

Factors Affecting Documentation of Clients' Care in the Provision of ART Services by Health Workers in Lusaka Province

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Abstract: *An explorative cross-sectional study using both qualitative and quantitative methods was conducted to describe the quality of documentation of patients' care and determine factors affecting documentation of patients' care in the provision of ART services by health workers and other support staff in Rufunsa, Luangwa and Chongwe districts of Lusaka province in Zambia. Using multi-stage sampling method 168 participants were sampled and data was collected using a structured pre-tested questionnaire. Fisher's exact and chi-square tests were used and considered results significant at $p < 0.05$. The majority of the respondents were females 51.8% and the majority of respondents (32.1%) were nurses and support staff (lay counselors, cleaners). Among those whose facilities had good quality data 99 (78.6%) had orientation in management. It was found that data management orientation was significantly associated with quality of data with the P value of 0.002. Among those facilities with good quality of data management the majority (83.3%) their staff mentioned that they had received adequate supervision, further the majority (42.9%) worked between one and two in a shift. Further, the number of staff in a given shift was significantly associated with quality of management with the P value less than 0.000. The study concludes that orientation of the health center staff in data management, number of staff in a shift that the higher the number the high the quality of documentation and frequent supervision improves the quality of patient's care documentation. However, work overload cause stress on the health workers and frequent introduction of data collecting tools contributes to poor documentation of patients' care.*

Keywords: Documentation, quality data, data management

1. Introduction

Documentation is a fundamental health workercaring responsibility with professional, legal and financial ramification. The standard of care rendered by health workers is determined by effective documentation, without which health workers' care is not complete (CNO, 2005). Record keeping is an integral part of patient's care. It is a tool of professional practice and one that should help the care process. There is no way to prove care was provided without complete documentation. If a resident suffered an illness or injury and care was not completely and accurately documented then it is doubtful quality care was completed, even though staff may insist that such care was provided (CNO, 2005).

The procedure for the data collection in the sector is from patients' record books to tally sheets and register, then from there to data aggregations tools like month reporting summary forms. Then all the data from the monthly forms are entered into the District Health Information System (DHIS) which is also on-line. However, this front-line health worker in this case health workers should properly document all the data being collected. Proper documentation is one of the ways that could be used to improve patient satisfaction with health services by tracking certain dimensions of service quality. Quality can be checked by comparing perceptions of services delivered with the expected standards and this can only be done with proper documentation. The objective of proper documentation would be to record information on health events and check the quality of services.

2. Statement of the Problem

When patients are admitted or attend out patients' department the activities done are always supposed to be recorded in an inpatient or out patient's register and in the patient's book. However, sometimes it becomes increasingly difficult to appreciate caring services offered by the health workers as most of their works is not documented anywhere. For example, nursing care can only be appreciated if there is evidence to show what has been done to help manage the patient and this can only be achieved through adequate documentation of their work.

However, currently only part of patient information is still being recorded, there appears to be poor quality documentation of the care provided by health workers, with these observations, patients are most likely to be mismanaged. Even with adequate trainings on importance documentation what most health workers document is incomplete, inaccurate and inadequate and only part of the patient information is still being recorded currently.

The patients are either not receiving the correct treatment and management or there is no documentation by the health workers. Therefore, due to scarcity of information regarding reasons for poor documentation of caring practice the study sought to determine the factors influencing nurse's documentation of patient care. The study findings will help the policy makers and other health workers to institute appropriate measures to enhance documentation of patient care and consequently leading to improved quality of care.

Research Question

What are the factors affecting quality the documentation of patients' care in the provision of ART services by health workers in Lusaka province?

General Objective

The aim of this study was to describe the quality of documentation of patients' care and determine factors affecting documentation of patients' care in the provision of ART services by health workers in Lusaka province.

Specific Objectives

- To assess the quality of documentation of ART clients' care in facility facilities.
- To determine the factors affecting the documentation of ART Clients' care by health workers in health facilities.
- To explain how factors affecting the documentation of ART clients' care by health workers affect quality of care

3. Methods and Materials**Research design**

The study was explorative cross-sectional study using both qualitative and quantitative methods because the inquiry looks at the aspects of describing the quality of documentation and determining factors affecting documentation of clients' care ART services in Lusaka province.

Study Site

The study site was in Rufunsa, Luangwa and Chongwe districts in Lusaka province in Zambia.

Study population and target population

The study population of this study are all health workers who work in health facilities that provide ART services and the target population are Clinical Officers, Nurses, Data personnel and other cadres who assist with documentation at the facilities.

Inclusion and Exclusion Criteria

All the health workers who have been working at these facilities for more than one year were included in the study. This is because one year or more would make one know all the documentation process in a given health facility. Further, all health workers who handle data either at generation or report writing level were included in the study. Meanwhile, the study excluded all health workers who were on leave and those who worked less than one year.

Sampling procedure and method

The study used multi-stage sampling method. Firstly, three districts out of the seven districts were simple randomly sampled followed by health facilities from the sampled districts. Further convenience sampling of targeted workers was sampled from the sampled facilities.

Sample Size

The sample size has been calculated using the following formula;

$$n = \frac{z^2 p (1-p)}{d^2}$$

Where Z = 1.96

P = is the proportion of the current health workers who have handle data at whichever level. The assumption here is that we do not currently know total number of health workers who work with data hence putting at 50%. D is the precision at .05

$$d = \pm 5\% \text{ (i.e. } 0.05)$$

$$\text{Therefore, } n = \frac{1.96^2 \times 0.5(1-0.5)}{0.05^2}$$

The sample size is **168**.

Data Collection

Data was collected using a structured pre-tested questionnaire focusing on quality of documentation and factors affecting documentation.

Data Analysis

The main response variable was the proper documentation. Initially, descriptive statistics will be generated for each of the variables under study. Then associations between categorical variables will determine using the Fisher's exact and chi-square tests. All statistical tests were considered significant at $p < 0.05$. The variable that was captured in the data set include age, sex, years of service, qualification level of Health workers and clinical officers, ward in which they will working from and stage of handling data whether at generation point or reporting stage or both. The information that was gathered from the data will enable exploratory data analysis using descriptive statistics and.

Ethical Consideration

Ethical clearance was obtained from the Lusaka Provincial Health Office. The information collected from clients has been kept confidential and will not be released to any unauthorized persons. All the respondents were not being named but were assigned some codes for the readers to follow easily. Clients who refuse to participate were not forced. However, it was explained to them that the information being sourced from them were used purely for the improvement of service delivery to the clients through proper documentation of their care.

4. Results

Table 1: The demographic characteristics of the respondents

Category	Frequency	Percentage
Sex		
Male	81	48.2
Female	87	51.8
Total	168	100.0
Age as at last birth day		
20 - 29	93	55.4
30 - 39	48	28.6
40 - 49	9	5.4
50+	18	10.7
Total	168	100.0
Qualification		
Certificate	66	39.3
Diploma	93	55.4
Degree	9	5.4
Total	168	100.0

Table 1 shows the sex, age and qualifications of the respondents. The majority of the respondents were females 51.8% while males were 48.2%. Furthermore, the majority

of the respondents were aged between 20 and 29 years (55.4%) while the least were aged between 40 and 49 years (5.4%). there was no respondent aged below 20 years. Further the majority of the respondents were diploma holders (55.4%) with the least having degrees (39.3%).

Table 2: The category of health workers and their years in service

Category of Health workers	Number of years in service			Total
	0 - 5	6 - 10	11+	
Nurse	36 (28.6%)	6 (28.6%)	12 (57.1%)	54 (32.1%)
Lab Tech	15 (11.9%)	0	3 (14.3%)	18 (10.7%)
Pharm Tech	0	6 (28.6%)	3 (14.3%)	9 (5.4%)
COG	15 (11.9%)	0	3 (14.3%)	18 (10.7%)
M & E	12 (9.5%)	3 (14.3%)	0	15 (8.9%)
Others (support)	48 (38.1)	6 (28.6%)	0	54 (32.1%)
Total	126 (100%)	21 (100%)	21 (100%)	168 (100%)

Table 2 shows the category of health workers and their years in service. The majority of respondents (32.1%) were nurses and support staff (lay counselors, cleaners) while the minority (5.4%) were pharmacy technologists. Then when it comes to number of years in service, the majority (126) had worked between 0 to 5 years. Among those who had worked between 0 and five years, the majority (38.1%) were support staff with no pharmacy technologist having worked between zero and five years. Then among those who had worked between 6 and 10 years the majority (28.6%) were nurses, pharmacy technologists and support staff. Finally, among those who had worked for more than 11 years the majority (57.1%) were nurses.

The quality of documentation of ART clients' care in facility facilities.

Table 3: Orientation of staff in data management

Quality of Data	Orientation in Data Management			P Value
	Yes	No	Total	
Poor	39 (92.9%)	3 (7.1%)	42 (100%)	0.002
Good	99 (78.6%)	27 (21.4%)	126 (100%)	
Total	138 (82.1%)	17.9%)	168 (100%)	

Table 3 above shows the relationship between quality of data management and staff being orientated in data management. Among those whose facilities had good quality data 99 (78.6%) had orientation in management. It was found that data management orientation was significantly associated with quality of data with the P value of 0.002.

Table 4: Supervision in Data Management & program implementation

Quality of Data	Supervision in Data Management & program implementation			P Value
	Yes	No	Total	
Poor	30 (71.4%)	12 (28.6%)	42 (100%)	0.022
Good	105 (83.3%)	21 (16.7%)	126 (100%)	
Total	135 (80.4%)	33 (19.6%)	168 (100%)	

Table 4 shows the relationship between staff being supervised and quality of data management. Supervision in data management and program implementation is significantly associated with improvement in the quality of data with a P Value of 0.022. Among those facilities with good quality of data management the majority (83.3%) their

staff mentioned that they had received adequate supervision while among the facility with poor data quality the only 16.7% had not received any form of supervision.

Table 5: Number of staff working a shift in Data Management & program implementation

Quality of Data	Qualified staff working in a shift				P Value
	0 - 2	3 - 5	6 - 8	Total	
Poor	12 (28.6%)	30 (71.4%)	0	42 (100%)	0.000
Good	54 (42.9%)	52 (41.3%)	20 (15.9%)	126 (100%)	
Total	66 (39.3%)	82 (48.8%)	20 (11.9%)	168 (100%)	

Table 5 shows the relationship between number of qualified staff working in a shift and quality of data management. Among the facilities with good data management the majority (42.9%) worked between one and two in a shift. Further, the number of staff in a given shift was significantly associated with quality of management with the P value less than 0.000.

Other factors affecting quality of documentation of clients' care

When the respondents were asked to mention other factors that affect the documentation of Clients' care by health workers in health facilities. A number of them mentioned that staff not being oriented in the use of data collecting tools affects the quality of documentation. They also mentioned that work overload in many of the health facilities causes stress which make staff not to put in much to improve quality of data. Further they mentioned that inadequate understanding of the indicators and how to capture them made it difficult to document the care. Frequent changes of data collecting tools, too many data collecting tools for the same indicator and inadequate data collecting tools such as computers in the general cause of quality of documentation.

5. Discussion

The importance of patient assessment is a part of the concept of giving importance to patient's views in improving the quality of health services. Expected benefits include enhancing patient satisfaction through improved communication; greater provider sensitivity towards patients; enhanced community awareness about the quality of services; and overall better use of services in the health system (Shaikh and Rabbani, 2005).

This study found that orientation of staff in data management and documentation was very important in the improvement of data quality hence improving patients' care. This is in agreement with the study done in Uganda by the Nursing and Midwifery departments. According to the study done in Uganda, the participants discussed challenges regarding documentation of patient care. Frequently mentioned challenges included organizational issues, knowledge on documentation, training, motivation/support from nursing leadership, and motivation/responses from the interdisciplinary team.

Further this study found that supervision, logistical support and adequate staffing were very important aspect of improving patients care. The Uganda study also found that

within organizational issues, participants spoke of physical and psychological environments as well as logistical issues. Examples of the participant contributions included: "As a nurse I would like to document the care I provide to patients but I don't have time to sit down and give a detailed report on a patient due to the heavy workload on my ward coupled with shortage of staff." "The hospital does not provide enough stationary and the equipment for monitoring patients" vital signs and it's not enough to enhance the health workers' practice of taking observation and recording them." Whether talking about the lack of knowledge, training, and/or support from nursing leadership, participants cited staff shortages, excessive workloads, and lack of interdisciplinary team consideration of Health workers' notes. (African Journal of Nursing and Midwifery, 2015)

The possible factors that affect documentation of patients' care could be summarized in three ways that is service related factors which include shortage of staff, qualification of the health workers and their knowledge. Secondly, social and cultural factors such as staff attitude and economic factors such as availability of data collecting tools and health information system.

Therefore, this study assessed the level of data documentation by health workers and factors that positively and negatively affect proper documentation. Then later the study highlighted possible gaps in order to come up with interventions that would improve the management of proper documentation in patient's care

6. Conclusion

The study concludes that orientation of the health center staff in data management, number of staff in a shift that the higher the number the high the quality of documentation and frequent supervision improves the quality of patient's care documentation. However, work overload cause stress on the health workers, frequent introduction of data collecting tools contributes to poor documentation of patients' care.

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