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Understand Factors Influencing Accessibility of Pregnant Women to Antenatal Care Services

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Abstract

Antenatal care is recognized as a major component of comprehensive maternal health care. It should include services that monitor the progress of the pregnancy to assess fetal and maternal health, offer preventive treatment such as immunization against tetanus and advise women on a range of significant health problems.

Aim: The purpose of the study to assesses elements that influence the accessibility of prenatal health care Service.

Methods: A cross-sectional hospital-based study was conducted among pregnant women attending antenatal care, outpatient clinics at Omdurman maternity hospital in Sudan, A total of 185 pregnant women were enrolled in the study. A self-administered interview questionnaire was used to hold information from study participants, SPSS software was used to produce descriptive statistics and cross tabulations with the chi - square test were performed to explore associations between variables.

Result: The majority of the pregnant women has access to antenatal care services (93.0%) and respondents paid for shipping to and from ANC, also paid for health care services.

Conclusion: Access, use of ANC services and payment for to ANC services these three genes found to greatly influence the utilization of ANC services among pregnant women in Omdurman maternity hospital.

Keywords: Antenatal care; Maternal health care; Significant adult females; Pregnant adult females; Sudan

preventive treatment such as immunization against tetanus or iron for anemia and advise women on a range of important health subjects such as identification of warning signals in pregnancy and when to seek care [2].

In Sudan, urban women seem to rely more on the doctor and health visitors as antenatal care providers, while rural women approach the midwife and trained traditional birth attendant (TBA) for the same purpose. Since the younger and older women differ in their experience and influence, the health seeking behavior is likely to vary between younger and older woman [3].

Evidence from previous researchers suggests that maternal education has a positive force on the utilization of health care services in Africa, Middle Eastern countries, Asia, and Latin America. Other surveys also establish the physical proximity of health care services, particularly in the developing countries plays a significant role in the utilization of these services [4]. Factors determining the utilization of antenatal care services may include socioeconomic status, a degree of education, and income level as well as the health readiness and her staff. Staff attitude towards patients and the quality of ANC services provide with the facility and the level of public awareness on the importance of the ANC [5].

At present, very few works have highlighted the issues, which address the factors affecting antenatal care services in Sudan. Thusly, the overall objective of this inquiry is to ascertain the ingredients associated with antenatal care services in Sudan [6].

Methodology

A cross-sectional descriptive design utilized in this work to determine factors contributing to the accessibility of antenatal care services and to appraise the relationship between these components and social demographic characteristics.

Setting

The survey was carried in governmental Hospital (Omdurman Maternity Hospital).

Introduction

Prenatal care is the care that a woman experiences during pregnancy, helps to ensure healthy outcomes for women and newborns (WHO/UNICEF 2003) [1]. Prenatal care is realized as a major element of comprehensive maternal health care. It should include services that monitor the progress of the pregnancy to assess fetal and maternal health, offer

Participants

About 185 Pregnant women who are in their reproductive age group attending antenatal care, outpatient at Omdurman maternity hospital.

Instrument

We prepare a structured questionnaire to interview the pregnant women. The first questions were demographic, the other questions dealt specifically with the factors affect utilization and find out the association between variables.

Statistical analysis

For statistical analysis, we use the SPSS version 16, data analyzed using descriptive and analytic methods. We study factors associated with the accessibility to antenatal services using a chi - square test. In sum, the relationship between the demographic data and accessibility factors is assessed. A P-value less than 0.05 is considered.

Ethics

The participants were informed that the study was voluntary and anonymous, prior to getting the study.

Results

Demographic characteristics of the study sample

Most matters in age range 25-29 years (32.4%). Have technical education (44.2%) and (78.9%) housewives (**Table 1**).

Table 1 Demographic characteristics of the pregnant women attending ANC services.

Characteristics	Frequency	Percent
Age		
15-19 years	10	5.4%
20-24 years	40	21.6%
25-29 years	60	32.4%
30-34 years	46	24.9%
35-39 years	22	11.9%
40-44 years	7	3.8%
Total	185	100.0%
Occupation		
House wife	146	78.9%
Employee	36	19.5%
Other	3	1.6%
Total	185	100.0%
Level of education		

Non Formal	8	4.3%
Primary	3	1.6%
Secondary	39	21.1%
Technical	82	44.3%
Tertiary	53	28.6%
Total	185	100.0%

Accessibility factors:

Most of the respondents are away from ANC services 20-40 Min (39.5%) and >60 Min representatives (21.6%) (**Table 2**).

Table 2 Representing how far respondents' home is away from health facility.

Variable	Frequency	Percentage
5-20 Min	34	18.4
20-40 Min	73	39.5
40-60 Min	38	20.5
> 60 Min	40	21.6
Total	185	100.0

Most of the respondents use public transportation (84.3%) and 10 (5.4%) reach ANC services by feet (**Table 3**).

Table 3 Representing mode of transportation, respondent used for health facility.

Variable	Frequency	Percentage
Private	19	10.3
Public transportation	156	84.3
Foot	10	5.4
Total	185	100.0

The respondents paid for shipping to and from ANC, an amount of 5-10 SD (34.1%) and a sum of 27 (14.6%) do not yield (**Table 4**).

Table 4 Representative how much the respondent pay for transportation to and from ANC.

Variable	Frequency	Percentage
5-10 SD	63	34.1
11-15 SD	57	30.8
> 15 SD	38	20.5
Total	158	85.4
Missing System	27	14.6

Total	185	100.0
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The majority of the respondents paid for ANC services 122 (60.5%) and 73 (39.5%) do not pay for ANC services (**Figure 1**).

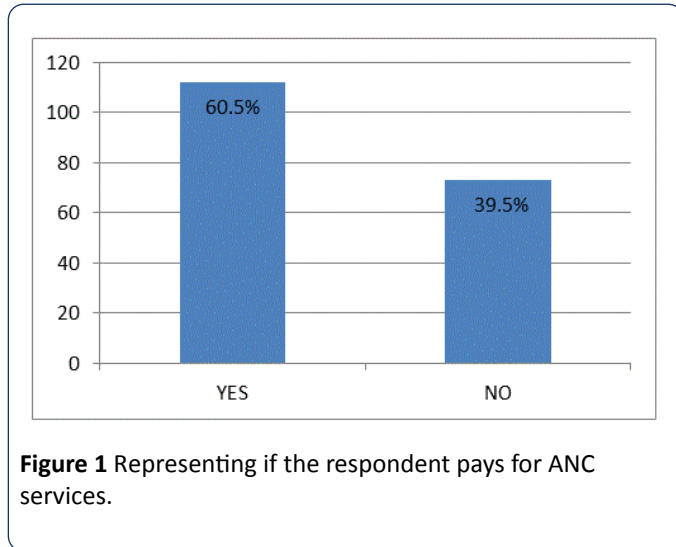


Figure 1 Representing if the respondent pays for ANC services.

Table 5 shows the use of ANC services association with occupation results show that the occupation did not influence use of ANC services (P=0.06).

Table 5 Association between uses of ANC services with occupation.

		Occupation			Total	P value
		Housewife	Employee	Other		
Using ANC	Yes	127	31	2	160	0.6

services	No	79.40%	19.40%	1.20%	100%	0.6
		19	5	1	25	
	76.00%	20.00%	4.00%	100%		
	Total	146	36	3	185	
		78.90%	19.50%	1.60%	100%	

The table shows no association between level of education and use of ANC services (P=0.07) (**Table 6**).

Table 6 Association between uses of ANC services with Level of education.

		Level of education					Total	P value
		Non Formal	Primary	Secondary	Technical	Tertiary		
Using ANC services	Yes	6 3.8%	3 1.9%	34 21.2%	73 45.6%	44 27.5%	160 100%	0.7
	No	2 8.0%	0 .0%	5 20.0%	9 36.0%	9 36.0%	25 100%	
	Total	8 4.3%	3 1.6%	39 21.1%	82 44.3%	53 28.6%	185 100%	0.7

Outcomes demonstrate that use of ANC services significantly influences with the number of children of the respondent (P = 0.00) (**Table 7**).

Table 7 Association between Uses of ANC services to number of children of the respondent.

			Number of children of the respondent							Total	P value	
			0	1	2	3	4	5	6	7		
Using ANC services	Yes	9 5.6%	35 21.9%	29 18.1%	35 21.9%	24 15%	18 11.2%	8 5.0%	2 1.2%	160 100%	0.000	
	No	19 76.0%	4 16.0%	1 4.0%	0 .0%	1 4.0%	0 .0%	0 .0%	0 .0%	25 100%		
	Total	28 15%	39 21.1%	30 16.2%	35 18.9%	25 13%	18 9.7%	8 4.3%	2 1.1%	185 100%	0.000	

Table 8 shows association between numbers of respondents visit to ANC services with payment for this services results show that number of visit in general appear to influence the payment for to ANC services P (0.02).

Table 8 Association between number of respondents visit to ANC services with payment for to ANC services.

		Payment for ANC services		Total	P value
		Yes	No		
Number of times you visit a health facility for ANC services	1 Visits	16 41.0%	23 59.0%	39 100.0%	0.02
	2 Visits	26	9	35	

		74.3%	25.7%	100.0%	
	3 Visits	31 70.5%	13 29.5%	44 100.0%	
	4 Visits	11 52.4%	10 47.6%	21 100.0%	
	> 4 Visits	28 60.9%	18 39.1%	46 100.0%	
	Total	112 60.5%	73 39.5%	185 100.0%	0.0 2

Discussion

Antenatal care (ANC) is recognized as a major component of comprehensive maternal health care. It should include services that monitor the progress of the pregnancy to assess fetal and maternal health [3]. This study, understanding accessibility factors influencing use of antenatal care services, is conducted among pregnant women drawn from Omdurman maternity hospital.

Maternal age has been proven to be both negatively and positively influence utilization of Focused Antenatal Care (FANC) and ANC in general. Surveys conducted in Turkey, Nigeria, and Peru demonstrates that teenage mothers, and younger women are less probable. In our study more likely access participant age range between 25-29 years more than adult female who were less than 25 years.

Maternal education has also been proven to influence utilization of FANC, find similar outcomes in this study, they have shown that both maternal and paternal education positively influences utilization of FANC [5,7]. We found no association between occupation when compares with the use of ANC services because 146 women (78.9%) are housewife ($p=0.06$). On the other hand, the point of education did not influences pregnant women utilization to antenatal care services ($P=0.7$), but consistent with the finding of a survey conducted in India argues that education assists in the adequate utilization of ANC services [7].

There is a direct relationship between parity and utilization of the ANC, with multiparous women making significantly fewer visits to ANC than nulliparous women. This could be due to the fact that nulliparous women identify themselves as being at high danger of developing pregnancy related complications. This study finding proves same result, that majority of participants utilizes ANC services (86.5%) during their pregnancy because most of them are primigravida and in their first time. Access to the ANC services significantly influence the number of children of the respondent ($P=0.00$) [6].

Distance to the health facility significantly determined both the chance and frequency of attending FANC clinics. Long distance to the health facility is highly associated with fewer

visits. These determinations are logically with our studies also confirmed by this vast distance to the health facility is inversely associated with ANC utilization [8,9].

Also, the cost of health care services, prescription drugs and transportation determine the affordability of health care. Studies in Ghana, Swaziland, Zaire, and Uganda showed a decline in use of health services as a result of introduction of user fees [10]. Sudan provided free of charge ANC services at public health facilities, however, clients are expected to compensate costs for laboratory investigations and treatment. Communities should further be informed that regardless of age of the woman and parity all pregnant women must be supported to utilize FANC services. Effective use of mass media (radio and TV) must be needed for increasing public awareness among multiparous women about antenatal care visits, increasing the use of antenatal care [11].

Conclusion

Access to antenatal care services significantly associated with the number of children, the participants get access to ANC services mainly into the first trimester. Distance to the health facility is inversely associated with ANC utilization. Generally, access, use of ANC services and payment for to ANC services these are three factors found to greatly influence the utilization of ANC services among pregnant women in Omdurman maternity hospital.

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