Assessment of pregnant women's satisfaction with the quality of antenatal care services in Ba-nadir Hospital, Mogadishu Somalia

Ibrahim Abdullahi Dahir [1*]

Abstract

Background: Somalia has a high infant and maternal mortality rate of 732/1000 and 74/100 000 respectively due to pregnancy-related complications which would be intervened by regular and timely utilization of ANC services.

Methods: Across sectional design with quantitative methods of data collection and analysis were used. A sample size of 384 respondents who were pregnant women selected by systematic random and purposive sampling was used. Data was collected using a questionnaire.

Results: A third 33% (127/384) of the PMs were satisfied with ANC services thus low satisfaction with ANC services. Factors associated with low satisfaction with the ANC services included; being between 20-30 years (AOR: 97.7, P=0.010), being employed by other people (AOR: 97.9, P=0.007) and being married (AOR: 97.5, P=0.018). Tangibility factors were; lack of drugs (AOR: 0.2, P=0.001), uneasiness to obtain drugs (AOR: 0.12, P=0.001), unclean sanitation (AOR: 0.1, P=0.001). About the reliability factors, receiving appointments (AOR: 93.7, P=0.028), poor communication and information from HCWs (AOR: 0.1, P=0.004), and unfulfilled expectations in diagnosis (AOR: 0.2, P=0.001). Responsiveness factors were; delayed retrieval of records (AOR: 0.12, P=0.001), delayed health care service delivery (AOR: 0.1, P=0.002), long waiting time of more than 45 minutes (AOR: 85.9, P=0.002), and staff at the OPD not spending enough time (at least 10 minutes) attending to patients (AOR: 0.4, P=0.013). Assurance and empathy factors included, not receiving laboratory results on time (AOR: 0.4, P=0.008), a belief that health care workers didn't have enough knowledge to answer the questions (AOR: 0.1, 95% CI: 0.02-0.20, P=0.001), and receiving inadequate help from the auxiliary staff (AOR: 0.02, P=0.001).

Conclusion: Low satisfaction with ANC services was due to young age, failure to obtain drugs, unclean sanitary facilities, delayed service delivery by HCWs and auxiliary staff, delayed retrieval and delivery of laboratory results. The researcher recommends that the government recruits more HCWs, gives them on-the-job training, and equips them with adequate utilities.

Keywords: Satisfaction, quality of antenatal, Ba-nadir Hospital, Mogadishu, Somalia

Correspondent: ibraahiim2m@gmail.com

[1]*Institute of Public Health and Management, Clarke International University, P.O.Box 7782, Kampala, Uganda*

Background

Antenatal care (ANC) is a catch-all word for the medical processes and care provided to women during pregnancy. It enables mothers to have a safe delivery of their newborns without risking their health and that of the infant. The complications of pregnancy could be medical, surgical, or obstetric complications. Additionally, ANC help to prepare mothers on proper breastfeeding for their newborns and take good care of the child physically, psychologically, and socially (Ngxongo, 2018).

Globally, while Eighty-five percent ofpregnant women access quality ANC with skilled health personnel at least once, only six in ten (58%) receive the recommended four antenatal visits. The World Health Organization (WHO) suggests a minimum of four quality ANCs visits. However, global estimates indicate that 58% of women who are pregnant are given this recommended amount of care (UNICEF, 2015). Several factors like availability of services, distance to health facilities, and trained personnel explain the variations in ANC utilization. Women in he wealthiest 20% of the population are also less likely to receive antenatal care than poorer women, especially in the most deprived regions. In South Asia (excluding India), for instance, women in the richest quintile are five times as likely as women in the poorest quintile to receive four or more antenatal care visits, which is the minimum recommended (68%, 14%) (WHO, UNICEF, UNFPA, and the World Bank, 2015).

While there has been recent progress towards reducing maternal and neonatal mortality (MDG 5), critical gaps remain in the developing world, with over 287,000 women dying of causes associated with childbirth, 99 percent in developing countries (WHO et al., 2010), and almost 3 million neonates dying each year (UNICEF et al., 2015). According to (Diamond-Smith et al., 2016), services that meet the needs of pregnant women during delivery are necessary to improve the quality of care. In Creations with the highest rates of maternal mortality, South Asia, fewer women received at least four antenatal visits 42%, (UNICEF, 2015).

In Africa, quality ANC service delivery has improved, with approximately 69% of pregnant women having at least one quality ANC contact compare to Asia (54%) (Lincetto, et al., 2012). To fully achieve total success, the four visits recommended have to be adhered to and followed as required. These include managing obstetric problems that my manifest such as pre-eclampsia and tetanus toxoid immunization and STIs such as HIV and Syphilis

Quality Antenatal Care promotes pregnant women, health through, in that they can be attended to by skilled health workers (Ornella & Lincetto, 2013). The provision of good-quality maternal health services, leading to higher levels of patient satisfaction, is an important goal of health institutions that provide maternal care. In recent years, the importance of patient satisfaction has gained considerable momentum and has become one of the prime concerns of health programmers and managers. The level of client satisfaction with the service provided has been used for measuring the quality of service both inside and outside of the healthcare system (Abodunrin et al., 2014). Several studies have indicated that good-quality services lead to higher levels of patient satisfaction, which in turn can ensure continued uptake of services by patients. Thus, patient satisfaction is taken as an important indicator of the quality of care in service delivery (Mehata et al., 2017; Souza et al., 2013).

In sub-Saharan Africa, an estimated 900,000 babies die during the last twelve weeks of pregnancy. In nations with a mortality rate of more than 22 per 1,000 births, newborns that die before the commencement of labor, known as antepartum stillbirths, are estimated to account for two-thirds of all stillbirths in nearly all African countries. Antepartum stillbirths have several causes, including maternal infections notably syphilis and pregnancy complications, but systematic global estimates one of the causes of antepartum stillbirths is not attending ANC (Christina Leah Banda, 2013).

(Nesbitt et al., 2013) in a review of Ghanaian birthing facilities, it was discovered that just 18% of deliveries took place in facilities with good levels of care. (Kyei et al., 2012) explored the quality of antenatal care in Zambia using two datasets and found that only 3% of facilities had optimum ANC care, and almost half provided less than adequate services. According to a study of infant care in Kenyan hospitals, hospitals only had 30 to 65% of the materials needed

to care for unwell newborns (English et al., 2009).

Nationally, Somalia's prolonged conflicts and insecurity exacerbated by droughts, floods, and food insecurity have devastated the fragile health system of Somalia leaving a highly adverse impact on our population (Ministry of Health, 2017). In recent years there have been notable improvements in the delivery of reproductive, maternal, neonatal, child, and adolescent health services in the country (Ministry of Health, 2017). However, Somalia's healthcare system is marked by a scarcity of qualified health workers, inadequate service coverage, and shaky governance (Amsalu et al., 2019). It is against this background that the researcher has set out to assess patients' satisfaction with the quality of ANC services among pregnant women which is the first port of call to the health system and which is expected to serve the majority of the populace. Satisfaction with maternal and neonatal care services may well be a pointer to the general service of the entire primary health care (PHC) facility.

Methods

Study design

A cross-sectional study design that employed both quantitative and qualitative data collection techniques was used for this study. This kind of design was chosen based on the fact that it is best suited to assess patients' satisfaction with the quality of ANC services at a point in time. The other reason for consideration is its ability to generate results in the shortest possible time and the fact that it is inexpensive to use.

Setting

The Banadir Maternity and Children Hospital is a teaching Hospital in the Wadajir District of Mogadishu, Somalia. It was built in 1977 as part of a Chinese Development Project and became the nexus of a humanitarian crisis in 2011. The hospital comprises a maternity unit and a pediatric unit.

Statistical analysis

Data were entered and cleaned in EPI INFO software and analyzed using SPSS version 26. Descriptive as well as analytical techniques were employed to assess the patients' satisfaction with the quality of ANC services among pregnant women in Ba-nadir Hospital, Mogadishu Somalia. Pregnant women' satisfaction was measured as a binary outcome. At a descriptive analysis level,

findings were described in terms of frequencies and percentages. The results were summarized in tables and figures. At bivariate analysis, chi-square tests and correlation were conducted to assess the pregnant women' satisfaction with the quality of ANC services at Ba-nadir Hospital, Mogadishu Somalia. All variables with a p-value less than 0.05 were considered statistically associated with pregnant women' satisfaction with ANC services.

In a multivariate analysis, all variables significant (with p-values <0.05) and potential confounders (with p-value <0.15) were included in the regression model (Logistic regression) to determine the strength of the association established at the bivariate analysis. A logistic regression model was used to estimate the odds ratios and their 95% confidence interval for patient satisfaction compared with five dimensions of the quality of ANC services.

For qualitative data, data collection from focus group discussions was transcribed from the audio recordings. Further analysis was done using coded word-processed text organized and analyzed using content and factor analysis with Atlas/ti software. Data were divided into meaningful analytical units and marked with descriptive words. The codes were merged into larger categories themes. Content from each coded group was summarized and illustrated with direct quotes from the discussion. A 10% back translation was done for quality control.

Results

Table 1: Social demographic factors influencing pregnant women' satisfaction with the quality of antenatal care services

n=384

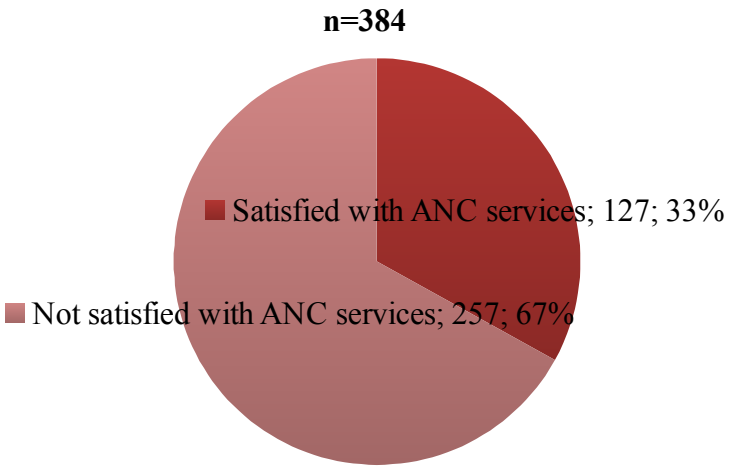
Variable	Category	Frequency	Percentage
Age	20-30 years	193	50.3
	31-40 years	132	34.4
	41-49 years	59	15.4
Religion	Christian	61	15.9
	Muslim	286	74.5
	Others	37	9.6
Employment	Employed	173	45.1

	Self-employed	77	20.1
	Unemployed	134	34.9
Education	No formal education	84	21.9
	Primary education	238	62.0
	Secondary education	37	9.6
	Tertiary education	25	6.5
Work experience	Less than 5 years	116	30.2
	6-10 years	189	49.2
	11-15 years	47	12.2
	16 years and above	32	8.3
Marital status	Married	279	72.7
	Singles	70	18.2
	Widows	35	9.1

Source: Primary Data

Results from table 1 above indicate social demographic characteristics of pregnant women who attended ANC at Banadir where; out of 384 respondents, majority; 193 (50.3%) were between 20-30 years, 286 (75%) were Muslims, 173 (45%) were employed, 238 (62%) had primary education 189 (49%) had work experience between 6-10 years and 279 (73%) were married.

Figure 1: Proportion of pregnant women satisfied with the quality of ANC services



Source: Primary Data

Results from figure 1 above, indicate that out of the 384 respondents that participated in the study, only a third 127 (33.1%) were satisfied with the ANC services while the majority 257 (66.9%) were satisfied with the ANC services.

Table 2: Factors influencing pregnant women's satisfaction with the quality of ANC services delivered at Ba-nadir Hospital, Mogadishu Somalia

Variable	Category	Satisfaction ANC services		AOR (95%CI)	P-value
		Satisfied	Not satisfied		
Social-demographic factors					
Age	20-30 years	60 (47.2%)	133 (51.8%)	1	0.005**
	31-40 years	38 (29.9%)	94 (36.6%)	2.3 (1.21-4.21)	0.010**
	41-49 years	29 (22.8%)	30 (11.7%)	3.3 (1.57-6.79)	0.001**
Employment	Employed	43 (33.9%)	130 (50.6%)	1	0.003**
	Self employed	31 (24.4%)	46 (17.9%)	2.1 (1.22-3.48)	0.007**
	Unemployed	53 (41.7%)	81 (31.5%)	0.7 (0.36-1.40)	0.325
Marital Status	Married/cohabiting	86 (67.7%)	193 (75.1%)	1	0.046**
	Single	22 (17.3%)	48 (18.7%)	2.5 (1.17-5.32)	0.018**
	Widowed	19 (15.0%)	16 (6.2%)	2.8 (1.13-6.70)	0.025**
Health facility provided drugs for all diseases	Yes	79 (62.2%)	38 (14.8%)	1	0.001**
	No	20 (15.7%)	182 (70.8%)	0.2 (0.08-0.44)	0.001**
	Not sure	28 (22.0%)	37 (14.4%)	9.2 (3.78-22.18)	0.001**
The waiting area had sufficient seats	Sufficient	88 (69.3%)	144 (56.0%)	1	
	Not sufficient	39 (30.7%)	113 (44.0%)	2.3 (1.13-4.84)	0.022**
Sanitary facilities were;	Clean	86 (67.7%)	57 (22.2%)	1	
	Not clean	41 (32.3%)	200 (77.8%)	0.1(0.02-0.15)	0.001**
HCWs had good communication and information skills	Yes	103 (81.1%)	155 (60.3%)	1	
	No	24 (18.9%)	102 (39.7%)	0.06(0.01-0.40)	0.004**
Health workers retrieved records promptly	Always	68 (53.5%)	25 (9.7%)	1	0.001**
	Rarely	54 (42.5%)	199 (77.4%)	0.12(0.03-0.43)	0.001**
	Never	5 (3.9%)	33 (12.8%)	0.4(0.11-1.21)	0.099**
Waited for a long time (>45m) before getting a service	Yes	54 (42.5%)	235 (91.4%)	1	
	No	73 (57.5%)	22 (8.6%)	14.1 (7.12-27.84)	0.001**

OPD staff spending enough time with patients	Yes	87 (68.5%)	148 (57.6%)	1	
	No	40 (31.5%)	109 (42.4%)	0.4(0.16-0.81)	0.013**
Laboratory results availed on time	Yes	79 (62.2%)	74 (28.8%)	1	
	No	48 (37.8%)	183 (71.2%)	0.4(0.18-0.78)	0.008**
Adequate help from auxiliary staff	Yes	103 (81.1%)	86 (33.5%)	1	
	No	24 (18.9%)	171 (66.5%)	0.02(0.01-0.08)	0.001**

**** denotes significance at 95% CI**

As par table 2 pregnant women who were between 31-40 years twice more likely to be satisfied with ANC services (AOR: 2.3, 95% CI: 1.21-4.21, P=0.010) as compared to pregnant women who were 20-30 years while pregnant women between 41-50 years were thrice more likely to be satisfied with ANC services (AOR: 3.3, 95% CI: 1.57-6.79, P=0.001) as compared to pregnant women who were 20-30 years.

Pregnant women who were self-employed were twice more likely to be satisfied with ANC services (AOR: 2.1, 95% CI: 1.22-3.48, P=0.007) as compared to pregnant women who were employed. However, being unemployed (AOR: 0.7, 95% CI: 0.36-1.40, P=0.325) wasn't significantly associated with satisfaction with ANC services.

Single mothers were twice more likely to be satisfied with ANC services (AOR: 2.5, 95% CI: 1.17-5.32, P=0.018) as compared to married pregnant women and widows were thrice more likely to be satisfied with ANC services (AOR: 2.8, 95% CI: 1.13-6.70, P=0.025) as compared to married pregnant women.

Regarding tangibility, pregnant women who weren't provided with drugs for all the diseases were less likely to be satisfied with ANC services (AOR: 0.2, 95% CI: 0.08-0.44, P=0.001) as compared to pregnant women who were provided with drugs for all diseases. Pregnant women who weren't sure whether the health facility provided drugs for all diseases were 9 times more likely to be satisfied with ANC services (AOR: 9.2, 95% CI: 3.78-22.18, P=0.001) as compared to pregnant women who were provided with drugs for all diseases.

Pregnant women who reported that seats weren't sufficient were twice more likely to be satisfied with ANC services (AOR: 2.3, 95% CI: 1.13-4.84, P=0.022) as compared to

mothers who reported that the seats at the health facility were enough.

Respondents who reported that the sanitation at the health facility wasn't clean were less likely to be satisfied with ANC services (AOR: 0.1, 95% CI: 0.02-0.15, P=0.001) as compared to mothers who found the sanitation of the health facility clean

About the reliability factors, health care workers who never had good communication and information skills were less likely to be satisfied with ANC services (AOR: 0.1, 95% CI: 0.01-0.40, P=0.004) as compared to health care workers who had good communication and information skills.

Pregnant women who reported that health care workers rarely retrieved records promptly (AOR: 0.12, 95% CI: 0.03-0.43, P=0.001) were less likely to be satisfied with ANC services as compared to pregnant women whose records were retrieved promptly. However pregnant women who were never retrieved promptly (AOR: 0.4, 95% CI: 0.11-1.21, P=0.099) didn't have a statistically significant association with their satisfaction with ANC services

Pregnant women who waited for less than 45 minutes before they were attended to their odds of satisfaction were 14 times (AOR: 14.1, 95% CI: 7.12-27.84, P=0.001) more than those who waited for more than 45 minutes.

Pregnant women who reported that staff at the OPD didn't spend enough time (at least 10 minutes) attending to patients were less likely to be satisfied with ANC services (AOR: 0.4, 95% CI: 0.16-0.81, P=0.013) as to mothers who reported that staff at the OPD spent enough time (at least 10 minutes) attending to patients

Pregnant women who didn't receive laboratory results on time were less likely to be satisfied with ANC services (AOR: 0.4, 95% CI: 0.18-0.78, P=0.008) as compared to pregnant women whose laboratory results were availed.

Respondents who reported that auxiliary staff inadequately helped patients were less likely to be satisfied with ANC services (AOR: 0.02, 95% CI: 0.01-0.08, P=0.001) as compared to pregnant women who reported that auxiliary staff adequately helped patients

Presentation of qualitative data

When respondents were asked about the quality of ANC services offered at Banadir Maternity & Children Hospital pregnant

women weren't satisfied with ANC services and expressed their dissatisfaction in various aspects as follows;

Whether the health facility provided drugs for all diseases

Pregnant women revealed that they didn't receive drugs for all the diseases they suffered from apart from maternal and child related illness drugs one respondent stated that;

"We come here with several health complications, not only pregnancy-related complications but with underlying diseases such as diabetes, hypertension, HIV among others but we receive very little help….no drugs".

Another mother was concerned stated that;

"*Even if a pregnant mother comes with other diseases other than ANC services, there are no drugs for that, it's a shame for a government health facility".*

Whether the sanitary facilities in the health facility clean

Pregnant women weren't satisfied with the sanitation of sanitary facilities at the health facility. They detested the cleanliness of the toilets and urinals. This was asserted in the following statements;

"*When I have an appointment for ANC I normally don't drink or eat because I want to avoid going to the toilets. They are always very dirty and this puts me at risk of contracting urinary tract infections… So I do all that is possible to avoid them".*

Another pregnant mother stated that;

"*The sanitary facilities are always dirty because there are many users not only pregnant women yet they are cleaned once a day.*

Whether the health workers retrieved records promptly

Pregnant women also complained of delayed retrieval of records and provision of laboratory results when they are recommended to take some tests.

> "*When we come here, we're expected to spend very little time and go home to do domestic chores but health care workers take too long to see our records from wherever they keep them. There are many papers they have to look through to see our results. It is*

very tiresome and causes psychological stress".

Another respondent revealed that expressed her concerns as follows;

"*Going to the laboratory is another stress, results aren't given on time yet in most cases we are in pain and need immediate treatment. At one time I lost my baby here because the results were delayed. At times we are asked for fees at the laboratory we don't have. Some pregnant women once recommended doing laboratory tests just go home which is a disappointment".*

Respondents had dissatisfactions with long time (>45m) before getting a service

Most of the pregnant women were not satisfied at all with the long waiting time at the health facility before they were given ANC services. Respondents noted that,

"*We are overwhelmed by the long waiting time at the health facility. Even if we are given appointments, it remains the same we waiting for more than 3 hours".*

Another pregnant mother put it that;

"When you come for ANC forget about other programs because mothers are very many and you have to wait for your turn. The would-be solution is to come very early but you may be delayed by the laboratory staff, OPD staff or lack of money make some payments in time".

Discussion

Over three-quarters of the respondents had missed opportunities for the immunization of their children. This was across all vaccines right from birth since there were many outside healthcare facility deliveries. Children missed BCG, OPVO, at birth, Penta1, PCV, and Rota1 at six weeks, missed OPV2, Penta2, PCV2, and Rota2 at ten weeks, missed OPV3, Penta3 and PCV3 at 14 weeks then measles vaccines at 9 and 18 months respectively. This posed a health risk to children thus were likely to suffer from immunizable diseases. Similar findings were reported across Africa where missed opportunities for vaccines ranged from 0% (95% CI: 0.00 – 4.74) in Zimbabwe to 64.07% (95% CI: 58.04-69.80) in Sudan. Prevalence of MOV by geographical region are as follows: Western Africa [20.02% (95% CI: 15.87 – 24.53)], Eastern Africa [18.92% (95% CI: 4.43 – 40.16)], Southern Africa [39.38% (95%CI: 34.45 – 44.41)]

and Northern Africa [46.99% (95%CI: 32.82 – 16.41)]. The overall random pooled prevalence on MOV among children aged 0 – 23 months in African health facility-based surveys is 27.26% (95%CI: 18.80 – 36.62) (Adamu, Sarki, et al., 2019).

Maternal factors that were significant after carrying out the logistic regression analysis were religion (P=0.049), income (P=0.001), not being a mother to the child (P=0.005), and fear of side effects (P=0.004).

The majority of the respondents were Moslems probably because the study was carried out in an Islam-dominated area. At multivariate analysis, it was found out the religion of the caretaker was significantly associated with a missed opportunity for immunization (P=0.049). Statistics showed that a Moslem parent or caretaker was less likely to immunize a child as compared to parents and caretakers of other religions. This could be attributed to the strictness of some Islamic sects where some don't acknowledge modern medicines. Similar findings were reported in carried out in Nigeria (Kabir et al., 2006) and other parts of Africa where parents and caretakers were misled by religious leaders that are only God's word the heals and that vaccines have side effects.

Findings further showed that the majority of the respondents had unsatisfying monthly income levels which could have affected their disposal income levels thus spent on only inevitable essential needs like food. In a Multivariate analysis, the income of the respondents was significantly associated with a missed opportunity for immunization (P=0.001). Findings showed that caretakers and parents who less satisfying income that is; below 150 dollars a month were more likely to have missed opportunities for their children's immunization as compared to those that earned satisfying incomes, which is over 150 US dollars a month. Unsatisfying incomes affected caretakers in terms of transport costs and auxiliary fees paid at the healthcare facility thus high missed opportunities for immunization. Similar findings were reported in a study conducted in Nairobi, where, women in low-wage jobs had higher odds of missed immunization opportunities (Gwer, 2010). Other findings were reported in Togo where households with low incomes had higher missed opportunities for immunization as compared to higher-income households (Ekouevi et al, 2018).

Most of the respondents were mothers to the children under study. This could be

attributed to the fact that the majority of them were very young children who are normal under the care of their biological mothers. However at bivariate analysis, not being a mother to the child was significantly associated with a missed opportunity for immunization (P=0.005). This implied that relatives to children didn't show close friendship to children who missed immunization opportunities as it is in most African societies where children who aren't under the care of their biological mothers have less access to basic needs. Similar findings were reported in a study carried out in India where missed opportunities for immunization were highest among parentless children (Aftab and Singh, 2018).

Three-quarters of the respondents had fear of side effects as a result of vaccination. In a multivariate analysis, respondents who feared that their children could get side effects had high odds for missed immunization opportunities as compared to those (P=0.004). The majority of the parents feared to risk their children to vaccines as they thought were safe and didn't present with any illness. This implied they didn't have adequate knowledge about the efficacy of vaccines and this relied on misconceptions. Similar findings were reported in a study carried out in Uganda where 59.6% missed an opportunity to be vaccinated while 24.4% missed an opportunity during regular vaccination sessions due to fears of becoming numb yet their children looked healthy (Tugumisirize et al, 2012).

Generally, caretakers perceived health care workers' attitude and moderate which could have affected their openness and freeness in asking questions regarding immunization. These could have included; dates for the next schedule, type of vaccine to be administered, and carrying of an immunization card. At bivariate analysis, the attitude of the healthcare workers was significantly associated with a missed opportunity for immunization (P=0.009). Caretakers who perceived healthcare worker attitude as poor were more likely to have missed opportunities for immunization as compared to those who had a positive perception. Caretaker/ parent perception could have based on the instructions and orders healthcare workers gave them that were not in their favor though medically binding. Similar findings were reported in Nigeria where the perceived poor attitude of health care staff towards immunization programs and health care policies is

correlated with a high prevalence of missed immunization opportunities (Ubajaka et al, 2012). During the immunization schedule, some health workers were found to lack a positive attitude. In Kenya, parents termed healthcare workers as aggressive and abusive during immunization (Gwer, 2010).

The majority of the respondents reported long waiting times as they waited for immunization. The majority waited for more than three hours before they were attended to thus got fed up with the exercise. At multivariate analysis waiting time was significantly associated with a missed opportunity for immunization (P=0.003). This implied that, waiting for long made parents lose time they would have dedicated to other income-generating activities thus absconded the service. Similar findings were reported in the Gambia (Olorunsaiye, et al., 2017).

Conclusion

Findings indicated that just a third of the pregnant women were satisfied with ANC health care services offered at Ba-nadir Hospital, Mogadishu Somalia which implied low pregnant mother satisfaction with ANC services.

Socio-demographic factors influencing pregnant women's satisfaction with ANC services

The study concludes that being over 30 years, self-employed, and being single and widowed pregnant women was associated with satisfaction with ANC services.

Tangibles (Structure) factors influencing pregnant women's satisfaction with ANC services

Pregnant women weren't satisfied with the tangible utilities at the hospital. This was because; drugs for all diseases weren't provided, mothers had a perception that doctors didn't provide good drugs, even the prescribed drugs couldn't easily be obtained at the hospital and sanitary facilities were unclean.

Reliability (Process) factors influencing pregnant women's satisfaction with ANC services

Antenatal care services weren't reliably dependable at the hospital. This was because despite giving pregnant women appointments, communication, and information skills from HCWs, medicines were rarely received as prescribed; the hospital had few assistants to direct patients to service points which all

didn't meet the expectations of the pregnant women.

Responsiveness (Process) factors influencing pregnant women' satisfaction with ANC services

Health care workers were less responsive to pregnant women' needs. This was because, even though very ill patients were given attention immediately and HCWs having a willingness to be given medical help if needed, patients' records weren't retrieved promptly, staff at the OPD didn't dedicate enough time to pregnant women, and even after that mothers had to wait for long before receiving services.

Assurance (Structure) factors influencing pregnant women' satisfaction with ANC services

Even though pregnant women could recommend OPD services to other patients, they had little assurance that they could access ANC services from the health facility. This was because laboratory results weren't availed on time, health care workers were inadequate and many mothers were uncertain of the adequacy of knowledge they had about the health complications they presented to them.

Empathy (Process) factors influencing pregnant women' satisfaction with ANC services

Pregnant women have unbalanced empathy from service providers at the health facility. This was because, even though health care workers listened, were cooperative, and paid attention to pregnant women' medical concerns, the auxiliary staff offered inadequate help yet they were the frontline human resource to direct mothers from where ANC and other services were to be accessed from.

Abbreviations

ANC : Antenatal Care; CI: Confidence Interval; CIU : Clarke International University; CIUREC : Clarke International University Research Ethics Committee; COVID-19 : Corona Virus Disease 2019; HIV : Human Immune-Deficiency Virus; MDG: Millennium Development Goal; PHC: Primary Health Care; SPA: Service Provision Assessment; SPSS : Statistical Package for Social Scientific; UNFPA : United Nations Population Fund; UNICEF: United Nations International Children Emergency Fund; WHO: World Health Organization.

Availability of data and Materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Authors' contributions

Hassan Ahmed Jama

Ethics

All interviews were conducted and recorded with the participants' consent. This study was approved by the research and ethics committee of Clarke International University. Approval was also sought from Banaadir Hospital.

Consent for publication

Not applicable

Competing Interest

We declare that we have no conflict of Interest

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Author Details

[1]Institute of Public Health and Management Clarke International University. [2] Institute of Public Health and Management Clarke International University.

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