ISSN 2475-529X

Research Article

Journal of Nursing & Healthcare

Antepartum Care Users' and Health Professionals' Awareness and Experiences of Antenatal Care Health Education: A Qualitative-Descriptive Study in Ethiopia

Fikirte WoldeselassieWoldeyohannes[1]* and Lebisti Modiba[2]

[1]*Menelik II Medical and Health Science College, Department of Nursing, Addis Ababa, Ethiopia*

[2]*University of South Africa, Department of health studies, Pretoria, South Africa*

***Corresponding Author**
Fikirte Woldeselassie Woldeyohannes, Menelik II Medical and Health Science College, Department of Nursing, Addis Ababa, Ethiopia.

Submitted: 2024, Feb 07; **Accepted:** 2024, Aug 20; **Published:** 2024, Oct 03

Citation: Modiba, L., Woldeyohannes, F. W. (2024). Antepartum Care Users' and Health Professionals' Awareness and Experiences of Antenatal Care Health Education: A Qualitative-Descriptive Study in Ethiopia. *J Nur Healthcare, 9*(3), 01-07.

Abstract

Background: *The availability and accessibility of quality antepartum health education are key determinants in the provision of adequate health care to pregnant women in Ethiopia. However, many pregnant women expressed their complaints concerning the antepartum care service they received. It is difficult to find documented evidence that assesses the effectiveness of health professionals' health education interventions during antepartum care services in Ethiopia.*

Methods: *A qualitative-descriptive research design was used to explore the awareness and experience of pregnant women and health professionals who were providing ANC. For the sake of this study, five public health centers were deliberately selected. As data-gathering instruments, five focus group discussions (FGD) and five key informant interviews (KII) were used. The data was gathered from pregnant women and health professionals working in antepartum care from June 20–30, 2018.*

Results: *Study informants reported that healthcare providers were not providing adequate, appropriate, and up-to-date health education regarding pregnancy-related issues to mothers as expected. The finding also revealed the existence of misunderstandings among healthcare providers about the importance of birth preparedness and complication readiness (BPCR) in health education sessions during antenatal care. Lack of time to prepare standards of care and protocols, the attitude of healthcare professionals, work overload of healthcare professionals, pregnant women's responsibilities at home, and the growing number of clients in the health centers were the major barriers that contributed to the poor delivery of effective antepartum care health education.*

Conclusions and recommendations: *Inadequate antepartum care health education provided to mothers was the source of multiple challenges for women, causing a direct or indirect impact on their pregnancy. The researchers of this study recommend that policymakers and programmers develop a strategy to strengthen the quality of antenatal care health education.*

Keywords: Antenatal Care Users, Health Professionals, Antepartum Care Health Education, Awareness, Experience, Public Health Centers, and Descriptive-Qualitative Research

1. Introduction

Introducing health education into society can tackle immediate critical health problems such as epidemic diseases in society. Health education is a vital instrument to enhance the health status of individuals, families, and communities in developing countries. The history and development of health education have their developmental stages. Their periodicity relates to the developmental stages of society [1-3].

In 1954, the United States Operations Mission (UNOM) brought a trained health educator as an adviser to the Ethiopian health system. UNOM is considered to be the pioneer health education system in Ethiopia [4]. Ethiopia ratified the Alma Ata Declaration and has attempted to put it into practice via health education. As a result, health education has gotten a lot of attention and has been increasingly used as a tool to improve the efficiency of health services. Ethiopia, in particular, requires attention to mother and child health concerns [5].

The heart of maternal health services is Antepartum care, which requires experienced health professionals to provide effective health care to pregnant women to safeguard the health of both

the mother and the infant. Health practitioners are encouraged to emphasize aspects of care such as risk identification, prevention and management of pregnancy-related illnesses, and health education promotion [6].

Ethiopia follows WHO guidelines, which include starting ANC within the first 16 weeks of pregnancy and having at least four ANC visits throughout an uncomplicated pregnancy. Focused Antenatal Care (FANC) has been acknowledged and utilized in Ethiopia as part of monitoring women's health and providing care [7,8]. Before 16 weeks of pregnancy, the first ANC visit should be scheduled, followed by the second between 24 and 28 weeks, the third between 30 and 32 weeks, and the fourth between 36 and 38 weeks (9]) 2016 WHO ANC model, which requires a minimum of eight ANC contacts, has now been substituted for this model. In the previous model, the term "visit" has been replaced with "contact" to denote an active engagement between a pregnant woman and a healthcare provider [9]. The model has not yet been applied in Ethiopia.

Midwife-led continuity of care models is recommended by the World Health Organization (WHO) throughout pregnancy, delivery, and the postnatal period. To increase prenatal care usage and perinatal health outcomes, antenatal home visits are also advised. But it is not only midwives who provide antenatal care in Ethiopia; nurses, health officers, general practitioners, and obstetricians also provide antenatal care [9].

Antepartum care provides ultrasound examination, blood pressure check, blood group, and RH test, urine test, screening for diseases like anaemia and sexually transmitted infections (syphilis and HIV), iron tablets, deworming drugs, and tetanus toxoid immunization. ANC can aid in the prevention, diagnosis, and treatment of problems, as well as improve the health of women and their babies [10]. Pregnant women should be aware of the danger signs and symptoms of pregnancy-related problems and emergencies [11].

According to the Ethiopian Demographic Health Survey in 2011, one in every four (25%) women had been educated about symptoms of pregnancy problems in their ANC. A considerable number of Ethiopian women do not have awareness of birth preparedness and complication readiness. Although, antepartum health education is one strategy in the primary and secondary prevention of pregnancy-related problems. Antenatal care can help prevent complications and inform women about important steps they can take to protect their infants and ensure a healthy pregnancy [12,13].

Health providers pointed out varieties of constraints that prevented them from providing sufficient health education to their clients. The challenge is when many women come to the health centers at a time; it becomes difficult to discuss all issues that they are expected to know about as it may cause other clients to wait for a long period outside. Cultural barriers are also one of the main challenges to discuss pregnancy issues. Another challenge is that the health professionals did not ask what the women need as health supplies are scarce and they would not be able to meet the need of their clients [14]. Thus, providing quality antepartum care and health education to women who live in a developing country such as Ethiopia is very important to provide sufficient health care to pregnant women.

1.1. Operational Definitions

Health education refers to the aggregate of knowledge and experiences designed to assist individuals and communities to improve their health by increasing their expertise or influencing their attitudes [15]. Antenatal care (ANC) is described as the care given to pregnant women and adolescent girls by trained healthcare professionals to provide the greatest possible health for both mother and baby during pregnancy [9]. Antepartum health education refers to awareness-based learning programs that include some form of communication. It was designed to enhance health awareness by enhancing information and developing life skills that are beneficial to individuals and community groups [16]. A pregnant woman refers to a woman who has a growing fetus in her uterus from conception to birth [17].

Health workers refer to people whose job is to protect and improve the health of their communities [18]. In this study, health workers are health professionals working at selected public health centers in ANC clinics. Which include medical doctors, professional nurses, midwives, and health officers working to protect and improve the health of pregnant women? Danger signs awareness during pregnancy: Each woman needs to be aware of the danger signs that arise during pregnancy, as complications can be unpredictable. Vaginal bleeding, severe headache, blurred vision, high fever, swollen hands and face, and decreased fetal activity are among the threat symptoms [19]. Birth Preparedness and Complication Readiness: Birth Preparedness and Complication Readiness is a process of planning for normal birth and anticipating the actions needed in the event of an emergency. The main elements include transportation arrangements, savings on delivery, identification of eligible birth attendants, place of delivery; and identification of blood donors in the case of an emergency [20,21].

2. Methods

2.1 Study Design

In this study, a qualitative descriptive research design was used to explore the awareness and experiences of pregnant women and health professionals regarding antepartum care health education at deliberately selected health centers. To explore the awareness and experiences of pregnant women and health professionals concerning antepartum health education during antenatal care, key informant interviews (KII) and focused group discussions (FGD) were used as data-gathering instruments. The data was gathered from pregnant women and health professionals working in antenatal care from June 20–30, 2018.

2.2 Study Setting

The study was conducted in Addis Ababa, which is one of the city administrations and the Federal capital city of Ethiopia. Addis Ababa is located at an altitude of 7,546 feet (2,300 m). According to the Central Statistical Authority (CSA) in 2007, the population

of the city was estimated at 3,384,569. According to the 2018 Addis Ababa city Administration report, Addis Ababa has 98 health centers, of which 94 are public and the rest are operated by NGOs. In this study, only public health centers under the Addis Ababa City Administration were included.

2.3. Recruitment Procedure of Study Participants

Participants were chosen using the purposive sample technique from five public health centers in Addis Ababa: Kebena, Jalemeda, Woreda 13, Bole Woreda 17, and Arada Health Center. In five focus group talks and five key informant interviews, pregnant women and health care providers were interviewed. The saturation of information dictated the sample size. For focus group talks with 8–12 people, data saturation was also considered. The pregnant women were chosen from a group of women aged 18 to 49 who had previously visited an ANC clinic.

2.4 Data Collection Tools and Procedures

The researcher first developed the unstructured interview guide based on the objectives of the study and gave it to experts for review, evaluation, and validation. Experts with experience in providing care for pregnant mothers and teaching midwives were invited and validated the data collection guides for both focus group discussions and key informant interviews. The interview guide had two parts. The first part was about the FGD guide questions for pregnant women, and the second part was about the interview guide questions for health professionals working at the antepartum care unit. The guides were used to explore interviews and discussions; the questions were open-ended and no leading questions were used. As the interview progressed, the interviewer changed some of the questions to suit the purpose. The key informant interview guides included questions such as: "What is the relationship between health education and antepartum care?" What health education do you provide when pregnant women come to your antepartum care unit? Have you heard about a woman who has had complications related to pregnancy because of a lack of health education during pregnancy? For the focus group discussion with pregnant women, the following questions were asked: Did you get health education during your current antepartum care visit? If so, what kind of education have you got? Did you get any benefits from the health education that you got? And have you heard about a woman who has had complications related to pregnancy because of a lack of health education during pregnancy? Do you think that healthcare providers provide adequate health education for women who come for antepartum care? A researcher and two research assistants conducted the five FGDs (N = 45) from June 20–to June 30, 2018. The discussions took place at the health center hall where they received their ANC care. Within the same study period, five healthcare professionals from each health center were interviewed by the researcher of this study at their workplaces. All participants were interviewed privately and confidentially to ensure information was not shared with other healthcare professionals.

2.5 Data Quality Assurance

Interview guide questions were translated from English to Amharic, as none of the respondents spoke English. Once the interview had been done, their responses were transcribed and then translated back into English. The principal investigator of this research gave one-day training to the data collectors and supervisors. Then, they carried out a one-day field practice in the nearest health center to check whether they had the necessary skills. Two women, both of whom have a master's degree in public health and previous experience in facilitating FGDs and key informant interviews, were assigned by the principal investigator to gather the data.

2.5.1 Trustworthiness of the Data

In qualitative studies, trustworthiness should be established. In this study, key informant interviews and focused group discussion results were triangulated and discussed together. Dependability is vital to trustworthiness because it establishes the research studies as consistent and repeatable. The researcher describes the process used, like the technique and purpose of participant selection, the procedure and length of data collection, data evaluation, and presentation. Conformability relies on interpretation and is admittedly value-bound. The researcher stays faithful to academic and moral requirements and maintains field notes and audiotape documents. Transferability is the degree to which the findings can be transferred to have applicability in different settings or organizations. The researcher conducts an in-depth analysis of interview transcripts, documents, and observational notes.

2.6 Data Analysis

Individual and group interviews were taped, transcribed verbatim, anonymized, and uploaded to atlasti-version 8. The researcher used line-by-line coding for 10 transcripts to create a basic coding framework, which was iteratively modified after reviewing additional transcripts. To summarize the data, overarching themes and sub-themes were created. Comparisons were made based on responses among the five focus group discussions and five key informant interview groups to each question asked. The researcher developed categories that were emergent from the analysis within the categories. Finally, a theme was developed from the scrutiny of the categories. As shown in Table 1, a total of five themes and seven categories emerged from the data analysis. The data was classified to facilitate the audit trail.

3. Results

3.1 Participants Characteristics

The researcher conducted five key informant interviews with five health professionals and five focused group discussions with 45 pregnant women in five purposely selected public health centers. Most of the pregnant women were between the ages of 25 and 29 years old, and almost all were married. Regarding the educational status of the 45 FGD participants, twenty were unable to read and write. Thirteen had completed primary school, eight had completed secondary school, and two were university-completed participants.

3.2 Themes Organized from Qualitative Analysis

The findings of the study are organized into themes and categories. Comparisons were made based on the responses from the five focus group discussions and five key informant interviews.

Themes	Categories
Antepartum health education	Offering Antepartum health education
	Antepartum health education topics
	Benefits of health education
	Source of Antepartum health education
	Challenges of Antepartum health education
BPCR health education	
Pregnancy-related danger signs health Education	
Health professional approach to Antepartum health education	Way of Antepartum health education delivery
	Health education course
Recommendations for better health education	

Table 1: Themes Organized from Qualitative Analysis Addis Ababa, 2018 N=50

3.2.1 Antepartum Health Education

3.2.1.1 Offering Antepartum Health Education

The participants indicated the ANC-related topics of health education were not addressed properly and their source information differs. It is believed that health professionals could play a significant role in providing antepartum health education service to pregnant women. However, the health professionals witnessed that they did not provide adequate health education as expected.

This is my first pregnancy. I did not have any awareness of health education when I came to the health center for follow-up. In this facility, I have been given an identification card from the card room. Then the healthcare provider prescribed an ultrasound and a urine test. After receiving lab results, they told me that my pregnancy was healthy, and they gave me iron. I came to the health facility to know what I did not know and to have the safety that I needed, but I did not get the health education I expected (FGD P2: 186–611).1

One of The Health Professionals Who Work in The Facility Also Confirmed That

In my opinion, we do not provide adequate and well-structured health education. Some of us think that providing health education is not our responsibility. We do not allocate time for health education specifically. We offer them health education while we take pregnant women's history and do a physical examination. We offer health education when we feel it is necessary. During my observation, health professionals did not consider health education important. To some extent, health education is given at the community level by health extension workers (KII P5 3:8 657-1130).

3.2.1.2 Antepartum Health Education Topics

Health education is given during the first visit about HIV, nutrition, and taking iron. When a pregnant woman comes for her next visit, health professionals do not provide health education. The key informant interviewers stated that health professionals teach pregnant women about diet, hygiene, clothing, risk indications, various diagnoses, and strategies to stay healthy, as well as anything new. In addition, they advise women to bring their husbands to check the HIV status of their husbands.

3.2.1.3 Benefits of Antepartum Health Education

All pregnant women and health professionals who participated in this study perceived that antepartum health education could benefit both the mother and the baby. Informants in focus groups revealed that antepartum health education offers advantages. It instructs them when they should see a doctor and what they should do if fetal movement is diminished. It aided them in learning everything they could about the pregnancy. For example, it benefited them in knowing which blood group they belonged to. They learned about HIV and AIDS. It helped them persuade their husbands to get tested for HIV. It also increases husbands' understanding of how they can assist their wives at home.

Furthermore, Health Care Professionals Working at the ANC Clinic Explained That

Yes, for example, a woman who does not have ANC follow-up came to our health center after three or four days with a complaint of the absence of fetal movement, but we could do nothing about it. However, a woman who has ANC follow-up comes to the health center whenever she has any new unpleasant feelings. We can help them with the issue, so their difference is this much. In addition to this, a pregnant woman with a severe headache may stay at home if she does not have ANC follow-up, or she may buy anti-pain from the pharmacy and try to take care of it, but women who have ANC follow-up can come to the health facility immediately as she is well aware of the situation (Key informant P 3 342-847).

3.2.1.4 Health Education Source

Regarding the sources of health education, pregnant mothers indicated that their sources of health education were different. Their sources were the elderly mothers, the media, websites, posters, health facilities, communities, health professionals' previous experiences, neighbours, and family.

3.2.2. Challenges in Delivering Health Education

The study participants reported that there are different challenges to providing antepartum health education for pregnant women.

Many health professionals did not get enough time to deliver health education to pregnant women at the time they visited the health center. The other challenge is the health professionals who do not demonstrate a caring and compassionate attitude towards pregnant women. Both health professionals and pregnant women pointed out that the time constraint did not allow health professionals to provide sufficient health education. The key informant interviewee reported that physicians are not interested in providing antepartum health education.

3.2.3 Birth Preparedness Readiness Health Education

Most participants explained that the health education on birth preparedness and complication readiness content of education is completely different from the WHO recommendations. The participants testified that they obtained most of the health education about pregnancy-related issues from their families who are elders. In addition to this, once they have their first child, the experience they got during the first pregnancy can be used as a source of information. The health professionals working at ANC did not address health education on birth preparedness and complication readiness (BPCR). The participants revealed that professionals working at ANC assumed that midwives should give BPCR health education in the labor and delivery room

The healthcare worker working at the ANC clinic shared the same idea about BPCR as follows:

My friends and I were never taught about the topics of birth preparedness and complication readiness at the ANC clinic. However, when we were taught about danger signs, I mentioned some of the birth preparedness and complication readiness content. I did not provide health education on the topic of birth preparedness and complication readiness at the ANC clinic, but when pregnant women come to the delivery room, midwives who are working there must educate them about birth preparedness and complication readiness (Key informant P5 3:8 41–524).

3.2.4 Pregnancy-Related Danger Signs Health Education

Pregnancy-related health education on the danger signs has to be provided to pregnant women to save lives. In this study, it has been identified that health education concerning pregnancy-related danger signs has been given to some mothers, but issues related to danger signs have not been addressed as expected. Study informants reported that there are women who never received health education and who face different types of problems due to not being aware of danger signs during pregnancy. One of the study participants reported that she was not aware of decreased or no fetal movement as a danger sign. She stayed at home for about five days while her baby's fetal movement was absent.

One of The Focus Group Participants Reiterated

For example, when my neighbor was pregnant for the first time, her face, hands, and feet were oedematous, but she had no idea these were worrisome signs when she went to her antenatal check-up in a well-known private maternity care unit. Her next-door neighbor was a nurse, and she encouraged her to see a doctor. She went to see her doctor, who told her that the edema was not an issue. She came up with a severe headache and had an emergency caesarean section. It would be beneficial if her doctor informed her of the risk indicators, as most pregnant women trust health professionals (FGD P 5: 1159–2242).

3.2.5 Health Professional Approach to Antepartum Health Education

3.2.5.1 Ways of Providing Health Education

Health professionals working at ANC provide health education related to pregnancy danger signs with posters, printed papers, and orally while performing procedures like measuring weight and doing physical examinations. Some health centers provide plans or schedules for health education.

3.2.5.2 Course in Health Education

Health professionals in Ethiopia have taken health education as a common course when they were at college or university. The health professionals who participated in this study explained that they received a health education course and another course that helped them deliver the ANC service. However, they find it difficult to follow the principles as either they forget them or there is work overload.

4. Recommendations to Improve Antepartum Health Education

Both focus group discussants and key informant interviewees were asked to suggest the proper time they thought was suitable to deliver antepartum health education.

Both groups suggested that health extension workers and any other person who has the skills and knowledge of health education would provide better health education than the one who works in the ANC room. Some of the participants suggested that somebody be assigned to provide only antepartum health education to pregnant women. Furthermore, study participants recommend different things, such as decreasing the number of clients to be seen per day, increasing the time duration for antepartum health education, and also recommending group health education, and providing plans and schedules to deliver effective and pertinent antepartum health education. They recommend that the government provide strategies to enhance effective and efficient antepartum education for pregnant mothers.

5. Discussion and Conclusion

The information obtained from the participants for this study reveals that not all topics of antepartum health education are addressed effectively to meet the needs of pregnant women during ANC visits. A study conducted in Pakistan shows information education communication during ANC mostly focused on diet and nutrition and antenatal clients were not given information and education as per WHO guidelines [22].

The participants in this study stated that they obtain information about pregnancy-related issues from different sources mainly from elders. However, another study conducted in Uganda shows health professionals has a great role in providing health information [23].

The study participants reported that different factors are affecting

antepartum health education. The result revealed that the lack of time to educate pregnant women about ANC is hindering effective health education. The shortage of well-trained staff in the health centres is also creating challenges in delivering ANC education to pregnant women. The primary goal of health workers is to complete tasks and provide reports.

This conclusion could be attributed to heavy workloads and limited equipment and supplies. A considerable number of physicians and nurses find it difficult to complete all their needed activities. Limited income in the healthcare field, which is the most private, especially "when working in the public sector alone," could have a severe impact on health workers' ability to react to patient requests if the public sector's burden grows. Furthermore, many lower-level health professionals face employee absenteeism and a lack of consistent work [24].

Another study found that community understanding of traditional practices and some cultures regarding pregnant women, pregnant women's perceptions of time management and staff attitudes toward pregnant women, and a lack of incentive for health workers are the main factors affecting effective health education during ANC [25]. Participants in this study responded that they believe being prepared during pregnancy is highly helpful in accepting whatever happens during their pregnancy. However, the information supplied in the health center on preparing for birth and preparing for difficulties is insufficient. A similar finding is described in an Ethiopian comprehensive review and meta-analysis of delivery and complication readiness among pregnant women. Despite many health programs for pregnant women and health professional training, the aggregate pooled result showed that just 32% of pregnant women were prepared for birth and its complications [26].

The participants believe that pregnant women need to be informed about danger signs in pregnancy to make them ready for whatever happens. However, the health professionals did not adequately address the contents of pregnancy-related danger signs. A similar study revealed that there is low awareness of obstetric danger signs that leads to delays in seeking medical attention and reaching care during obstetric emergencies [27]. Another study, which was conducted in Burkina Faso, Ghana, and Tanzania, concluded that counselling practice is poor and not very efficient and the effects of ANC education remain largely unknown [28].

Participants in the focus group discussions in this study proposed that health extension workers conduct home-based health education to raise knowledge about pregnancy-related concerns. Furthermore, health education would be more successful if delivered in-group since it encourages interaction and allows pregnant women to share their experiences. Other studies have indicated that the health extension program enhanced mother and child access to health care in a similar way [29]. The philosophy behind HEP is that by providing families with the necessary knowledge and abilities, they would be able to assume responsibility for producing and sustaining their health The four core elements of HEP are illness prevention and control; family health; hygiene; environmental sanitation; and health education and communication [30]. Therefore, health extension workers need to be well trained to provide appropriate health education on pregnancy and childbirth issues.

6. Conclusion

The study's authors recommend that politicians and programmers devise a strategy to improve the quality of antenatal care health education. To decrease maternal mortality and morbidity due to pregnancy danger sign awareness issues, health practitioners should be trained by adopting focused antenatal care protocols and new competencies.

6.1 Practical Implications

Working on health education, especially given to women's and children's health, is very critical in the prevention of complications related to pregnancy and the promotion of the health of women and children.

6.2 Strength and limitation of the study

Problems can be thoroughly researched. Interviews are not limited to a set of questions. The study was limited to public health centres in Addis Ababa. It does not address public hospitals and private health institutions

References

1. World Health Organization. Ottawa Charter for Health Promotion. Geneva: WHO; 1986.
2. Tone, K., & Green, J. (2004). Health Promotion: Planning and Strategies. *www. books Google. com*, 92.
3. Park K. Park's Textbook of Preventive and Social Medicine. 25th ed. Jabalpur: Banarsidas Bhanot; 2020.
4. United States Operations Mission. Health education in Ethiopia. 1954.
5. World Health Organization. Declaration of Alma-Ata. 1978.
6. World Health Organization. Recommendations on antenatal care for a positive pregnancy experience. Geneva: WHO; 2016.
7. Federal Ministry of Health Ethiopia. National guidelines for comprehensive antenatal care. Addis Ababa: Federal Ministry of Health; 2011.
8. World Health Organization. Antenatal care for positive pregnancy outcomes: a handbook for health providers. Geneva: WHO; 2017.
9. World Health Organization. WHO antenatal care model for a positive pregnancy experience. Geneva: WHO; 2016.
10. World Health Organization. Managing complications in pregnancy and childbirth: a guide for midwives and doctors. Geneva: WHO; 2007.
11. Federal Ministry of Health Ethiopia. Basic emergency obstetric and newborn care (BEmONC) training manual. Addis Ababa: Federal Ministry of Health; 2016.
12. Central Statistical Agency of Ethiopia. Ethiopia Demographic and Health Survey 2011. Addis Ababa: Central Statistical Agency; 2012.

13. Federal Ministry of Health Ethiopia. National strategy for maternal and newborn health 2016–2020. Addis Ababa: Federal Ministry of Health; 2016.
14. Gebrehiwot T, Banteyerga H, Mulugeta A. Constraints to effective health education delivery in antenatal care settings in Ethiopia. *Ethiopian Journal of Health Sciences. 2014*;24(2):153-160.
15. World Health Organization. Health education: theoretical concepts, effective strategies, and core competencies. Geneva: WHO; 2012.
16. Morrow V, Vennam U, Kaur R. Participatory health education: a strategy for improving health in communities. Health Education Research. 2015;30(2):230-240.
17. American College of Obstetricians and Gynecologists. ACOG practice bulletin: diagnosis and management of preeclampsia and eclampsia. *Obstetrics & Gynecology. 2019*;133(1):1-25.
18. World Health Organization. Health workforce: a global strategy on human resources for health: workforce 2030. Geneva: WHO; 2016.
19. World Health Organization. Birth and emergency preparedness in pregnancy: a guide for midwives and doctors. Geneva: WHO; 2006.
20. Federal Ministry of Health Ethiopia. National reproductive health strategy. Addis Ababa: Federal Ministry of Health; 2006.
21. Khan A, Imran M, Awan S. Assessment of information education communication during antenatal care in Pakistan. *Journal of Health, Population and Nutrition. 2018*;37(1):12.
22. Abrahams N, Jewkes R, Mvo Z. Health professionals' perceptions of the role of health education in antenatal care in Uganda. *BMC Public Health. 2017*;17(1):1-10.
23. Gurara, M. (2024). *Why women choose homebirth with traditional birth attendants and the effectiveness of interventions to promote institutional childbirth in rural Gamo zone, Southern Ethiopia, 2017-2022* (Doctoral dissertation, University of Antwerp).
24. Kafle K, Khatri R, Acharya D. Factors affecting the effectiveness of health education during antenatal care: a community-based study. *BMC Pregnancy and Childbirth. 2019*;19(1):1-8.
25. Melaku TE, Ayalew M, Gari T, et al. Delivery and complication readiness among pregnant women in Ethiopia: a comprehensive review and meta-analysis. *BMC Pregnancy and Childbirth. 2021*;21(1):1-12.
26. Tadele A, Zewdie M. Awareness of obstetric danger signs among pregnant women in Ethiopia: a cross-sectional study. *BMC Pregnancy and Childbirth. 2019*;19(1):1-8.
27. Kyei N, Adjei D, Asante K, et al. Evaluating the effectiveness of antenatal care education in improving maternal health outcomes in Burkina Faso, Ghana, and Tanzania. *Maternal and Child Health Journal. 2020*;24(3):345-353.
28. Dadi AF, Woldie H, Teshome A. The impact of health extension programs on maternal and child health service utilization in Ethiopia: a systematic review. *BMC Health Services Research. 2020*;20(1):1-10.
29. Federal Ministry of Health Ethiopia. Health Extension Program (HEP) implementation manual. Addis Ababa: Federal Ministry of Health; 2010.
30. World Health Organization. Strengthening health systems to improve health outcomes: WHO's framework for action. Geneva: WHO; 2007.