

KNOWLEDGE OF REFERRAL AND FEEDBACK SYSTEM AMONG HEALTH WORKERS IN BILLIRI LOCAL GOVERNMENT AREA OF GOMBE STATE, NIGERIA¹*Agofure Otovwe and ²Absalom Baba

Department of Public and Community Health, Novena University Ogume, Delta State Nigeria.

***Corresponding Author: Agofure Otovwe**

Department of Public and Community Health, Novena University Ogume, Delta State Nigeria.

Article Received on 05/09/2016

Article Revised on 25/09/2016

Article Accepted on 15/10/2016

ABSTRACT

Aim: Referral of patients from one health facility to another is an important daily activity that safeguards good medical care to patients. However, there is poor referral documentation, information use and feedback mechanisms by the health professionals. In addition, there is no operational guideline and proper monitoring system that helps for enhanced information provision and utilization process in general. Therefore, the study investigated the knowledge of referral and feedback system among health workers in Billiri local government area (LGA) of Gombe State, Nigeria. **Study Design:** A descriptive cross-sectional study was used. **Place and Duration of Study:** Billiri in Gombe State, Nigeria, between March to May 2015. **Methodology:** The study utilised a two-stage sampling method in selecting the health facilities and study population. A semi structured questionnaire was administered to obtain information from respondents' socio-demographic characteristics, knowledge of the referral system and knowledge of feedback system. The data were analysed using SPSS version 15.0. **Results:** The mean age of the respondents was 32.53±7.75 years. Majority of the respondents 134 (97.10%) and 122 (91.0%) had knowledge of referral system and follow-up after referral respectively. In the same vein, majority 109 (81.30%) also had knowledge of feedback in referral system; however rate of feedback of referred patients as highlighted by the respondents was inadequate. **Conclusion:** The health workers had knowledge of referral and feedback system; however the rate of feedback was inadequate. Therefore efforts should be made by all stakeholders to improve it.

KEYWORDS: Knowledge of referral, Feedback system, Health workers, Follow-up, Billiri LGA.**INTRODUCTION**

Referral from the lower level of care to higher level of care is an important daily activity that safeguards good medical care to patients and it has an objective of improving patient care and also to promote the synergy among the different levels of health care.^{[1],[2],[3]} Referral is a two-way communication process between primary care physicians and specialists in hospitals; however it is the responsibility of the primary care physician to convey a clear message about the need and reason(s) for referring a patient, while the specialist in a hospital is responsible for conveying a clear feedback on his evaluation of the patient's condition and a plan of management.^{[4],[5]} However, problems in the referral process arise from primary care or hospitals when the physician fails to clarify the reason(s) for referral, or conveys inappropriate or incomplete information. The specialist may also not address the physician's reason for referral or may fail to communicate his finding to the referring physician.^[6]

The Nigeria Health System operates three levels of health care, namely, the primary, secondary and tertiary levels, which interact through a referral system.^{[7],[8]} The Primary Health Care (PHC) is the entry point to health

care system and ideally should be able to provide majority of the essential and basic health care services. The secondary level hospitals are to provide general out- and in-patient services accepting referrals from urban and rural PHC, while tertiary hospitals are to provide specialized services to referrals from secondary hospitals.^[9] Furthermore, there is low awareness and poor perception of referral protocol in the health care system among the health workers and people;^{[10],[11]} which results in poor referral documentation, information use and feedback mechanisms by the health professionals. In addition, there is no operational guideline and proper monitoring system that helps for enhanced information provision and utilization process in general.^{[9],[11],[12],[13]}

Therefore, a study that assesses the knowledge of referral and feedback system among health workers should be conducted to gain in-depth knowledge of how the referral system functions in a typical Nigeria health care setting. Consequently, this study was designed to investigate the knowledge of referral and feedback system among health workers in Billiri local government area of Gombe state.

METHODOLOGY**Study Design**

The study was a descriptive cross sectional survey which investigated the knowledge of referral and feedback system among health workers in Billiri local government area of Gombe state.

Study Area

The study was carried out in Billiri local government area of Gombe state. The local government has a total of 451 health workers, 10 primary health centres and 1 general hospital.

Study Population

The study population consists of health workers in Billiri local government area of Gombe state.

Sample size determination

Using the formula for sample size determination a minimum sample size of 138 was estimated.

Sampling Technique

Balloting technique was used to select eight primary health centres in the local government area namely; Kekkel, Baganje, Ayaba, Pobawure, Tudu/Kwaya, Kengtengereng, Tal and Kukul. Simple random sampling technique was then used to administer the questionnaire in each facility selected. Overall 138

questionnaires were administered and collected immediately after being filled by the respondents.

Instruments for data collection

The instrument used for data collection was the questionnaire. The questionnaire was divided into three sections; the first section sought information on respondents' socio-demographic characteristics, while the second sought respondents' knowledge of the referral system and the third sought respondents' knowledge of feedback system and the rate of referral.

Data analysis

Cronbach Alpha test reliability was used to determine the reliability of the instrument. The Cronbach Alpha Reliability statistics gave 0.919. Data generated were analysed using SPSS (Statistical Product and Service Solution) version 15.0 manufactured by IBM incorporated. Descriptive statistics were used to evaluate frequency distribution, while linear regression was used to determine associations between variables of interest.

RESULTS

According to table 1, the mean age of the respondents was 32.53 ± 7.75 years, while one fourth (25.40%) of the respondents are between the ages of 21-25 years and majority 98 (71.0%) were males.

Table 1: Socio-demographic characteristics of the respondents

Variable	Frequency	Percentage
Age		
21-25	35	25.40
26-30	27	19.60
31-35	29	21.0
36-40	23	16.70
41-45	18	13.0
46-50	3	2.20
51-55	3	2.20
Gender		
Male	98	71.0
Female	40	29.0
Marital Status		
Single	51	37.0
Married	83	60.10
Separated/Divorced	4	2.90
Professional Cadre		
Village Health Worker	4	2.90
JCHEW	16	11.60
Nurses	32	23.20
CHEW	86	62.30

Mean Age: 32.53 ± 7.75

According to table 2 majority of the respondents 134(97.10%) had knowledge of referral system and 80 (33.90%) sources of information of referral was the radio. In addition, more than one third 59 (44.0%)

correctly identified the three levels of referral with majority 103 (76.90%) agreeing to refer to secondary level facility and most 122 (91.0%) were aware of follow-up after referral.

Table II: Knowledge of referral system

Variable	Frequency	Percentage
Do you know what referral system is		
Yes	134	97.10
No	4	2.90
If yes what is your source of information	Multiple Response	
TV	41	17.40
Radio	80	33.90
School of Nursing	45	19.10
School of Health	70	29.70
Levels of Referral		
1 Levels	12	9.0
3 Levels	59	44.0
2 Levels	63	47.0
What Level do you refer		
Secondary Level	103	76.90
Tertiary Level	31	23.10
Have you heard about follow-up after referral		
Yes	122	91.0
No	12	9.0
Do you refer and make follow-up		
Yes	78	63.90
No	44	36.10

As shown in table 3 below, most of the respondents 119 (88.80%) says they refer patients and almost two third 76 (63.90%) affirmed that they refer patients occasionally. Few of the respondents 20 (16.80%) affirmed that they

record up to a hundred cases that require referral in one year, out of which only 16 (80.0%) concur that they refer up to twenty cases of the number.

Table III: Rate of referral in health facilities

Variable	Frequency	Percentage
Do you refer your patients		
Yes	119	88.80
No	15	11.20
How often do you refer your patients		
Regularly	43	36.10
Occasionally	76	63.90
Do you refer your patients on request		
Yes	93	78.20
No	26	21.80
Do you refer your patient on your decision		
Yes	83	69.70
No	36	30.30
Do you have ambulance to transport the patient		
Yes	32	26.90
No	87	73.10
Did you record up to hundred cases that require referral in one year		
Yes	20	16.80
No	99	83.20
If yes do you refer up to twenty cases out of that number		
Yes	16	80.0
No	4	20.0

According to table 4, majority of the respondents 109 (81.30%) have heard about feedback in referral system

and almost two third 67 (61.50%) agreed that they usually get feedback from referred institutions.

Furthermore, out of those that refer patients almost half 56 (47.10%) agreed that they normally get feedback from facilities where patients are referred and the feedback

according to 34 (60.70%) of the respondents is from all referrals made.

Table IV: Level of feedback from referral

Variable	Frequency	Percentage
Have you heard about feedback in referral system		
Yes	109	81.30
No	25	18.70
Do you get feedback from the referred institutions		
Yes	67	61.50
No	42	38.50
Do you expect feedback from the facilities you referred to		
Yes	103	86.60
No	16	13.40
Do you normally get feedback from the facilities you referred to		
Yes	56	47.10
No	63	52.90
If yes is it from all referral made		
Yes	34	60.70
No	22	39.30

As shown in table 5, there was a significant relationship between knowledge of referral system by health workers and the rate of referral feedbacks they get ($R=0.256$; $F=9.51$; $P=0.02$). The results obtained shows there is a relationship between knowledge of referral system by health workers and the rate of referral feedback they

receive from referred health facilities. The adjusted R^2 value of 0.058 indicates that the knowledge of referral system among the health workers have an influence of 5.8% on the rate of referral feedback received by the health workers in the studied health facilities.

Table V: Relationship between knowledge of referral system among health workers and rate of referral feedback

	R	Adjusted R^2	F	df	P	Remark
Knowledge	0.256	0.058	9.51	136	0.02	Significant

Dependent Variable: Referral Feedback

DISCUSSION

The mean age of the respondents was 32.53 ± 7.75 years with majority of the respondents between the ages of 21-25 years. Overall knowledge of the referral and follow-up among respondents was good. This adequate knowledge of the referral system is in line with the study conducted in Enugu South-Eastern Nigeria and Ghana where health workers demonstrated good knowledge of referral system.^{[14],[15]} This finding was however, contrary to a study in Zimbabwe and Iran where health workers had insufficient knowledge about the referral system.^{[4],[16]} This finding is not surprising as most of the primary health centres in Nigeria are ill equipped,^{[9],[11],[13]} thus most cannot handle complicated medical cases, consequently making referral is an important part of their training especially the lower cadre physicians who make up the bulk of health workers at the primary health care level in Nigeria. In addition, surprisingly, most of the respondents claim to refer patients and make follow-up. This is also contrary to the study in Iran where they reported lack of connection

between the different levels of the referral system.^{[4],[17]} However, experiences in the Nigerian Health System shows there is usually poor follow-up of patients referred from one level of health care to another.^[13] In addition, the rate of referral among the respondents was good, as most say they refer their patients. This is in line with previous study where the rate of referral was high.^[10] The knowledge of the respondents on the referral system probably might have influenced their rate of referral of patients to higher health care facilities.

Furthermore, when questions were asked if the health workers normally get feedback, more than half concur that they do not normally get feedback from facilities they refer to. This shows the low rate of feedback reported by the respondents. This finding is line with studies in Iran and Nigeria where poor and lack of feedback on the referral system was reported.^{[4],[14]} This low rate of feedback might be due to the lack of referral letters from health workers which have been shown to influence rate of feedback of referred patients.^[9] Consequently, this shows rate of feedback in the health

system is still poor and inadequate, therefore concerted effort should be made to improve it.

The study also shows there was a significant relationship between the knowledge of referral system by health workers and the rate of referral feedbacks they get. This result shows despite the good knowledge of referral system demonstrated by the respondents the rate of feedback is still low as the knowledge of the health workers on the referral system only have an influence of 5.8% on the rate of referral feedback received by the health workers in the studied health facilities. The implication of this finding on patient care is that most of the patients referred might not get adequate follow-up and outcome assessment which is important in patients all round care.

CONCLUSION

The communication between the different levels of health care in Nigeria is hampered by poor follow-up and lack of proper feedback system among the various levels of health care. The study shows good knowledge of referral system among respondents; however rate of feedback was low. The implication of which will result in poor patient care and synergy among the various level of health care system. Therefore, efforts should be made by the various health agencies, stakeholders and policy makers to improve communication and synergy among the various levels of health care by improving the referral and feedback system through laid down protocols and guidelines which must be adhered to by all health workers.

ETHICAL CONSIDERATION

Ethical approval for the study was obtained from the department of public and community health, Novena University ethical committee. In addition, permission to administer the instrument was also obtained from the head of each facility.

ACKNOWLEDGEMENTS

This study did not receive grant from any institution or organization. We would like to thank all the participants.

FINANCIAL SUPPORT AND SPONSORSHIP

Nil.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

REFERENCES

1. Rasoulynejad SA. Patient Views for Self-Referral to Specialists. *Iranian J Pub Heal*, 2007; 36(1): 62–7.
2. Nasrollahpour Shiravani SD, Ashrafian AH, Motlagh ME, Kabir MJ, Maleki MR, Shabestani MA et al. Evaluation of the function of referral system in family physician program in Northern provinces of Iran. *J Babol Uni Med Sci.*, 2008; 11(6): 46–52.
3. Nasrollahpour Shiravani SD, Raeisee P, Motlagh ME, Kabir MJ, Ashrafian AH. Evaluation of the Performance of Referral System in Family Physician Program in Iran University of Medical Sciences. *Hakim Research Journal*. 2010; 13(1): 19–25.
4. Eskandari M, Abbaszadeh A, Borhani F. Barriers of Referral System to Health Care Provision in Rural Societies in Iran. *J Car Sci.*, 2013; 2(3): 229-236.
5. Lucassen A, Watson E, Harcourt J, Rose P, O'Grady J. 'Guidelines for Referral to a Regional Genetics Service: GPs respond by referring more appropriate cases'. *Fam Pract*, 2001; 18(2): 135–40.
6. Clews G. 'Demand Management: Destination Unknown – which way now for GP Referrals?' *Heal Ser J*, 2006; 116(6007): 14–15.
7. Health Reform Foundation of Nigeria. History of the Nigerian Health Sector. *Nigeria Health Review* 2006. Herfon, 2006; 1-13.
8. Federal Ministry of Health. Revised National Health Policy. 2004; 5-17.
9. Abodunrin OL, Akande TM, Osagbemi GK. Awareness and perception toward referral in health care: A study of adult residents in Ilorin, Nigeria, *Annals Afri Med*, 2010; 9(3): 176-80.
10. Mohammad Hussain Khan, Naseem Saba, Saeed Anwar, Najma Baseer and Sameea Syed Assessment of Knowledge, Attitude and skills of lady health workers, *Gomal J Med Sci*, 2006; 4(2).
11. Health Reform Foundation of Nigeria. Material resources for primary health care - infrastructure, drugs, equipment and supplies. In primary health care in Nigeria: 30 years after Alma Ata. *Nigeria Health Review* 2007. Herfon, 2008; 92-102.
12. Parakoyi DB, Akande TM, Musa IO. A survey on utilization of comprehensive health centre. *Savannah Med J*, 2001; 4: 14-6.
13. Akande TM. Referral system in Nigeria: Study of a tertiary health facility. *Ann Afr Med*, 2004; 3: 130-3.
14. Ekwueme OC. Knowledge and Practice Of Patients' Referrals Among Nurses and Nurse Assistants at The Primary Health Care (PHC) Centres in Enugu, Nigeria, *Ebonyi Med J*, 2010; 9(2).
15. Baryeh, F. (2000). Assessments of the Primary Health Care Referral Practices at Sekyere West District of Ashanti. Retrieved from <http://hdl.handle.net/123456789/2596>.
16. Hongoro C, Musonza TG, Macq J, Anozie A. A qualitative assessment of the referral system at district level in Zimbabwe: Implications on efficiency and effective delivery of health services. *Cent Afr J Med*, 1998; 44: 93-7.
17. Shams A, Mofid M, Rejlilian F. Survey of referral system influenced factors from the perspective of referrals of Isfahan educational hospitals. *Heal Inform Manag*, 2010; 7(4): 669–78.