

Original Article

**Assessment of the Availability and Use of Standing Orders in Primary Healthcare Centres in Jos Metropolis**

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**ABSTRACT**

**Background:** Standing orders are intended (meant) to support healthcare workers in Primary healthcare facilities in Nigeria to provide quality services to their clients. The purpose of the study was to determine their availability and use by these healthcare workers. **Methodology:** A cross-sectional study design was used to collect data from primary healthcare facilities in Jos metropolis. Data was collected using an interviewer-administered questionnaire and observation checklist. Data was analysed using WINPEPI Statistical software. Chi-square test was used to test for the relationship between availability/use of standing orders and related factors. A P-value ≤ 0.05 was considered statistically significant. **Results:** Fifty-eight healthcare facilities were studied. Most (39.7%) of the respondents were CHEWS and the majority (67.2%) had been in service for at least twenty years. A copy of the standing orders was available in 20.7% of the health facilities studied and 12.1% of respondents consistently used it. There was no relationship between standing order usage and the age, sex, cadre, years of experience or number of daily consultations. The reason given by most (87.9%) respondents for non-adherence to standing order guidelines was lack of ownership. **Conclusion:** Copies of standing orders are available in very few health facilities in Jos and most healthcare workers do not follow the guidelines of the standing orders. Measures should be put in place to address these to protect patients from avoidable harm.

**Keywords:** standing orders, utilization, primary healthcare centre, Nigeria

**INTRODUCTION**

Standing Orders are written protocols that allow non-physician healthcare workers to diagnose, treat, and manage common conditions independently, without the direct supervision of a physician.1 They have long been recommended as a strategy for improving the efficiency and effectiveness of healthcare delivery in

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Primary Health Care centres.2, 3 This is because they aid non-physician healthcare workers who are not medically trained to improve their care of patients and limit errors that may arise out of their practice.

They also serve as legal cover for these sets

of health workers who are not licensed physicians.

The use of standing orders in PHCs has been extensively studied in developed countries, and the results have indicated that they resulted in improved quality of healthcare in PHCs .4–7 Studies done in Africa so far also appear to support their usefulness in Primary Care.2

In Nigeria, the National standing orders for community health officers and community health extension workers were developed between 1975 and 1980 to support the then newly created cadre of health care workers for the country’s primary health care, and have undergone several revisions in line with changing health care demands, policies and the need to improve the quality of care provided at this level of the health care system.10 They are aimed at providing for the workers, a framework for patient evaluation, and to help them treat less common, easily forgotten and more serious conditions. Their use is also expected to help minimize unnecessary, expensive and time-consuming investigations; to help maintain a high and uniform standard of care and, to provide a framework for evaluation of staff performance and the quality of care provided.

The National Primary Health Care Development Agency expects training institutions to use the standing orders in the training of primary healthcare workers and also expects the workers to use them in the care of patients but it is not known if the workers use the standing orders in their care of patients. The purpose of this study therefore was to determine the availability and use of the National standing orders in health care centres in Jos, Plateau state Nigeria.

# **METHODOLOGY**

**Study Area**

The study was carried out in Jos Metropolis Plateau State. The state is located in the north-central part of Nigeria with a 2023 projected population of 4,830,515.9 Jos Metropolis is made up of Jos North and Jos South local government areas. Jos North has a population of about 429,300.10 Jos South headquartered in Bukuru is predominantly urban and has an area of about 558.6 km² and a population of 407,900.9  According to the Nigeria Health facility registry (https://hfr.health.gov.ng/facilities/hospitals-list), there are 68 PHCs in Jos North across 20 wards; out of which 41 are public PHCs. Also according to the registry, there are 55 PHCs in Jos South; out of which 48 are public PHCs across 16 wards.

**Study Design and Population**

A cross-sectional study design was used for the study. All the functional primary health care centres in the study area were eligible to be included in the study. The sampling unit is the primary healthcare centre; where an officer-in-charge for clinic activity was selected for interview.

**Sample Size Determination**

Since PHCs were the unit of study; with only a responsible officer interviewed; coupled with the difficulty of obtaining previous studies using health facilities as unit of study, Raosoft Online sample size calculator (http://www.raosoft.com/samplesize.html) at 95% confidence level; 5% margin of error and a total population of 89 PHCs obtained from the Nigeria Health Facility Registry of the Federal Ministry of Health (https://hfr.health.gov.ng/facilities/hospitals-list); a calculated sample size of 73 was obtained. Due to the non-operational conditions of some of the health facilities; a sample size for finite correction was made and the calculated sample size became 62.

**Data Collection**

Data was collected between February and December 2021 using an interviewer-administered questionnaire and an observation checklist. The data collection instruments were pretested in selected PHCs in Mangu Local Government Area. The checklist was used to ascertain the availability of standing orders in the facility and its usage during patient consultation as required by their training and scope of practice. To reduce social desirability bias interviewers observed respondents attend to at least two patients before administering the questionnaire to them.

**Data Analysis**

Data was analysed using WINPEPI Statistical software. Frequencies and percentages were used to summarise the data on availability and the use of standing orders. Chi-square test was used to test for the relationships between availability/use of standing orders and health facility/health worker characteristics, years of experience and the average number of patients treated daily. A P-value ≤ 0.05 was considered statistically significant.

**Ethical Consideration**

Ethical approval was obtained from the Jos University Teaching Hospital (JUTH) Human and Research Ethics Committee (JUTH/DCS/IREC/127/XXXI/2602). Written informed consent was obtained from each of the respondents before the commencement of the study. Permission for data collection was obtained from the Local Government Health Departments and the facility heads.

**RESULTS**

The response rate was 84.9%. The non-responses were a result of non-operational conditions of some of the health facilities or when the responsible officer in-charge or conducting clinical care at the PHCs was not available on the days of the study; despite prior appointments with them. Therefore, fifty-eight Primary Health Care centres were studied.

Table 1 shows that the commonly reported qualification is community health extension worker (CHEW); followed by nursing. Also, more than two-thirds reported at least 20 years of work experience.

Table 1: Characteristics of Respondents



Table 2: Use of standing orders in PHCs in Jos metropolis



Table 2 shows that only a fifth of the facilities had a copy of the standing order and the same proportion of respondents used standing order during patient consultation. Majority (more than three-quarters) of respondents never adhere to the guidelines of the standing order.

Figure 1 shows that the commonest reason for not using the standing order is its non-availability in the PHCs.



Figure 1: Why Standing Order Guidelines are not Followed in PHCs in Jos Metropolis

Table 3: Result of Observation Checklist from Phcs in Jos Metropolis

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Table 3 shows that the observational checklist corroborates the report of the healthcare workers about the availability and use of standing orders.

Table 4: Factors associated with the Use of Standing Orders at PHCs in Jos Metropolis

d: degree of freedom; \*χ2: Corrected chi-square P: P-value

Table 4 shows that there was no significant relationship between the age, professional cadre, years of service of respondents and standing order use.

**DISCUSSION**

Primary health care centres are the most numerous health facilities located nearest to the people and are meant to provide essential health care services to the majority of the citizens. The quality of care provided at these centres therefore has significant effects on the health of the nation and the workers providing health care at these centres should be of the highest skill and training. However, due to the limited availability of Doctors, these centres are predominantly manned by Community Health workers. These auxiliaries, whose training began in the seventies are intended to work with the support of standing orders which give them legal protection in their primary care assignments, help them treat less common, easily forgotten and more serious conditions, minimize unnecessary, expensive and time-consuming investigations and also provide a framework for evaluation of the workers and the quality care provided to clients. 2, 12

When available and utilised according to prescribed guidelines, standing orders are a powerful tool in increasing the quantity and quality of health care provided by low cadre staff, but also ensure standardisation of care, efficient management of resources, and proper evaluation of healthcare services.2,13 In this study only about 20% of health facilities/healthcare workers providing clinical services had a copy of the standing order. This is very concerning because the vast majority of the care providers in these facilities may not only be losing out on the support and benefits provided by the use of standing orders but may be putting patients in harm’s way by trial and error. In addition, the use of many expensive and time-consuming investigations such as trial and error often involves increased healthcare costs and waste of scarce healthcare resources.

Of equal concern is the finding that even one-fifth of healthcare workers who had a copy of the standing orders in their consulting room did not use it consistently during every consultation and did not always follow the recommendations of the guidelines. Some of the reasons given for this indicate a lack of appreciation of the limit of their skills and training as auxiliaries who do not have the knowledge of physiology and pathology and the detailed clinical features of diseases as well as the pharmacology of the various drugs used in clinical care and therefore cannot provide safe and effective care without the support of the standing orders or the supervision of a physician. There is therefore need to educate these healthcare workers about the importance of owning and using standing orders during every consultation.

Training institutions have a major role in this because they are expected to use the standing orders during the training of these health workers so that they will get used to using them.12 They should also give a copy of the standing orders to each of their students upon graduation, emphasising the importance of the protocols in the practice life of the graduates as health care workers. The Local Government health department and the state Primary Health Care Development Agency should also contribute to this by supplying copies of the protocols to each of the health facilities and regularly supervising the healthcare workers to ensure adherence to their recommendations.

There was no significant relationship between the cadre, age, sex or years of practice of the health care workers suggesting that the problem might be universal among the workers in these facilities. Similar low ownership and adherence to the recommendations of the standing orders were reported in 1999.14

Our findings however differ from what was reported in Ekiti and Lagos states, where standing orders were found to be available in 88.5% and 77% respectively of PHCs surveyed.14, 15 They are also at variance with studies done by Wilkinson on PHC nurses in New Zealand which showed a more consistent use of standing orders. 7 The study in Ekiti, which was done among Community Health Extension Workers also indicated that up to 62.3% of them utilised standing orders for the management of patients.11 The high numbers reported in the Ekiti study may have been affected by social desirability bias since the possession of the standing orders was self-reported and no efforts were made to verify. This view is informed by the finding during our study when much higher numbers of possession and usage of the standing orders were claimed by the respondents than could be substantiated during the observation check.

Although the low numbers found in this study are discouraging, studies done among registered nurses in New Zealand and Physicians in the United States showed high utilization of standing orders for various healthcare interventions at the PHC level indicating that successful use of such protocols in primary care is possible.7,16

One of the reasons given by respondents for the infrequent use of standing orders is their belief that clients’ confidence in their competence will be diminished if they are observed to be referring to the standing orders when consulting with patients. Similar findings were reported in a study that assessed the use of national standing orders among community health practitioners in Ibadan.11, 17 This suggests that the perception may be widespread and as such needs to be addressed through education and re-orientation to ensure that the protocols are consistently used as prescribed when they are made available. Knowledge and perception gaps can be solved by adequate training and supervision.7, 17,18

**CONCLUSION**

The availability and use of standing orders in PHC facilities in Jos is sub-optimal. Efforts should be made to supply the standing orders and ensure their usage through orientation and supervision.

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