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Are clients satisfied with communication with health workers? A study among pregnant women attending primary health care centers in Nasarawa State, Nigeria

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Abstract

An effective communication between health workers and clients is known to improve clients' perception, compliance, and treatment outcomes. The main objective of this study was to determine the level of client satisfaction with health workers'-client communication among pregnant women attending ANC in selected PHC facilities Nasarawa State. The study was a cross-sectional design conducted among 450 respondents consenting pregnant women during their ANC sessions. Data was collected using a structured, interviewer-administered structured questionnaire. Analysis was done using SPSS software version 20. Chi-square test and logistic regression were used for the test of significance. Results showed that 132 (29.3%) of the respondents were completely satisfied with client health worker communication. The elements of communication with the highest satisfaction were: explanation of condition to clients: 193 (42.9%); use of appropriate language: 189 (42.0%) and courtesy and respect by the provider: 188 (41.0%). Conclusion. Clients with a secondary level of education and more were more likely to be satisfied with communication with health workers. There is a need to carry out regular reorientation of PHC workers on communication with clients. (*Afr J Reprod Health 2022; 26[6]:55-63*).

Keywords: Client satisfaction, health communication, Nasarawa

Résumé

Une communication efficace entre les agents de santé et les clients est connue pour améliorer la perception, l'observance et les résultats du traitement des clients. L'objectif principal de cette étude était de déterminer le niveau de satisfaction des clientes vis-à-vis de la communication entre les agents de santé et les clientes chez les femmes enceintes fréquentant les soins prénatals dans des établissements de SSP sélectionnés dans l'État de Nasarawa. L'étude était une conception transversale menée auprès de 450 répondantes consentantes enceintes au cours de leurs séances de soins prénatals. Les données ont été recueillies à l'aide d'un questionnaire structuré administré par un intervieweur. L'analyse a été effectuée à l'aide du logiciel SPSS version 20. Le test du chi carré et la régression logistique ont été utilisés pour le test de signification. Les résultats ont montré que 132 (29,3 %) des répondants étaient entièrement satisfaits de la communication avec les agents de santé des clients. Les éléments de communication les plus satisfaisants étaient : explication de l'état aux clients : 193 (42,9 %) ; utilisation d'un langage approprié : 189 (42,0 %) et courtoisie et respect par le prestataire : 188 (41,0 %). Conclusion. Les clients ayant un niveau d'éducation secondaire et plus étaient plus susceptibles d'être satisfaits de la communication avec les agents de santé. Il est nécessaire de procéder à une réorientation régulière des agents de SSP sur la communication avec les clients. (*Afr J Reprod Health 2022; 26[6]:55-63*).

Mots-clés: Satisfaction client, communication santé, Nasarawa

Introduction

The Maternal Mortality Ratio in Nigeria is estimated to be 800-1100 maternal deaths per 100,000 live births. Nigeria contributes 14% of the global maternal mortality and is the country with the highest maternal mortality in Central and West

Africa. The risk of a woman dying from pregnancy and childbirth in Nigeria is 1 in 13^{1,2}. The Sustainable Development Goal (SDG) 3 has, as one of its targets, the reduction of the global Material Mortality Rate to less than 70 per 100,000 live births³. It has therefore become imperative to device all necessary strategies to improve maternal care.

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An effective communication between health workers and ANC attendees provides pregnant women and their partners with relevant information on pregnancy, delivery, and post-natal care⁴. It is known that, in order to improve clients' perception, satisfaction, compliance, and positive outcomes while poor communication leads to discontinuing of service, client, dissatisfaction, and inefficient resource utilization⁵⁻⁸. However, several studies have shown dissatisfaction of clients with communication with health workers. In a study conducted among pregnant women in Ethiopia, 54.7% expressed a lack of satisfaction with information received from health workers⁹. An institution-based cross-sectional study undertaken at the Gandhi Memorial Hospital (GMH) also in Ethiopia showed that only 0.7 to 26% of the respondents expressed complete satisfaction with provider's communication with clients¹⁰.

The PHC facilities serve as the first level of care in the Nigerian Health system. One of their mandates is to provide basic maternal health care including antenatal, delivery, and post-natal care. An excellent rating of health worker - client communication is required to ensure continuous patronage of the services at this level of healthcare⁴. A previous study conducted among pregnant women attending ANC in selected Primary Health Centres (PHCs) in Akwa - Ibom State, Nigeria gave the reasons given for choice of primary health facilities by clients include friendly staff, understanding of the language of communication, and empathy from staff¹¹.

Communication between the health workers and the client is a major determinant of client satisfaction and by extension utilization of available health facilities. It is a multidimensional process and therefore affected by several individual, cultural and environmental factors^{9,12,13}. There is, however, a general paucity of information on client perception and satisfaction with health care provider-client communication in the primary health care setting. Studies elsewhere show that providers-client communications are mostly insufficient, inappropriate, and ineffective^{13,14}. The importance of provider-client communication becomes even more important in settings like ours with huge clients' diversity in terms of religion, culture, and economic status. This study is in line with the World Health Organization recommendation that all relevant stakeholders must

ensure an effective communication between health care providers and pregnant women using simple and culturally acceptable methods¹⁵. The findings of this research will be useful to Primary health care policy makers, health administrators, front-line health workers, and non-governmental organizations who are interested in improving the quality of maternal care and pregnancy outcomes at the primary health care level.

Aim and objective

This study was aimed at determining the extent of satisfaction with health workers-client communication and to identify specific areas that need to be addressed.

Methods

Study design

This was a cross-sectional study carried out among 450 pregnant women attending antenatal care in Primary Health Care facilities in Nasarawa state, Nigeria.

Study population

The source population for this study was pregnant women attending ANC in PHC centres in Nasarawa State. Nasarawa State, located in North Central Nigeria, is divided into three geopolitical, senatorial zones (Nasarawa West, Nasarawa North, and Nasarawa South).¹⁶ There are 144 PHC centres in Nasarawa state, with one located in each political ward. There are an estimated 25,024 pregnant women attending ANC in the state per month.

The criteria for inclusion of the PHC facility include a minimum of 100 ANC attendees in the previous month and compliments of staff to include at least CHO, Nurse/midwife, Pharmacy technician, laboratory technician, and record officer. Consenting pregnant women attending the selected health facilities were included in the study while those who were severely sick and those attending ANC for the first time were excluded.

Sample size determination

The sample size was determined based on a formula for a single population proportion for cross-sectional studies (below), with assumptions as

follows: a 50% satisfaction (to attain the maximum sample size), 5% level of significance, and 5% margin of error. Z is the normal standard deviation at a 95 % confidence interval (1.96),

$$n = \frac{Z^2 pq}{d^2} \quad 17$$

An estimated sample size of 384 was obtained and adjusted by 15% for non-response to give a final sample of size of 442 and rounded off to 450.

Sampling technique

A multistage sampling technique was used to select study participants. The state was divided into the three senatorial zones by convenience. In each of the senatorial zones, one LGA was selected by simple random sampling (balloting) from the list of all the LGAs in the respective zone. Next, in each of the selected LGAs, the list of all the Primary Health Centers in each of the senatorial zones that met the inclusion criteria was used as a sampling frame from which two were selected using balloting, giving a total of six PHC centres. The sample size of respondents allocated to each of the selected health facilities was determined using the average number of pregnant women who attended ANC in the previous three months before the survey. Each selected facility was proportionately allocated a number of participants.

The last stage of sampling was the selection of study participants which was done using a systematic sampling technique. On each day of data collection, the list of ANC attendees on the respective days was used as the sampling frame. The first respondent from each health center was selected from k^{th} respondents randomly then subsequent respondents were selected after every k^{th} , where $k=N/n$ (N is the total number of pregnant attending the clinic on the respective days and n is the number of respondents to be interviewed on that day). This was repeated on subsequent ANC days until the required sample size allocated to the health facility was obtained.

Data collection

Data was collected using a pretested, structured questionnaire adapted from previous studies^{7,18}. The questionnaire consists of three sections: general information on the facility, socio-demographic characteristics of the respondents, previous pregnancy and delivery experiences, and

information on the client satisfaction variables. Prior to data collection, twelve research assistants and three supervisors participated in a one-day training workshop on the purpose and procedures for the study, questionnaire administration, informed consent, and confidentiality. Questionnaires were interviewer-administered to each consenting respondent by the research assistants at the point of leaving the health center. Data collection was done on the respective antenatal days of the selected health facilities until the desired sample size was obtained. Two research assistants were assigned to each of the study sites while one supervisor covered two sites.

Data analysis

The data in the filled forms were entered into a spreadsheet, cleaned, and analyzed using SPSS version 20 statistical package. The main outcome variable, client satisfaction with health worker-client communication was based on a three-point scale as follows: Dissatisfied, Somewhat satisfied, and satisfied (adapted from a previous study which classified satisfaction into dissatisfied, indifferent, and satisfied⁷). The following components of health worker client communication were assessed:

- i. Provider explained your condition to you
- ii. Provider explained about treatment
- iii. Provider listened to your worries
- iv. Provider listens attentively
- v. Provided Information about procedure & exam
- vi. Provider enquired about patient's feelings
- vii. Empathy
- viii. Allowed you to participate in making decision on the health care or treatment
- ix. Checked your understanding
- x. Summarize key information provided
- xi. Provider used appropriate language in communication
- xii. clarity of explanations by the health care provider
- xiii. Allow clients to ask questions/provide feedback
- xiv. Told to return for further/additional services?

Descriptive statistics (frequency, percentage, mean, range, and standard deviation) were carried out on socio-demographic characteristics and client satisfaction scores. Statistical significance was set

at a P-value of 0.05. Tests of association between the main outcome variable, which is client satisfaction with providers' communication and selected Sociodemographic and other characteristics, were done using Chi-square and logistic regression analysis.

Results

Sociodemographic characteristics of respondents

A total of 450 mothers were interviewed and they included 223 women attending PHC facilities in the Western zone, 74 women in Northern zone and 153 in the Southern zone. The mean age of the respondents was 26.1 ± 5.9 years. The majority of the respondents, 437 (97.1%) were married while 228 (50.7%) have had at least secondary level of education. Those who reside in the rural areas were 266 (59.1%) and 289 (64.2%) reside within 30 minutes' travel time to the health facility (Table 1).

Client satisfaction with health worker-client communication

Table 2 showed various areas of HW-Client satisfaction. The highest variable positively affirmed by the clients (42.9%) was that Providers explained their condition whereas the majority of the clients (69.1%) were not satisfied with HWs enquiry about their feelings and understanding.

Factors significantly associated with overall client satisfaction with health workers communication include senatorial zone of the health facility, age group, waiting time, and reported gender barrier. Health facilities in the southern zone had significantly higher client satisfaction (<0.001). Respondents aged 25 years or more and those who waited longer were more likely to be satisfied, ($P=0.023$ and $P=0.008$ respectively). Respondents who reported gender difference as a barrier to communication were less likely to be satisfied with health workers' communication (<0.001). (Table 3)

Logistic regression analysis showed factors associated with satisfaction with health worker-client communication were residence in western senatorial zone ($P<0.001$, AOR: 5.25, CI: 2.686-9.637), and Southern zone ($P<0.001$, AOR: 3.88, CI: 2.089-7.205), clients with secondary or higher level of education ($P=0.036$, AOR: 1.73, CI: 1.038-

2.875) and perceived gender barrier ($P=0.01$, AOR: 0.24, CI: 1.106-0.537) (Table 4)

Perceived barriers to health worker-client communication

The highest perceived barrier to HW-Client communication was age difference (23.1%) whereas the least was unsuitable environment (5.1%) (Figure 1).

Discussion

Our study found that only about one third, 132 (29.3%) of the respondents reported satisfaction with HW-client communication. This is lower than the findings in a number of previous studies in Pakistan which showed 79% of clients were satisfied with communication with health workers¹⁹, while among pregnant women in Ethiopia, 54.7% expressed a lack of satisfaction with information received from health workers⁹. This low level of client satisfaction with health workers' communication may discourage clients from patronizing the Primary Health care services. This finding may further worsen access to quality reproductive health services and by extension maternal morbidity and mortality in Nigeria. Possible factors that may be responsible for the relatively lower satisfaction with health worker communication found in our study include heavy patient load and communication skills of health workers. Previous studies found that health workers often do not allow patients to express their concerns for fear of being unable to address such concerns^{20,21}.

The elements of communication with the highest satisfaction included: explanation of Condition to clients: 193 (42.9%); use of appropriate language in Communication: 189 (42.0%) and courtesy and respect by the provider: 188 (41.0%), while those with the lowest ratings included allowing clients to participate in making decision: 112 (24.8%), checking clients' understanding: 139 (30.9%) and enquiring about patient's feelings: 139 (30.9%). In Calabar, Nigeria, client overall satisfaction the attitude of health service providers comprising doctors and the others (Nurses, CHOs, and CHEWs) was higher than findings from our study. The higher satisfaction in Calabar was partly attributable to introduction of Service Compact with all Nigerians (SERVICOM)

Table 1: Socio demographic characteristics of women attending ANC in selected facilities in Nasarawa State

Characteristics		Frequency	Percent
Senatorial Zone	Northern Zone	147	32.7
	Western Zone	150	33.3
	Southern Zone	153	34.0
Age (years)	Mean(SD): 26.1 (5.4)		
	less than 20 years	32	7.1
	20-29 years	291	64.7
	30-39 years	121	26.9
	40 years or higher	6	1.3
Educational level	None	47	10.4
	Primary	130	28.9
	Secondary	178	39.6
	Koranic Only	45	10.0
	Post-Secondary	14	3.1
Marital Status	Tertiary	36	8.0
	Married	437	97.1
	Divorced	13	2.9
Place of residence	Urban	184	40.9
	Rural	266	59.1
Religion	Christianity	199	44.2
	Islam	251	55.8
Distance to Health facility	30 minutes or less	289	64.2
	Greater than 30 minutes	161	35.8

Table 2: Rating of health worker-client satisfaction by the respondents

Variables	Satisfied		No		
	Yes			No	
SN	Rating of HW-Client Satisfaction	n	%	n	%
i.	Provider explained condition	193	42.9	257	57.1
ii.	Provider explained Treatment	164	36.4	286	63.5
iii.	Provider Listened attentively	184	40.9	266	59.2
iv.	Enquiry about clients feelings	139	30.9	311	69.1
v.	Clients participates in decision making	112	24.9	338	75.1
vi.	Checked clients understanding	139	30.9	311	69.1
vii.	Summarize information provided	148	32.9	302	67.1
viii.	Use of appropriate language	189	42	261	57.9
ix.	Clarity of explanations	185	41.1	265	58.9
x.	Empathy	143	31.8	307	68.2
xi.	Courtesy	188	41.8	262	58.2
xii.	Allowed clients to ask questions	154	34.2	296	65.8
xiii.	Told to return for further services	176	39.1	274	60.9

in the health facilities studied²². Though relatively high, the appropriate use of language needs to be improved upon by getting interpreters where necessary. One of the findings of our study is the low satisfaction with the level of involvement of clients in decision-making. This is a cause for concern. Previous studies have shown that client participation in decision making is more complicated than most health workers think. Critical elements such as information transfer, capacity to decide by the clients, and therefore effective deliberation are often missing in many settings in developing countries²³. In a previous

study in Ethiopia, 35% of clients attending a health care facility complained that the providers were not technically competent enough to communicate effectively¹¹. Therefore, the health-care providers may assume that their clients lack the necessary knowledge and skill to contribute meaningfully to decision making regarding the treatment of their health problems. In addition, the clients in our study may not be sufficiently informed about their right to participate in decision making regarding the different treatment options for their ailments. However, with the advances in information technology, there is enhanced access to

Table 3: Association between socio-demographic with overall satisfaction with health workers' communication satisfaction, among clients attending ANC in selected PHC in Nasarawa State, 2019

Characteristics			Satisfaction with Health workers Communication		
	N	%	X ²	P value	
i. Senatorial Zone	Northern Zone	24	16.3	52.89	<0.001
	Western Zone	30	20.0		
	Southern Zone	78	51.0		
ii. Age (years)	25 years or less	58	24.7	1.456	0.023
	25 years or more	74	34.4		
iii. Educational level	Primary or lower	59	26.7	0.173	0.678
	Secondary or higher	73	31.9		
iv. Residence	Urban	52	28.3	0.558	0.757
	Rural	80	30.1		
v. Number of previous pregnancies	None	48	28.4	9.698	0.008
	1-4	71	30.7		
	5 and above	13	26.0		
vi. Waiting time	Less than 30 mins	28	20.1	3.599	0.058
	30-89 mins	67	31.1		
	90 mins or more	37	38.1		
vii. Reported Language Barrier to communication	No	114	28.0	16.079	<0.001
	Yes	18	41.9		
viii. Reported gender difference as Barrier to communication	No	122	33.5	11.6	
	Yes	10	11.6		

Table 4: Logistic regression of association between client satisfaction with HW-client communication and socio-demographic characteristic

Variable		AOR	P Value	95% C.I
Senatorial zone	➤ Northern	1.00		
	➤ Western	5.25	<0.001	2.86-9.64
	➤ Southern	3.88	<0.001	2.09-7.21
Age	➤ < 25 yrs	1.00		
	➤ >25	1.038	0.880	0.657-1.632
Education	➤ Prim or lower	1.00		
	➤ Secondary or higher	1.73	0.04	1.04-2.88
Residence	➤ Urban	1.00		
	➤ Rural	1.312	0.26	0.82-2.13
Waiting Time	➤ ≤ 30 minutes	1.00		
	➤ 30-89 minutes	1.23	0.55	0.62-2.42
	➤ ≥90 minutes	0.79	0.42	0.45-1.40
Reported language barrier	No	1.00		
	Yes	1.67	0.212	0.74-3.77
Reported gender barrier	No	1.00		
	Yes	0.24	0.001	0.11-0.54

information and people are becoming more aware of their health. Conscious efforts must be made by health workers to allow clients to participate in decision making process regarding their health.

This study showed that level of education and senatorial zone of clients affected satisfaction with health worker communication. Age, gender, and residence were not associated with client satisfaction. Client satisfaction with health worker

communication was significantly higher among respondents with secondary or higher level of education when compared with those with lower education. This is similar to the findings in Turkey where patients with university level of education were more satisfied with health worker communication than those with middle and high school level of education²⁴. In contrast to our finding, however, patients' satisfaction with

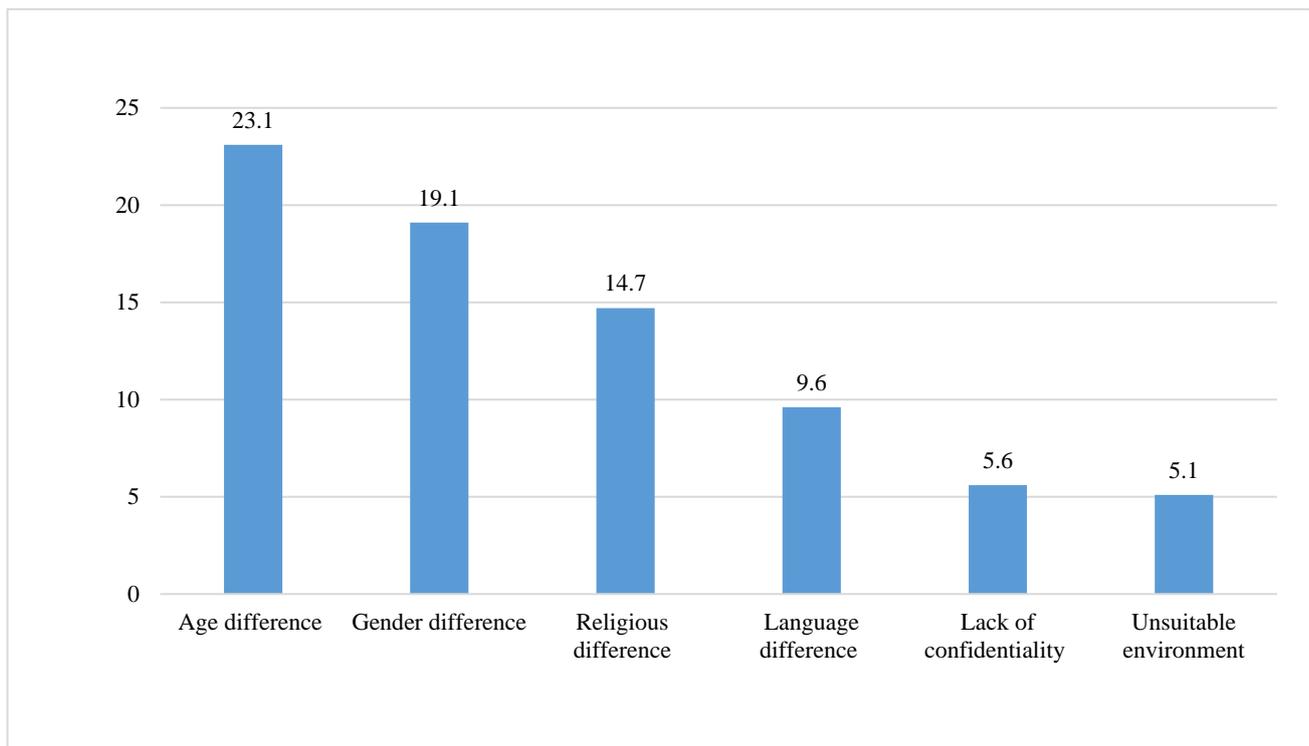


Figure 1: Perceived barrier to HW-client communication

nursing care at Debre Berhan Referral Hospital in Ethiopia was higher among patients with lower education²⁵. Generally, clients with higher educational attainment are more likely to ask questions and more likely to have background knowledge about their health. Beliefs and behaviours related to health and health care are generally influenced by education and other socioeconomic variables²⁶.

A major strength of this study is that the data was obtained from different Primary Health Care centres, in both rural and urban locations. However, the study was a health facility based study and so the findings cannot be generalized to the general population. Pregnant women who are not attending antenatal care would probably have significantly different opinions on health workers' communication.

Ethical considerations

Ethical approval was obtained from the Research and Ethics Committee of the Nasarawa State Ministry of Health (Reg number: NHREC18/06/2017). Permission to collect data

was obtained from the Nasarawa State Primary Health Care Board. Informed consent was obtained after due explanation of the study from each study participant that meets the inclusion criteria before administrating the data collection tools to them. The study did not carry any significant risk to the participants. No invasive procedure was performed. Respondents were allowed refusal to participate in the study without any negative consequences on their access to services in the health facility. Confidentiality was ensured by avoiding the use of participants' personal identifiers.

Conclusion

The clients generally showed low overall satisfaction with health workers' communication. Elements of communication with the lowest rating were involvement in making, checking clients' understanding, and enquiring about patient's feelings. Conscious efforts must be made by health workers to ensure that their clients are informed about their participation in decision making process concerning their health. The Service Compact with all Nigerians (SERVICOM) should be implemented

in Primary health care facilities. Health training institutions should ensure adequate training on health communications.

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Conflicts of interest

There are no conflicts of interest.

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