Niger J Paed 2012; 39 (4):179 –184

ORIGINAL

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Caregivers' satisfaction and supervision of primary health care services in Nnewi, Nigeria

DOI:http://dx.doi.org/10.4314/njp.v39i4,6

Accepted: 15th May 2012

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Abstract Although major gains were made in the reduction of childhood health indicators in the previous decade, stagnations or reversals were seen in many countries since the 1990s. Despite presence of primary health centers (PHC) in Nigeria, there are still high levels of morbidity and mortality among children because the quality of child health services falls short of what it could be in the country. Supportive supervision of PHCs should also improve the quality of child health services. This study assessed the level of clients' satisfaction with care received and the quality of supervision of child health services in selected PHC facilities of Nnewi, Nigeria.

The study design was cross sectional. Four health facilities were selected by simple random sampling technique from a list of 12 public PHC facilities that provide at least three of the range of essential child health services. Using interviewer administered questionnaire, data were collected from 305 caregivers and analyzed accordingly. Also key informant interviews were used to elicit information facility supervision frequency and adequacy.

The mean age of the mainly female caregivers was 31.9 ± 9.4 years. Majority of the caregivers attended health facilities closest to them but 18.5% of the 65 who do not, said they did not like the health workers. Although more than 80% of clients were satisfied with quality of child health services received, yet 41.3% of them felt that the number of service days were inadequate. None of the health facilities had a work plan, supervision schedule or supervision checklist. Increasing the number of service days and providing supervision schedules and checklists at the health facilities can improve caregiver satisfaction and hopefully enhance quality of child health services at the PHCs

Key words: Caregivers, satisfaction, supervision, PHC, Nnewi

Introduction

Children and women form three-quarters of the population in low and middle income countries such as Nigeria. They are also the most vulnerable and most sensitive to their environment. As such, children bear an undue share of the global burden of diseases.[1] Although major gains were made in the reduction of childhood health indicators in the previous decade, observations are that stagnations or even reversals were seen in many countries since the 1990s.[1] One of the reasons given for this is low level of utilization of quality health services. It is necessary to ensure that the limited resources allocated to health care, inspite of growing demands is effectively utilized to meet the health needs of the people.

The objectives[2] of child health services include promotion of health like monitoring growth and development; protection of children from major hazards through immunization, chemopropylaxis and dietary supplementation and early diagnosis and treatment of common childhood diseases where caregivers are encouraged to seek early treatment. Attention to the improvement in the quality of health care for children has been on the increase world over.[3-6.] In this vein, models have been conceptualised taking into account the various dimensions of quality notably, the Donabedian Model.[4,5,7,8.] The main model uses a non–categorical approach to quality measurement. This approach puts into focus both healthy and sick children who access the child health services not only for sick child care, but also for growth monitoring and immunization.[5,7,9]

There are four specific areas of challenge to the conduct of child health services and health care quality, represented by four Ds. These are development, dependency, different epidemiology and demographics.[7,9.] The development of children is marked by rapid changes that affect their health care needs. As they grow, their health care utilization as well as the preventive care they require changes. Children depend on their caregivers for access to healthcare. As a result, research depends on these caregivers to provide information regarding their health outcome. The different epidemiology rests on the interactions of childlren with the health care systems. For the majority of children, contact with the health care system is focused on prevention and treatment for acute illness rather than chronikc illness and disability. The demographics refer to the fact that children are amongst the vulnerable groups and thus are more likely to live in poverty than any other segment of the population.

The National health Policy of Nigeria is aimed at achieving health for all using PHC as the basis for development. However, despite presence of PHC facilities, and coverage of the population by maternal and child health care services in the country there are still high levels of morbidity and mortality among children In Nigeria, Olumide, Obionu and Mako in an assessment of the quality of primary healthcare in Nigeria revealed inadequacies of staff and equipment as well as poor perception of the quality of primary health care by most PHC workers and the clients who use the services.[10] However, an assessment of quality of maternal and child services in Southeast Nigeria showed that 90% of the respondents rated the services to be at least good.[11]

Supervision, another aspect of quality care, is the process of monitoring activities to ensure that the desired level of performance (standards) are met. Supervision is expected to improve the functioning of the supervised person or team and consists of a variety of functions such as involving the team in planning, communicating with all concerned, providing on-the-job training during the course of supervision.[12] A supervisory schedule is needed and this is drawn on the basis of the targetted programme, areas where extra control is needed and reports of previous visits. The health workers in the facility to be visited should be informed of the date of the visit so that they will be available.[13] A supervisory checklist of the things to be checked should be prepared before the visit to serve as a reminder of the specific areas that need attention.

The increased attention to the quality of care has been accompanied by similar increase in efforts to monitor and assess it. This is because failure to address quality of care may be more costly than most improvement in health care service would be.[14,15.] Assessing clients satisfaction can be a useful way of evaluating certain aspects of quality, and increases in satisfaction may indicate improvement in quality and better prospect for sustainability. In recent years, the subjective side of quality has been recognised as vital, and clients opinions particularly their degree of satisfaction are seen as essential to understanding it.[14] The rationale for assessing client's satisfaction is that care assessed to be of high quality according to the provider–defined criteria is far from being ideal if the client is dissatisfied with it.[16] Clients' satisfaction is multidimensional, and information about structure, process and outcome of medical care can be obtained from an assessment of clients' satisfaction.[17]

Assessment of health service effectiveness is a wider concern for assurance of quality of care and serves as a basis for recommendation of appropriate intervention towards the improvement of the quality of child health services with possible reduction of morbidity and mortality in children. This study assessed the level of clients' satisfaction with care received, the quality of supervision of child health services, and identified factors influencing the quality of child health services in selected PHC facilities of Nnewi North local government area (NNLGA).

Methodology

The study design was cross-sectional and the study population comprised of caregivers utilizing child health services in the public PHC facilities in NNLGA.
The sample size for study was determined as follows: a pilot study was conducted at the Comprehensive Health Centre, Neni (Anaocha LGA), a health facility located outside the study area, but which offers a full range of the child health services similar to that of the health facilities that were selected for the study. Proportion of clients considered to be satisfied with the child health services is: P = 38/50 × 100 = 76%, while the unsatisfied clients is (100-76) = 24%. Using the formula for the calculation of sample size in populations greater than 10,000,[18] $n= z^2pq/d,^2$ where n = sample size, z = standard normal deviate at 95% Confidence Interval = 1.96, p = proportion of clients considered to be satisfied with the child health services, q = the complementary probability of p (1-p) i.e the proportion of clients considered not to be satisfied with the child health services and d = precision level 5% = 0.05.

$$n = \frac{1.96^2 \times 0.76 \times 0.24}{(0.05)^2} = 280.$$

The calculated minimum sample size required for care givers in the study was 280. The anticipated non-response rate was 10%, ie response rate of 90%. An adjustment of the sample size estimate to cover for non-response rate was made by dividing the sample size calculated with a factor f, i.e n/f [82], where f is the estimated response rate.[17] Therefore anticipating a response rate of 90%, minimum sample size for caregivers in the study =280/0.90 = 310.

Only public primary health facilities that must provide

three essential child health services viz: growth monitoring, immunization and sick child consultation were selected for the study. As such from the list of the 12 health facilities that provide these services, four health care facilities were selected by a simple random sampling technique applying balloting system. They include; A (Umuenem Otolo PHC Centre), B (Okpuno Nnewichi PHC Centre), C (Edoji Uruagu PHC Centre), D (Eme Court Umudim Health Clinic).A stratified sampling technique was then used to select the caregivers. Proportionate allocation was made based on the average number of children who make use of the child health services during the study period. So the average number of caregivers interviewed was;

$$\frac{\text{The average monthly attendance for the health facility}}{\text{Total monthly children attendance for the 4 health facilities}} \times \text{minimum sample size (310)}$$

The total monthly children attendance for the 4 facilities is 300. For facility A, Umuenem Otolo PHC Centre, the average monthly children attendance is 134. So the number of clients interviewed was 134x310/300 = 138. For facility B, Okpuno Nnewichi PHC Centre, the average monthly children attendance is 74. So the number of clients interviewed was 74x310/300 = 76.
For facility C, Edoji Uruagu PHC Centre, the average monthly children attendance is 43. So the number of clients interviewed was 43x310/300 =46. For facility D, Eme Court Umudim Health Clinic, the average monthly children attendance is 49. So the number of clients interviewed was 49x310/300 =50. All caregivers who brought their wards for any child health service during period of the study and were willing to partcipate in the study were recruited, until the sample size alloted to each selected facility has been obtained. A total of 305 questionnaires were properly completed thus; Umuenem Otolo PHC Centre =138. Okpuno Nnewichi PHC Centre=76. Edoji Uruagu PHC Centre =41. Eme Court Umudim Health Clinic= 50. Interviewer administered semi-structured questionnaire (by four trained research assistants) was used to collect data from the caregivers. This method was primarily for use to obtain information on what caregivers think and feel about the child health services at the health facilities and how these services could be improved after he/she has received services. This assessed quality from the client's perspective. Some of the information obtained from the clients include: Socio-demographic characteristics of the clients and caregivers, caregivers' level of satisfaction with the care received. The clients were also selected for observation at the clinic session using an observation checklist. Key informant interviews (KIIs) of heads of health facilities and LGA PHC coordinators were carried out to elicit facility supervision frequency and adequacy.

Data collected were analyzed manually and with the aid of the computer software: Microsoft Excel and Statistical Package for Social Sciences (SPSS) 13, with verification and consistency checks. Relevant means and standard deviations were calculated and test of significance carried out using the appropriate statistical test with statistical significance set at p value < 0.05. Qualitative data obtained from KII recordings were transcribed verbatim, translated (where necessary) and field notes made. Findings were analyzed both thematically .

Approval to conduct the study was obtained from the Nnamdi Azikiwe University Teaching Hospital Ethical Committee (NAUTHEC), State Ministry of Health, and the Nnewi NNLGA PHC Department.

Result

The age range of the children in months is 0-180 months and their median age is 8 months. The mean age of the caregivers was 31.9 ± 9.4 years. Majority 277 (90.8%) of them had at least primary education. Two hundred and fifty one (82.3%) of them were mothers of the child (Table1). Majority of the respondents either walked down 143(46.9%) or took motorcycle 108(35.4%) to the facility. It took 30 minutes or less for 211(69.2%) of them to reach the health facility from their residence.

Table 1: Socio-demographic characteristics of the care-givers

Age	N=305	%
<15	3	1.0
15-29	135	44.3
30-49	144	48.1
>=50	14	4.6
Nil response	9	3.0
Educational Status		
Nil	24	7.9
Primary	90	29.5
Secondary	114	37.4
Tertiary	73	23.9
Nil response	4	1.3
Occupation		
Trading	116	38.0
Unemployed	57	18.7
Student	30	9.8
Civil servant	24	7.9
Teaching	17	5.6
Others	13	4.2
Nil response	34	11.1

Figure 1 shows reasons given by the 65 care givers why they did not utilise health facilities closest to their homes. The commonest reason was that they did not like the health personnel (18.5%). However, 35 of them gave no reason.

The commonest areas of problems felt by the clients were number of service days was inadequate 126 (41.3%), availability of drugs/vaccines 115(37.7%), cleanliness of facility 109(35.7%), amount of explanation received 104(34.1%), attitude of staff 102(33.4%) and, hours of service 95(31.1%). More than 80% of them were satisfied or highly satisfied with the child health services received from the health centres(table 2).

Table 2: Caregiver's perception of the problems encountered in receiving child health services and level of satisfaction expressed.

Problem	Perception n= 305(%)				
	Big	Small	No problem	DNK	Nil Response
Waiting time	36 (11.8)	193 (63.2)	67 (30.0)	4 (1.3)	5 (1.6)
Ability to discuss concerns with care provider	59 (19.3)	119 (39.0)	113 (37.1)	4 (1.3)	10 (3.3)
Amount of explanation received	104 (34.1)	93 (30.5)	96 (31.5)	5 (1.6)	7(2.3)
Quality of examination	76 (24.9)	84 (27.5)	110 (36.1)	18 (5.9)	17 (5.6)
Privacy	63 (20.7)	65 (21.3)	151 (49.5)	14 (4.6)	12 (3.9)
Availability of drugs/vaccines	115 (37.7)	115 (37.7)	122 (40.0)	15 (4.9)	11(3.6)
Hours of service at the facility	95 (31.1)	51 (16.7)	101 (33.1)	49 (16.1)	9 (3.0)
Number of days of service	126 (41.3)	36 (11.8)	108 (35.4)	29 (9.5)	6 (2.0)
Cleanliness of the facility	109 (35.7)	38 (12.5)	144 (47.2)	10(3.2)	4 (1.3)
How staff treated you	102(33.4)	32 (10.5)	160(52.5)	5(1.6)	6(2.0)
Cost of service	30(9.8)	124(40.7)	137(44.9)	4(1.3)	10(3.3)
Any problem you had today outside	8(2.6)	13(4.3)	224(73.4)	11(3.6)	49(16.1)

Satisfaction n= 305 (%)					
Level of satisfaction	Highly Satisfied	Satisfied	Fairly satisfied	Not satisfied	Nil response
	109 (35.7)	151 (49.5)	26 (8.5)	8 (2.6)	11(3.6)

Fig1: Reasons for not visiting the nearest facility

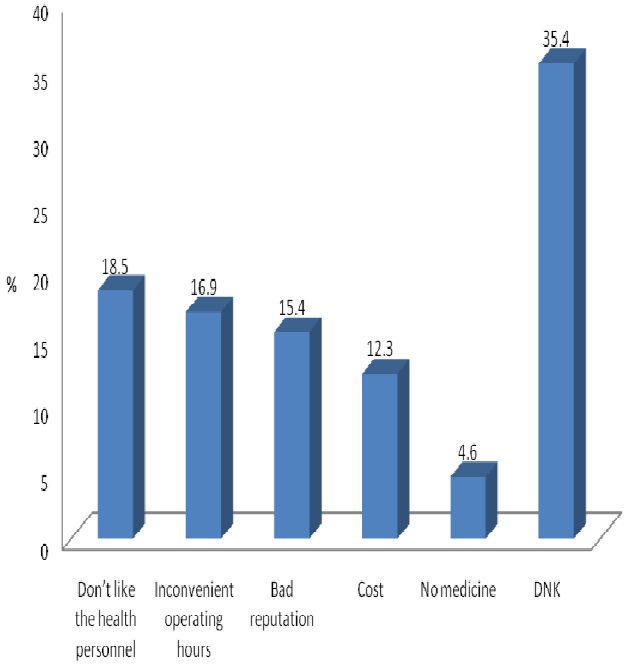

Table 3 shows the observed supervision plan in which none of the health facilities had a work plan, supervision schedule or supervision checklist. None had Job description for staff. There were neither set goals nor targets for the facilities. Supervision was however reported in the KIIs (Table 4) to have been done and is being carried out by the Primary Health Care Coordinator, Assistant Coordinator or the Local Immunization Officer on a monthly basis. Furthermore, the Local Immunization Officer (LIO) and Cold Chain Officer (CCO) come to monitor the immunization process and vaccine potency once a week.

Table 3: Observed supervision tools at the health facilities

Supervision tool	N=4 (%) Yes	No
Work plan	0(0.0)	4(100.0)
Supervision schedule	0(0.0)	4 (100.0)
Supervision checklist	0(0.0)	4(100.0)
Job description	0(0.0)	4(100.0)
Goals / target	0(0.0)	4(100.0)

*HCW – Health Care Workers
** DNK – Do not know

Table 4: KII Report summary on supervision

Items	situation
General facility supervision	Carried out regularly
Who carries it out	PHC Coordinator, assistant and LIO
Frequency of general supervision	Once a Month
Specific facility supervision	Done for immunization process & vaccine potency
Who carries it out	LIO and CCO
Frequency of specific supervision	Once a Week

Key: LIO: Local Immunization Officer
CCO: Cold Chain Officer

Discussion

Most of the caregivers were females which could be attributed to children being mostly accompanied by mothers. This may be related to the young age of the children with the median age in months of those studied being eight months. Several studies on quality of child health services have reported that children are more likely to be accompanied by the mothers.[5,8,9,19,20.] Majority of the caregivers had some form of formal education. The level of education of caregivers had been found to be related to health seeking behaviour and may also be related to the perception of the quality of health care.[9]

Most caregivers visited the health facility that was closest to their home. Reasons given for not visiting the nearest facility include: don't like the health personnel, inconvenient operating hours, cost, non – availability of drugs and supply. This agrees with the assertion that the performance of health system is dependent on the availability of drugs, equipment and other materials, supplies and health infrastructure.[21] Also human resource development is the key to ensuring the availability of health care services. The fact that cost of service was one of the problems perceived by the caregivers as militating against receiving quality child health service is hardly surprising because millions of people especially in low and middle income countries do not have access to basic good quality health care services due to limited allocation of resources to health care inspite of the growing concerns.[22] With reduced financing of the health sector the effect on the quality could be enormous. Poverty in these countries apart from being major cause of child morbidity and mortality prevents children from proper and adequate medical attention due to their inability to afford quality child health care services.

There were issues felt as commonest problems encountered by small proportions of the clients in visiting the health facilities; like inadequate number of days of services, non-availability of drugs/vaccines, attitude of staff etc. However when this is juxtaposed against a likert scale to assess the overall level of satisfaction of caregivers with the child health services their wards received in all the health facilities, a much higher proportion (more than 80%) of them were at least satisfied with the child health services received. This was similar to the study by Ehiri et al which found that 83% of the clients were satisfied with the health care services they had received.[8] These studies were conducted using interviewer administered questionnaires which may have influenced the caregivers' responses. The problems expressed by the clients in this study further strengthens the belief that Clients' satisfaction is multidimensional, and information about structure, process and outcome of medical care can be obtained from an assessment of clients' satisfaction.[17] Therefore some experts are of the opinion that its measure should incorporate dimensions of technical, interpersonal, social and moral aspects of care.[17] Though it has been reported that clients can distinguish these various aspects of care, e.g. technical aspects from interpersonal aspects , their ability to evaluate the different aspects of quality is, however, questioned.[17] The high level of client satisfaction in this study is nevertheless acknowledged.

There are areas in this study which may infer perception of quality of child health services and they include inadequate number of the days of services clients were given, amount of explanation received by clients on the health conditions, attitude of staff towards the clients, hours of service, cleanliness of the facilities and availability of drugs and vaccines. Even though this study did not determine to what extent these problems affected mothers' access to care (a potential subject for a future study), it is known that client's perception may be more sensitive, less expensive and more reliable than other methods for the assessment of quality[23]. Also information on important predictors of certain health related behaviours like compliance with medications, appointment keeping, and utilization of services can be obtained from studying clients' satisfaction.[23]

Quality of child health services requires adequate supervision, and motivation for providers. The foregoing and promotion serve to improve staff performance.[24] Supervision was reported to have been done in all the health facilities in the last 6 months before the survey. This was higher than the findings in Ghana and Egypt, where 68% and 86% respectively, of child health services providers were supervised 6 months before the surveys [25,26.] However, more of the health facilities had no supervision schedule or supervision checklist. None had job description for staff, set goals or targets nor standing orders. This finding is not encouraging since supervision requires planning and the plan of work to be done on a health programme provides an invaluable framework for directing and controlling the activities of the health team[13]. Furthermore, supervisory schedule is needed and this is drawn on the basis of the targetted programme, areas where extra control is needed and reports of previous visits[13]. The health workers in the facility to be visited should be informed of the date of the visit so that they will be available.[13] A supervisory checklist of the things to be checked should be prepared before the visit. This will serve as a reminder of the specific areas that need attention[13].

Conclusion

Although majority of the subjects were at least satisfied with the quality of child health services, some areas were reported as problems that needed improvement. Furthermore, though the providers of child health services were supposedly supervised, yet no work plan, supervision tools such as schedules and checklist were sighted during the study. Finally, the caregivers had varied perceptions of quality of child health services in different health facilities.

Therefore it is recommended that the problems identified by caregivers/clients must be scrupulously tackled by government and other stakeholders in health. A sustained improvement in quality of child health services can be achieved by paying close attention to and providing solution to quality of child health services from the perspective of the caregiver / client. Furthermore, there should be provision of supervision schedules and checklists at all the health facilities.

One major limitation of this study is that private PHCs were not assessed; therefore the study may not have given a comprehensive perspective of quality of service in the LGA since many clients access private health facilities. Also this study did not capture information on structure, process and outcome of medical care from the subjects, just as there was no effort to determine to what extent the identified problems affected mothers' access to care. These constitute potential areas for further research.

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