

## Assessment of continuing professional development activities among pharmacists in Nigeria

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### ABSTRACT

**Background:** Continuing Professional Development (CPD) was developed as formal lifelong learning systems with the aim of updating the knowledge and skills of professionals to meet continual challenge of maintaining competency in practice as professionals. No pharmacy school program can provide all the knowledge, skills and abilities that will be required during one's career as a pharmacist, therefore, the need for pharmacists to engage in CPD.

**Objectives:** The main objectives of this study were to document the CPD activities that pharmacists engage in, find out the reasons for engaging in such activities and determine their satisfaction or otherwise with the activities.

**Methods:** The research was conducted using pre-tested, semi-structured questionnaire, self-administered to pharmacists who have participated in at least one module of the PCN-MCPD program. Descriptive analysis was carried out using the Statistical Package for Social Sciences (SPSS).

**Results:** The results showed that 63.4% of respondents participated in other CPD activities apart from the PCN-MCPD program. Sixty-four percent attend PSN Conferences, 43% attend workplace organized trainings while 41% attend both the PSN Technical Group Conferences and Healthcare related trainings. Furthermore, 69% of the respondents were satisfied with their CPD activities while 35.4% were satisfied with the PCN-MCPD program.

**Conclusion:** Pharmacists participate in CPD activities. However, they are more satisfied with the other CPD activities that they engage in than the PCN-MCPD programme. The PCN-MCPD programme should be restructured to recognize the other CPD activities that pharmacists engage in.

**Key words:** Continuing Professional Development (CPD), Pharmacists in Nigeria, Mandatory Continuing Professional Development (MCPD), Pharmacists Council of Nigeria (PCN), desire to learn.

## Évaluation des activités de perfectionnement professionnel continu chez les pharmaciens du Nigeria

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### RÉSUMÉ

**Contexte:** Le développement professionnel continu (DPC) a été développé sous la forme de systèmes formels d'éducation et de formation permanente, dans le but de mettre à jour les connaissances et les compétences des professionnels pour répondre aux défis continus du maintien de la compétence en tant que professionnels. Aucun programme d'école de pharmacie ne peut fournir toutes les connaissances, les compétences et les capacités qui seront nécessaires au cours d'une carrière de pharmacien, d'où, le besoin pour les pharmaciens de s'engager dans la DPC.

**Objectifs:** Les principaux objectifs de cette étude étaient de documenter les activités de DPC auxquelles les pharmaciens participent, de trouver les raisons de leur participation à ces activités et de déterminer leur satisfaction ou autrement de ces activités.

**Méthodes:** La recherche a été menée à l'aide de questionnaire semi-structuré pré-testé, auto-administré aux pharmaciens qui ont participé à au moins un module du programme PCN-MCPD. L'analyse descriptive a été réalisée à l'aide du logiciel de statistique pour les sciences sociales (SPSS).

**Résultats:** Les résultats ont montré que 63,4% des répondants ont participé à d'autres activités de DPC en dehors du programme PCN-MCPD. Soixante-quatre pour cent participent aux conférences PSN, 43% participent à des formations organisées sur le lieu de travail tandis que 41% participent tant aux conférences du groupe technique PSN qu'aux formations liées aux soins de santé. En outre, 69% des répondants étaient satisfaits de leurs activités de DPC alors que 35,4% étaient satisfaits du programme PCN-MCPD.

**Conclusion:** Les pharmaciens participent aux activités de DPC. Cependant, ils sont plus satisfaits des autres activités de DPC auxquelles ils participent que le programme PCN-MCPD. Le programme PCN-MCPD devrait être restructuré pour reconnaître les autres activités de DPC auxquelles participent les pharmaciens.

**Mots clés:** développement professionnel continu, pharmaciens, MCPD, PCN, désir d'apprendre.

## INTRODUCTION

The rapidly changing nature of knowledge places responsibility on healthcare professionals to continually seek to pursue new knowledge. It is a lifelong challenge to maintain competence in practice as a professional. This has led to the development of formal lifelong learning systems with the aim of updating the knowledge and skills of professionals by professional regulatory authorities and associations.<sup>1</sup> The lifelong learning approach is the basis for the Continuing Professional Development (CPD). The CPD, therefore, is essentially a self-directed, ongoing, systematic and outcomes-focused approach to learning and professional development.<sup>2</sup>

Pharmacists are health care professionals whose professional responsibilities include seeking to ensure that people derive maximum therapeutic benefit from their treatments with medicines. This requires them to keep abreast of developments in pharmacy practice and the pharmaceutical sciences, professional standards requirements, the laws governing pharmacy and medicines and advances in knowledge and technology relating to use of medicines.<sup>2</sup> The education from the pharmacy school program that prepares individuals to become pharmacists cannot provide all the knowledge, skills and abilities that will be required during one's career as a pharmacist. In fact, no pharmacy school program can do that because of the rapidly changing nature of medical and technological advances.<sup>3</sup> Therefore, to maintain competence as a pharmacist, there is need to continually update one's knowledge, skills and abilities as well as acquire new ones to stay abreast with current advances in the medical field.

The concept of continuing professional development (CPD) and continuing education (CE) can seem very daunting for pharmacists; for those who just started their career and those who are well established in theirs.<sup>4</sup> It is imperative that pharmacists realize that maintaining competence throughout their careers is a lifelong challenge and requires lifelong learning systems as embodied in the CPD concept. However, these systems were traditionally based on the concept of CE which has been emphasized in pharmacy for many years.<sup>4</sup>

CE can be defined as a structured learning experience that includes educational activities that are organized in the form of lectures, workshops and distance-learning courses.<sup>5,6</sup> CE has been used by professionals to maintain their competence over time. Health professionals in particular have engaged in CE after they have completed entry-level academic education and training to promote the continuous development of

their knowledge, skills and attitude so that they can maintain proficiency, provide quality service and products, meet patients' needs and meet up with current trends.<sup>7</sup> On its own, CE does not necessarily lead to positive changes in professional practice nor does it necessarily improve healthcare outcomes.<sup>2</sup> Furthermore, practice standards keep rising and accountability mechanisms are required to keep abreast with new developments. Hence the need for Continuing Professional Development (CPD), the most preferred option for accountability.<sup>7</sup>

The International Pharmaceutical Federation (FIP) first adopted the CPD concept in 2002 defining it as "the responsibility of the individual pharmacists for systematic maintenance, development and broadening of knowledge, skills and attitudes, to ensure competence as a professional throughout their careers".<sup>2</sup> Furthermore, the FIP statement says that the CPD "must be an ongoing, cyclical process of continuous quality improvement by which pharmacists seek to maintain and enhance their competence in both current duties and anticipated future service developments".<sup>2</sup> CPD is more than participation in Continuing Education (CE). However, CE is an important part of a structured CPD programme which is personalized for each pharmacist with a process that is visible to ensure credibility with the public.<sup>2</sup>

In Nigeria, the CPD program for Pharmacists as designed by the Pharmacists Council of Nigeria (PCN) is named 'Mandatory Continuing Professional Development (MCPD)'. It is organized by PCN-accredited facilities nationwide in accordance with the laid down regulations of the Council.<sup>8</sup> The objectives of PCN-MCPD include to update the knowledge of Pharmacists, provide an opportunity to supplement their initial training and provide a forum for cross-fertilization of ideas and experience to improve the quality of pharmaceutical products and services amongst others.<sup>8</sup> It is delivered via live lectures for several days at a time with the provision of printed lecture materials and in some cases, soft copies of these lecture materials.

The main aim of this research was to determine whether pharmacists engage in other CPD activities apart from the PCN-MCPD programme to maintain their professional competence. The specific objectives were to identify the CPD programs that pharmacists engage in, find out the reasons for engaging in these programs and determine their level of satisfaction (or otherwise) with the programs.

## METHODS

The study design was a cross-sectional descriptive study. The study population was pharmacists in all practice settings. These practice settings include hospital, community, academic, industrial, administration and public health. The inclusion criterion was pharmacists who had participated in at least one module of the Pharmacists Council of Nigeria's Mandatory Continuing Professional Development Programme (PCN-MCPD). The study instrument used was a questionnaire with questions to collate demographic data, collect info about the other CPD programs that pharmacists engage in, find out the reasons they attend these other CPD programmes as well as assess their satisfaction with the programmes that they attend. The questionnaire was discussed with experts and then pre-tested to ensure validity. According to the PCN list of licensed pharmacists and premises, there were 3,334 licensed in Lagos and 2,864 in Abuja.<sup>9</sup> With a confidence level of 95% and a margin of error of 5% for a population greater than 5000, the required sample size is 365.<sup>10</sup> An additional 30% was added to account for attrition.

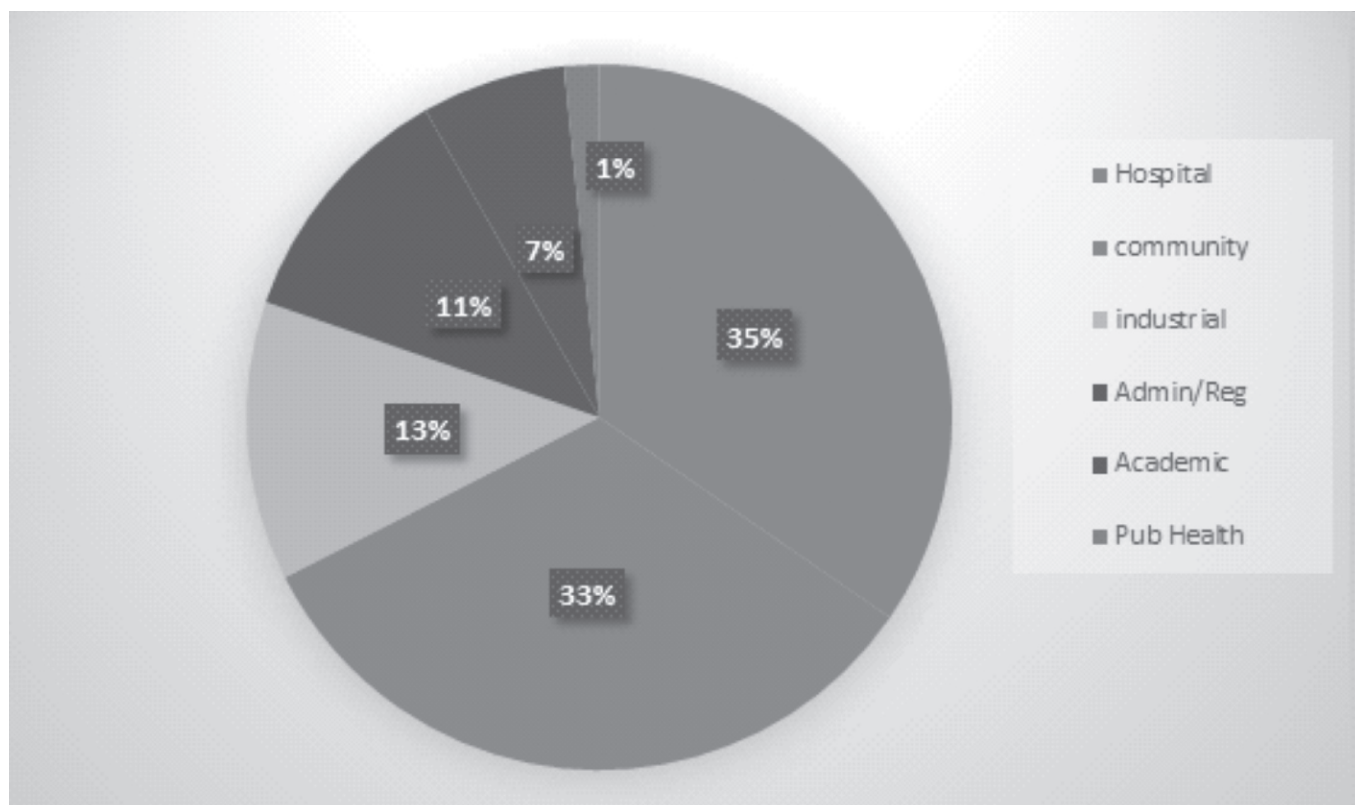
The distribution of the pre-tested semi-structured questionnaire was carried out in Lagos and Abuja. In Lagos, it was distributed at PSN State Chapter meeting, ACPN State Chapter meetings, Industrial Pharmacists' Conference, Faculty of Pharmacy, Hospital pharmacists at their facilities and at the Lagos Zonal Office of the Pharmacists' Council of Nigeria. In Abuja, the questionnaires were distributed at the respondents' practice setting (Hospital, Community and Offices). The 2015 PSN National Conference tagged Abuja 2015 also provided an opportunity to reach a number of pharmacists from other parts of the country. Respondents who agreed to be interviewed were recruited into the study and to avoid duplication in the data collected, the pharmacist was asked if he had filled the questionnaire before. Most of the respondents immediately filled and returned the questionnaires

while a few requested for a follow-up visit for collection. Data were collected between the months of August and November, 2015. Questionnaires were sorted after collection and those not completely or properly filled were discarded. Data entry was done using Microsoft Excel and analysed using SPSS version 21.0. The analysis carried out was descriptive statistics in the form of frequencies and percentages.

## RESULTS

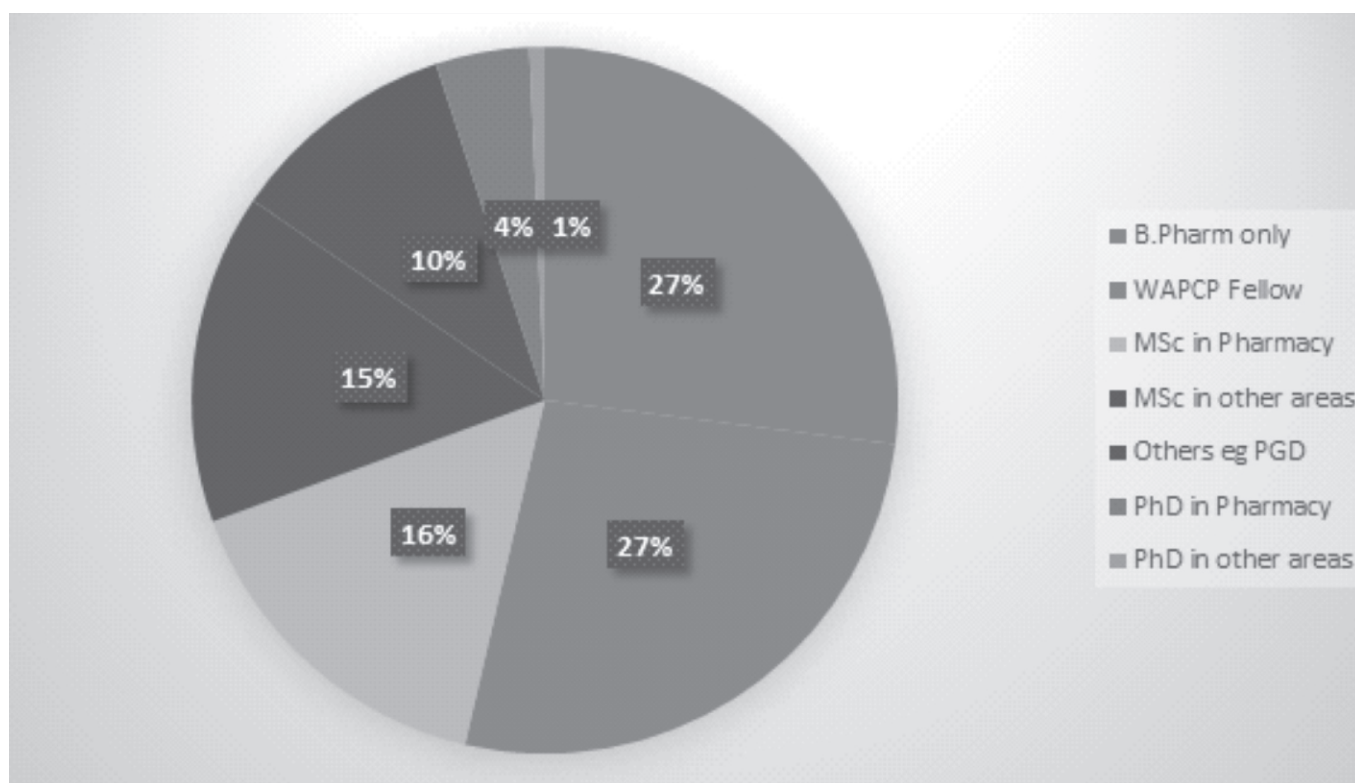
Following the discussion held with experts to assess the questionnaire, the pretested questionnaires were analysed and the reliability coefficient of 0.65 was obtained. Three hundred and eight (308) questionnaires were returned out of the 500 questionnaires that were sent out to pharmacists. This resulted in a response rate of 61.6%. Sixty-five (65) questionnaires were discarded out of the 308 questionnaires that were returned. A total of 243 questionnaires were then analysed to yield the results. Results obtained were presented in tabular formats stating the values of the frequencies and percentages.

**Demographics:** Out of the 243 respondents, 132 (54.3%) were male and 111 (45.7%) were female. The mean number of the years after they obtained their first pharmacy degree was  $21.3 \pm 0.5$  years while the mean number of years in their current area of practice was  $13.2 \pm 0.5$ . Thirty-five percent (35%) of respondents were Hospital pharmacists, 33% were Community pharmacists, and 13% were Industrial pharmacists. Figure 1 shows the current areas of pharmacy practice of the respondents. Thirty-one percent ( $n = 243$ ) of respondents had no other qualification along with their first pharmacy degree. Eighteen percent had a Master degree in Pharmacy while 17% had a Master degree in other areas other than Pharmacy. Thirty percent had obtained the West African Postgraduate College of Pharmacists (WAPCP) Fellowship. Figure 2 shows the details of the highest qualifications that respondents had obtained.



n = 243

Figure 1: Pie chart showing respondents' current areas of pharmacy practice



n = 243

Figure 2: Pie chart showing the distribution frequency of the highest qualification obtained by respondents.



**Attendance of CPD activities:** All the respondents had attended the PCN-MCPD modules before now. Analysis of the data showed that 52.7% (n=243) of respondents attended the PCN-MCPD modules immediately they became available in a new cycle, 19.3% attended one module per year and 26.3% attended the three modules of a cycle at once.

The data also revealed that 63% of respondents attend other CPD activities apart from the PCN-MCPD

programme while 30% said they did not attend any other CPD activity. Fifty-three percent of respondents had no fixed schedule for attending these other CPD activities while 17% attended them annually (Table 1). Table 2 shows the details of the other CPD activities that respondents attend. Sixty-four percent attend PSN Conferences, 43% attend workplace organized trainings while 41% attend both the PSN Technical Group Conferences and Healthcare related trainings.

**Table 1: Table showing respondents' attendance of CPD activities apart from the PCN-MCPD**

Item	Frequency (%)
Do you attend any other CPD activity apart from the PCN-MCPD program?	154 (63.4)
Yes	72 (29.6)
No	17 (7.0)
Not sure	
How often do you participate in other CPD activities?	
Never	18 (7.4)
Monthly	22 (9.1)
Bimonthly	7 (2.9)
Quarterly	18 (7.4)
Every 6 months	10 (4.1)
Annually	41 (16.8)
No fixed schedule	129 (53.1)
Not stated	5 (2.1)

**n = 243**

**Table 2: Table showing the other CPD activities that respondents have participated in**

Other CPD activities	Frequency (%)
PSN State/Annual Conferences	155 (63.7)
Workplace organized trainings	104 (42.8)
PSN Technical Group Conferences	99 (40.7)
Healthcare related trainings	99 (40.7)
Pharmacy related trainings	93 (38.3)
*Pharmaceutical Industry organized trainings	82 (33.7)
WAPCP Conference	58 (23.8)
WAPCP Short Certificate Course/Workshop	49 (20.2)
Pharmanews training	33 (13.6)
FIP	20 (8.2)
Not stated	6 (2.5)

**n = 243**

\*For example Trainings by Pfizer, Fidson, GSK. FIP: International Pharmaceutical Federation  
WAPCP: West African Postgraduate College of Pharmacists

**Reasons for attending CPD activities:** Seventy-one percent of respondents (n = 243) cited the need to meet licensure requirements as one of their reasons for attending the PCN-MCPD program. Another reason was the need to update their knowledge which was cited by

68% of the respondents. For the other CPD activities that respondents engage in, 75% cited the need to update their knowledge as their main reason for such engagement (Table 3).

**Table 3: Table showing respondents' reasons for participating in PCN-MCPD programmes and other CPD activities**

Reasons for CPD activities	PCN-MCPD Frequency (%)	Other CPD Frequency (%)
Licensure requirements	173 (71.2)	36 (14.8)
Update knowledge	166 (68.3)	181 (74.5)
Enhance professional skills	142 (58.4)	175 (72)
Promotion requirements	6 (2.5)	9 (3.7)
Not applicable	-	25 (10.3)

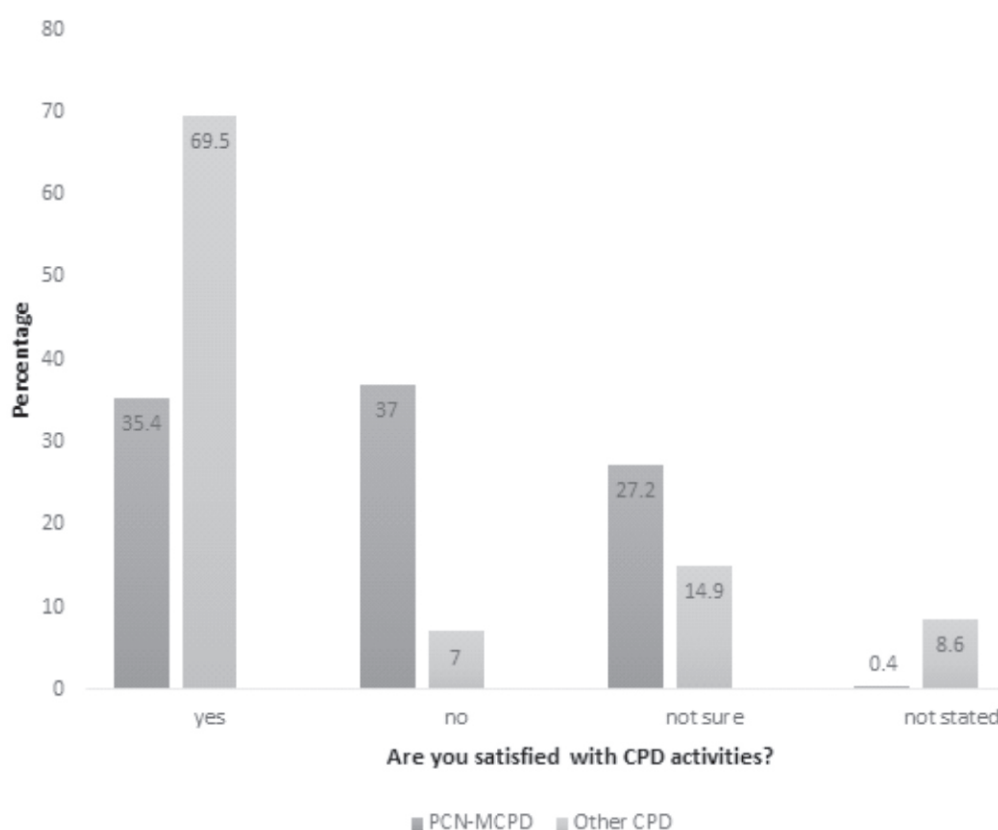
**n = 243**

**Level of satisfaction:** Thirty-five percent (35%) of the respondents were satisfied with the PCN-MCPD program, 37% were not satisfied and 27% were unsure how they felt about the program. About 70% of the respondents were satisfied with the other CPD programmes they engaged in (Figure 3).

Among those who were satisfied with the program, 15% were very satisfied, 74% were satisfied and 8% were barely satisfied; the rest were unsure. Among the respondents that were satisfied with the other CPD programmes, 7.6% were very satisfied, 29.5% were satisfied, 7.1% were barely satisfied and 9.5% were unsure how satisfied they felt. About 46% did not state how satisfied they were about the CPD programs.

Table 4 shows that 38% of respondents cited the relevance and quality of course contents of the PCN-

MCPD program as components that were satisfied with. Similarly, 58% of respondents also cited the quality and relevance of the course contents of the other CPD activities as the components that they were satisfied with. About 29% were satisfied with the quality of delivery in the PCN-MCPD while 43% were satisfied with the quality of delivery in the other CPD activities. Respondents also indicated some of the components of CPD programs that they were not satisfied with. Table 4 also shows that 30% of them were not satisfied with the relevance of the course contents of the PCN-MCPD programme while 23% were not satisfied with the quality of the modules and the logistics of the programme. Ten percent of respondents were not satisfied with the registration fees component of the other CPD programmes that they engaged in.



n = 243

Figure 3: Bar chart showing the percentage response to 'Are you satisfied with CPD activities?'

Table 4: Table showing respondents' satisfaction with the components of CPD programs.

Components of CPD program	Satisfied		Not satisfied	
	PCN-MCPD Freq (%)	Other CPD Freq (%)	PCN-MCPD Freq (%)	Other CPD Freq (%)
Relevance of course contents	93 (38.2)	141 (58.0)	75 (30.8)	13 (5.3)
Quality of course contents	92 (37.8)	141 (58.0)	56 (23.0)	13 (5.3)
Quality of delivery	70 (28.8)	105 (43.2)	45 (18.5)	8 (3.3)
Duration of program	56 (23.0)	67 (27.5)	41 (16.8)	16 (6.6)
Accessibility of training materials	50 (20.5)	64 (26.3)	28 (11.5)	12 (4.9)
Distance to program	32 (13.2)	34 (14.0)	48 (19.7)	25 (10.3)
Logistics (venue, food, etc)	31 (12.7)	54 (22.2)	57 (23.5)	19 (7.8)
Registration fees	29 (11.9)	37 (15.2)	53 (21.8)	25 (10.3)
Stakeholder involvement	19 (7.8)	41 (16.9)	46 (18.9)	17 (6.9)
None	67 (27.5)	18 (7.4)	95 (39.1)	158 (65.0)

n = 243



## DISCUSSION

Findings from this study suggest that pharmacists engage in other CPD activities apart from the PCN-MCPD programme. The major reason they attend the PCN-MCPD is to meet licensure requirements while the need to update their knowledge is the reason they attend other CPD activities. However, these activities are CE activities which are centred on trainings, seminars, workshops etc. related to pharmacy, general healthcare and are also association-related activities. The CPD activities that most of the pharmacists engage in are the PSN Annual/State Conferences. The PSN Conferences are recognized by the PCN-MCPD for garnering credit points to meet with the required number of credit points in a cycle for the purpose of satisfying recertification requirements. Other association-related activities that pharmacists participate in include the PSN Technical Group Conference, West African Postgraduate College of Pharmacists (WAPCP) Annual Conference and Short Certificate workshop, Pharmanews trainings/seminars and trainings organized by pharmaceutical companies. The Technical group conferences are tailored to specific pharmacy practice areas which usually highlight current trends in such practice areas. These conferences are recognized by the PCN-MCPD for earning credit points for the purpose of recertification and they will also help pharmacists achieve their desire to learn and provide the opportunity to interact with colleagues.

These findings thus suggest that pharmacists engage more in continuing education activities rather than continuing professional development activities as shown in literature.<sup>5-7,11-13</sup> The impact of this is yet to be determined and since the current PCN-MCPD system does not provide the opportunity for pharmacists to record their learning experiences, the effect of such meetings may be difficult to explore. However, Forsetlund *et al* in an intervention review of continuing education meetings and workshops and their effects on professional practice and health care outcomes concluded that although educational meetings, alone or combined with other interventions, can improve professional practice and patient outcomes, the effect is most likely to be small and that such meetings alone are not likely to be effective for changing complex behaviours.<sup>14</sup> Maio *et al* also concluded that although pharmacists found all types of CE programs effective in improving their knowledge and as valuable resources for their educational needs, they were, however, less effective in enhancing their clinical practice behaviour.<sup>15</sup> Another CPD activity that pharmacists engage in is workplace organised trainings. Although these

trainings are not recognized by the PCN-MCPD, such trainings are specific to their areas of practice. The trainings would update their knowledge and enhance their professional skills; two reasons adduced by the pharmacists for participating in other CPD activities. This lack of recognition had been documented by Austin *et al*<sup>16</sup> who reported that workplace learning was pivotal in meeting the learning needs of pharmacists but it is an underutilized component of the CPD program. Erhun & Akintilebo also posit that workplace CPD trainings enable professional development as it provides real life learning experience.<sup>7</sup>

This study also revealed that a greater percentage of pharmacists are more satisfied with the other CPD programs that they attend than they are with the PCN-MCPD. This is comparable to the study which reported that, though the concept of the PCN-MCPD programme has gained wide acceptance among pharmacists, they still express dissatisfaction with different aspects of the programme.<sup>7</sup>

During the research, most pharmacists were unwilling to fill the questionnaire and were also not ready to be interviewed. A good number of them declined completing the questionnaire. Some of the pharmacists who agreed to participate in the study by filling the questionnaire left out too many questions and so several incompletely filled questionnaires had to be discarded. Given the reluctance of pharmacists to participate in the survey, the sample population eventually used may not be a true representation of the study population. Furthermore, since the study was retrospective in nature, there would be data that respondents may have inadvertently forgotten which could have affected their response to some questions while others may have deliberately withheld information or provided false information.

## CONCLUSION

From this study, it can be concluded that pharmacists engage in other CPD activities apart from the PCN-MCPD programme for the purposes of updating their knowledge and enhancing their professional skills. Findings also revealed that pharmacists are satisfied with the PCN-MCPD. However, they are more satisfied with the other CPD activities that they engage in. It is, therefore, recommended that the PCN-MCPD programme be designed to recognise these other CPD activities that pharmacists engage in as this will further motivate them to continually seek to enhance and expand their professional capabilities knowing that it will also count towards meeting their licensure requirements.

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