have no any say on their own prenatal care service utilization.

## Decision Making Power of Women



**Chart 3:** Decision Making Power of Respondents to use the Prenatal Care Services

**Source:** Survey Result of this Study

The result of the bivariate analysis showed that out of the total number of non-utilizers (34 women respondents), 22 (64.7%) were women with non-decision-making power to use the prenatal care services. On the other hand, the Chi-square test indicated that there was an association between the Prenatal Care Service utilization of women and their decision-making power with Chi-square=14.064,  $p=0.014$  ( $<0.05$  which is significant). Despite this, the result of the multivariate analysis through binary logistic regression showed that the decision-making power of women had no significant effect on the prenatal care service utilization with OR =.524,  $p=.606$  ( $>0.05$  which is not significant).

From the above findings, it is possible to infer that even though the Binary logistic regression test results showed as decision making power of women had no significant effect on prenatal care services, the qualitative, the descriptive statistics, the cross tab and the Chi-square test results indicated that decision making power had a considerable influence on women in using the prenatal care services. In other words, women's prenatal care service utilization in Gumuz Community is highly influenced by lack of decision-making power of women to use the service in the area. Here, it is husbands or other individuals not women who authorized to give permission for women to use or not to use the prenatal care services.

### Socio-cultural Factors

#### Women's Commitments to the Traditional Ways of Life

Based on the interview result, all of the nine women interview par-

ticipants described that it is their mothers and other elderly women who taught them the tradition to stay at their homes without any prenatal checkup. Since the society expects them to act in accordance with the tradition, they are committed to fulfill the traditional way of getting treatments during pregnancy. Participants also described that if they do not act in accordance with the stated way of tradition, they will be exposed to insults and stigmatization from both elderly men and women. Even their husbands would tell and insult them as if they are not good wives and mothers of their own children. A 27 years old woman described in her own words how the community's traditional expectations affect her as follows:

In fact, I had been told about prenatal care services and their advantages by the health extension workers in my kebele. However, I had never used them fearing that the women around me could insult and criticize me of doing this new thing which is external to the community as a whole. Specially, my mother always reminds me to act like her as she was in her reproductive age and if I go there for modern treatment, she would threaten me as I will be out casted and will not be considered as 'real' mother. This is because our community accepts those mothers as 'real' mothers if and only if they are in the right track as the community's norm prescribes and stayed without any prenatal check up till their delivery. Therefore, in order not to lose this title of 'real mother', I preferred not to use the prenatal care services and maintain the norm of giving birth in isolation in accord with the cultural norm.

From her expression it is possible to understand that only for the sake of maintaining her title of 'real motherhood' in the communi-

---

ty and fearing that the gossip from her peers and neighbors could come to her, she preferred not to use prenatal care services available in the area. The result from focus group discussion supported this interview result and five of the group members agreed that there are the community's traditional expectations in the area. On the contrary, one focus group discussant disagreed with the group consensus. She described her own feeling as the traditional expectations have no power on her as far as her family responsibility allows her to go to health centers to get the services. According to this woman, lack of time due to family responsibility is the main factor that urged her not to use these services. The former discussants described that because of these societal norms and expectations, participants were forced to abstain from using the services in the area. Again, the finding from the key informants supported these findings.

Generally, the existence of the traditional ways of life in Gumuz community and the corresponding commitments to fulfill them by the local women can be considered as an obstacle standing in Gumuz women's way to use the prenatal care services in the area. This is because most Gumuz women are under these community impositions to use the services and it is one of the possible factors affecting women in using the prenatal care services in the target area.

**The Treatment of 'Gafia' as an Option to Care Pregnant Women**  
In Gumuz community the tradition of using Gafia ('Tenkuay') is common and the community members believe as these individuals are with special power to know what is hidden and abstract from normal sight. Due to this reason, the Gafias are influential and they can impose whatever they thought on the believers. In this particular community, Gumuz women are mostly using female Gafias to treat themselves when they are pregnant and the Gafia will order pregnant women to do something and they will be obliged to perform according to the instructions to get the treatment. A 34 years old interviewee recalled her first visit to 'Gafia' and described how she did that in her own words as:

I am a mother of four children and I used the treatment given by the Gafia four times and I did not face any problem. If I had not done that, I would not have been normal as you observe me and all of my children would not have been healthy. During my first visit, she (the Gafia) ordered me to bring a Capon as well as 'Bordie' (local drink in Gumuz community) which is produced by my own hands and I did bring that to her for the second day. Again, she gave me an appointment to get back after three days and on that specific date, the Gafia had rotated and rubbed the Capon around and with my abdomen thinking that the fetus will be healthy and very vital for his community. She was also told me that the action was also a sign of confirmation for removal of all forms of evil power and abnormality from me. Doing that, she gave me back the Capon to slaughter and eat immediately after delivery confirming that until then all pains will be accumulated on it at the expense of my abnormality as well as the fetus. Then I get back to my home and as she told me I did feel good and from that time on, I used

such treatments repeatedly whenever pregnancy comes.

Her description clearly shows how the local Gafias are influential to divert the attention of Gumuz women from using the modern prenatal care services towards themselves. Moreover, three of the interviewees described that the existence of Gafias' treatments 'helped' them not to go to health centers where their privacy is not kept safe. These interviewees stressed that in these traditional care treatments, the care givers are usually their relatives and neighbors who can keep their secrets as a result they can get freedom without being stressed. A 28 years old woman interview participant also described how she preferred the Gafias' treatments in her area as follows:

I gave birth for two children and during my period of pregnancy, I used the treatments given by female Gafia. During those periods, the Gafia had given me the treatment in both of my pregnancies till my labor. When I felt pain, she brought some herbal medicine and put it in my abdominal area and after a while the pain was removed. Moreover, my mother in-law had also told me as that treatment could give me a child who is useful for his families as well as the whole community.

From this description, it is possible to understand that the traditional thinking about the treatments given by Gafias to determine the health of mothers as well as the fate of the children to be born encouraged her to use these treatments at the expense of modern prenatal care services. Another woman participant with age of 35 years old also shared her idea about the treatments given by Gafias in the area and told that most of the time the Gafias preached us to use their treatments. According to her, some of these treatments are given whenever there is a pain felt by the pregnant women and until then the pregnant women cannot get any treatment. This woman further explained her experience of using these treatments as follows:

Now, I am a mother of five children and I used the Gafias' traditional treatments during my pregnancy for the first two children. When I was pregnant to give birth for the third child, I faced something new. As I had done before, I was waiting for the pain that felt me to inform for the Gafia to get treatment and the pain that I felt was the pain to start labor. Seeing this, my family isolated me for traditional delivery without getting the treatment and I was suffered a lot there and at the end people from abroad observed and took me to the nearby health center to save my life. From that time on, I started to use the prenatal care service since my pregnancy and giving birth to the last two children.

From the above description it is possible to see how her reliance on the Gafias' treatment caused her life to be in commas without exposing herself to any human and professional assistance. Again, seven of these interviewees told to the researcher as they are users of Gafia treatments and two of them use Gafia as an option to modern prenatal care services.

The result from the focus group discussion also confirmed as the

local Gafias give treatment not only for the pregnant women but also for every individual with different diseases in the community. In addition, except two group discussants who expressed their feeling as they do not want to go to Gafias houses for treatment, the remaining four focus group discussants described that they are using these treatments. These later individuals further described that to get the treatment during their pregnancy, they usually prefer female Gafias. This is because they thought that these individuals can keep them secret when they approach them in nude during the treatment. Moreover, they thought that these female Gafias are older in age and same sex to care them properly. The result from the focus group discussion revealed that the type of treatment given by the Gafia for pregnant women varies with the economic status of women to pay for the treatment.

The key informant from the village leader further described as the local Gafias use different magical treatments and when pregnant women come to them, they use even continuous magical ceremonies to treat them. However, these acts are mostly done with secrets fearing that their medicine could lose its healing power as many people see and talk about the medicine. Hence, women would be in dilemma whether to use the modern prenatal care services or the Gafias' treatments. In summary, from the above findings it is possible to deduce that the existence of local treatments given by Gafias in the area can affect women's prenatal care service utilization.

### **Food Taboo as a Means for Treatment**

In Gumuz community pregnant women are discriminated from some kind of food stuffs to care both the health of the fetus as well as the mother. Findings from the in-depth interviews revealed that pregnant Gumuz women are not allowed to eat food stuffs such as meat, eggs and other foods. The assumption behind such food taboo is that if pregnant Gumuz women eat meat, egg and others, they will get sick, their body especially their arms and legs will be injured. It is also culturally believed that if pregnant women eat meat and eggs, they will be in problem and they will not be able to give birth to a normal child. All of the nine interview participants told to the researcher as they knew about the traditional food taboo to give treatment for pregnant women in the area. Two of these participants described as they knew about the traditional food taboo. However, these two individuals told to the researcher as they do not have experience on this treatment. The remaining seven of these interview participants described as they have experience on the treatment.

A 25 years old woman interviewee also explained in her own words how she used the local food taboo to treat herself during her pregnancy as:

My child now is a two years old child and when I was pregnant I used the traditional food taboo to care and treat myself. In the beginning, my relative had told me to follow this traditional feeding habit for the safety of the fetus as well as my health and she had told me that if I eat meat, egg and other nutritious foods, the child and even me will be turned white in color which is un acceptable

in the community losing our original identity. On the other hand, she told me that if I eat the locally recommended food for pregnant women, I will give birth with no problem and the child will not lose his identity. Therefore, in order to give birth without a problem and in order not to cause my child lose its identity, I used the traditional food taboo.

From her explanation it is possible to understand clearly that the woman used the traditional food taboo in order to keep herself healthy and maintain the original identity of her unborn child. Moreover, it is possible to see how the justification given to the traditional food taboo motivated her to use this treatment rather than the modern prenatal care services in her area.

The result of the focus group discussion also supported the interview result and all of the focus group described that Gumuz women are not allowed to eat meat, egg and other foods. They believe that these food stuffs could create problem on the health and identity of both the fetus and the mother. One focus group discussant told the researcher as she never used this traditional food taboo to treat herself. However, five out of the six focus group discussants described as they have experience on using the traditional food taboo as a treatment. All of the three key informants told to the researcher that those food stuffs which are not recommended by the community, thought to be dangerous for the health of pregnant women and the child's identity. In addition, all of these key informants described as local herbs specially roots and leaves are highly recommended food stuffs to treat the pregnant women in the area.

According to these informants, the recommended local food stuff in the area are what they call 'Kima' (a traditional food prepared from the roots and leaves of the local herbs). Therefore, 'Kima' is the highly recommended food with some porridge made from sorghum flour. The key informants also described that most women who would be willing to use this food believed to have a healthy pregnancy. Hence, they are advised not to go to the modern prenatal care services to get the service.

In conclusion, from the above findings it is possible to say that the traditional food taboo to treat pregnant women could affect the prenatal care service utilization of Gumuz women. This is because most of them are users of this traditional treatment during their pregnancy rather than going to the health centers for modern prenatal care services.

### **Religious Influences (Fear of the anger of Musa)**

As the interviewees of this study told to the researcher, in Gumuz community, there are religious commandments that order a Gumuz woman to focus on her normal duty until her labour begins. If she feels sick she has to go to the house of the elder people usually the religious leaders to make ritual ceremony to care both the health of the fetus and the mother. If she refuses to do so and intends to go to modern health centers, Musa (the Creator and savior according

---

to Gumuz community) will be angry and he will punish her as well as her family as a whole. The result of the interview revealed that with the exception of two interviewees who have no experience in this religious belief, the remaining seven interview participants described as they have experiences. They further expressed as they believe in Musa and are obedient for his commandments according to this particular community.

A 37 years old woman justified how the commandments of Musa contradict with modern prenatal care services utilization interest as follows:

Since the treatment given in health centers is external to my ancestors' tradition and what Musa commands me, mostly I have no interest to use the prenatal care services fearing that my child could be died and the family could be dismissed as a result of Musa's anger. I believe that Musa can be my savior if and only if I do not be touched and exposed my body to external people except my husband. In addition, Musa will be disappointed if I take any medicine which might be given by health professionals. He only allows the rituals to present his prayers in regular basis from the time I recognize my pregnancy till my delivery together with the elderly people in my village.

Her explanation tells that she did not use the modern prenatal care services obeying to Musa and fearing that he could punish her as well as her family. Therefore, this local religious thought affects this woman not use the modern prenatal care services. The result from focus group discussion also supported the above findings. Here, all of the focus group discussants described as Musa needs the performance of his commandments without any external intervention. Two focus group discussants described as they do not have experience of using Musa's commandments to treat them. However, four of the focus group discussants agreed that they are obedient to Musa's commandments and they believe he will keep them. According to the later individuals, this modern prenatal care service utilization is not the one commanded by Musa rather it is the government's and other bodies' imposition.

According to the key informant from the religious leaders, Musa is always there in the house to keep the whole family and if something is done out of his will, he will punish the family members and his punishments are manifested through disease and death. Again, the key informant from the woreda health staff explained that blood is considered in the community as a pollutant for Musa. Here, when there is an abnormal bleeding during their pregnancy, they will leave their home and tend to isolate themselves rather than getting medical treatments in the nearby health institutions. According to him, because of this practice women with health problems and abnormal bleeding may not have a chance to get treatment as they refuse to go to health centers and hide themselves outside their homes.

Generally, from these findings it is possible to conclude that the traditionally accepted religious belief on Musa is one of the major obstacles of Gumuz women to use the modern prenatal care ser-

vices. This is because most of the pregnant Gumuz women refuse to get the prenatal care services given in their local health posts fearing that their creator and savior, Musa, could punish them as well as their family as a whole.

## **Discussion, Conclusion and Recommendations**

### **Discussion**

This study has attempted to show those factors which affect Gumuz women in using the prenatal care services in their particular area. The research mainly focused on exploring those factors in Gumuz community as this community has its own socio-cultural manifestations. Moreover, the study gave a due emphasis on investigating how these factors influencing women in using the prenatal care services. Accordingly, the findings of the study showed that knowledge of women about prenatal care services, their attitude towards prenatal care services and their decision-making power to use these services were identified as factors which affect Gumuz women in the area.

In addition, this study has explored and identified context specific socio-cultural factors in the study area. These are: women's commitment to traditional ways of life, using treatments of Gafia as an option, food taboo as a means of treatment, religious influences (keeping commandments of Musa) were identified. Having explored and investigated these factors, the study has tried to support the findings of some variables through the quantitative technique to generalize about the population. The findings of this study were discussed under subtitles; knowledge of women about prenatal care services, attitude of women towards prenatal care services, decision making power of women in using these services and socio-cultural factors affecting women in using the services.

### **Knowledge of Women about Prenatal Care Services**

According to Obasi, lack of knowledge about maternal health services is the major barrier that contributes for non- utilization of maternal health care services in developing countries [35]. Similarly, knowledge about prenatal care services is identified to be one of the major themes in this research that affect women in using the prenatal care services in Gumuz community. Seven out of nine interview participants described that they do not have adequate knowledge about prenatal care services and its benefits. Because of this reason they could not use the service which is made available in their nearby health posts. In this particular study, the percentage of non-users who were identified as not knowledgeable is about 82.3%. This is almost consistent with the result of a study by Melkamuin Afar regional State as 87.7% of non- utilizers of the service were identified to be not knowledgeable in that area [10]. On the other hand, this figure is much higher than the findings in those studies which were conducted in Harari, Amhara and Benishangul Gumuz regional states respectively [7, 8, 21].

The possible reason for the consistency of this finding with the study in Afar region might be due to similar socio-economic status of women which limits women to have access to information and

---

knowledge in both regions. The relatively lower figures in Amhara and Harari regions might be due to relatively better socio-economic status of women which enabled women to have better access to information and knowledge in these two regional states. Again, the possible reason for the lower figure even in Metekel zone might be due to the areal coverage under which the study had been conducted (at zonal level). As the research might include other non-Gumuz community members who might have relatively better awareness about the services.

Even though the degree varies, the results of those previous studies and the current study indicated that most of the non-users of the prenatal care services were those women with limited or no knowledge about the prenatal care services. However, this current study indicated that most Gumuz women were with limited knowledge about prenatal care services and further supported these findings with the quantitative inquiry. Accordingly, most Gumuz women are said to be non-users of the prenatal care service. This is one of the barriers which hamper down the utilization level of the service in the area.

#### **Attitude of Gumuz Women towards Prenatal Care Services**

Attitude of Gumuz women towards prenatal care services was identified as one of the themes affecting the prenatal care services in the area. The findings of both the qualitative and quantitative inquiry of this study indicated that most Gumuz women have a negative attitude towards prenatal care services. As a 34 years old interviewee described to the researcher she has negative attitude towards these services. According to her, the services given in health institutions are not trustworthy and effective. Again, the health professionals in these institutions are not kind for her and even she suspects them of harming her. This indicated that women in this particular area have attitude which has been deviated from the reality. Even she thought that individuals in health institutions who are out of Gumuz ethnic domain are against her. As explained by Chamberlain, this is the direct reflection of the societal belief and cultural influences that impact the reproductive service utilization of women in a particular area [16].

Generally, this finding is almost consistent with findings of the study conducted by Melkamu which indicates that attitudes of women towards prenatal care services significantly affect the prenatal care service utilization of women in Assaita and Dubti towns of Afar regional state [10]. On the other hand, this same finding contradicts with the findings of studies by in SNNPR and Amhara Regional States respectively [22, 23]. These studies revealed that attitude of women towards prenatal care services had no significant effect on their prenatal care service utilization. The possible reasons for the consistency of this research finding with the research finding in Assaita and Dubti towns might be closer socio-cultural and economic status of women in the two regions that can impact the behavior of women. On the other hand, the reason for the contradiction of these findings with those findings in SNNPR and Amhara region could be the regional variation in terms

of socio-cultural background and access to information that might result in attitudinal difference among women in these regions.

To sum up, most Gumuz women who have negative attitude towards prenatal care services have non-utilization history of the service. This is supported by the findings of a study by Yoshida which concludes that attitude of women towards prenatal care services has a due connection or association with their prenatal care service utilization [17]. Again, this study further indicated that women with negative attitude have a tendency not to use these services and those with positive attitude have a better chance to use the prenatal care services in their localities.

Generally, as attitude is an outcome manifested as a result of different causes. This negative attitude of Gumuz women towards prenatal care services may be due to a number of reasons. One possible reason might be lack of education and awareness about the services. As it was explained by one interviewee, she developed a negative attitude as her friend passed away in the nearby health post. Here, without trying to know the cause for her friend's death, she automatically concluded that the death was due to the services given in the institution. The other possible reason that cause women hate it at a distance might be the traditional way of life they are committed for.

#### **Decision Making Power of Gumuz Women in Using Prenatal Care Services**

Ajaegbu explained that decision making power of women in using prenatal care services affects their prenatal care service utilization in their respective areas [5]. Especially, most African women have limited capability to say on their own reproductive health issues. Again, this study recommends that participation and full autonomy of women in decisions related to the utilization of reproductive health services is the key to improve their reproductive health conditions at different stages.

Moreover, other studies in the area revealed that women at global level in general and in developing countries in particular suffer from lack of decision-making ability or say about their own reproductive health. Again, these studies indicated that the reason for this lower participation in decision making process is due to unequal social status and the societal expectations given for men and women [4].

Even though, there was no statistically significant relationship between women decision making power and prenatal care service utilization, participants of the interview and focus group discussion of this study described as most of them have no any decision-making power to use the prenatal care services in their nearby health posts. Most of these participants further described that their husbands are fully authorized to deal with their own reproductive health. Again, key informants described that most Gumuz husbands are reluctant to send their wives to health institution to get these services. They do this fearing that their wives could be seen

---

nude and touched by other individuals or health professionals in these institutions.

Generally, the qualitative findings in this theme are consistent with the findings of the study conducted by Melkamu in Afar Regional State which concludes that most women in Assaita and Dubti towns have no power to visit prenatal care service centers by themselves rather their husbands are responsible to do so [10]. Again, these findings are almost similar with the findings of a research by Belay in SNNPR which asserts that the decision-making power of women has over imposed by their husbands' good will to use the prenatal care services in their localities [11].

The possible reasons for their similarity among these findings might be due to somewhat similar socio-cultural back ground of women which is tradition bound in those areas which indirectly influence their decision-making ability. Even though it is better than before, similarity in lower access to information and formal education could be other possible reason for the consistency of research findings in those areas. This is because information and education can have a positive impact on women to enhance their participation in decision making process including in using reproductive health services. Socio-cultural Factors Affecting Gumuz Women in Using Prenatal Care Services Based on the 2006 WHO report, prenatal care services are among the major services in maternal health care program which is intended to keep the health of the mother as well as the fetus [19]. However, the utilization level is lower in those developing countries especially Africa. The report further indicated that the major reasons behind such low level of utilization in such countries are less availability and accessibility of health facilities, low awareness of the service users and the existence of different socio-cultural factors and their associated impact on women.

The practices of different local traditions to care pregnant women may hinder them from using prenatal care services by being another option for them. This is because whenever there are traditional options to care pregnant women in their areas, they would be in dilemma as to which treatment they are going to use and usually they prefer the one which is familiar to them which is the traditional one [3].

In the same manner, the prenatal care service utilization of Gumuz women is highly affected by context specific socio-cultural factors. The interview participants and focus group discussants described that most women in the area are exposed to different socio-cultural factors. As most of these participants described, most traditional practices on pregnant women are against the principles of modern prenatal care services. Moreover, based on the information gained from these research participants, women's commitments to traditional ways of life, use of Gafias' treatments, using traditional food taboo as a treatment and religious influences in the community are the local socio-cultural factors which affect women in using prenatal care services.

These findings clearly showed that Gumuz community has a tradition and norm that order pregnant women in a certain way to treat them during their pregnancy. As a result, knowingly or unknowingly women often prefer not to use the service. As one of the participant women told to the researcher, her elders especially her mother taught her to follow the community's trend of staying without any prenatal checkup during her pregnancy. Therefore, in order not to be out of her mother's norm and to be obedient for her, she preferred to stay at home. This is only done for the sake of fulfilling the traditional ways of life in the community.

In addition, most Gumuz women are mostly using the Gafias ('Tenkuay') to care themselves during their pregnancy rather than going to health centers to get services. Participants of the interview described that Gafias' treatments are common in their community and according to them these are more effective than the modern prenatal care services. They further explained that the treatment given by Gafias is more effective and helpful to know the fate of their unborn child. The child which is born under the Gafias' treatment is assumed to be useful for its family and the whole community. In addition, it is believed that such children are with good luck and can live longer. So, to have all these promises and good fortunes for their babies, women tend to go to the Gafias rather than the modern health service centers. Here, pregnant women in the area mostly go to the local female Gafia. They prefer female Gafias as they believe that these are same sex and mostly elderly to treat and keep their secret. As one of the interviewees described, the Gafias are giving orders for pregnant women who need help and treatment. Based on these orders, women will get treatment and they contact them with appointments. Most women participants confirmed that they are users of the Gafias' treatments in their areas and they want to continue using it as far as no problem could be brought as a result of using it.

Again, pregnant Gumuz women use the local food taboo as a means for treatment as it is ordered by the elderly people in the area and usually a pregnant Gumuz woman is advised not to eat the food stuffs like meat, egg and others. The reason behind this restriction is that when pregnant women eat such food stuffs, it is assumed that they will not have healthy pregnancy and their children will lose their identity. It is believed by the community that if they eat such food stuffs, their children would lose their original color (Black color) and they would be changed into 'white' (the color of those people out of Gumuz ethnic domain according to Gumuz community). In order not to cause their children to lose their color, they usually refuse to eat these food stuffs. The most recommended food for pregnant women according to Gumuz community is 'Kima'; the traditional food made from roots and leaves of local herbs. Again, in this community, a pregnant woman using this recommended food is assumed to have a healthy pregnancy and the fetus is expected to be normal in all aspects and no need of going to health service centers to get the modern prenatal care services.

As Meseret explained in her study, in many of the deterioration of

---

women's reproductive health, religions contribute a lot and create challenging barriers [3]. Especially in those remotely located communities, the maternal health service utilization of women is mainly affected by local religious thoughts.

According to the findings of this study, Gumuz women are also under the influence of local religious thoughts to use the prenatal care services. These religious influences observed in the area connected with the commandments of their creator and savior, Musa. Gumuz community members as followers of Musa respect his commandments. According to the commandments of Musa, Gumuz women should not use any treatment out of the way he orders to care pregnant women. Usually, the traditional religious rituals and prayers to save the pregnant women and her fetus is highly recommended by religious leaders.

In conclusion, the result in this theme is consistent with studies which concluded that socio-cultural factors were among the major factors which hinder women in rural Ethiopia [4, 13, 37, 28]. The possible reason for this consistency might be due to the rural based focus of these studies where major traditional practices expected to be prevailed. Again, as most of these studies were conducted recently, there would not be changes in realities due to time gap.

On the other hand, the findings of this study contradict with a study by Alemayehu on factors affecting prenatal care service utilization in Addis Ababa which revealed that educational status, income and marital status were identified as major factors affecting prenatal care service utilization in the particular research site. In this study, socio-cultural variables were not identified as determinant factors [20]. Instead, those economic and demographic factors were identified to be important factors in the area. The reason for this difference in these two areas might be the difference in the socio-cultural back ground and economic status of women in the two areas. In addition, women in Addis Ababa might likely be less affected by socio-cultural factors than those women in remotely located communities like Gumuz as they have better access to information and education.

Generally, the result of this study revealed that lack of knowledge about prenatal care services, negative attitude towards prenatal care services and socio-cultural factors especially; those traditional practices and thoughts have a tremendous effect on women's prenatal care service utilization in the area. This is really against the 5th Millennium Development Goal (MDG) which targets to improve maternal health by 2015. Again, it contradicts with government's Growth and Transformation Plan which aims at minimizing the maternal mortality rate from 590/100,000 to 267/100,000 (2011-2015), within five years [39].

Therefore, it is the researcher's interest and will to say something on how these deep-rooted local factors can be mitigated in the area to enhance prenatal care service utilization for the realization of these goals. In the first step, the government administrators or po-

litical bodies have to be collaborative and committed in executing maternal health related activities in all areas. Moreover, these individuals have to promote and practically open their door for health oriented non-governmental and humanitarian organizations to intervene for the enhancement of the reproductive health of women in the area.

In the second step, the regional and local health sectors have to work focusing on those communities with less access to information and with local practices like Gumuz. Again, the sector has to design appropriate and context specific strategies to improve the service utilization and maternal health in the area. In addition, non-governmental and civic society organizations have to be collaborated with the government in its effort to improve the maternal health conditions of women. On top of these, Ethiopians Association for the Eradication of Harmful Traditional Practices (EAE-HTP) has to work down to the grass root level by giving a special attention to those women in remote area like Gumuz community. Lastly, the contributions of every individual and organization at all levels in this regard, have a vital role to play in saving the lives of Gumuz mothers in the area.

### Conclusion

The very focus of this study was exploring factors affecting the prenatal care service utilization of women in-depth in Gumuz community. Accordingly, knowledge of women about prenatal care services, attitude of women towards prenatal care services, decision making capacity of Gumuz women to use prenatal care services, women's commitments to traditional ways of life, use of Gafias' treatments, traditional food taboo as a means for treatment and religious influences were identified as important factors to affect women in using the prenatal care services in the area.

Moreover, the result of the multivariate analysis indicated that from the variables tested in binary logistic regression, knowledge of women about prenatal care services and attitude of women towards prenatal care services had significant effect on prenatal care services in the area. On the other hand, decision making power of women in using prenatal care services had no significant effect on prenatal care services in the particular area. Hence, the prenatal care service utilization of Gumuz women was affected by knowledge of women about prenatal care services, attitude of women towards prenatal care services, women's commitments to traditional ways of life, use of Gafias' treatments, traditional food taboo and religious influences in the area. Lastly, this study may not exhaustively explore all factors affecting women in using the prenatal care services in the area due to financial and time constraint.

### Recommendations

Based on the findings of this study, some recommendations were forwarded by the researcher to the concerned bodies to mitigate the problem in the target community.

For Researchers

- Since this study could not exhaustively explore all factors



---

affecting women in using the prenatal care services in the area, there should be additional exploratory researches to be conducted in the area to better understand those factors affecting women in this regard and to suggest possible solutions accordingly.

➤ As it was indicated in the finding part, socio-cultural practices are among the major hindering factors affecting Gumuz women in the area. So, to eradicate these practices, there is a need to identify and investigate all of them in the community. Hence, independent ethnographic researches on these socio-cultural practices on local women have to be conducted in the area.

➤ In addition to qualitative oriented studies, quantitative researches should also be undertaken to assess or measure the change as a result of different interventions from governmental and non-governmental organizations, individuals and the community itself in a certain time interval.

For Practitioners

➤ Since education is an instrument for change in every aspect of life including attitudinal change, governmental or non-governmental organizations in the region have to focus on awareness raising works. This should be done through conducting community level trainings on women's reproductive health, harmful local practices and others.

➤ Above all, giving Training of Trainers (TOT) for key individuals such as religious and village leaders to cascade knowledge and message to the whole community members in their own area. This is because these individuals are influential and have a great acceptance by the community.

➤ Those non-governmental and civic society organizations which are working or intend to work on enhancing the maternal health of Gumuz women have to develop and implement context specific community conversation manuals. The purpose here is to discuss on basic issues like women's maternal health, local practices on pregnant women and the community in general. Here, incorporating those individuals who have a direct involvement in the local practices like Gafias and religious leaders in the discussion is vital to eradicate such practices in the area.

For Policy Makers

➤ The FDRE government has designed a health policy which aims at improving the maternal health conditions through health extension programs throughout the country. However, as the findings of this research indicated, most women in Gumuz community are still ignorant about the prenatal care services and the traditional beliefs and practices in the area have dominated them. Therefore, the policy has to give a special emphasis for those women in remotely located communities like Gumuz. This is because these women have less access to information and education. Again, the maternal health education should be given by individuals from the community with local language and there should be a strict follow up to check whether they bring about behavioral change or not.

➤ Women, Children and Youth Affairs Offices at local level should design a plan to collaborate with key individuals in the community to teach the community about women. For instance, organizing discussion sessions on issues like women's education,

reproductive health rights of women, and traditional practices on pregnant women. This would be well done during social events or gatherings like in 'Bordie' houses where a large number of community members could be available.

## References

1. Middleberg, I. M. (2004). *Promoting reproductive security in Developing Countries* New York. Kluwer Academic Publishers.
2. Basu, A. M. (2006). *Reproductive health advocacy. Trading Women's Health and Rights: Trade Liberalization and Reproductive Health in Developing Economies*, 274.
3. Meseret, T. (2011). *Isolating women at times of labor and reproductive health outcomes: the case of Mandura, North West Ethiopia*. Addis Ababa: Addis Ababa University.
4. Ethiopia Goji Limadawi Dirgitoch Aswogaj Mahiber (EGLDAM). (2008). *Old beyond imagining: Ethiopia Harmful traditional practices*. Addis Ababa: EGLDAM
5. Ajaegbu, O. O. (2013). *Perceived challenges of using maternal healthcare services in Nigeria*. Arts and Social Sciences Journal.
6. Muinde, F. N. (2010). *Utilization of antenatal care services among mothers in Central Division, Kitui District, Kenya* (Doctoral dissertation, Kenyatta University).
7. Shemshedin, S. (2009). *Assessment of Factors affecting prenatal care services in Harari region*. Addis Ababa: Addis Ababa University
8. Firewoin, G. (2009). *Assessment of factors for prenatal care service utilization among women of childbearing age in Ephratanagidim district*. Addis Ababa: Addis Ababa University
9. Quisumbing, A. R. (2003). *Household decisions, gender, and development: a synthesis of recent research*. International Food Policy Research Institute.
10. Fenta, M. (2005). *Assessment of factors affecting utilization of maternal health care services in Ayssaita and Dubti towns, Afar regional state, North east Ethiopia* (Doctoral dissertation, Addis Ababa University).
11. Biratu, B. T., & Lindstrom, D. P. (2006). *The influence of husbands' approval on women's use of prenatal care: results from Yirgalem and Jimma towns, south west Ethiopia*. *Ethiopian Journal of Health Development*, 20(2), 84-92.
12. Zenebe, M. (2011). *Socio demographic factors affecting antenatal care service utilization among women in Wolaita Zone*. Addis Ababa: Addis Ababa University.
13. Federal Ministry of Health (FMOH). (2012). *Maternal Death Surveillance and Response: Technical guide line*. Addis Ababa: FMOH.
14. Gumucio, S. (2011). *Quantitative Methods: The KAP Survey Model*. Paris: Julie Beis Printing.
15. Ribeiro, C. P., & Milanez, H. (2011). *Knowledge, attitude and practice of women in Campinas, São Paulo, Brazil with respect to physical exercise in pregnancy: a descriptive study*. *Reproductive health*, 8(1), 1-7.

16. Chamberlain, G. (2002). ABC of Antenatal care; Fourth edition London, BMJ Publishing Group.
17. Ye, Y., Yoshida, Y., Harun-Or-Rashid, M. D., Sakamoto, J., & Sakamoto, J. (2010). Factors affecting the utilization of antenatal care services among women in Kham District, Xiengkhouang province, Lao PDR. *Nagoya J Med Sci*, 72(1-2), 23-33.
18. WHO. (2006). Effectiveness of antenatal care: the financial and organizational implications. Synthesized reports. Geneva. Health Evidence Network.
19. UN (2012). Joint program on gender equality and women's empowerment. Annual report. New York: UN.
20. Jimalo, A. T. (2008). Why pregnant women delay to attend prenatal care? Cross sectional study on timing of first antenatal care booking at public health institutions in Addis Ababa (Doctoral dissertation, Addis Ababa University).
21. Gurmessa, T. (2009). A study on antenatal care service utilization and associated factors in Metekel zone, northwest Ethiopia. Addis Ababa: FMOH
22. Asres, A. (2008). Assessment of Factors Associated with Safe Delivery Service Utilization among Women of Childbearing Age in Sheka Zone, SNNPR, South West Ethiopia (Doctoral dissertation, Addis Ababa University).
23. Habtamu, Z. (2008). Trends and Determinants of Utilization of Maternal Health Care Services in Amhara National Regional State: Evidence from EDHS 2000 and 2005 (Doctoral dissertation, Addis Ababa University).
24. Creswell, W. J. (2007). *Qualitative inquiry and research design: Choosing among the five traditions* (2nd ed.). Thousand Oaks: Sage.
25. Creswell, W. J. (2009). *Research design: Qualitative, quantitative, and mixed methods approach* (3rd ed.). Thousand Oaks: Sage.
26. Dawson, C. (2007). *A practical guide to research methods: A user friendly manual for Mastering research techniques and projects* (3rd ed.). Oxford: Oxford University.
27. Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age International.
28. Thomas, M., Bloor, M., Frankland, J., & Robson, K. (2001). *Focus Groups in Social Research*. Thousand Oaks: SAGE.
29. L BERG, B. R. U. C. E. (2001). *Qualitative research methods for the social sciences*.
30. Gorard, S. (2003). *Quantitative Methods in Social Science: The role of numbers made easy*. New York. Continuum British Library Books.
31. Singh, Y. K. (2006). *Fundamental of research methodology and statistics*. New Age International.
32. Heran, A. (2008). *The gender Dimension of living with HIV treatment Durgs: Challenges and Opportunities of Anti-Retroviral users at Zewditu memorial Hospital*. Addis Ababa: Addis Ababa University.
33. Hinton, P., Brownlow, C., Cozens, B. (2004). *Explained SPSS*. West Street: Taylor & Francis Group.
34. George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference. 11.0 update (4thed.)*. Boston: Allyn & Bacon.
35. Obasi, E. Z. (2013). A Review of the barriers and socio-cultural factors influencing the access to maternal health care services in Nigeria.
36. Kandpal, E., Baylis, K., & Arends-Kuenning, M. P. (2012). *Empowering Women through Education and Influence: An Evaluation of the Indian Mahila Samakhya Program (IZA Discussion Papers No. 6347)*. Institute for the Study of Labor (IZA). Retrieved from.
37. Mehari, K. (2012). *determinant factors affecting utilization of maternal health care services in rural Ethiopia*. Addis Ababa Ethiopia, Addis Ababa University.
38. UN (2012). Joint program on gender equality and women's empowerment. Annual report. New York: UN
39. Ministry of Finance and Economic Development (MOFED). (2010). *Growth and Transformation Plan (GTP)*. Written Document. Addis Ababa: MOFED.
40. Costello, A.B., & Osborne, J.W. (2005). *Practical Assessment Research and Evaluation: Vol 10, No 7*. Raleigh: North Carolina State University.
41. Central Statistical Authority (CSA, 2011). Addis Ababa: Berhanenaselam
42. Ethiopian Society of Population Studies (ESPS). (2008). *Maternal Health Seeking Behavior in Ethiopia: Findings from EDHS 2005*. Addis Ababa: ESPS
43. Eyerusalem, D. (2010). *Role of socio-demographic factors on utilization of maternal health care services in Ethiopia*. Umea: UMEA University.
44. Tura, G. (2009). Antenatal care service utilization and associated factors in Metekel Zone, Northwest Ethiopia. *Ethiopian Journal of Health Sciences*, 19(2).
45. Hayelom, K. (2008). *A study on Factors Affecting Antenatal Care Attendance: The case of Maichew Town, Southern Tigray, Ethiopia*. Addis Ababa: Addis Ababa University
46. Julie, P. (2004). *Introduction to Statistics and Data Analysis*. McGraw-Hill: Open University.
47. Bekele, K. (2007). *Cultural practices that affected the status of women in Benishangul Gumuz, Mandura Woreda*. Unpublished Master's Thesis, Addis Ababa University.
48. WHO. (2003). *Essential prenatal and post-partum care. Training modules*. Copenhagen: Copenhagen regional office for Europe

**Copyright:** ©2022: Dagne Yiradu Almaw. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.