Basic Health Care Provision Fund Scheme: Assessment of Clients' Satisfaction at Primary Health Care Facilities after Two Years of Implementation in Nigeria's Federal Capital Territory

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Abstract

Background: *A major factor contributing to poor health outcomes in Nigeria is governments' low investment in health sector. Nigeria's National Health Act (2014) proposed a radical shift in health financing by establishing Basic Healthcare Provision Fund (BHCPF) scheme. This study assessed clients' satisfaction with service provision after two years of implementation of the scheme in Nigeria's Federal Capital Territory.*

Methods: *Health facility-based cross-sectional design and two-stage sampling method were used to select 400 adult clients at Primary Health Care facilities. Semi-structured questionnaire was used for data collection. Data analysis was done using Statistical Product and Service Solutions version 22.0 and level of statistical significance was set at p-value of <0.05.*

Results: *Median age of respondents was 30 years (Interquartile Range = 11), majority were females; 326 (81.5%) and mostly married; 345 (86.3%). Majority; 357 (89.4%) experienced quick responses to emergencies and most of enrolled clients; 76 (88.4%) benefitted from free services. Majority; 350 (87.5%) also received prescribed drugs and 369 (92.3%) were satisfied with the services. Factors associated with service satisfaction were being female client [AOR; 0.10, 95% CI: 0.01-0.80], p=0.03, having 3-4 children (AOR; 3.6, 95% CI=1.2-11.4), p=0.03 and Christian faith (AOR; 2.8, 95% CI=1.1-7.0), p=0.03.*

Conclusion: *High clients' satisfaction was associated with introduction of BHCPF scheme at Primary Health Care facilities in study area. The scheme provides opportunity to improve quality of maternal and child healthcare services at these facilities. The gains recorded should be sustained through regular supervision and continuous engagement with clients to address their concerns.*

Key words: *Basic Health Care Provision Fund, clients' satisfaction, primary health care, Federal Capital Territory.*

Introduction

Nigeria's health sector is bedevilled by a number of inadequacies that contribute to poor health outcomes. Major among these is the grossly low government investment in the health sector.[1] Clients' satisfaction with services received is an important dimension of evaluation of health sector's performance. The National Health Act (2014) proposed a radical shift in health financing through establishment of the Basic Healthcare Provision Fund (BHCPF) to be predominantly financed through an annual grant from the Federal Government of not less than 1% of the Consolidated Revenue Fund of the Federation.[2]

With a projected population of over 190 million,[3] it is estimated that Nigeria alone contributes 17% of the world's total number of deaths attributable to maternal and child issues.[4,5] The average under-five mortality rate is 120 deaths per 1000 live births,[6] while the maternal mortality rate is 814 deaths per 100,000 live births.[7] A total of 50,000 women die from pregnancy related causes each year.[8] It is envisaged that the introduction of BHCPF scheme will ensure provision of quality and affordable basic package of health care services to Nigerians.

The primary level of health care in Nigeria is the first level of entry into the health system and also the most patronized. Unfortunately, it has remained the level with the lowest standard of care.[9] The guideline for implementation of BHCPF scheme is that half of the fund be used for provision of basic package of services in Primary Health Care (PHC) facilities through the National Health Insurance Scheme; 45% will be disbursed by the National Primary Health Care Development Agency for maintenance of PHC facilities, and the 5% will be used by the Federal Ministry of Health to respond to health emergencies.[2]

The Federal Capital Territory (FCT) effectively commenced implementing the BHCPF scheme with receipt and subsequent disbursement of funds to 62 implementing PHC facilities in the first quarter of 2020. After the nearly two years of implementing the scheme in FCT, this study assessed clients' satisfaction with service provision at the PHC facilities under the scheme and the associated factors.

Methodology

Study setting

The study was carried out at selected PHC facilities in Nigeria's FCT, Abuja. The FCT is located at the centre of Nigeria with a land area of about 8,000 square kilometres. Its boundaries are formed by the States of Niger to the west and northwest, Kaduna to the northeast, Nasarawa to the east and south, and Kogi to the southwest.[10] The inhabitants of FCT consist of indigenous people and other tribes of Nigeria, as well as foreigners, with year 2020 population projection of 3,740,080, based on annual growth rate of 9.3%.[11]

The FCT is divided into six administrative Area Councils namely; Kuje, Gwagwalada, Bwari, Kwali, Abaji and Abuja Municipality with over 60% of the populace living in the rural areas. The indigenous people of the area include Gbagyi, Gwandara, and Hausa/Fulani, whose main occupation are farming and fishing at the subsistence level and mostly domiciled in rural areas.[10] Each Area Council has at least one public secondary health care facility and up to 20 public PHC facilities.[12] Each of the first five Councils has 10 PHC facilities implementing BHCPF scheme, while the Municipal Council has 12 implementing PHC facilities.

Study design and population

This was a health facility-based descriptive, cross-sectional study. The

study population comprised adults who had been resident in the FCT for at least one year prior to the study and accessed health care services at the selected PHC facilities in the FCT. Those who declined consent were excluded from the study.

Sample Size Determination

The minimum sample size for the study was determined using the formula for single proportions:[13] $N = \frac{Z^2 x P(1-P)}{d^2}$

A sample size of 400 clients was arrived at based on a type 1 error (α) of 0.05, a tolerable error margin (d^2) of 0.05, and the proportion (P) of 0.379 who were satisfied with quality of health care service from a previous study.[14] Therefore, a total of 20 PHC facilities with 20 participants from each facility were required to achieve the sample size of 400.

Sampling technique

A two-stage sampling technique was used to select the respondents. A total of 62 PHC facilities are involved in implementing the BHCPF scheme in the six administrative Area Councils of FCT (12 PHC facility in Municipal Council and 10 each in the other 5 Councils). Using proportionate to size allocation, 5 PHC facilities were allocated to Municipal Area Council, while the other 5 Area Councils were allocated 3 facilities each totalling 20 PHC facilities. In each of the Area Councils, the 5 (from AMAC) and the 3 (from each of the other Area Councils) PHC facilities needed were selected using simple random sampling technique by balloting (First stage). In the second stage, participants were recruited consecutively as they exited the selected health facility until the desired sample size of 20 was achieved for each PHC facility, giving a total of 400 participants used for the study.

Study Instruments

A standardized, semi-structured, pretested, questionnaire developed by the researchers and formulated in English language was validated and used for data collection. Research assistants were recruited and trained to administer the questionnaire on the respondents. The local languages were also used to administer the questionnaire on respondents who did not understand English by research assistants who had good command of both languages. The questionnaire contained information on respondent's bio-data and the outcome measures. The data was collected in December 2021.

Data Management

Data entry and analysis were done using IBM Statistical Product and Service Solutions software version 22.0. Chi-square test and binary logistic regression were applied in the analyses and the level of statistical significance was determined by a p-value of <0.05. The main outcome measures were availability of free health services for enrolled BHCPF clients, ease of access to health care services at PHC facilities and clients' satisfaction with service at the facilities. Satisfaction was assessed by clients' rating of services provision and was classified as “satisfied” and “not satisfied”. In determining the factors associated with service satisfaction, variables with p-values of ≤ 0.2 on bivariate analysis were entered into the logistic regression model to determine the predictors of service satisfaction.[15] The result of logistic regression analysis was reported using Adjusted Odds Ratios (AOR) and 95% Confidential Intervals (CI).

Ethical Considerations

Ethical approval was obtained from the Health Research and Ethics Committee of

the FCT Health Authority. Verbal informed consent was obtained from the respondents before the interviews, and the nature of the study, its relevance, and the level of their participation were made known to them. Respondents were assured that their participation in the study was voluntary and that confidentiality of the information they gave would be strictly maintained.

Results

Four hundred questionnaires were administered to the study participants and all were returned and analysed giving a response rate of 100%. A large proportion; 180 (45.0%) were aged less than 30 years (Median Age =30.0, Interquartile Range = 11) and majority of them were female; 326 (81.5%). Majority; 345 (86.3% were married, 192(48.0%) were self-employed and 142 (35.5%) had secondary level education. Two hundred and nine (52.3%) were Christians and 210 (52.5%) had less than three children. Table 1.

A low proportion of respondents; 86 (21.5%) were enrolled in the scheme but majority of those enrolled; 76 (88.4%) benefitted from free BHCPF services. The major kind of free services received were free treatment/drugs; 49 (64.5%). Table 2. Majority; 357 (89.4%) of respondents experienced quick responses to emergency situation(s) in the health facilities and it took majority of them; 297 (74.3%) less than 30 minutes waiting time to consult a doctor/health worker at the health facilities. Most; 279 (69.8%) had easy access to the health facilities and majority of them; 350 (87.5%) always received prescribed drugs at the facilities. Table 3.

From Table 4, 369 (92.3%) respondents were satisfied with services rendered at the health facilities and 327 (81.8%) of them rated the services as good. A few clients; 33 (8.3%) encountered problem(s) while trying to access services in the PHC facilities and the major problem encountered by the clients was absence of health workers; 13 (39.4%). The odds of satisfaction among males was 0.1 times that of females, having adjusted for factors such as occupation, level of education, religion and number of children (AOR;0.1, 95% CI=0.01-0.8), p=0.03. Similarly, the odds of satisfaction among Christians 2.8 times that of Muslims, having adjusted for factors such as occupation, level of education, sex and number of children (AOR;2.8, 95% CI=1.1-7.0), p=0.03. Also, the odds of satisfaction among those who had 3-4 children was 3.6 times those who had 5 children and above, having adjusted for factors such as occupation, level of education, sex and religion (AOR;3.6, 95% CI=1.2-11.4), p=0.03. Table 5.

Table 1: Socio-demographic characteristics of respondents

Variables	Frequency (n=400)	Percent
Age groups (years)		
<30	180	45.0
30-39	139	34.7
40-49	54	13.5
50 and Above	27	6.8
Median Age = 30.0		
Inter-quartile Range = 11		
Sex		
Male	74	18.5
Female	326	81.5
Marital Status		
Single	45	11.3
Married	345	86.2
Separated/Widowed	10	2.5
Occupation		
Salaried Employment	75	18.7
Self Employed	192	48.0
Unemployed	133	33.3
Educational Status		
None or Non-formal	70	17.5
Primary	57	14.3
Secondary	142	35.5
Tertiary	131	32.7
Religion		
Christianity	209	52.3
Islam	191	47.7
Number of children		
0-2	210	52.5
3-4	124	31.0
5 and Above	66	16.5

Table 2: Enrolment and availability of free services at BHCPF PHC facilities

Variables	Frequency	Percent
Enrolled for BHCPF in this health facility	**(n=400)**	
Yes	86	21.5
No	314	78.5
Year of enrolment	**(n=86)**	
2017	0	0.0
2018	7	8.1
2019	25	6.3
2020	54	13.5
Benefitted from BHCPF	**(n=86)**	
Yes	76	88.4
No	10	11.6
Services benefited from	**(n=76)**	
Free Treatment/Drugs	49	64.5
Free ANC/Delivery	14	18.4
Others*	13	17 1

*Free delivery items, free laboratory tests

Table 3: Accessibility of services at BHCPF PHC facilities

Variables	Frequency	Percent

Table 3: Accessibility of services at BHCPF PHC facilities

	(n=400)	
Experience of quick emergency responses in PHC* facilities		
Yes	357	89.3
No	43	10.7
Length of waiting time to consult a doctor or other health workers in PHC facilities		
<30 minutes	297	74.2
30 min-=1 Hr	80	20.0
1 hr or More	23	5.8
Access to services in PHC facilities		
Not Easy	30	7.5
Easy	279	69.7
Very Easy	91	22.8
Availability of drugs in PHC facilities		
Yes	350	87.5
No	50	12.5

*Primary Health Care

Table 4: Service satisfaction at BHCPF PHC facilities

Variables	Frequency (n=400)	Percent
Level of satisfaction with services in the facility		
Satisfied	369	92.2
Not satisfied	31	7.8
Rating the quality of services in the health facility		
Poor	7	1.8
Good	327	81.7
Excellent	66	16.5
Encountered problem while trying to access services in the health facility		
Yes	33	8.3
No	367	91.7
If yes, nature of the problem	**(n=33)**	
Absence of health workers	13	39.4
Long Waiting Time	11	33.3
Lack of Equipment	1	3.0
Rudeness of Staff	6	18.2
Others*	2	6.1

*High cost of services, inadequate spaces, dirty environment

Table 5: Factors associated with service satisfaction among the respondents

Variables	Satisfied with health services		P[a]	AOR[b] (95% CI)[c]	p[d]
	Yes (n=369) n (%)	No (n=31) n (%)			
Age groups (years)					
< 30	166 (45.0)	14 (45.2)			
30 – 39	130 (35.2)	9 (29.0)	0.822		N/A[e]
40 – 49	49 (13.3)	5 (16.1)			
= 50	24 (6.5)	3 (9.7)			
Sex					
Male	73 (19.8)	1 (3.2)	0.023	0.1 (0.0-0.8)	0.03
Female	296 (80.2)	30 (96.8)		1	
Marital Status					
Single	43 (11.7)	2 (6.5)			
Married	316 (85.6)	29 (93.5)	0.420		N/A
Separated/Widowed	10 (2.7)	0 (0.0)			
Occupation					
Salaried Employment	73 (19.8)	2 (6.5)		3.4 (0.1-18.3)	0.15
Self Employed	178 (48.2)	14 (45.2)	0.079	1.6 (0.6-3.0)	0.46
Unemployed	118 (32.0)	15 (48.4)		1	
Educational Status					
None or Non-formal	59 (16.0)	11 (35.5)		0.9 (0.3-3.)	0.83
Primary	53 (14.4)	4 (12.9)	0.054	2.1 (0.5-8.5)	0.32
Secondary	134 (36.3)	8 (25.8)		2.0 (0.6-6.0)	0.25
Tertiary	123 (33.3)	8 (25.8)		1	
Religion					
Christianity	200 (54.2)	9 (29.0)	0.007	2.8 (1.1-7.0)	0.03
Islam	169 (45.8)	22 (71.0)		1	
Number of Children					
0-2	195 (52.8)	15 (48.4)		2.0 (0.7-5.3)	0.18
3-4	118 (32.0)	6 (19.4)	0.036	3.6 (1.2-11.4)	0.03
5 and Above	56 (15.2)	10 (32.3)		1	

[a]P-value in bivariate analysis
[b]Adjusted Odds Ratio
[c]95% Confidence Interval
[d]P-value on logistic analysis
[e]Not Applicable

Discussion

This study recorded more females than males, reflecting the pattern of PHC facilities utilization by the two sexes in other Nigerian studies.[14,16-17] The BHCPF scheme offers free health services to enrolled clients at the implementing PHC facilities. In this study, only a few respondents were enrolled into the BHCPF scheme, but majority of the enrolees benefitted from free health services such as ANC, essential drugs, labour and delivery. This will possibly go a long way to encourage the beneficiaries and improve the utilization of PHC services because a Nigerian study recorded high cost as a common reason for non-utilization of PHC services.[18] Two African studies reported significant increases in services utilization with the introduction of free health care services.[19-20]

Responsiveness by the health care provider is essential in alleviating anxiety, gaining clients' trust, and preventing complications/mortalities. Majority of respondents in this study experienced quick responses to medical needs at the facilities: spending less than 30 minutes waiting time to consult a doctor or health worker. This contrasts with findings from a similar study in Ogun State, Nigeria where 33% of respondents spent 3-4 hours accessing services, in addition to the complaint of late arrival of health staff.[21] The BHCPF scheme may therefore serve as panacea to improvement of service delivery at PHC level.

One major challenge faced at PHC facilities is the stock-out of essential drugs and related commodities.[14] In this study, majority of the respondents obtained prescribed drugs at the PHC facilities. The noticeable low stock-out rate at the BHCPF facilities could be because the facilities were empowered to include essential drugs in their 'business' and 'quality improvement' plans and purchased their drugs from registered drug vendors. It will be safe to predict that the scenario will help to encourage clients to patronize PHC facilities, if sustained.

Patient satisfaction with health care services, though subjective, is essential in ensuring continuum of care to achieve better health outcomes. Majority of the respondents were satisfied and rated the services as good. This agrees with a similar study in Calabar, Nigeria which recorded over 80% service satisfaction at PHC facilities.[16] The implication is that BHCPF facilities will continue to record high service utilization. It is therefore imperative for expansion in the number of facilities that benefit from the fund, since only about one third of them currently participate in the scheme in the country. Studies from Enugu and Ibadan recorded 50% and 52% overall service satisfaction at health facilities respectively.[14,17]

Only a few respondents encountered problems while accessing services in the facilities, the major problem being the absence of health workers. Other reported problems were long waiting time and rudeness of staff. This is comparable with findings from studies in Ogun and Kaduna States of Nigeria.[21-22] Availability of adequate number of skilled health workers is imperative for providing quality services at PHC facilities and to guarantee client satisfaction. Existence of staff quarters within the health facility vicinity will further strengthen this commitment. Nevertheless, it has been documented that community capacity building and empowerment could further enhance rural populations' utilization of PHC services.[23]

Though it could be safe to postulate that the ratio of males to female clients may account for the low satisfaction levels recorded among males in this study, further studies may be needed to explore reasons for the disparity in satisfaction among the gender groups. The reliance on

responses of health facility clients to assess service satisfaction may not be the perfect approach. However, the confidence of respondents was secured and the questions were administered professionally by the trained research assistants.

Conclusion

Introduction of BHCPF scheme is associated with high clients' satisfaction at PHC facilities in the study area, as well as free healthcare services for enrolees. The scheme therefore provides opportunity to improve quality of maternal and child health services at PHC facilities. The gains so far recorded need to be sustained through regular supervision and continuous engagement with clients to address their concerns. Qualitative study is recommended to explore areas with poor performances.

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Conflict of interest

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Authors' contributions

ESN and GDA conceived and designed the study. VYI supervised data collection and reviewed the manuscript. ESN conducted literature search, did the data analysis and wrote the initial draft. All authors read and approved the final draft of the manuscript.

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