KNOWLEDGE, PERCEPTION, AND SATISFACTION OF MOTHERS REGARDING ANTENATAL AND POSTNATAL CARE SERVICES IN IKENNE LOCAL GOVERNMENT AREA, OGUN STATE.

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ABSTRACT

Background: *Antenatal and postnatal care services aim at preventing maternal mortality and morbidity, with success considered in terms of maternal and perinatal results. The study assessed the knowledge, perception, and satisfaction of mothers regarding antenatal and postnatal care services in a semi-urban setting.*

Method: *A mixed method cross-sectional descriptive study was conducted in Ikenne Local Government Area of Ogun State. Simple random sampling by balloting was used in selecting the health facilities and purposive sampling for study participants. A total of 389 women were interviewed. Focused Group Discussions and Key Informant interviews were also conducted.*

Result: *Most 253 (65%) of the respondents knew when a pregnant woman should begin antenatal care; 358 (92%) did not know when a woman should return for postnatal care services and 34 (8.7%) respondents knew that receiving antenatal and postnatal care has benefits for both mother and child. Overall, 323 (83.0%) were satisfied with the care and services provided at the health centres. From the focused group discussion, about 70% of the women attending antenatal classes indicated that they might not deliver in the clinic. The main reasons for their decision included long distance to be travelled, better services during delivery by Traditional Birth Attendants, religious faith, fear of caesarian section, and health workers' attitudes.*

Conclusion: *The study showed that women were satisfied with the services received in spite of some discrepancies between the received care and their expectations from the facilities. Efforts to improve utilization and satisfaction of maternal and child health services should incorporate client and provider perspectives.*

Keywords: *Antenatal Care, Knowledge, Mothers, Postnatal Care, Satisfaction.*

INTRODUCTION

Each year, approximately 500,000 women of reproductive age die throughout the world of pregnancy-related causes and about 68,000 as a consequence of abortion[1]. Thousands more women survive but suffer from illness and disability related to pregnancy and childbirth[2]. Ninety-nine percent of these deaths happen in developing countries and about 56% of the maternal death is faced by women in sub-Saharan Africa[3] with a meternal mortality rate (MMR) of 576/100, 000[4], Nigeria accounts for 10% of maternal deaths annually Maternal mortality is a leading health and development challenge in Nigeria.[5] It is an important indicator for women's programs and reproductive health programs in the country[6].

"Conventional maternal health care encompasses antenatal, intranatal and postnatal care, which incorporate physical examinations, early detection of high risk mothers, recognizing danger signs to enable appropriate preventive action, screening measures and procedures that monitor pregnant women from conception to 6 weeks post-delivery"[7]. The aim of maternal service provision is to prevent maternal mortality and morbidity, with success measured in terms of maternal and neonatal outcome[8].

The use of maternal health care services is lower in Nigeria than in many countries in sub-Saharan Africa[7]. Babalola *et al*[7] opined that 60.3% of mothers in Nigeria utilized ANC services during their last birth, the comparative figures were 88.0% for Benin[9], 72.8% for Burkina Faso[10], 83.4% for Cameroon[11] and 91.9% for Ghana[12].

Lack of awareness is an important factor underlying maternal healthcare utilization. The process by which a fully informed woman can participate in decisions about her healthcare, otherwise known as informed consent, is mandatory[13]. The process requires that women should have knowledge and that the health care provider should inform the women in a proper way so that the women can understand why they need to use the services[13]. This denotes that it is imperative for women to be knowledgeable of antenatal and postnatal services in order for them to utilize the services.

Patient perception of quality of care is one of the major determinants of uptake of healthcare services including maternal health services[14]. Their perceptions affect how clients view the dangers and benefits of care[15]. Since the benefits of addressing client perspectives on quality of care leads to improve client satisfaction, continued and sustained use of services, and improved health outcomes, it then need to be highlighted[16]. The quality of services and subsequent use of these services as well will be affected if the relationship between the provider and the client is poor[17].

The entry point into the health care delivery system of the country is provided by the Primary Health Care system[18]. Whereas antenatal and postnatal services are accessible in the primary health care centres in Nigeria, each centre operates according to its own principles, rules and conditions of services depending on the available resources. Mothers who are expected to go for postnatal and antenatal services at any primary health centre of their choice often vary by age, socio-economic backgrounds and educational levels. However, there is

great concern about the small number of women who turn up for ANC and PNC services.

Scientific evidence has clearly established the converse relationship between skilled attendants and the occurrence of maternal deaths[7]. Even though a large fraction of women receive some ANC, only some return to health facilities for delivery and postpartum examinations[19]. One reason for poor health outcomes among women and children is the non-use of contemporary health care services by a significant percentage of women in Nigeria. In a study carried out by Okaro *et al* [20] it was found out that there was low use of antenatal and postnatal care services in Nigeria, with only a third of childbearing age women choosing to deliver in healthcare facilities. Seven percent (7%) of mothers in the South West cited lack of trust for the provider or poor quality of service as their reason for not giving birth in a health facility[6]. However, most of the maternal and child deaths could be prevented through maximum utilization of maternal and child health services. Thus, the importance of satisfactory ANC and PNC services cannot be overemphasized in the light of urgent need for a sustainable development, and elimination of gross disparities in health.

Meanwhile mere provision of health facilities, personnel and equipment for ANC and PNC services will only make a limited impact on the health status of the mothers and their children if the services are not fully utilized, and if the mothers do not derive maximum satisfaction from such services. The Nigerian situation as revealed by the Nigerian Academy of Science[4] is that about 60% of Nigerian mothers receive ANC, while trained health personnel attend only 39% of deliveries. Thirty-four percent (34%) of women did not receive any antenatal care while 58 percent of women had no postnatal checkup[6].

Although it is recognized that continued service utilization by clients does not necessarily suggest client satisfaction, continued use of services is more likely, if there is a level of client satisfaction. Nevertheless, how clients perceive the services that are rendered to them, determine their level of satisfaction. Although there seem to be significant improvement in service provision, most of such services have not been evaluated from the perspective of patients. Thus, knowledge gaps exist on clients' perspective in terms of their knowledge about maternal and child health services as well as their perception and satisfaction with such services in Ikenne Local Government. This study attempts to close such gaps using a client-centered and culture sensitive approach. It will therefore serve as a framework for the assessment of the quality of maternal and child health services as well as a tool for policy makers in their decision-making towards the improvement of maternal and child health services.

METHODOLOGY

Study Design, Site and Population

A mixed method cross-sectional descriptive study was conducted between March and April 2012 in Ikenne Local Government Area, a semi-urban area of Ogun state, Southwest Nigeria. The area is mainly inhabited by the Remo stock, with trading and farming as their predominant occupation. It has a landmass of

137,13km^2 and a population of 125,966 about 50% being female projected from 2006 National population census (National Bureau of Statistics, 2012). Modern health services are available in 3 Government owned health institutions, 10 Primary Health Care centres, and 24 private hospitals. The LGA is administratively divided into 10 political wards and each ward has a Primary Health Care centre. Other sources of health care services such as traditional birth attendants (TBAs) and Faith-Based health services exist in this locality to provide maternal and child health care services.

The study population consisted of resident women of childbearing age (15 – 49 years) who were pregnant and had had at least one previous ANC visit in a health facility or had given birth within three months preceding the study irrespective of where the birth took place.

Sample size and Participant Selection

The sample size for the study was determined using sample size formula for single population proportion when N>10,000, response distribution rate of 50%, standard normal deviate of 1.96 corresponding to 95% confidence interval and a 5% margin of error[21]. A total sample size of 384 was reached which was increased by 10% (422) to account for improperly filled questionnaires for the quantitative study.

Simple random sampling by balloting was used to select 5 out of 10 PHCs in the LGA: Ikenne ward 1, Iperu ward 1, Ogere ward 1, Ilisan ward 2 and Irolu ward 2. To attain the desired sample size, the total number of ANC and PNC women designated from each centre was determined by a proportionate allocation ratio method, (i.e. the total number of women sampled from each centre was in accordance with the comparative ratio of its weekly antenatal and postnatal clinic's population). Women at each centre were selected by purposive sampling method during the antenatal and postnatal clinic days until the estimated sample size for the centre was reached.

Participants in Focused Group Discussion (FGD) were selected using purposive sampling technique. A total of four FGDs in groups of six to eight participants were convened with mothers. Two Key Informant Interviews (KIIs) were conducted with healthcare providers in the antenatal and postnatal service delivery points. These provided room for comparison of healthcare providers' responses with that of mothers.

Study Instrument

Structured, interviewer-administered questionnaire developed by the researcher after reading previous literature was used[22]. The content of the questionnaire included: socio-demographic variables, knowledge about ANC and PNC services, perception, frequency and spacing of visits, perception on appropriateness of information received and summary. The qualitative data collection tools included a key informant interview (KII) guide for ANC and PNC service providers, and the FGD guide to derive information on ANC and PNC services from the women using brainstorming technique.

Measures

Women's knowledge about ANC and PNC services were explored by asking; when a pregnant woman should begin antenatal care with options "as soon as the woman notices

that she is pregnant", "at 6 months", "at 8 months". Those who chose the first option were regarded to have good knowledge about when to begin ANC. On the services expected to receive while in attendance with options "urine testing", "treatment of common ailment", "monitoring baby's growth" and "All of the above" - Those who chose only the last option were regarded to have good knowledge of services expected.

In order to measure the overall satisfaction of women with ANC services provided, the questionnaire contained the summary section with three indicators employed by WHO to summarize overall perception of women in the antenatal care trial[23]. The essence of the overall satisfaction variable was the expectation that it would reflect the overall perception of women on the quality of ANC services that is being provided[24]. This variable was determined by respondents' positive answers to these three interrogations: "if you were pregnant again, would you come back to this clinic?", "would you recommend this clinic to a relative or a friend for their antenatal and postnatal checkups?" and "in general, how satisfied are you with antenatal care you have received so far in this clinic?" In lieu of this study, a positive answer to all of the three questions by the respondent was measured as an index of true contentment with the antenatal care services received. A positive answer to one or two questions only denote an incomplete satisfaction with ANC services received. Among 40 women receiving ANC and PNC at the primary health care facilities in Odogbolu Local Government, the questionnaire was pretested. Suitable modifications were made to the questionnaire in order to improve its internal validity.

Data collection and Ethical consideration

The questionnaires were administered by three trained interviewers; two public health graduates and a senior nurse. The interviewers collected the data on antenatal and postnatal clinic days at the respective Primary Health Care centres. Completed questionnaires were scrutinized by the researchers and incomplete copies disqualified. A total of 389 questionnaires were analysed.

An introductory letter from the Department of Public Health Babcock University, was addressed to the Director of Primary Health Care, Ikenne Local Government Area who granted approval for the study. The Medical Officer and the Matron in-charge at each of the selected study sites were contacted for permission before the commencement of the study. Verbal informed consent was obtained from every participant who agreed to participate. They were assured of confidentiality of information volunteered. For the FGDs, verbal consent was obtained, and the purpose and nature of the investigation was explained to the participants, including the use of the tape recorder.

Data analysis

The quantitative data were coded and entered into a computer database. Analysis was done using Statistical Packages for Social Scientists (SPSS) version 17. Simple frequencies and percentages were used for descriptive analysis. The FGDs and KIIs were transcribed into Microsoft Office Word 2010 version, and analysed thematically using manual content analysis.

RESULTS

A total of 389 women completely filled the questionnaire: Ilisan (76), Ikenne (85), Ogere (74), Iperu (74) and Irolu (76). One hundred and twenty (30.8%) of the respondents were in the age group of 25 – 29 with the mean age of 29.95 ± 6.02. More than half (74.3%) of the participants were Yoruba, and 22.1% were Igbos. Majority (78.7%) were of Christianity religion, Islam (17.1%). Most (97.9%) of them were married with secondary level education (48.3%). Additionally, majority of the women had attended ANC clinics "three times or more" (53.2%). (Table 1).

Table1: Socio-demographic characteristics of the respondents

Background characteristics	Frequency (n=389)	Percent (%)
Mother's Age in years		
< 20	20	5.1
20 – 34	306	78.7
35 – 49	63	16.2
Marital Status		
Single	8	2.1
Married	381	97.9
Tribe		
Yoruba	289	74.3
Igbo	86	22.1
Hausa	4	1.0
Others	10	2.6
Religion		
Islam	69	17.1
Christianity	306	78.7
Traditional	14	3.6
Educational Level		
No formal	31	8.0
Primary	73	18.3
Secondary	188	48.3
Tertiary	97	24.9
Number of Visits Attended		
≤ 2	190	48.8
≥ 3	199	53.2

Knowledge about ANC and PNC Services

The study showed that 253 (65.0%) of the participants knew that a woman should begin ANC clinic as soon as she notices she is pregnant; 183 (47.0%) participants knew that urine testing, treatment of common ailments and monitoring baby growth were some of the services expected while attending ANC clinics while 215 (53%) did not know what services to expect at the clinic. Majority 368 ((92.0%)) of the respondents did not know when a woman should return to the clinic for post delivery services, and 366 (94.1%) did not know the benefits of ANC and PNC services both to the mother and to the child (Table 2)

Table 2: Knowledge about ANC and PNC Services

Knowledge	Frequency (n=389)	Percent (%)
A pregnant woman begins ANC clinic		
As soon as she notices she is pregnant	253	65.0
After 6 months	108	27.8
After 8 months	28	7.20
The following services are expected while attending ANC clinic		
Urine testing	86	22.1
Treatment of common ailment	33	8.5
Monitoring of baby growth	76	19.5
All of the above	183	47.0
After a normal delivery, a woman should come back to the clinic for check-up		
At 2 weeks	326	83.8
At 6 weeks	31	8.0
At 12 weeks	17	4.4
After 52 weeks	15	3.9
Attending AN and PN clinics are beneficial to mother and child in the following ways:		
No idea	310	79.7
Have forgotten	45	11.6
Early detection, monitoring, immunization and learning of the general child welfare	34	8.7

Women's Perception with number and Time of AN and PN visits

With respect to number of antenatal visits, 188 (48.3%) respondents expressed that they would prefer more checkups to what was available while 158 (40.6%) said the number of checkups was right for them. As for spacing of antenatal visits, a quarter (25.7%) of the respondents indicated that the time between checkups had been too long; whereas 96 (24.7%) said the time had been too short. Most 302 (77.6%) of the respondents indicated that they had enough time with the Doctor/Nurse during checkups, 106 (27.2%) preferred if they had

had little more time.

Women reported their view about the preferred gender of the service care provider. Female health care providers were preferred by 186 (47.8%) of the respondents to see them during checkups. Similarly, 146 (37.5%) of the respondents indicated that they would prefer a doctor to attend to them. (Table 3).

Table 3: Perception of Number and Spacing of ANC and PNC visits

Statements	Frequency (n=389)	Percent (%)
Would you have preferred:		
More check-ups	188	48.3
Fewer check ups	36	9.3
Number of check-ups was right	158	40.6
No response	7	1.80
Has the number of ANC and PNC Check-ups been:		
More than expected	131	33.7
Less than expected	70	18.0
About the same as expected	181	46.5
No response	7	1.8
Has the time between check-ups been:		
Too short	96	24.7
Too long	100	35.7
About right	178	45.8
No response	15	3.9
Happy with the time you normally have to wait?		
Yes	307	77.6
No	74	19.0
Not sure	8	2.1
Had enough time with the Doctor/Nurse during your check-up		
Yes	302	77.6
No	87	22.4
Would you prefer:		
A lot of time	123	31.6
A little more time	106	27.2
Time is about right	148	38.0
No response	12	3.1
If you had a choice, would you prefer to be seen by:		
A male provider	93	23.9
A female provider	186	47.8
No preference	108	27.8
No response	2	0.5
If you had a choice, would you prefer to be attended to by:		
A doctor	146	37.5
A nurse	92	23.7
A midwife	19	4.9
A combination	78	20.1
No preference	54	13.9

Perception of appropriateness of information received

Half (51.9%) of the respondents agreed that they were told how to recognize and proceed about some serious problems that can happen during pregnancy and after delivery while 174 (44.7%) revealed that they were not told. (Table 4)

Table 4: Perception of the appropriateness of information received during AN and PN visits

(n = 389) Information	Don't Remember	Not enough	Too much	As much as desired	No received
About your own health	38 (9.8)	55 (14.1)	55 (14.1)	152 (39.1)	89 (22.9)
Tests during pregnancy	47 (12.1)	41 (10.5)	53 (13.6)	130 (33.4)	128 (30.4)
Treatment need during and after pregnancy	21 (5.4)	37 (9.5)	55 (14.1)	131 (33.7)	145 (37.3)
Labour management	36 (9.3)	48 (12.3)	47 (12.1)	151 (38.8)	107 (27.5)
Breastfeeding	49 (12.6)	43 (11.1)	40 (10.3)	145 (37.3)	112 (28.8)
Family planning	56 (14.4)	66 (17.0)	34 (8.7)	116 (29.8)	117 (30.1)
Received information about how to recognize and address serious problems that can happen in pregnancy and after delivery					
Yes			202 (51.9)		
No			174 (44.7)		
No response			13 (3.3)		

Level of Satisfaction with ANC and PNC Services

Results show that 323 (83.0%) of the respondents had same opinion that they will come back to the health centre if they get pregnant again; 296 (76.1%) were willing to recommend the health centre to their relatives or friends. Overall, 83.0% were satisfied and very satisfied with the care and services provided at the health centres. (Table 5).

Table 5: Percentage of mothers who expressed Satisfaction with ANC and PNC services in Ikenne LGA

Dimension of satisfaction	n (389)	Percent (%)
Mother would use the PHC centre again	323	83.0
Mother would recommend this centre to a friend or relative	296	76.1
Mother was satisfied	220	56.5
Mother was very Satisfied	103	26.5
Overall satisfaction	323	83.0

Results: Focused Group Discussion

While reviewing and analyzing the data from the discussions from the four focus groups, patterns and categories began to emerge

from the responses. The participants had antenatal and postnatal habits and routines that they followed, even if they were not aware of them before. Particularly the ANC women had developed a simple routine visits. The discussion also included exploring women's knowledge regarding ANC and PNC services, discussing their perceptions to the various aspects of quality of ANC and PNC services and how satisfied they were with the services being provided. Finally, factors that influence satisfaction and non-satisfaction were discussed.

Knowledge about ANC and PNC services

The opening discussion for each group began with when a woman should book for ANC. Participants responded to when a woman should book for ANC. As participants spoke of the right time to book for ANC visit, other factors came into play as to what services mothers receive.

Some women knew that pregnant mothers should book for antenatal care immediately they realize that they are pregnant while some think that booking for ANC should be two weeks after conception. Equally during the FGD, it was gathered that some of the women knew the kind of care a woman should get during pregnancy which includes palpation, checking for blood volume, weight and height. They also knew that ANC help them to know whether the baby and the mother are doing well.

Information about perception and satisfaction regarding ANC and PNC

Informants mentioned that some of the women that come for ANC do not deliver their babies in the clinic. One of the participants opined that, "I don't like the way health care providers shout at us, some of my friends are thinking of not coming here again" (P10). Another said that she does not like to deliver in the clinic but in the prayer house because her pastor had told her that prayer and trust in God can help her deliver safely. One other participant as well said that some women who attend ANC believe that Traditional Birth Attendants do better when it comes to taking delivery. They do not shout at them, they are kind and give them concussion that helps them deliver quickly. She also added that she is afraid of caesarian section because in the hospitals, "they like to perform surgery" (P4).

Perception of Good quality of ANC and PNC

Good communication skills contribute to the quality of the health care professional; being compassionate, kind and supportive (affective domain), knowledgeable (cognitive domain) and skillful (psychomotor) are imperative. Twenty five percent of the participants criticized personal attributes of some service providers. They perceived that on some occasions, staff expressed antagonistic attitudes.

For instance, each of the participants affirmed that most of the Nurses have very bad attitude as if something is irritating them. This makes them to be very harsh on the pregnant mothers.

The participants further posited that the staff in the hospital are not making things easy for them insisting that the staff are not making antenatal care what it should be in the sense that they don't really take good care of the pregnant women. Instead, such workers feel they are doing them a favour by coming to the

hospital. Some of the behaviours of these health workers can actually lead some of these women into having negative plans towards them.

When asked what improvements they might recommend, the following were their responses:
Some of them suggested that privacy for women should be improved upon while some others requested that ANC classes where women are taught what to expect during pregnancy are needed. In addition, enough chairs, equipment and spaces should be provided for the classes and medical examinations.

KII with the Health Workers
Information from the health workers revealed that the regular number of antenatal visits at all the centres was fortnightly until 36 weeks and weekly till delivery of the baby. This number of visits is not in agreement with the recommendation of the Federal Ministry of Health of Nigeria (monthly until 28 weeks, fortnightly until 36 weeks and then weekly until delivery) and is significantly more than the eight high quality visits recommended by World Health Organization.

The health workers demonstrated proper knowledge about ANC and PNC services. They mentioned Health education on diet, personal and environmental hygiene, preparation for delivery, compliance to drug regimen, and signs of complications, palpation, and immunization for mothers and children, and SP against malaria, Insecticide Treated Net (ITN) provision, monitoring, history taking, health education, management and/or referral of cases as services available at the clinics:

Almost all the health workers (80%) agreed to the fact that most times they are harsh and mentioned that it might be one of the reasons some of the women are not constant with attendance and also for deciding to deliver their babies outside the health facilities:

The health workers perceived that the women are afraid of referral and have more confidence in TBAs and churches rather than the health clinic. They further explained that the women depended on concoctions and prayers provided by the TBAs and churches respectively.

DISCUSSION
Lack of knowledge by women can range from lack of understanding of when a woman should start antenatal services; services expected while attending ANC clinic, to lack of knowledge on the benefits of antenatal and postnatal services to both the mother and the child. This study showed that 65% of respondents were knowledgeable about when a pregnant woman should begin ANC clinic. The high knowledge level in this study could possibly be attributed to the different programs the government has embarked on in disseminating maternal and child health information to women in the struggle to bring down the high MMR[4]. Although this percentage represents more than half of the study population, a handful of the respondents, 35.0%, were ignorant of when to begin ANC clinic. This proportion is lower compared to another study that reported that over half of the women did not know the appropriate gestation month for initial antenatal check[25]. For women to use health services, they must be well-informed about

those services[14]. This is important since knowing when to start antenatal visits is the first step to obtaining the service itself. This means that acquiring knowledge is an essential factor in the utilization of antenatal services. It was also observed from this study that 54.5% of the respondents did not know what services to expect at the antenatal and postnatal centres; this gives a disturbing nudge as the data above suggests that the women might not know whether the services being rendered are appropriate or not and therefore might not be a reliable source in measuring the quality of antenatal and postnatal services in these centres.

Another finding showed that almost all the respondents, 92%, did not know when a woman should come back for PN services after delivery. This suggests that majority of the women might not return for PN services after delivery or their return might not be timely. This finding is dissimilar with the study done in Uganda where 70.3% were aware that they were supposed to receive PN care services after delivery[26].

It is also very alarming that only 34 (8.7%) of the respondents knew ways in which ANC and PNC are beneficial to both mother and child, the rest did not know. Knowledge not only transforms, but also empowers women and improves their self-esteem[27]. This puts forward the notion that most of the women might terminate appointments for antenatal or postnatal care at any time since they do not really know the benefits of the services rendered. A similar study showed that women's understanding of their own reproductive health may be improved by raising their awareness about reproductive health, thereby contributing to their acceptance and utilization of available reproductive health services[28]. A study argued that informed consent (i.e. the method by which a fully informed woman can partake in decisions about her healthcare) is compulsory[13]. The authors further contended that the process requires women to have knowledge and that the healthcare provider should update the women in a proper way so that they can understand why they need to use the services. This denotes that it is imperative for women to be knowledgeable of antenatal and postnatal services in order for them to utilize the services

Nevertheless, findings from the FGD on knowledge differ from the above findings. Majority of the respondents (70%) showed a relatively high level of knowledge about what services to expect during ANC and PNC. Reasons for this disparity could be due to the fact that the atmosphere for the FGD was more conducive. It was also observed from the FGD that the health workers scarcely provide health education. This could explain why there is low level of knowledge about what services to expect during antenatal and postnatal care among majority of the respondents. The health workers conversely, listed health education on diet, personal and environmental hygiene; preparation for delivery; compliance to drug regime; and signs of complications among others as part of the services rendered at the health centres. The debate as to why there are inconsistencies lingers. Fear of losing their jobs and other queries might be one of the factors influencing the health workers' responses regarding the quality of ANC and PNC services provided. The WHO advocates a need for information provision before birth and stresses that interventions alone cannot

address the main causes of maternal mortality[29].

Information from the care providers revealed that the number of antenatal visits at all the centres were fortnightly until 36 weeks and weekly till delivery. This number of visits is not in agreement with the recommendations of the Federal Ministry of Health of Nigeria which is monthly until 28 weeks, fortnightly until 36 weeks and then weekly until delivery. It is also to a large extent more than the eight high quality visits currently recommended by WHO[30]. The motivating factor for these findings could be as a result of the women's awareness of the frequency of antenatal visits from their preceding experiences most especially from the older mothers. These views may also have been influenced by the fact that women need steady reassurance of their unborn baby's wellbeing coupled with the fact that these women may need to socialize with their mates often. Studies in which fewer visits were compared with the standard model have shown that more women were dissatisfied with reduced number of visits and longer spacing between them[31].

Majority 302 (77.6%) of the respondents were satisfied with the time they spent with the health providers (doctor, nurse etc.).This corresponds with the findings which stated that "determinants of perception of quality services include: perceived time spent at the facility, availability of immunizations, availability of MCH services and the staff strength of the health facility"[32]. In view of the fact that findings from this study have shown that majority of the respondents did not know what to expect in ANC and PNC services, and as such might not be able to judge whether the services delivered are of quality or not. This leads to the query as to what informed their perception.

It was observed that some of the study population either had forgotten or claimed that no information was given about how to look after their own health and other aspects of information given. Majority of the respondents, (51.9%) agreed that they were told how to recognize and proceed about some serious problems that can happen during pregnancy and after delivery while 44.7% indicated they were not told. This finding is congruent with a result that clearly showed inconsistency between the health promoting and service information women expect to receive during antenatal care and the information received[33]. The FGD with the Health care providers showed that health education is one of the services provided. However, majority claimed that the information received was just right while others claimed it was not enough. It is quite probable that the perceptions of the study population on the various aspects of quality of antenatal and postnatal care services rendered at primary health care centre were rated high by a significant proportion of antenatal and postnatal clinic users in spite of some important reservations with the various attributes of quality. It is however interesting that from the FGD, the women opened up to the fact that most of them though they attend the ANC might not deliver in the clinic. They pointed out that the factors that might influence decision include long distance to be travelled, TBAs give concoctions that help them to deliver quickly, their religious faith, fear of caesarean section, and the health workers' harshness. Lack of space and chairs for ANC and PNC classes,

lack of Ultra sound scanning machine and no privacy during examination were some factors mentioned by the women during the FGD that led to inconsistent ANC and PNC attendance. As Kempe *et al*[19] opined, though a large fraction of women receive some antenatal care, only some return to health facilities for delivery and postpartum checkups.

However, the health workers during the KIIs admitted the fact that their harshness (not being friendly) is one of the factors responsible for non-attendance, inconsistent attendance and women not delivering in the clinics. Excessive workload due to low staff strength was given as reason for their attitude (harshness). Inhospitable attitudes of staff create social and psychological barriers that limit willingness of consumers to attend clinics for care[34]. Poor staff attitude can cause women to decline orthodox care and instead go into labour at home or in spiritual houses[35].

Generally, 83.0% of the respondents indicated that they were satisfied with both the care givers and the services they received and the satisfaction level was further impressed by almost all respondents' willingness to return if they get pregnant again or recommend the primary health centres to their relatives and friends for antenatal and postnatal care. This calls for attention as it differs from the FGD in which the women were not sure whether they will continue with ANC, deliver at the clinic or return after delivery for PNC. Reasons can be found in the findings which pointed out that "clients' satisfaction may not necessarily mean that quality is good; it may only indicate that expectations are low"[36]. Clients may also say that they are satisfied with care because they are concerned that care may be withheld in the future, want to please the interviewer, or have some cultural or other reasons to dread complaining. Patients' satisfaction with health services can be purely personal and dynamic[37]. A survey conducted at Sagamu, Southwest Nigeria indicated that despite some inconsistencies between received care and expectations of the facilities, antenatal women may generally express satisfaction with the quality of services[18]. Again it is recognized that continued use of services is more likely, if there is a level of clients' satisfaction.

It can thus be concluded that while this study is not exhaustive in measuring the knowledge, perception and satisfaction of mothers with antenatal and postnatal care services in Ikenne local government area, it has given insight into the fact that the mothers are satisfied with the antenatal and postnatal care services in spite of conflicting perceptions and low level of knowledge base.

CONCLUSION

The study showed that most women attending antenatal and postnatal clinics at these centres have good knowledge about when a woman should begin ANC visits but have a low level of knowledge about what services to expect during the ANC and PNC visits and when to return for PNC. In general, women were satisfied with the services received in spite of some discrepancies between the received care and their expectations of the facilities. With the low knowledge base of the study population on what services to expect during antenatal and postnatal services, it might be difficult to accurately measure the quality of antenatal

and postnatal care services rendered at the primary health care centres in this locality even though the FGD showed a relatively high level of knowledge. Therefore with a population having low level of knowledge about what to expect while attending antenatal and postnatal services, it could be said that the respondents' high level of satisfaction could be due to their ignorance about what ANC and PNC were and consequently low expectation. Hence, the service providers need to be sensitized more on the importance of listening to the clients, and that they should create a helpful environment in which clients are sufficiently informed, confident and encouraged to say their views as well. This will help to strengthen the client-service provider relationship, enhance client's satisfaction and therefore help to improve the use of antenatal and postnatal services and subsequently, reduce maternal mortality. Policymakers and program managers can develop a deeper understanding of the necessities and constraints faced by clients and providers by incorporating the perspectives of both groups into efforts to improve the quality of maternal and child health care services.

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