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## Mothers' Accessibility to ANC, and PNC Services: A Case Study in Baidoa, Southwest State of Somalia

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### ABSTRACT

Although there are several accessible healthcare services in hospitals and other designated healthcare facilities, there are studies that reveal mothers' little or lack of utilization of the services to the full potential of the facilities. For instance, antenatal care (ANC) and postnatal care (PNC) services are offered in many health facilities in the district of Baidoa to improve the healthcare of the mother and her baby. Still, mothers' use of the services is assumed to be low, particularly after the first visit or two visits. Considering that assumption, this study explores how mothers access their ANC and PNC services; whether they complete the required visits, and reasons related to the completion or incompleteness of the recommended visits. The study focuses on mothers registered for ANC and PNC services at Darussalam Mother Child Health (MCH) Center in Baidoa, Southwest State of Somalia. A close-ended survey questionnaire was used to collect data from 50 mothers accessing ANC and PNC services at Darussalam MCH in Baidoa City. Where further explanation was needed, an open-ended question was asked for the participants to express their opinions and personal experiences. The results reveal that 64% of surveyed mothers were attending ANC services while 36% were visiting the health facility to receive PNC services. More than 56% were unemployed, 30% self-employed, and 14% were employed by the administration of the government of the Southwest State. Unlike other studies that demonstrate mothers' low attendance and missing scheduled appointments for their ANC and PNC visits, the current study reveals that a majority of 82% were visiting the MCH on schedule, expressing various reasons leading to their promptness. Despite most of the available literature supporting low-income mothers in underdeveloped countries' low accessibility to health services such as ANC and PNC, this study provides a gleam of hope in that many women are attending their ANC and PNC appointments to realize the benefits of the services for themselves and their baby.

**Keywords:** ANC, Baidoa, Healthcare, MCH, Mothers' accessibility, PNC, and Southwest State of Somalia.

### INTRODUCTION:

Access to ANC and PNC services have a great deal of impact on mothers' and their babies' health. Experts

acknowledge that lack of these services can cause the mother and infant mortality, significantly affecting the dynamics of population growth. Antenatal care plays a

good role in reducing maternal mortality, a reason for encouraging expectant mothers to visit health facilities and deliver with the assistance of a qualified nurse or a skilled birth attendant whenever and wherever available (Regassa, 2011:1). These services are necessary especially considering that over 500,000 pregnant women lose their lives every year due to complications relating to pregnancy and childbirth (Tesfahun *et al.*, 2014: 2). In a similar importance, PNC plays a very vital role in the wellbeing of mothers and the newborn in many aspects.

The global community has vowed a commitment to improve women's and children's healthcare in order to address problems of maternal and child mortality as well as meet the international goals set to be achieved by 2030. It is in the framework of that global strategy that, under the subtitle Survive, Thrive, Transform, the organization advocating for the wellbeing of women and children, Every Woman Every Child, writes:

All women, the children, and adolescents have the human right to the highest attainable standard of health-the Global Strategy is a roadmap for the achieving that right. To build on the success of the previous Global Strategy (2010-2015) and the Every Woman Every Child movement, which acted as a platform to accelerate the health-related Millennium Development Goals, women, children and adolescents must be at the heart of the Sustainable Development Goals. The Global Strategy strives for a world in which every mother can enjoy a wanted and healthy pregnancy and childbirth, every child can survive beyond their fifth birthday, and every woman, child, and adolescent can thrive to realize their full potential, resulting in enormous social, demographic and the economic benefits (EWEC: <https://www.everywomaneverychild.org/>).

Elaborating on the tangible progress made toward the 2030 global development goals, the EWEC report states:

More children have lived to see their first birthday than ever before; since 2000, child mortality has decreased by 50% and under-5 deaths have reached at an all-time recorded low; more than 1 billion children have been vaccinated over the past decade; more than 80% coverage of immunization, skilled

birth attendants and access to safe drinking water has been reached (EWEC: <https://protect.everywomaneverychild.org/>).

The report also adds that:

There has been a 35% decline in the global number of maternal deaths; 85% of pregnant women living with HIV have received effective antiretrovirals for the prevention of mother-to-child transmission of the virus, up from 45% in 2010; 25 million child marriages have been prevented since 2010; 122 countries had already achieved the Sustainable Development Goal for under-5 mortality" (EWEC: <https://protect.everywomaneverychild.org/>).

## **ANC & PNC**

### **A Continuing Challenge**

In spite of all the efforts, maternal and child health, and specifically maternity-related fatalities still remain among the issues in most developing nations awaiting to be addressed in order to realize the effectiveness of national health policies and action plans drafted to improve mother and child healthcare systems. So, by streamlining an effective healthcare policy, nations can realize the objectives and goals designed to enhance the reproductive health of women and wellbeing of children. This strategy places ANC and the PNC at the center-point of global development as it focuses on the minimization of the maternal and child mortality and morbidity.

Although remarkable achievements have been registered in the sector with the emergence of promising figures in support of the success gained (EWEC 2015), there is reason to emphasize matters related to ANC and PNC due to yet high maternal mortality ratio (Yarow *et al.*, 2021) in the Somalia and high child mortality due to less numbers of women considering to attend ANC and PNC visits to the available health facilities in various parts of Baidoa. It was in the high spirit of the advocating for and emphasizing on the importance of maternal and child health that then Secretary General of the United Nations, Ban Ki-moon stated:

To achieve Every Woman Every Child vision and the Global Strategy for the Women's, Children's, and Adolescents' Health, we need innovative, evidence-based approaches to antenatal care. I welcome these

guidelines, which aim to put women at the center of care, enhancing their experience of pregnancy and ensuring that babies have the best possible start in life.- Ban Ki-moon, former United Nations Secretary-General, cited in WHO, (2016).

The concern is supported by evidence from studies that indicate underutilization of available facilities aimed to address maternal and child problems (Lechthaler *et al.*, 2018; Ganle *et al.*, 2015; Onasoga *et al.*, 2012). Somalia is one of the most underdeveloped nations in the world where poor health is an issue of great concern, particularly mother-child healthcare. Further detailing why the problems are still prevalent in spite of the progress made, the EWEC report highlights the following as challenges awaiting solutions:

In 2019: Every 13 seconds a newborn baby died; Every hour 33 women did not survive childbirth; 7.4 million children and young people aged under 25 years died of preventable causes; An estimated 14 million infants were not reached by vaccination services; 75% of the children aged 2 to 4 years were regularly subjected to violent forms of discipline; 33,000 girls a day were forced into the marriages, usually to much older men; 132 million girls were out of school; 43% of the schools around the world lacked access to basic handwashing with soap and water.

It is in the background of these huge challenges facing women and children that this study was designed to focus on ANC and PNC and contribute to the scholarly literature on the health of women and children in Somalia, particularly in Baidoa district where young researchers incubated at the University of the Southern Somalia are pioneering the research effort in the city and the entire Southwest state of Somalia.

### **Focus of the Study**

The focus of this study is to know how mothers access ANC and PNC services at Darussalam MCH center in Baidoa, Southwest State of Somalia, and their perception on the visits of their scheduled appointment.

### **Problem Statement**

Mothers and children face many health problems which can be avoided and/or treated. However, many mothers in underdeveloped countries are accused of

not benefitting from the facilities where these opportunities exist by the attending for their ANC and PNC visits regularly and according to schedule. In order to understand the problem, this study attempts to interview mothers visiting the health facility for their ANC and PNC services.

### **Justification of the Study**

In several workshops in Baidoa and classroom debates & discussions, some of the participants raised mothers' lack of concern or awareness toward using healthcare services available in public health centers. The claim was that women in Baidoa are not motivated to go to health facilities such as hospitals, MCH centers, and other health facilities to maintain good health for the mother and the baby. This study was conducted to contribute to the discussion surrounding mothers' use of ANC and PNC services.

## **MATERIALS AND METHODS:**

### **Study Design**

The study followed a quantitative case study approach to collect data and attain its objective (Eno and Dammak, 2014; Best, 1997; Best & Kahn, 2004). According to the Farah *et al.* (2021:30) paraphrasing Aliaga & Gunderson, (2000) the "critical element that defines quantitative research is the *collection of the numerical data*" whose primary focus is "*explaining phenomena.*"

### **Data Collection Tool**

To achieve the underlying goal, the study considered the questionnaire as a data collection tool, thus considering the degree of flexibility it has (Eyisi, 2016). Goode and Hatt, (1952:33) describe the questionnaire as a device for receiving responses to a set of pre-designed questions. A questionnaire was designed in both the English and Maxaa-tiri, the dominant Somali to enable respondents to choose their preferred language. While some respondents were able to fill out the questionnaires in either English or the Maxaa-tiri, others were assisted using an interpretation into the Maay language dominantly spoken in the Southwest State and parts of the southern regions in Somalia.

### **Data Analysis**

To come up with a suitable and reliable analysis, we used SPSS software to categorize the data and then

present the results in a simple logical order which is easy to understand. The results and findings of the data by are demonstrated using figures for the quantitative questions. Despite the quantitative nature of the data and analysis, question 8 was deliberately posed to the respondents to give them an opportunity to express their mind regarding whether they attend their schedule for consultation and/or medical refill regularly or the whether they delay or miss it for any reason.

### Sample Size and Coding

Data was collected purposively from 50 female participants among women attending Darussalam Mother and Child Healthcare Center, particularly mothers visiting the facility only for ANC and PNC services.

### Inclusion and Exclusion

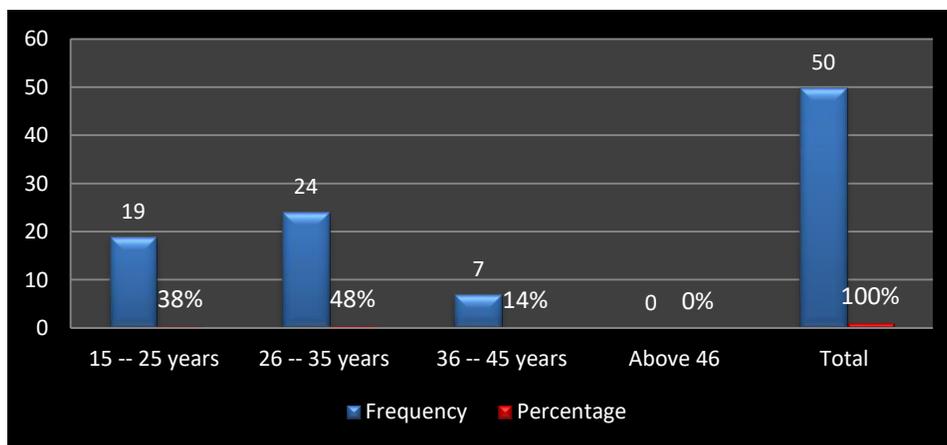
The study considered inclusion of mothers attending the MCH only for ANC and PNC. It excluded all other women attending the facility for any or all other services.

### Consent

Prior to the conducting the study, the researchers were introduced to the respondents by staff at the Darussalam MC center, after which researchers were able to explain to the participants about the objective of the study. All participants were informed that participation was voluntary and that they could decline to answer any question or stop the interview al-together. The expressed their consent for the participation and were assured of anonymity and confidentiality.

### RESULTS AND DISCUSSION:

This section presents the results and analysis of data obtained from the respondents. First section presents some background information on respondents' profile indicating demographic factors such as age, marital status, and level of education. This section was added in order to strength the data in terms of suitability of the participant and to gain a brief background of the respondent. It is then followed by the responses received to the questions posed to the participants. Figures are used to display the results statistically while discussion is presented in simultaneity with the demonstration of the results.

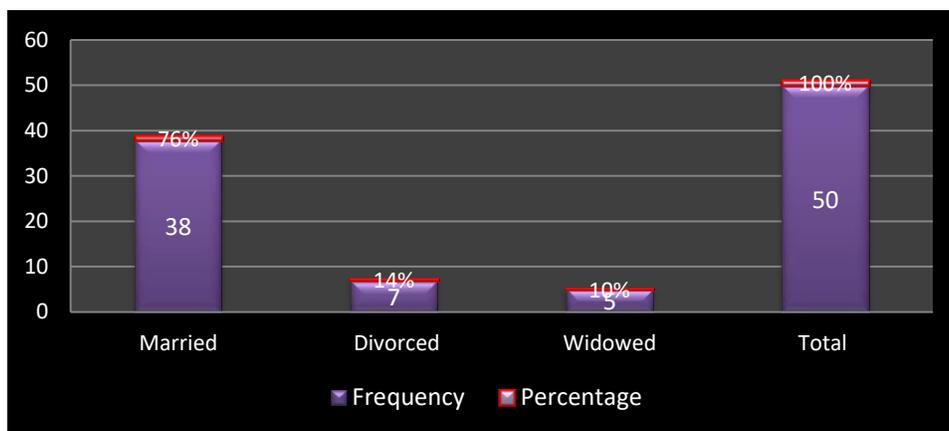


**Fig. 1:** Respondents by age.

Majority of 48% of the respondents were within the age bracket of 26-35, while 38% were between 15-25 years, and 14% represented in those between 36-45 years old. The ages reflected here in **Fig. 1**, which the youngest age is 15 and the highest 46, clearly indicates the respondents are still in their fertility period. On the other hand, the absence of age group above 46 portrays the other indication that less women of that age bracket are in the fertility age. Therefore, the results in this

illustration reveal that data are reliable regarding the significance of the age groups participating in the study, a factor which strengthens the validity of the results furnished here.

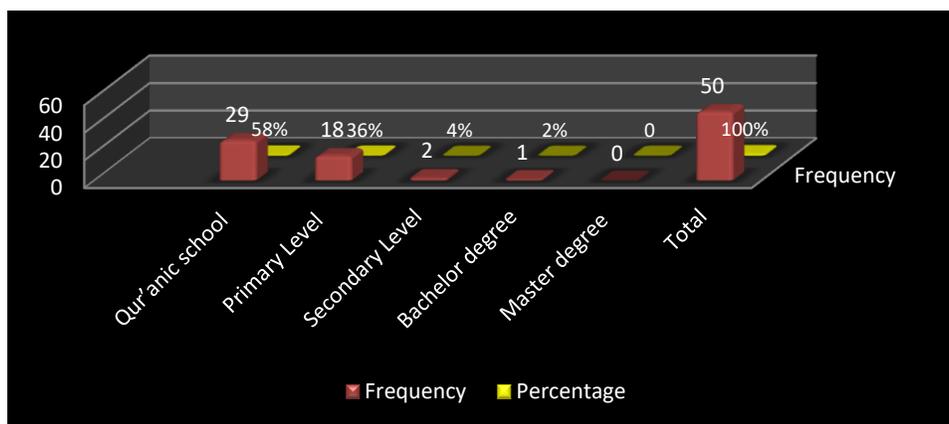
**Fig. 2** informs that most of the respondents are still married at the time of survey because 38 women (76%) of total sample answered to that category of the options.



**Fig. 2:** Respondents by marital status.

Comparatively, 7 respondents which is equal to 14% are divorced while 5 (10%) are widowed. Although 14% the divorce rate is high, it was beyond the scope of the study to seek background information as to whether the divorce took place during pregnancy or after childbirth. In the same way, the study did not attempt to cover whether the widowed had lost the

husband in the course of their pregnancy or after delivery of the baby. Despite these uncovered details, the aggregate of divorced and widowed which is 24% and therefore a little less than a quarter of the respondents, still trails well behind their married counterparts and about a quarter less than the total.



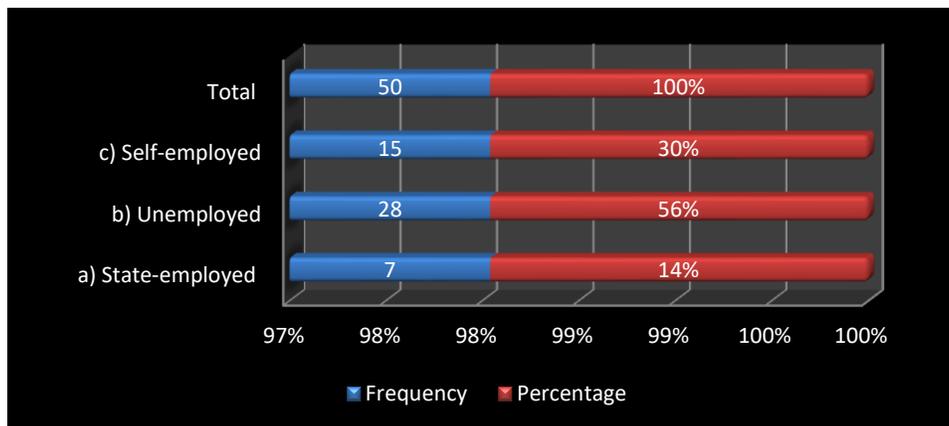
**Fig. 3:** Level of Education.

We see here in **Fig. 3** a reflective picture of the type and/or level of the education the respondents have acquired and the different award level they have attained in their academic pursuit. A majority of them 29 (58%) have not undergone education in a formal school learning but have acquired some knowledge of the Holy Qur'an. The remaining 42% have experienced some form of formal education but distributed across three different levels of primary, secondary, and tertiary education. Among these, the respondents who attended the lowest level, primary school, make the majority with 36% confirming to that. Only the 4% continued to secondary education and half of that, 2%,

completed higher education up to a bachelor's degree. The above diagram, **Fig. 3**, reveals Qur'anic education as the highest form of learning attended, reaffirming Somali parents' consideration of the traditional procedure of child preparation for religious and spiritual guidance well before formal schooling (Eno et al., 2016). The frequency then decreases significantly as the education type moves to formal school learning where most respondents (36%) attended the primary school, decreasing drastically as the level of education goes higher to secondary and then tertiary. The low level of education at high school and higher education supports studies that demonstrated major concerns

over the huge gender disparity in Somali education that seriously disadvantages the girl child (Eno *et al.*, 2014). The decrease of the number of girls pursuing advanced levels of education at secondary, here only at 4% and more disturbingly at only 2% at the post-secondary education level, responds to the 38% of the

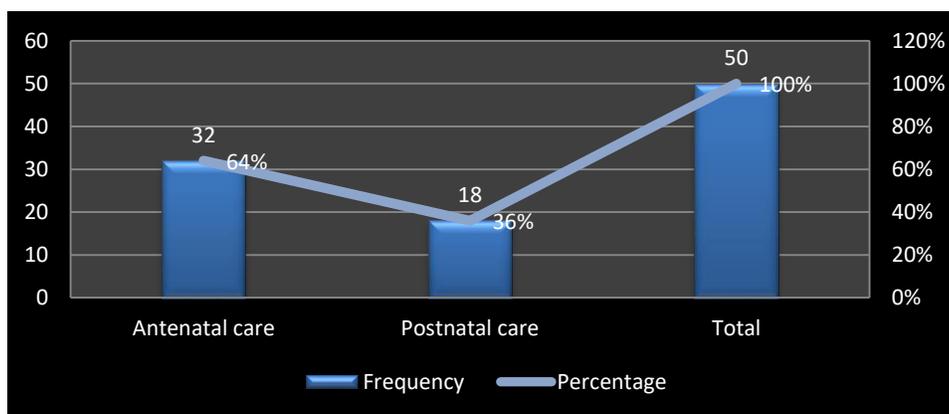
age cluster 15-25 demonstrated in **Fig. 1**. Data raises suspicion of a symptom of early marriage, as other studies have suggested which is suspected to occur usually before the girl had accomplished her education, at least at the high/secondary school level (Eno *et al.*, 2014).



**Fig. 4:** Respondents by occupation.

**Fig. 4** illuminates the disparity in employment among the respondents where more than half (56%) report to be unemployed, compared to the 30% who are self-employed, leaving us with only 14% of the mothers in this survey as employees of the regional government of the Southwest State of Somalia. The statistics produced here support the unemployment situation affecting many cities in Somalia, particularly Baidoa, as confirmed in a recent study carried out by Ali *et al.* (2022) of the University of Southern Somalia. That a majority of the respondents in this study are self-emp-

loyed can be attributed to the shift that has affected the traditional family income-generation responsibility often assumed by men since many Somali women have become sole bread-winners of their families, especially after the civil war (Hassan 2017). Self-employed, in the case of this analysis, combines women who are either small-scale business runners or manual workers who do menial activities for their daily living. In the context of the Baidoa, self-employment is a widely practiced means of income for many households regardless of gender of the bread-earner (Ali *et al.*, 2022) although the focus here is women.



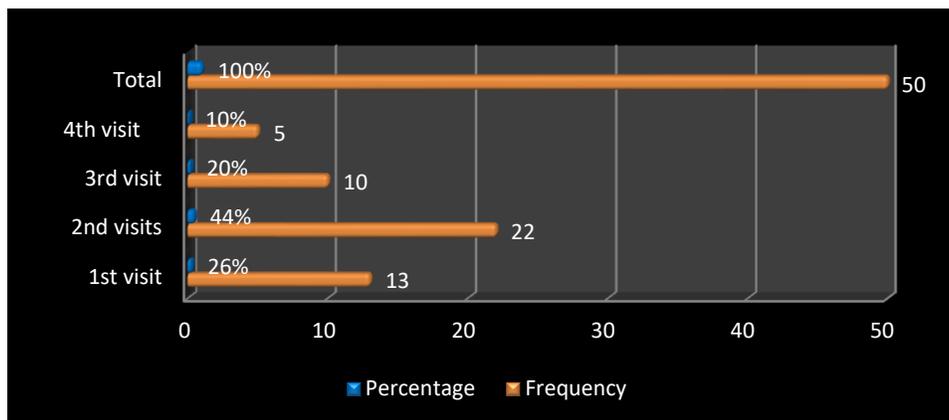
**Fig. 5:** Respondents by occupation.

Almost two-third of the respondents 32 (64%), according to the results in **Fig. 5**, were visiting the health center for antenatal services when compared to their counterparts visiting the facility for postnatal care who counted for slightly over a third (36%) of the total number of the participants. A study by Mohamed *et al.* UniversePG | [www.universepg.com](http://www.universepg.com)

counterparts visiting the facility for postnatal care who counted for slightly over a third (36%) of the total number of the participants. A study by Mohamed *et al.*

(2022) assesses Somali mothers' attitude toward the healthcare visits, revealing that most mothers attend ANC consultation sessions and other healthcare matters related to pre-childbirth compared to their PNC visits which drop significantly after the initial visit or two visits. Thus, the results in this figure do not surprise someone familiar with this tradition of Somali

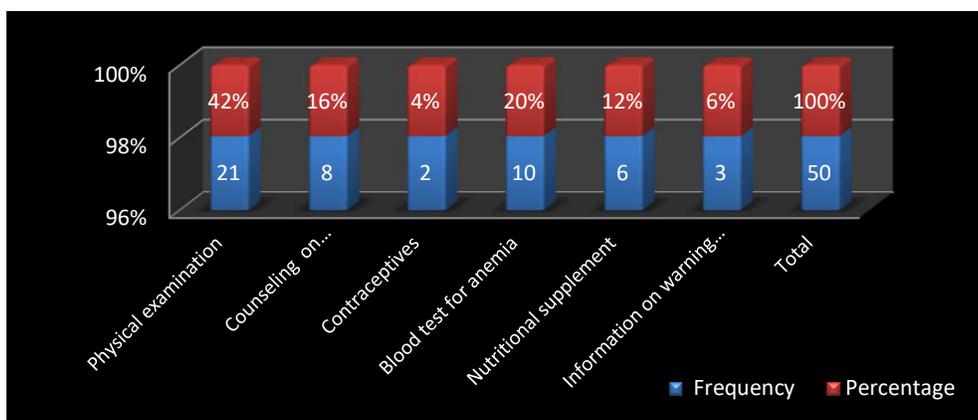
women. For instance, the study by Mohamed *et al.* (2022), in the context of Baidoa, illuminates how mothers are keen about their ANC visits more than the PNC, and more significantly, how usually the number of visits drops sharply after the first visits in both ANC and PNC consultations.



**Fig. 6:** Number of visits to the MCH.

As **Fig. 6** displays, the mothers attending the health facility for their second visit consist of the majority of respondents and at 44%, scoring well above the other 3 visits of first, third and fourth. According to the results, as furnished in the current figure, first visit comes in second position with 26%, followed by the third visit which has 20% and which is second last from the

fourth visit with a score of the only 10% of mothers attending the health center for their ANC session. In comparison, respondents visiting the health facility for their fourth time were the lowest of all the categories and at only a meagre 5 (10%) of the total responses recorded, which indicates that most mothers do not complete their required visits.



**Fig. 7:** Type of care/service received.

Data discloses that 42%, a little less than half of the mothers were visiting the health facility for physical examination, followed by 20% who came to take blood test for anemia, which is one of the illnesses affecting a great number of pregnant Somali mothers. In contrast, 16% were attending a counselling session on the breastfeeding, while 12% came to receive nutritional

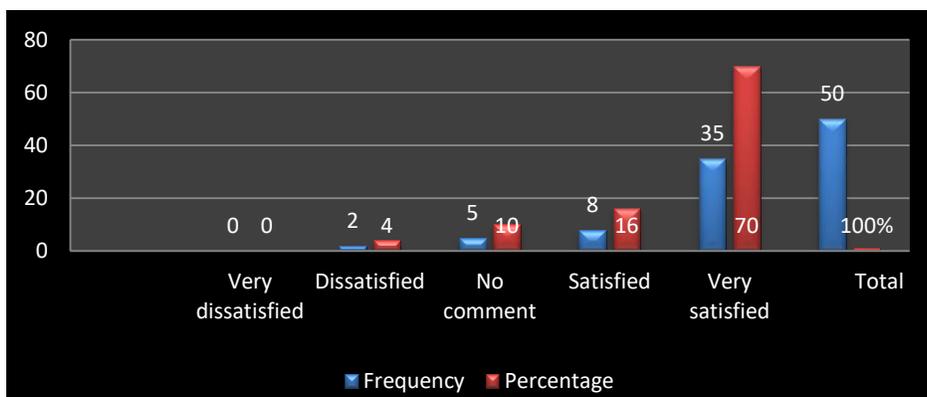
supplement. Only 4% were visiting the center for matters related to contraception & child spacing. Mothers who were seeking information on warning signs of problems were 6% and slightly above those visiting for contraceptive issues. Regardless of the frequency and variances in the numbers, this study gives an indication that mothers have been gaining some awareness and

concern toward their health. From warning signs to counseling, blood test for anemia, and others services indicated in Fig. 7, the study further provides the assumption that mothers in Baidoa, specifically those visiting Darussalam MCH center for ANC and PNC care, are becoming more conscious and indeed more concerned about their health and that of their babies'. Therefore, to assess the rate of awareness, the next question attempts to find out about the mothers' punctuality for their appointment.

**Q8: Please tell us whether you come for your appointments as scheduled or whether you delay; and the reasons for that.**

In response to question 8, the highest number of the respondents 41 (82%) admitted that they come for their appointment on the specified date. Further detailing the reason for the promptness, 44% expressed the importance of seeking medical care on time, saying, "to check my health status and the baby's". In contrast, 12% of the surveyed mothers said the reason was the necessity "to complete my medication to improve my health", while 10% attribute their timeliness to the doctor's and other health personnels' call reminding them of the appointment. Three respondents, 6%, explain that they "note the time somewhere" to remind them not to miss the appointment. Another 6% affirmed that the reason for being timely was "in order to get quality drugs and nutrition supplements" while 4% shared their opinion that due to them realizing some "improvement after taking the drugs," that has motivated them to come on time "in order to continue the

medication until [they] get fully treated." Comparing them to their counterparts who do not delay for the appointment, 18% of the respondents answered to the same question by admitting that they delay for their visits. In their own explanation as to why these delays occur or recur, they produced diverse reasons: 10% noted that their "area [of residence] is far from the MCH facility," adding that they "do not have fare for transportation" to come to the health facility - a situation that forces them to delay for the appointment; 2% "failed to complete the medicine" within the required time because "I was not coming on schedule and I was missing the visit time after time"; 10% blamed the doctor for not fixing or telling them the exact time they should return, while 2% miss their appointment because they "have many children" but they do not have someone to the look after them when the mother is scheduled for an appointment with the doctor. Although mothers who do not come for their appointment are fewer in number than their punctual counterparts, missing medical counselling should be taken as a serious issue of concern since a delay in health matters can be costly and, in some cases, fatal to the mother and the baby. Discussing mothers' delays to the health centres in the situation of Baidoa, Yarow et al. (2021) emphasized how these play a role in deteriorating the health of pregnant mothers and, for that matter, contribute to the cases of the maternal mortality. The next question investigates whether the quality of service provided by the MCH center has a role in the promptness or delay for the appointments.



**Fig. 8:** Level of satisfaction with the service.

Question 9 was posed to find out whether delays or missing appointments were related to satisfaction of dissatisfaction with the quality of services provided in UniversePG | [www.universepg.com](http://www.universepg.com)

the center. To the advantage of the Darussalam MCH facility, none of the respondents registered 'very dissatisfied' while those 'dissatisfied' with the services

constitute only a minority 4% of all the respondents. Meanwhile, surveyors who kept their reservation from commenting on the subject with the category 'no comment' make 10% of the participants. On the contrary, majority of respondents, 70%, are 'very satisfied', lifting the score to 86% of those in the two zones of satisfaction category, considering the fact that the 'satisfied' rendered 16% and 'very satisfied' 70%. The category 'somehow' which partially indicates hesitation to make full commitment to other response categories, was not a choice for any respondent as it returned zero response, an indication that all the participants were certain of their response.

#### **CONCLUSION AND RECOMMENDATIONS:**

The study investigated mothers' attitude towards ANC and PNC services. It specifically targeted mothers who were attending Darussalam MCH center in Baidoa, Southwest State of Somalia. In addition to knowledge & family experiences of healthcare relating to pregnant women, this study reveals that transportation expenses, and lack of awareness are among the problems that hinder mothers from completing the required visits of their ANC & PNC process. On the other hand, reminders & follow-ups by medical personnel are attributed to several mothers visiting for their next consultation. To the advantage of the Darussalam MCH facility, none of the respondents registered as "very dissatisfied" with the services of the MCH facility while those "dissatisfied" are only a minority 4% of all the respondents, suggesting yet a room for improvement. This study recommends the following:

- 1) Health authorities to raise mothers' awareness on visiting the MCH centers for the ANC and PNC services;
- 2) Health personnel to improve follow-up of the mothers to remind them of appointments in order for mothers to complete the visits;
- 3) Health authorities to offer mothers health education/ awareness on risks related to pregnancy & preventive measures as well as improvement of child health;
- 4) Special focus on mothers in IDP camps and in rural area need to be focused on in order to help them benefit from ANC and PNC services;
- 5) Mothers to make their health and their child's a priority and take the initiative to visit the nearest health centers can offer them the services needed.

#### **Ethical Issues**

The study followed ethical guidelines that conform to the standards approved by the University of Southern Somalia & Hakaba Institute for Research and Training.

#### **ACKNOWLEDGMENT:**

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#### **CONFLICTS OF INTEREST:**

The authors declare that there is no conflict of interest whatsoever in either the process of the research or the production of this article.

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