Knowledge Attitude and Practice towards Antenatal Care among Pregnant Women Attending for Antenatal Care in SOS Hospital at Hiliwa District, Benadir Region, Somalia

Abdullahi Muse Mohamoud1,2*, Sahra Mire Mohamed1, Ahmed Mohamud Hussein3*, Maida Abshir Omar1, Bushra Mohamud Ismail1, Rahma Abdulahi Mohamed1, Muna Ishaq Ahmed1, Seynab Dahir Ibrahim1

1Faculty of Health Sciences, Benadir University, Mogadishu, Somalia
2PHC & HE, Faculty of Medicine, University of Gezira, Wad Madani, Sudan
3Faculty of Medicine and Health Sciences, Mogadishu University, Mogadishu, Somalia
Email: *cabdallamm7@gmail.com, *hamuudiph15@gmail.com

Abstract

Background: Antenatal care is one of the strategies aimed at addressing maternal mortality as it facilitates the identification and avoid pregnancy related problems and save lives of mothers and babies. Purpose: This study aimed knowledge attitude and practice towards antenatal care among pregnant women attending for antenatal care in SOS Hospital, Hiliwa District, Benadir region, Somalia during the period of the study from April 2021-July 2021. Methodology: The study was descriptive cross-sectional, retrospective hospital based; a total of 60 of pregnant women were enrolled in this study. Data were collected through interview method using structured questionnaire. Data analysis was used Statistical Package for Social Science version 20 for analysis (SPSS). Results: The study discovered a total of 60 respondents have participated of which 45 (75%) had knowledge towards antenatal care, while the study found that the sources of antenatal care information was; 23 (38%) from health care providers at health centers and 10 (17%) from husbands. Among the study respondents 48 (80%) have convenience and accepted the utilization of antenatal care and a total of 51 (85%) were seeking permission for antenatal care visit. Also study respondents about 35 (58%) utilized antenatal care visit during their previous pregnancies and 25 (42%) did not. About 22 (36%) were preferred mother and child health centers, 10 (16%) were preferred public hospitals and few proportion 2 (5%) were preferred private hospital for antenatal care.
nant care visit respectively. Finally the study showed that, multigravida, gestational months, seeking permission and spouse accompany to the antenatal care visit and level of awareness significantly contributed to the utilization of ANC by pregnant women in this study. Significant difference was strongly observed ($P = 0.000$). Conclusion and Recommendations: In conclusion, there was good knowledge and positive attitude towards ANC despite poor antenatal care utilization, the study recommended; the federal ministry of health incorporation with federal member states ministry of health should intensify national health education programmers aimed at promoting utilization of antenatal care services by increase the knowledge of mothers about importance of antenatal care and timely antenatal care booking and continue provide capacity building for health care providers across the country on national antenatal care ANC guidelines and policies.

Keywords

ANC, Pregnancy Related Problems, SOS Hospital, Hiliwa

1. Background of the Study

Antenatal care (ANC) is one of the strategies aimed at addressing maternal mortality as it facilitates the identification and mitigation of risk factors early in pregnancy [1]. Timely and frequent use of a package ANC enables delivery of essential services include: identification and management of obstetric complications such as preeclampsia, tetanus toxoid immunization, intermittent preventive treatment for malaria during pregnancy (IPTp), and identification and management of infections including HIV, syphilis and other sexually transmitted infections (STIs). ANC is also an opportunity to promote the use of skilled attendance at birth and healthy behaviours such as breastfeeding, early postnatal care, and planning for optimal pregnancy spacing [2].

Every year about 6 million women become pregnant; 5 million of these pregnancies lead to the birth of the child. An adequate use of antenatal health services is associated with improved maternal and neonatal health status. Pregnancy care expected to affect the development of the fetus and the baby as well as the mother [3].

Approximately 810 women die every day from preventable causes related to pregnancy and childbirth around the world. Global maternal deaths estimated about 295,000 women died during and following pregnancy and childbirth. The vast majority of these deaths (94%) occurred in low-resource settings, and most could have been prevented. The Sub-Saharan Africa alone accounted for roughly two-thirds (196,000) of maternal deaths [4].

Antenatal Care act as a key entry-point for implementing nutrition and health educational interventions that promote preventive health behaviors to improve maternal and neonatal health through better knowledge, attitudes and practices.
Globally scientific evidence has shown that low utilization of FANC services is influenced by some factors such as low maternal education, teenage pregnancies, multiparty, unplanned pregnancies and cultural factors [6].

Knowledge of pregnant mothers may be major factor in determining the extent of antenatal services use. Reports from various parts of the world have shown that increased levels of a wariness of pregnant mothers in terms of antenatal care have an impact on their utilization [7].

A lot of initiatives are in place to encourage adequate FANC utilization, these include: capacity building of health care providers towards ANC Guideline and intensive information, education and communication (IEC) on maternal health services offered in all health facilities. It is worrying that despite availability of the reproductive health policy and initiatives promoting adequate utilization of FANC services, very few pregnant women utilize these services [8].

Therefore, this study aimed to assess the aimed knowledge attitude and practice towards antenatal care among pregnant women attending for antenatal care in SOS Hospital, Hiliwa District, Benadir region, Somalia 2021.

2. Objectives

2.1. General Objectives

The aim of the study to assess the knowledge Attitude and Practice towards antenatal care among pregnant women attending for antenatal care in SOS Hospital Hiliwa District, Benadir, Region Somalia 2021.

2.2. Specific Objectives

The specific Objective was:

- To identify the Knowledge towards antenatal care among pregnant women attending for antenatal care in SOS Hospital 2021.
- To determine the Attitude towards antenatal care among pregnant women attending for antenatal care in SOS Hospital 2021.
- To assess the Practice towards antenatal among pregnant women attending for antenatal care in SOS Hospital 2021.

3. Literature Review

3.1. Maternal Health

Maternal health refers to the health of women during pregnancy, childbirth and the postnatal period. Each stage should be a positive experience, ensuring women and their babies reach their full potential for health and well-being. Three different types of indicators have mostly been used to describe maternal health. These include; maternal mortality, morbidity for selected illnesses, and nutrition related problems during pregnancy [9].

Maternal mortality still remains a burden to health care system especially in the developing world. Although important progress has been made in the last
two decades, about 295,000 women died during and following pregnancy and childbirth in 2017. This number is unacceptably high.

The most common direct causes of maternal injury and death are excessive blood loss, infection, high blood pressure, unsafe abortion, and obstructed labour, as well as indirect causes such as anemia, malaria, and heart disease. Most maternal deaths are preventable with timely management by a skilled health professional working in a supportive environment [10].

Improving maternal health is the fifth United Nations MDG aiming to reduce maternal deaths. WHO has been advocating for improvements of maternal health through safe motherhood initiative. Safe motherhood initiative was developed in 1987 in Nairobi, Kenya at an international consortium of United Nation agencies, governments, Nongovernmental organizations as well as donors in response to the escalating levels of maternal and infant morbidity and mortality in most developing countries. Its main aim was to ensure that most pregnancies and deliveries are handled safely both at the community and health facility level in an act to reduce maternal deaths by 70% from 1990 to 2015 [11]. Although, most maternal and infant deaths can be prevented through safe motherhood practices, millions of women worldwide are still being affected by maternal mortality and morbidity from preventable causes.

Ending preventable maternal death must remain at the top of the global agenda. At the same time, simply surviving pregnancy and childbirth can never be the marker of successful maternal health care. It is critical to expand efforts reducing maternal injury and disability to promote health and well-being. Safe motherhood encompasses a series of initiatives, practices, protocols and service delivery guidelines designed to ensure that women receive high-quality gynecological care, family planning, prenatal, delivery and postpartum care. The pillars of safe motherhood are family planning, ANC, clean/safe delivery and essential obstetric care. In an act to preserve health of the mother and baby, it is substantial to implement Safe motherhood in a vertical and coordinated manner and form part of a broad strategy to improve reproductive health through primary health care. Thus all interventions should be applied holistically within the general context that promotes equity in access to quality care by all women in reproductive age [11].

3.2. Focused Antenatal Care

Focused Antenatal Care FANC is a personalized care provided to a pregnant woman with emphasis on the woman’s overall health, preparation for childbirth and readiness for complications. It is said to be timely, friendly, simple and safe service to a pregnant woman, furthermore [12]. Focused Antenatal Care is an important determinant of maternal health outcomes and one of the basic components of maternal care on which the life of mothers and babies depend. It is the entry point to the health care system and determines whether a mother will deliver in a health facility and whether she will take the baby for preventive ser-
The goal of the ANC package is to prepare for birth and parenthood as well as prevent, detect, alleviate, or manage the three types of health problems during pregnancy that affect mothers and babies:

- Complications Of Pregnancy Itself.
- Pre-Existing Conditions That Worsen During Pregnancy.
- Effects Of Unhealthy Lifestyles.

Furthermore the purpose of Focused Antenatal Care FANC is to permit the midwives to make the primary role for the pregnant mother and her unborn baby to take history and make physical assessment, so the professional behaviour of the midwives is very crucial, midwives are anticipated to have a good and positive attitude towards mothers during antenatal visits and also to use their knowledge and experience to show mothers a sympathetic feeling, the midwives are expected to be considerate patient and to be addressed mothers need immediately after attending the antenatal care section in order to save time [14]. The role of the midwives is also defined as lifesavers, teachers, and counselors health promoters and so on [15].

ANC also provides women and their families with appropriate information and advice for a healthy pregnancy, safe childbirth, and postnatal recovery, including care of the newborn, promotion of early, exclusive breastfeeding, and assistance with deciding on future pregnancies in order to improve pregnancy outcomes. An effective ANC package depends on competent health care providers in a functioning health system with referral services and adequate supplies and laboratory support ANC improves the survival and health of babies directly by reducing stillbirths and neonatal deaths and indirectly by providing an entry point for health contacts with the woman at a key point in the continuum of care. ANC indirectly saves the lives of mothers and babies by promoting and establishing good health before childbirth and the early postnatal period—the time periods of highest risk. ANC often presents the first contact opportunity for a woman to connect with health services, thus offering an entry point for integrated care, promoting healthy home practices, influencing care seeking behaviors, and linking women with pregnancy complications to a referral system. Women are more likely to give birth with a skilled attendant if they have had at least one ANC visit [16].

4. Methods and Materials

4.1. Study Design

This study was descriptive cross-sectional, retrospective hospital based.

4.2. Study Populations

- Medical record of pregnant women who had attended at ANC clinic SOS hospital from January 2018 to December 2020.
The target populations; pregnant women attending for antenatal care in SOS hospital Hiliwa, district Benadir, region Somalia during the period of the study from April 2021-July 2021.

4.3. Study Area

The study was conducted in SOS hospital in Hiliwa district wahar-adde road, established in 1976, which is maternal and child hospital SOS Hospital, hospital departments including:-antenatal ward, postnatal ward. Delivery OT, OPD ward, MCH, Pediatric ward, pharmacy, Blood Bank.

SOS hospital provides maternal and children care including: antenatal care, Delivery care, postnatal care, and any pediatric care, nutritional and child growth.

4.4. Sampling Technique and Sample Size

The sampling technique this study was Non-Probability Convenient sampling.

The sample size of this study was selected 60 respondents of the pregnant women attending for antenatal care in SOS hospital Hiliwa district, Benadir region, during the period of the study from April 2021-July 2021.

4.5. Study Variable and Their Indicators

As shown in Table 1 mainly related the independent study variables and methods to be collected those variables from study participants.

| Table 1. Study variable and their indicators. |
|--------------------------------------------|
| **Variable** | **Indicator** | **Data Collection tool** |
| Socio-demographic characteristics | • Age | Questionnaires |
| | • Residence | |
| | • Marital Status | |
| | • Level of Education | |
| | • Occupation | |
| | • Gravidity: (No of pregnancy) | |
| | • Parity: (No of live births) | |
| Knowledge | • Awareness of ANC | Questionnaires |
| | • Sources of Awareness | |
| Attitudes | • Need/convince of ANC visit/checkup | Questionnaires |
| | • Permission for IPTs Uptake | |
| | • accompany to ANC clinic | |
| | • satisfaction of ANC service | |
| Practice | • ANC Visit | Questionnaires |
| | • Initiation time (Gestational period) of ANC Visit | |
| | • Frequency of ANC visit | |
| | • Reasons of not making ANC Visit | |
4.6. Method of Data Collection
During the study, different tools were used for collecting data from different sources.

**Secondary Sources:** including books, reports, hospital records, published papers, official documents, etc.

**Primary Sources:** was carried out using interviewer-administered questionnaire that was designed into two parts first part contain socio-demographic information, which’s of age, marital status, educational level, occupation, gravidity, parity and second part which the knowledge attitude and practice towards antenatal care among pregnant women attending for antenatal care in SOS Hospital Hiliwa District, Benadir, region Somalia.

4.7. Data Analysis
Data analyzed by using SPSS (statistically package for the social science) version 16.0, 16 computer program were used. A variables’ descriptive screening was adopted which includes percentages, means frequency distribution tables, 0.05 was used as a cut off significance value.

4.8. Ethical Considerations
Ethical approval Letter for the study was obtained from the Benadir University, Faculty of Health sciences. Therefore before data collection a permission letter was taken from SOS Hospital medical director, while Verbal consent was obtained from each respondent who participated in this study and explained that this research is only for academic and the information provided will not be used for another purpose.

5. Results

**Table 2** indicated that the majority of the respondents 45 (70%) were aged between (25 - 34) years while 10 (17%) were aged between (15 - 24) years followed by 5 (8%) were aged between (35 - 44) years, the majority illustrated that 22 (37%) were illiterate, followed by 17 (28%) were primary education level, 14 (23%) were secondary level While only 7 (12%) were university level.

In **Table 2** showed that 26 (43%) said more than four times, followed by 19 (32%) said three times, 14 (28%) said two times, while only 1 (2%) said one time.Lastly the respondents mentioned that 33 (55%) said more than four children, followed by 20 (33%) said three children, 6 (10%) said two children, while only 1 (2%) said one child respectively.

**Table 3** revealed that the majority of the respondents 45 (75%) said yes while 15 (25%) said no when asked their Awareness on Antenatal care ANC.

Also the respondents illustrated that 31 (52%) said its care given to pregnant women during pregnancy, followed by 9 (15%) said Its Maternal health & maternal nutritional towards pregnant women, while only 5 (8%) said it’s WHO recommendation; that pregnant women in developing countries to get at least
Table 2. Socio-demographic characteristics.

| Age of the Respondent | Frequency | Percent |
|-----------------------|-----------|---------|
| 15 - 24 yrs           | 10        | 17%     |
| 25 - 34 yrs           | 45        | 75%     |
| 35 - 44 yrs           | 5         | 8%      |
| Total                 | 60        | 100%    |

| Level of education?   | Frequency | Percent |
|-----------------------|-----------|---------|
| Illiterate            | 22        | 37%     |
| Primary               | 17        | 28%     |
| Secondary             | 14        | 23%     |
| University            | 7         | 12%     |
| Total                 | 60        | 100%    |

| Gravidity (No of Pregnancy) | Frequency | Percent |
|-----------------------------|-----------|---------|
| One                         | 1         | 2%      |
| Two                         | 14        | 23%     |
| Three                       | 19        | 32%     |
| More than four times        | 26        | 43%     |
| Total                       | 60        | 100.0   |

| Parity (No of live births)  | Frequency | Percent |
|-----------------------------|-----------|---------|
| One child                   | 1         | 2%      |
| Two children                | 6         | 10%     |
| Three children              | 20        | 33%     |
| More than four children     | 33        | 55%     |

four ANC visits. While 15 (25%) said I don’t know.

In Table 3 mentioned the sources of the information and pointed out that 23 (38%) said that the source of their awareness towards antenatal care were from health care providers at health centers while 10 (17%) from my husband, followed by 8 (13%) from friends/relatives/neighbors; 3 (7%) from traditional birth attendants; While 15 (25%) said I don’t know.

In Table 4 showed that the majority of the respondents 48 (80%) said yes while 12 (20%) said no when asked about Convenience to go for antenatal check-up. Another revealed that the majority of the respondents 51 (85%) were taking permission from their husbands for ANC clinic visit during their pregnancies, while the rest of respondents 9 (15%) did not.

The result in Table 4 showed that the majority of the respondents 42 (70%) were said yes while 18 (30%) were said no when asked about their Satisfaction current ANC service.
### Table 3. Pregnant women’s knowledge: antenatal care (ANC).

| Awareness on Antenatal care ANC | Frequency | Percent |
|---------------------------------|-----------|---------|
| Yes                             | 45        | 75%     |
| No                              | 15        | 25%     |
| **Total**                       | **60**    | **100%**|

| Definition of Antenatal care ANC | Frequency | Percent |
|---------------------------------|-----------|---------|
| Its Care given to pregnant women during pregnancy | 31        | 52%     |
| Its Maternal health & maternal nutritional towards pregnant women | 9         | 15%     |
| It’s WHO recommendation; that pregnant women in developing countries to get at least four ANC visits | 5         | 8%      |
| I don’t know                    | 15        | 25%     |
| **Total**                       | **60**    | **100%**|

| Source of information about antenatal care | Frequency | Percent |
|-------------------------------------------|-----------|---------|
| Health care providers at health centers   | 23        | 38%     |
| Traditional Birth Attendants              | 3         | 5%      |
| My husband                                | 10        | 17%     |
| Radio & Television                        | 1         | 2%      |
| Friends/relatives/neighbors               | 8         | 13%     |
| I don’t know                              | 15        | 25%     |
| **Total**                                 | **60**    | **100%**|

### Table 4. Pregnant women’s attitude: antenatal care (ANC).

| Convenience to go for antenatal check-up? | Frequency | Percent |
|------------------------------------------|-----------|---------|
| Yes                                      | 46        | 80%     |
| No                                       | 12        | 20%     |
| **Total**                                | **60**    | **100%**|

| From who for ANC clinic attendance permission | Frequency | Percent |
|-----------------------------------------------|-----------|---------|
| My Husband                                    | 51        | 85%     |
| I don’t take permission                       | 9         | 15%     |
| **Total**                                     | **60**    | **100%**|

| Satisfaction current ANC service             | Frequency | Percent |
|----------------------------------------------|-----------|---------|
| Yes                                          | 42        | 70%     |
| No                                           | 18        | 30%     |
| **Total**                                     | **60**    | **100%**|
Table 5 demonstrated that 35 (58%) were said yes while 25 (42%) said no when asked if they conducted Previous ANC visit. Also showed that the majority of respondents 22 (36%) were said Mother and child health center (MCH), followed by 10 (16%) said public hospitals. While only 2 (5%) said private hospital. Lastly showed that 21 (35%) were said one time followed by 10 (16%) were said two times, 3 (5%) were said three timed, 1 (2%) were said Four and more times when asked how many Number of ANC visits of current pregnancy respectively.

6. Analytic Data

Table 6 showed when the parity of the respondents were cross tabulated with their ANC visit the result showed significant difference was strongly observed (P < 0.000).

Table 7 showed that when the respondent’s Awareness toward ANC were cross tabulated with their ANC visit result showed significant difference was strongly observed (P < 0.000).

Table 8 showed that when the respondent’s seeking for permission to the ANC visit were cross tabulated with their ANC visit result showed significant difference was strongly observed (P < 0.000).

Table 9 showed that when the respondent’s spouse (husband) accompany to the ANC center were cross tabulated with their ANC visit result showed significant difference was strongly observed (P < 0.000).

Table 5. Pregnant women’s practice: antenatal care (ANC).

|                          | Frequency | Percent |
|--------------------------|-----------|---------|
| **Previous ANC visit**   |           |         |
| Yes                      | 35        | 58%     |
| No                       | 25        | 42%     |
| Total                    | 60        | 100%    |
| **Preference for your antenatal care With regard to your previous pregnancy** | | |
| Public Hospital          | 10        | 16%     |
| Mother and child health center (MCH) | 22 | 37%     |
| Private Hospital         | 3         | 5%      |
| I don’t visit            | 25        | 42%     |
| **Number of ANC visits of current pregnancy** | | |
| One time                 | 21        | 35%     |
| Two times                | 10        | 16%     |
| Three time               | 3         | 5%      |
| Four and more times      | 1         | 2%      |
| I don’t visit            | 25        | 42%     |
| Total                    | 60        | 100.0   |
Table 6. Cross tabulate between respondent’s parity and their ANC visit.

| Parity          | ANC Visit | P. Value |
|-----------------|-----------|----------|
|                 | Yes       | No       |
|                 | Total     |          |
| One             | 1 (2%)    | 0 (0%)   | 1 (2%)   |
| Two             | 6 (10%)   | 0 (0%)   | 6 (10%)  |
| Three           | 20 (33%)  | 0 (0%)   | 20 (33%) |
| Four and more   | 8 (13%)   | 25 (42%) | 33 (55%) |
| **Total**       | **35 (58%)** | **25 (42%)** | **60 (100%)** |

Table 7. Cross tabulate between respondent’s level of awareness toward ANC and their ANC visit.

| ANC Awareness | ANC Visit | P. Value |
|---------------|-----------|----------|
|               | Yes       | No       |
|               | Total     |          |
| Yes           | 35 (58%)  | 16 (27%) | 51 (85%) |
| No            | 0 (0%)    | 9 (15%)  | 9 (15%)  |
| **Total**     | **35 (58%)** | **25 (42%)** | **60 (100%)** |

Table 8. Cross tabulate between respondent’s seeking permission for ANC visit and their ANC Visit.

| Seeking Permission | ANC Visit | P. Value |
|--------------------|-----------|----------|
|                    | Yes       | No       |
|                    | Total     |          |
| Yes                | 41 (68%)  | 10 (17%) | 51 (85%) |
| No                 | 0 (0%)    | 9 (15%)  | 9 (15%)  |
| **Total**          | **41 (68%)** | **19 (32%)** | **60 (100%)** |

Table 9. Cross tabulate between respondent’s Spouse (Husband) accompany to the ANC and their ANC visit.

| Spouse (Husband) accompany | ANC Visit | P. Value |
|----------------------------|-----------|----------|
|                            | Yes       | No       |
|                            | Total     |          |
| Yes                        | 35 (58%)  | 10 (17%) | 45 (75%) |
| No                         | 0 (0%)    | 15 (25%) | 15 (25%) |
| **Total**                  | **35 (58%)** | **25 (42%)** | **60 (100%)** |

difference was strongly observed (P < 0.000).

Table 10. When the respondent’s gestational months of their current pregnant were cross tabulated with their ANC visit result showed significant difference was strongly observed (P < 0.000).

7. Discussion.

As shown in Table 6 mainly related the independent study variables and methods to be collected those variables from study participants. In Table 2 showed
that this study illustrated that the majority of the respondents 45 (70%) were aged between 25 - 34 years while 54 (90%) were married while 4 (7%) and 22 (37%) were illiterate, followed by 17 (28%) were primary education level, also 46 (77%) were Housewives, while 9 (15%) were employed and 33 (55%) were had more than four children.

ANC utilization can be influenced by demographic and socio-cultural factors. Maternal age has been shown to be both negatively and positively influence utilization of FANC and ANC in general. A study conducted in Turkey demonstrated that teenage mothers were statistically less likely to use FANC service [6]. However, in other studies teenage mothers were more likely to start utilizing ANC services earlier than their older counter parts [17].

In Table 2 Maternal education has also been shown to influence utilization of ANC [18]. In study conducted in Nepal demonstrated that women with higher education were more likely to utilize FANC than those with lower education [19]. A study conducted in Ecuador and Nepal found that demographic factors such as marital status, occupation, religion, family size and ethnicity also statistically significantly influence utilization of ANC, also Place of residence has also been shown to influence ANC utilization, and women in urban areas were more likely to use ANC more than rural women in Ecuador [20].

In Table 2, in the multivariable analysis, maternal education was found to be significantly associated with timely attendance of ANC; mothers whose educational status was secondary school and above were two times more likely to attend their ANC timely compared to the mothers who took primary school or who had no formal education. This study is similar to the studies conducted in Vietnam, Benin, Uganda, Ambo and Adigrat [21]. This might be due to, educated mothers might be knowledgeable about what is necessary during pregnancy, the importance of ANC and early booking and they might book timely.

In Table 6, Maternal level of knowledge was found to be significantly associated with timely beginning of ANC; respondents who had good knowledge about the importance of ANC and early booking were about three times more likely to book timely as compared to those respondents who had poor knowledge about the importance of ANC and early booking. This is equivalent with the study findings in Benin, Zambia, Tanzania, Rwanda, Ambo, Debre brhan,
In Mekelle and Adigrat in which mothers who lack knowledge about ANC were more likely to book late [22].

In Table 6 addition many other studies showed woman’s residence, age, educational status, employment status, parity, intention to get pregnant, economic status, health insurance, and traveling time are among the most cited factors which are related to late ANC visit [23].

8. Conclusions

As shown in Table 2, total numbers of 60 respondents were pregnant women who attended antenatal center SOS hospital Hiliwa district, Benadir region, Somalia during the period of the study from April 2021-July 2021.

Almost about 45 (70%) were aged between 25 - 34 years while 54 (90%) were married, 4 (7%) and 22 (37%) were illiterate, followed by 17 (28%) were primary education level, also 46 (77%) were Housewives, while 9 (15%) were employed and 33 (55%) were had more than four children.

Among the study respondents, 45 (75%) had awareness towards antenatal care while the source information was 23 (38%) from health care providers at health centers while 10 (17%) from their husband, and 48 (80%) have convenience and accepted utilization of antenatal care, while 51 (85%) were taking permission for antenatal care clinic visit also 56 (93%) had a spouse accompany during their ANC clinic visit.

As show in Table 5, total 35 (58%) utilized antenatal care ANC visit during their pregnancies while 22 (36%) were preferred to go Mother and child health center (MCH) for antenatal care visit, followed by 10 (16%) public hospitals. while only 2 (5%) private hospital.

And 26 (43%) were they started ANC visit during the period 7 - 9 months (25 - 36 weeks) of their gestational period of their current pregnancy followed by 6 (10%) were started ANC visit in 4 - 6 months (13 - 24 weeks) of their gestational period while 21 (35%) were made one time of ANC visit followed by 10 (16%) two times of ANC visit regarding their main reason of not ANC clinic visit of their previous pregnancy.

A total of 13 (22%) were responded due to: not satisfied with the services offered at the health facilities, followed by 9 (15%) responded not knew that they was supposed to attend ANC, while 2 (3%) responded due to long waiting hours while 1 (2%) responded Bad health worker attitude.

Furthermore, when the respondent’s multigravida, gestational months of their current pregnant, seeking permission and a spouse (Husband) accompany to the ANC clinic visit and level of their awareness were cross tabulated with their ANC visit result showed significant difference was strongly observed (P = 0.000) as mentioned in Table 9.

Recommendations

The study recommended the flowing:
1) The Federal ministry of health incorporation with Federal member states ministry of health should intensify national health education programmers aimed at promoting utilization of ANC services by increase the knowledge of mothers about importance of antenatal care and timely antenatal care booking.

2) To train all health workers especially (doctors, nurse and midwives) in the health facility level across the country on the national Antenatal care guideline, policies and strategies to ultimately improve quality of health care services in the maternal and child health services

3) To increased awareness and behavioral change and improve male involvement of maternal and reproductive health services.

4) However, due to the scarcity of published data regarding the antenatal care in Somalia and the important of antenatal care ANC services. The study recommended further studies on Knowledge Attitude and Practice towards Antenatal Care among Pregnant Women should be conducted in Somalia.

**Conflicts of Interest**

The authors declare no conflicts of interest regarding the publication of this paper.

**References**

[1] World Health Organization (2002) WHO Antenatal Care Randomized Trial: Manual for the Implementation of the New Model. WHO Document WHO/RHR/01.30, WHO, Geneva.

[2] (2006) Standards for Maternal and Neonatal Care: Provision of Effective Antenatal Care. http://www.who.int/reproductivehealth/publications/maternal_perinatal_health/effective_antenatal_care.pdf

[3] WHO (2007) UNFPA Advocacy Brief: In Family Planning/Child Birth Spacing for Health and National Development Action Points for Policymaker. Produced by the Federal Ministry of Health with Support from ENHANCE Project/USAID. 1309-1315.

[4] (2019) Trends in Maternal Mortality: 2000 to 2017: Estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. World Health Organization, Geneva.

[5] Ochako, R., Fotso, J., Ikamari, L. and Khasakhala, A. (2011) Utilization of Maternal Health Services among Young Women in Kenya: Insights from the Kenya Demographic and Health Survey. *BMC Pregnancy Childbirth*, **11**, Article No. 1. https://doi.org/10.1186/1471-2393-11-1

[6] Simkhada, B.D., Van Teijlingen, E.R., Porter, M. and Simkhada, P. (2008) Factors Affecting the Utilization of Antenatal Care in Developing Countries: Systematic Review of the Literature. *Journal of Advanced Nursing*, **61**, 244-260. https://doi.org/10.1111/j.1365-2648.2007.04532.x

[7] Okafor, E.C. (2016) Attitude and Practice of Health Care Professionals, Regarding HIV and AIDS in Abia State Hospitals.

[8] Akhtar, S., *et al.* (2018) Knowledge Attitude and Practice Regarding Antenatal Care among Pregnant Women in Rural Area of Lahore. *International Journal of Social
Bergstrom, S. and Goodburn, E. (2001) The Role of Traditional Birth Attendants in the Reduction of Maternal Mortality. Safe Motherhood Strategies: A Review of the Evidence. ITG Press, Antwerp.

WHO (2005) The World Health Report: Make Every Mother and Child Count. World Health Organization, Geneva.

WHO, UNICEF, UNFPA (2012) World Bank Estimates. Trends in Maternal Mortality: 1990 to 2010. Geneva.

WHO and UNICEF (2003) Antenatal Care in Developing Countries: Promises, Achievements and Missed Opportunities: An Analysis of Trends, Levels, and Differentials: 1990-2001. WHO & UNICEF, Geneva, New York.

Chuma, J. and Maina, T. (2012) Catastrophic Health Care Spending and Impoverishment in Kenya. BMC Health Services Research, 12, Article No. 413. https://doi.org/10.1186/1472-6963-12-413

Abdillahi, H.A., Sahlén, K.-G., Kiruja, J.H. and Bile, K. (2019) Factors Affecting Utilization of Antenatal Care (ANC) Services among Women of Childbearing Age in Hargeisa, Somaliland.

Adesokan, F.O. (2011) Reproductive Health for All Ages. BOSEM Publishers, Akure, 145-158.

https://www.who.int/pmnch/media/publications/aonsectionIII_2.pdf

Pallikadavath, S., Foss, M. and Stones, R.W. (2004) Antenatal Care: Provision and Inequality in Rural North India. Social Science and Medicine, 59, 1147-1158. https://doi.org/10.1016/j.socscimed.2003.11.045

Sharma, B. (2004) Utilization of Antenatal Care Services in Nepal. Nepal Population Journal, 11, 79-97.

Paredes, I., Hidalgo, L., Chedraui, P., Palma, J. and Eugenio, J. (2005) Factors Associated with Inadequate Prenatal Care in Ecuadorian Women. International Journal of Gynecology & Obstetrics, 88, 168-172. https://doi.org/10.1016/j.ijgo.2004.09.024

Ndyomugyenyi, R., Neema, S. and Magnussen, P. (1998) The Use of Formal and Informal Services for Antenatal Care and Malaria Treatment in Rural Uganda. Health Policy and Planning, 13, 94-102. https://doi.org/10.1093/heapol/13.1.94

Amou, A.M., Degun, A.M., Thomas, A.M., Olanrewaju, M.F., Babalola, A.O., Omenu, P.E. and Ola, O.O. (2011) A Study on the Acceptance and Practice of Focused Antenatal Care by Healthcare Providers in the South-West Zone of Nigeria. Archives of Applied Science Research, 3, 484-491.

Cicelkioğlu, M., Soyer, M.T. and Oçek, Z.A. (2005) Factors Associated with the Utilization and Content of Prenatal Care in a Western Urban District of Turkey. International Journal for Quality in Health Care, 17, 533-539. https://doi.org/10.1093/intqhc/mzi076

Bhatia, J.C. and Cleland, J. (1995) Determinant of Maternal Care in a Region of South India. Health Transition Review, 5, 127-142.