Scientific
Research
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Factors Affecting the Utilization of Antenatal Care among Married Women of Reproductive Age in Merca, Lower Shebelle, Somalia

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Abstract

Worldwide more than thousands of women and new born are at the danger of die from pregnancy and child delivery complications. Antenatal care (ANC)/pregnancy care is the health care where expecting mothers and new born receive medical care or medical attention. The aim of this study is to examine factors affecting the utilization of antenatal care among married women of reproductive age in Merca, lower Shebelle, Somalia. **Methodology:** This is a descriptive cross-sectional and qualitative study design that was carried out from June to August 2022 and this study was carried out in Merca, district lower Shabelle, Somalia. Data were collected from 325 married women of reproductive age who have at least one child and more than living in Merca district. **Result:** Our study found that the magnitude of antenatal care uptake was 31.1% during the examined period. Very low utilization of antenatal care in Somali women is worrying in the face of high vulnerability of maternal complications. In terms of age diverse and utilization of antenatal care, women in younger age group 15 - 30 were more to utilize antenatal care services than with women in older age group 31 years above (p-value < 0.007). Our study also identified that there is association between level of education and level of utilization among women about antenatal care services (p-value < 0.001). In terms of level of awareness about antenatal care services, it is significantly associated with the level of utilization antenatal care (p-value < 0.001). Our study identified that the number of complaining complications related previous pregnancy that have no awareness about antenatal care services was higher than number of utilized antennal care awareness about antenatal care (p-value < 0.001). Based on these results, it is recommended to improve

women's awareness about antenatal care services by using health education program.

Keywords

Antenatal Care, Pregnant Women, Utilization, Reproductive Age

1. Introduction

Antenatal care (ANC) is the health care given to mothers to ensure a safe pregnancy and a healthy delivery [1]. The advantages of (ANC) service provision are the identification of risk factors through early screening and diagnosis to prevent and relevant management of maternal complications such as stillbirth [2].

WHO has recommended at least eight visits of ANC should have for pregnant women starting from the first 12 weeks of gestational age with subsequent visiting at 20, 26, 30, 34, 36, 38- and 40-weeks of gestational age [3]. The objective of new guidelines is to ensure both healthful pregnancy, and a success stage of labor and childbearing [3]. Furthermore, WHO recommendations include counseling, maternal nutrition, prevention and treatment of those facing risk factors and common illnesses, support for women at risk of intimate partner violence, and preventative measures for certain pandemic diseases such as malaria or the HIV/AIDS pandemic [3] [4]. Hence, family planning, skilled childbearing care, and emergency obstetric care along with ANC service are the objectives for improving pregnant women's and newborn health [5] [6]. Worldwide, thousands of women and newborns are at risk of dying from complications of pregnancy and childbirth. For example, 303,000 women died and 2.6 million miscarriages in 2015 were caused by complications related to pregnancy and childbirth [7] [8].

In the world, 86% of mothers seek antenatal care at least once during her skilled child bearing attendance and 62% of mothers receive at least four visits [9] as well in South Asia and sub-Saharan Africa. In 2011, 52% and 46% of maternal acquired at least four ANC visits [9]. For over 31 years, Somalia, especially Merca in Lower Shabelle, has been severely affected by civil strife. As a result, primary facilities such as maternal and child health facilities (MCH), referral hospitals, and their services have been completely destroyed. Only 6.0% of childbearing women attend ANC/MCH centers in south central Somalia. The approximated maternal mortality rate of 1400 per 100,000 live births suggests that Somali women are one of the most high-risk groups worldwide [10] [11].

Somali women only seek pregnancy health services after traditional birth attendance can't help for a normal delivery at home. According to the WHO, most women in Somalia give birth at home with the assistance of traditional birth attendance (TBA), family, neighborhood, and friends [11]. Today, antenatal care utilization saves more than millions life in Somalia. However, reproductive age women still do not have aware, practice and access antenatal care services and die complications from maternity that can be prevented by increasing awareness,

practice and access of utilization antenatal care. Increasing number utilization antenatal cares reduce maternal morbidity and mortality.

Factors affecting utilization of antenatal care are socio-demographic characteristics (age, marital status, education, occupation, income, gravida), awareness about ANC (knowledge about ANC, source knowledge), practice-related factors (ANC visiting, number of ANC visiting, maternal complications), and access-related factors (availability of public transportation, distance to the nearest ANC, cost of public transportation). The aimed of this study is to examine the factors affecting the utilization of antenatal care among married women of reproductive age in Merca, Lower Shebelle, Somalia.

2. Literature Review

Reports that clear among 15 countries were considered hot spots of maternal mortality, 8 out of 15 were sub Saharan Africa. These countries include central Africa republic, guinea, chad, Zimbabwe, Democratic Republic of Congo, Nigeria, Ethiopia, and Somalia [12]. Some major predictors related to the maternal mortality such anemia, ruptured uterus, eclampsia, sepsis, hemorrhage, prolonged obstructed labour and others [13].

Educated women have high awareness of existing antennal care services and the benefit/ important of taking this services [14]. Findings have revealed that illiteracy women usually have no knowledge about antenatal care services and also difficult to get access antennal care services [15]. Study carried out in central Ethiopia found that women with literacy were more than two times likely to come antenatal care services [16], and also similar study were found in study carried out in north Ethiopia and Nigeria [17] [18]. Knowledge about health is an essential factor. It advantages to be enable a women to be aware their rights about health status and to seek relevant health services. The findings have shown enough knowledge the important of antenatal care services and the complications related with maternal plays an essential role in the utilization of antenatal care services. This study has also shown very strong association between attendance of antenatal care services and distance of ANC. The distance has been known as an essential barrier to the utilization of antenatal care services [19]. When it is combined distance and lack of transportation increase effect the utilization of antenatal acre services in the developing countries [19].

3. Methods and Materials

3.1. Study Area

This study was carried out in Merca, district, which is capital city lower Shabelle, Somalia.

3.2. Study Design

This is descriptive cross-sectional and qualitative study design was carried out from June to August 2022.

3.3. Study Population and Sampling Procedure

Data were collected from 325 married women of reproductive age who have at least one child and more than living in Merca district. The sample size was calculated Slovin's formula based on estimation of the total population 1735 selected some villages by random sampling. The Sampling selection procedure was carried out cluster sampling stages at Merca district villages by using randomly.

3.4. Data Collection and Analyses

Data were collected using a face-to-face interviewing technique and a preset structured questionnaire. The questionnaire was written in English, translated into the local language, and then, for confirmation, retranslated back into English. Data were collected and compiled by using statistical package Social science analyze. Data were carried out to analyses and association for statistical tests (Chi-Square) test

3.5. Ethical Consideration

Respondents were given written consent, and confidentiality was maintained.

3.6. Variables

Variables of this study include: socio-demographic characteristics, awareness about antenatal care, practice about antenatal care and access related antenatal care.

4. Results

4.1. Socio Demographic Characteristics of the Respondents

Table 1 shows the majority of respondent's age 56% was 15 - 30 years old, 84.6% were married, 53.8.% were illiteracy, 63.7% were unemployed, and 61.5% were 100 up to 200 USD, while the majority of respondents (50.8%) had 5 - 8 children.

4.2. Awareness Related Factors of Antenatal Care

Table 2 shows majority of respondents (50.8%) were not aware about hear of antenatal care, 46.2%, of respondents were get information from health workers.

4.3. Practical Related Factors to Antenatal Care Services

Table 3 shows majority of respondents (68.9%) didn't visit for utilize antenatal care, in terms majority of those didn't visit for utilize ANC services (51.7%) were complained complications, also according to the most visiting times of the respondents of antenatal care services (27%) were 1 - 2 times.

4.4. Accessibility Related Factors to Antenatal Care Services

Table 4 shows majority of respondents (52.3%) didn't get regularly public transportation to the nearest ANC, (51.4%) of respondents were faraway the

nearest ANC from their house, (50.8%) of respondents were expensive cost of public transportation to the nearest ANC.

Table 1. Distribution of the respondents by socio-demographic characteristics (n = 325).

Variables	Frequency	Percentage (%)
Age		
15 - 30 years	182	56
30 years over	143	44
Marital status		
Married	275	84.6
Single mother	50	15.4
Educational level		
Literacy	150	46.2
Illiteracy	175	53.8
Occupational level		
Private employee	32	9.9
Government employee	15	4.6
Self-employee	71	21.8
UN employee	207	63.7
Income statement per month		
50 up to 100 USD	200	61.5
100 up to 200 USD	70	21.5
200 up to 300 USD	38	11.7
300 USD above	17	5.3
Gravida		
1 - 4 children	148	45.5
5 - 8 children	165	50.8
9 and above children	12	3.7

Table 2. Distribution of the respondents by awareness-related factors to antenatal care services (n = 325).

Variables	Frequency	Percentage (%)
Knowledge about antenatal care		
Yes	160	49.2
No	165	50.8
Sources of information about ANC		
Health worker	150	46.2
Mother	120	36.9
Husband	55	16.9

Table 3. Distribution of the respondents by practice-related factors to antenatal care services (n = 325).

Variables	Frequency	Percentage (%)
Visited for utilization ANC services		
Yes	101	31.1
No	224	68.9
Number of Visited for utilization ANC services		
0 times	224	68.9
1 - 2 times	88	27.1
3 - 4 times	13	4
Ever had maternal complications related to the previous pregnancy		
Yes	168	51.7
No	157	48.3

Table 4. Distribution of the respondents by Accessibility-related factors to antenatal care services (n = 325).

Variables	Frequency	Percentage (%)
Availability Public transportation to the nearest ANC		
Every day	155	47.7
Sometimes	170	52.3
Distance to the nearest ANC		
At walking distance to the nearest ANC	158	48.6
Far away from ANC	167	51.4
Cost transportation to the nearest ANC		
Inexpensive	160	49.2
Expensive	165	50.8

Table 5 shows significant associations of ANC visits with most of the associated factors. Among several such factors, age, education, Awareness as well as the complication that complaining of the respondents were revealed to be positive and significant predictors of ANC service with a <0.05 p-value. It also confirmed that the levels of education and Awareness were the most important predictors of ANC utilization in the Merca District. In terms of age there was association between diversity of age women and the utilization of ANC services (p-value < 0.007) there was association between level of Education of women and the utilization of ANC services (p-value < 0.001). There was association between level of awareness of women about ANC services and the utilization ANC services (p-value < 0.001). There was association between level of Women who had not utilized antenatal care and level of complaining complication previous pregnancy (p-value < 0.001). There was association between level of women who

access public transportation to the nearest ANC and the utilization for ANC services (p-value < 0.002). There was association between distance from the household of women to the nearest ANC services and the utilization of ANC services (p-value < 0.003). There was association between cost of transportation to the nearest ANC services and the utilization of ANC services (p-value < 0.001).

5. Discussion

The study based on cross-sectional study with the main objective was to assess factors affecting utilization of antenatal care among married women of reproductive age in Merca district, lower Shebelle, Somalia.

Table 5. Association between Socio-demographic characteristics, awareness and access of women utilizing antenatal care services in Merca District (n = 325).

Variables	Antenatal care utilization		P-value
	ANC Utilizers (n = 101)%	ANC Not utilizers (n = 224)%	
Age of the respondents			
15 - 30 years	66 (65.3%)	116 (51.8%)	0.007
31 years over	35 (34.6%)	108 (48.2%)	
Education of the respondents			
Literacy	60 (59.4%)	90 (40.2%)	0.001
Illiteracy	41 (40.6%)	134 (59.8%)	
Awareness about ANC			
Yes	62 (61.4%)	98 (43.75%)	0.001
No	39 (38.6%)	126 (56.25%)	
Complication that complaining of the respondents			
Yes	39 (38.6%)	129 (57.6%)	0.001
No	62 (61.4%)	95 (42.4%)	
Availability Public transportation to the nearest ANC			
Every day	60 (59.4%)	95 (42.4%)	0.002
Sometimes	41 (40.6%)	129 (57.6%)	
Distance to the nearest ANC			
At walking distance to the nearest ANC	60 (59.4%)	98 (43.75%)	0.003
Far away from ANC	41 (40.6%)	126 (56.25%)	
Cost transportation to the nearest ANC			
Inexpensive	62 (61.4%)	98 (43.3%)	0.001
Expensive	39 (38.6%)	126 (56.7%)	

Our study found that the magnitude of antenatal care uptake was 31.1% during the examined period. (27.1%) from total findings were 1 - 2 times and (4%) were 3 - 4 times visiting health center for utilization antennal care services. Very low utilization of antenatal care in Somali women is worrying in the face of high vulnerability of maternal complications such as disability of reproductive organs of women and maternal mortality. High utilization of antennal care services is important in reducing the risks related with group of maternal age. In previous studies reported that antenatal care utilization was higher than in Nigeria (76.8%) [20].

In terms of age diverse and utilization of antenatal care women in younger age group 15 - 30 were more to utilize antenatal care services than with women in older age group 31 years above because younger age was high level of education than old women (p-value < 0.007). Previous studies supported our findings in Sudan (p-value < 0.001) [21].

Our study identified that there is association between level of education and level of utilization among women about antenatal care services because most utilized antenatal care services was literacy. Female Education is the key empowerment of women of increasing awareness, acceptance and seeking for utilization antenatal care services (p-value < 0.001). Previous studies supported our findings (p-value < 0.001) [22].

In terms women were awareness ANC services were highly utilize ANC services than women were not aware ANC services. The level of utilization of antenatal care increased as the level of awareness about antenatal care services increased. This finding shows that better education will lead women to gain better awareness about antennal care services. Our study encouraging the benefit of raising awareness about the risk related maternity and the benefit of utilization antenatal care services (p-value < 0.001). Other previous studies reported (p-value < 0.90) [23].

Our study identified that the number of complaining complications related previous pregnancy that have no awareness about antenatal care services was higher than number of utilized antennal care awareness about antenatal care. When the number of utilization antenatal increase as the opposite the number that complaining complications and maternal mortality rate will decrease. To reduce maternal complications and mortality need to promote women awareness about ANC for seeking utilization ANC services (p-value < 0.001). Other studies supported our findings (p-value < 0.001) [22].

Availability of public transportation regularly was higher for utilization of ANC services than those who access public transportation irregularly. Access public transportation regularly is very important element for utilization ANC services (p-value < 0.002). Previous studies supported (p-value < 0.001) [24].

Our findings shows a woman who nearby ANC services were higher than for utilization ANC services than those were far away from ANC. reproductive age women far away from the health center provides ANC services have been problem to attend for utilization antenatal care services (p-value < 0.003). Previous

similarly study supported (p-value < 0.032) [24]. Inexpensive transportation was more assisting a pregnant woman for utilization of ANC services than expensive transportation (p-value < 0.001). Previous similarly study supported (p-value < 0.024) [24].

6. Conclusions

The result of this study identified the utilization of antenatal care services is very low in Merca district, lower Shebelle, Somalia. Because the main factors that influence the utilization antenatal services are the participants' level of education and level of awareness about utilization antenatal care services. Therefore, level of knowledge and level of awareness about antenatal care services is very important for encouraging pregnant women to seek and accept utilization antenatal care services. Similarly previous studies have encouraged to raise awareness about among women of reproductive age both educated and uneducated.

Based on these results, it is recommended to improve women's awareness about antenatal care services by using health education program. MOH and other institution those provide antenatal care services should sent mobile health team and community mobilization for villages those aware or difficult to reach for the sake of faraway of health center. WHO has recommended at least eight visits of ANC should have for pregnant.

Limitation Studies

This academic study was carried out in some villages in Merca district. Findings were limited for security issues, economic issues, and lack of awareness and misunderstanding of the respondents about survey.

Conflicts of Interest

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

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