

# IMPACT OF TRAINING ON COMMUNITY PHARMACISTS' KNOWLEDGE OF DOCUMENTATION MANAGEMENT IN OSUN STATE, NIGERIA

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## ABSTRACT

**Background:** Documentation management has not been given appropriate recognition in community pharmacy practice, especially in developing countries.

**Objectives:** This study assessed the impact of a training programme on community pharmacists' knowledge of documentation management in Osun State, Nigeria.

**Methods:** The study was a survey of community pharmacists in Osun State. It assessed the level of knowledge of documentation management among community pharmacists in Osun state, implemented face-to-face documentation management training programme among the community pharmacists conducted by a pharmacist and assessed its impact. Primary data were collected with a set of pre-tested semi-structured questionnaire. The questionnaire was designed to elicit information from the community pharmacists about their knowledge of management of documentation in community pharmacy practice. Pre-tested questionnaire was administered on the community pharmacists, pre- and post-training. Data obtained were analysed using descriptive (mean, median, mean weighted average) and inferential statistics (paired-samples t tests) at 5% level of significance. Statistical Package for the Social Sciences (SPSS) was employed for the analysis.

**Result:** The results obtained showed that mean weighted average (MWA) were 4.12 and 4.61 with pre-training experience and post-training experience respectively. There was statistical significant difference ( $t = -10.43$ ,  $p = 0.01$ ) between MWA with pre-training experience and post-training experience.

**Conclusion:** A pharmacist-led training programme significantly improved community pharmacists' knowledge of documentation management.

**Keywords:** Community Pharmacists, Documentation Management, Knowledge

## INTRODUCTION

Pharmacy practice is information intensive and involves processing of data obtained about patient, disease, medication and medication use process. The issue of documentation management of pharmaceutical care needs to be attended to because hitherto, it has not been accorded its rightful place in pharmacy practice, especially in developing countries like Nigeria. A previous study reported a lack of some core elements of pharmaceutical care such as patient referral, documentation, and identification of drug related problems among community pharmacists in Nigeria<sup>[1]</sup>. This has to do with lack or little knowledge of pharmacists in this essential and critical role.

In 2001, a report stated that community pharmacists did not keep record of their pharmaceutical care-related activities<sup>[2]</sup>. This may be as a result of poor perception, clinical knowledge, training on the use of software for documentation, and even work load<sup>[3]</sup>.

Proper documentation management of data is necessary to ensure accountability for services rendered. It is important that all interventions made by pharmacists in improving patient health be documented as a demonstrable evidence of their contribution to high quality and coordinated care. Several methods have been developed for documentation of pharmaceutical care; these are manual or computerised or a combination of both manual and computerized (hybrid). Also several softwares for documentation have been developed. In a survey to assess documentation of pharmaceutical care in United States of America, it was found that some percentage of the pharmacists were using paper documentation system which had a number of challenges e.g. long amount of time required for documentation, difficulty in retrieving patient data etc<sup>[4]</sup>.

This study intends to conduct training programme on documentation management in community pharmacy practice for community pharmacists in Osun State. Such a training programme has not been reported in this region. The objective of the study was to assess impact of training on knowledge of documentation management among community pharmacists in Osun state.

**METHODS**

The study was an intervention study on management of documentation among community pharmacists in Osun State, Nigeria. Their level of knowledge was assessed before and after training was conducted on documentation management in community pharmacy practice. Data were collected with the aid of semi-structured questionnaire that were administered for both baseline survey and post-training survey using the same questionnaire for the eligible pharmacists (licensed pharmacists for the year) in Osun State. The population of the study is community pharmacists in Osun State duly registered by Pharmacists Council of Nigeria (PCN) as at the time of the study.

The sampling method employed for this study was simple random sampling. This was carried out by obtaining list of registered community pharmacists in Osun State. All the pharmacists were listed serially based on urban-rural classification and serial numbers were allocated to them. A set of random numbers for those to be sampled were then generated with the aid of random number generated on the computer. Sample size was determined by employing Yamane's formula (1973) for known finite population.

A set of questionnaire was developed for this study from relevant literatures and designed with statements made on a Likert-type scale of agreement with five response choices viz: Can't say (CS), Strongly Disagree (SD), Disagree (D), Agree (A) and Strongly Agree (SA) with weighting scores of 1-5 respectively. Content validation of the questionnaire was achieved by the judgment of experts in this area of study. The instrument was pretested for its reliability using test-retest method by administering questionnaires twice to a few samples (community pharmacists that were not used for data collection) within two-week interval.

After permission to conduct the study was granted by the chairman of Association of Community Pharmacists of Nigeria (ACPN) in Osun State, community pharmacies that were registered by the Pharmacists Council of Nigeria (PCN) were visited to

see the registered pharmacists to sensitize them about the training programme. Also, messages were sent to all the pharmacists on Whatsapp platform of ACPN to remind them of the training. On the day of the study, self-administered questionnaire were given to the respondents for baseline survey. The questionnaire were retrieved immediately, after which training was conducted. Post training survey was conducted using the same version of the questionnaire at the venue of the training programme by the researcher.

Data were coded and entered into computer with the aid of Statistical Products for the Social Sciences (SPSS) software version 23. Descriptive statistics were used to organise, summarise, and analyse the data. Inferential statistics (paired-samples t test) was employed to determine relationships between variables at 5% level of significance.

Ethical approval was obtained from the Institute of Public Health, Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria with approval number OAU/IPH/ETHICS NO 19/1340. Permission to conduct the study was sought from the chairman of Association of Community Pharmacists of Nigeria (ACPN) in Osun State. Consent of the respondents was sought before the training programme.

**RESULTS**

The knowledge level of participants at baseline (pre-training) and after the training programme (post-training) is given in Table 1. The result shows that before the training the respondents agreed (Median=4) on all the items employed for determination of their level of knowledge to documentation management in community pharmacy practice (MWA=4.12). However, after the training, the respondents strongly agreed (Mdn=5) on all the items (MWA=4.61). The summary of the mean ratings shows that the respondents generally strongly agreed. Difference in their Mean of Weighted Average (MWA=0.49) with the statements shows that they possessed the knowledge. Results of paired-samples t tests (t=-10.43, p-value=0.01) indicated a statistically significant difference between the pre-training and post-training knowledge levels.

**Table 1: Knowledge of community pharmacists about documentation management**

| Characteristics   | Pre training rating WA | Mdn | Post training rating WA | Mdn |
|---|------------------------|-----|-------------------------|-----|
| Organization design of community pharmacy documentation                       | 4.18                   | 4   | 4.74                    | 5   |
| Good patient care are subject to accurate, documentation of patient diagnosis | 4.30                   | 4   | 4.78                    | 5   |
| Culture oriented toward quality good documentation                            | 4.18                   | 4   | 4.73                    | 5   |

|   |      |   |      |   |
|---|------|---|------|---|
| Participation in formal training program for good documentation of care                             | 4.18 | 4 | 4.73 | 5 |
| Manual documentation is most commonly employed by community pharmacist                              | 3.83 | 4 | 4.31 | 5 |
| Complete documentation of patient's diagnosis in a community pharmacy is a continuum in health care | 4.27 | 4 | 4.86 | 5 |
| Information technology such as soft-ware is a good means of documentation but expensive             | 4.24 | 4 | 4.82 | 5 |
| Adverse medication events are avoidable by documentation  | 4.14 | 4 | 4.65 | 5 |
| Documentation should be clearly written   | 4.33 | 4 | 4.86 | 5 |
| Document should be legible devoid of abbreviation   | 4.32 | 4 | 4.86 | 5 |
| Lack of patient referral slip is a limitation to good document                                      | 3.91 | 4 | 4.49 | 5 |
| Documentation serves as evidence of compliance to regulations                                       | 4.18 | 4 | 4.58 | 5 |

**Table 1 (Continuation).**

| <b>Characteristics</b>  | <b>Pre training rating WA</b> | <b>Mdn</b> | <b>Post training rating WA</b> | <b>Mdn</b> |
|---|-------------------------------|------------|--------------------------------|------------|
| Procedure of documentation incorporate Federal, State and Local laws                                  | 3.68                          | 2.22       | 4.39                           | 5          |
| Policy and procedure of documentation must be strictly followed in line with regulations              | 4.08                          | 4          | 4.49                           | 5          |
| All documentation practices are heavily dependent on regulation requirements                          | 3.95                          | 4          | 4.49                           | 5          |
| All documentation practices are subject of individual professional's education background regulations | 4.05                          | 4          | 4.62                           | 5          |
| Improper conduct of pharmacist with respect to documentation is punishable under law                  | 3.87                          | 4          | 4.56                           | 5          |
| Pharmacy practice regarding documentation is guided regulation from regulatory bodies                 | 4.02                          | 4          | 4.74                           | 5          |
| Pharmacist documentation activities can be subjected to criminal liability if mishandled              | 3.85                          | 4          | 4.49                           | 5          |
| Prescriptive authority depends wholly on laws and regulations   | 4.95                          | 4          | 4.41                           | 5          |
| Prescriptive treatment is done according to laws and regulations                                      | 4.05                          | 4          | 4.53                           | 5          |
| Unethical conduct by pharmacist can become an issue for civil law                                     | 4.12                          | 4          | 4.66                           | 5          |
| <b>MWA</b>  | <b>4.12</b>                   |            | <b>4.61</b>                    |            |

Keys: WA = Weighted Average, MWA = Mean Weighted Average, Mdn = Median

**DISCUSSION**

In this study, community pharmacists' knowledge of documentation management improved following exposure to a training programme. The fact that the result gave an increased mean of weighted average after training programme when compared to before the training programme may be because most of the respondents had seen through the training that the only way to improve their practice is to improve their documentation management practice.

Our results are in line with those of Joubert and Panjasaram<sup>[5]</sup> which reported that almost all participants who had received adverse drug reaction training knew how to report them. The findings of this study were also in line with those of Stojkov *et al.*, which indicated an improvement in provision of written information following an educational intervention<sup>[6]</sup>.

Pawar and Pawar (2018) indicated training on pharmaceutical care significantly improved knowledge of pharmaceutical care practices of pharmacists and suggested robust continuing education modules can be used for career-long learning and professional development of pharmacists to improve their practices towards pharmaceutical care<sup>[7]</sup>. In this study, training of community pharmacists in Osun State on documentation management also enhanced their knowledge of documentation practice.

The improvement in the knowledge of the community pharmacists is further supported by Zekan *et al.*<sup>[8]</sup> report which stated that interactive and case-based clinical pharmacy workshop could be a valuable tool to increase the knowledge of community pharmacists about identification and management of drug-related problems in routine practice.

At the end of the study, the training had improved the knowledge of the community pharmacists on use of information technology as a means of documentation, culture oriented towards documentation, avoiding adverse events by proper documentation, documentation serving as evidence of compliance to regulations etc.

**CONCLUSION**

Knowledge of documentation management in community pharmacy practice was improved after the training of community pharmacists in Osun State.

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