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## Assessment of attitude, obstacles and motivational factors towards postgraduate education among pharmacist in Oyo state

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A – research concept and design; B – collection and/or assembly of data; C – data analysis and interpretation; D – writing the article; E – critical revision of the article; F – final approval of article.

### Abstract

**Background:** A professional needs to update his knowledge in order to remain relevant in the profession. One of the ways to achieve this is through postgraduate education.

**Objectives:** To determine the number of pharmacists in the state with postgraduate education and evaluating obstacles towards seeking postgraduate education, as well as exploring the motivational factors to acquiring a postgraduate degree in pharmacy.

**Methods:** One hundred copies of structured questionnaires were distributed to practicing pharmacists in Oyo state. Section A of the questionnaire sought demographics information, while sections B, C and D assesses respondent's level of agreement with statements on reasons why pharmacists do not seek postgraduate degree, as well as motivational factors and obstacles in seeking postgraduate education in pharmacy using 5 points Likert scale. Data was analyzed using descriptive and inferential statistics with SPSS version 16.0.

**Results:** The study shows that 26 (34.7%) had a postgraduate degree in pharmacy discipline while 24 (32.0%) were undergoing a PG education in pharmacy. Year of graduation was not associated with possession of PG degree or an ongoing PG program. Factors identified as obstacles towards seeking a PG degree in pharmacy include; uncertainty in time of completion (34.7%), inconsistency in academic calendar 31 (63.3%) and family pressure 15 (30.6%). Provision of financial aids was not considered a motivational factor as indicated by 37 (75.5%). Majority 41 (83.7%) will obtain PG degree if the program is available on part-time basis. Granting study leave and making PG degree prerequisite for promotion in places of work will encourage pharmacists to obtain PG degree as indicated by 96.2% and 73.1% of pharmacists with PG degree respectively.

**Conclusion:** Majority of the respondents do not have a PG degree in pharmacy. Many were willing to undergo postgraduate studies if the program is available on part time basis and there is consistency in University calendar. These factors should be considered by stakeholders in order to improve PG education among pharmacists.

**Keywords:** Attitude of pharmacists, Postgraduate education, Pharmacists in Oyo State

### INTRODUCTION

To be a professional involves the educational process of becoming one 6 undertaking a postgraduate courses in order to remain one (Ng et al, 2014). The public expects health care professionals to have up-to-date knowledge and skills that are appropriate to their specialized field of practice. Health care professionals therefore need to equip themselves to meet these challenges

(Ugwu et al, 2012). Postgraduate (PG) education enables medical professionals to challenge and

accept challenges in their practice (Ng et al, 2014). Education and training are important to the future of a profession as they equip members to be well prepared for challenges in their changing environment amidst knowledge explosion (Ugwu et

al, 2012). This seems not to be limited to medical field alone. In Australia, studies have shown an increased level of knowledge and skill through postgraduate education among registered nurses (Ng et al, 2014).

Unlike medical practitioners, most pharmacists do not obtain postgraduate qualifications and/or specialty certifications, even though a variety of such programs are offered (Rouse, 2004). Obtaining additional degree in pharmacy will no doubt improve pharmacist quality of work and clinical knowledge (Ignacio et al, 2013) and with the advent of new technologies, old skills may become inadequate, justifying the need for continuing education and training (Ugwu et al, 2012).

Obtaining a PG degree in pharmacy discipline will no doubt improve pharmacist knowledge on current technology and clinical skills which will be of value in their present area of practice. Some studies in Nigeria among pharmacists have concentrated on pharmacist knowledge of pharmaceutical care practices (Oparah & Eferakeya, 2005; Aguwa *et al*, 2008; Anafi *et al*, 2011; Awofisayo *et al*, 2011) with little attention on higher education training for practicing pharmacist. Apart from the work of Joda and Nwaokoma (2011) that dwell on the willingness of undergraduate students to acquire further degree, there is no other study in this area of pharmacy postgraduate education in Nigeria. However, Joda and Nwaokoma's (2011) study did not look at motivation factors, obstacles or barriers to the acquisition of higher degrees among the studied population. Hence this study sought to identify factors that may influence pharmacist to seek postgraduate education.

## **METHODS**

**Study design and population:** The study was a cross-sectional study using a structured questionnaire. The study focused on all pharmacists in Oyo state, Southwest Nigeria.

**Sampling method and sample size:** There were 180 registered pharmacists in Oyo state Nigeria in 2013 at the time the study was carried out according to the register obtained from the Pharmacist's Council of Nigeria. This included pharmacists practicing in academia, community, hospital, and industries. Purposive sampling method was adopted and questionnaires were administered to one hundred pharmacists.

However, pharmacist in academic were excluded from the study because their area of practice required them obtaining postgraduate degree in pharmacy discipline. Sample size of 96 was calculated at confidence interval of 95% and precision of 5%. However One hundred (100) questionnaires were distributed.

## **Study instrument**

A pretested structured questionnaire was administered to pharmacist in Oyo state in August, 2013. Confidentiality and anonymity of the respondents completing the questionnaires were ensured by not including the name of respondents or the address of their places of work. All the participants gave their consent to participate in the study by completing and returning the questionnaire after the aim of the study was explained to them. Each questionnaire contains 3 sections namely A, B and C. Section A sought demographic information/data which included; gender, age, educational qualification, year of graduation, years of practice, area of practice, reasons for choosing present area of practice, additional postgraduate qualification in pharmacy and non-pharmacy courses. Section B was about factors that can encourage pharmacist to acquire additional degree in pharmacy, while section C explored reasons why pharmacists do not seek additional degree in pharmacy, motivational factors and obstacles to seeking additional postgraduate degree in pharmacy using items on a 5 points Likert scale.

## **Data analysis**

Data was analyzed using Statistical Package for Social Sciences (SPSS) version 16.0. Descriptive statistics such as frequency and inferential statistics were used. Correlation analysis was used to test for association between year of graduation and possession of PG degree and also ongoing PG degree in pharmacy.

## **RESULTS**

Seventy five out of the 100 questionnaires distributed were returned indicating a response rate of 75%. Three were more males (56%) than females. Majority 64 (85.3%) of the respondents practice in the capital city of the state (Ibadan) while 11 (14.7%) resides outside Ibadan metropolis. The age of respondents (n=75) ranged from 25-65 years, with respondent between ages 35-44 (29.3%) having the highest proportion. Details are shown in Table 1.

**Table1: Demographic Characteristics of Practicing Pharmacist in Oyo state, Nigeria**

Characteristic of Respondents		Frequency (Percentages)
Sex	Male	42 (56%)
	Female	37 (44%)
Age	25-34years	18 (24%)
	35-44years	22 (29.3%)
	45-54years	18 (24%)
	55-64years	15 (20%)
	>65years	2 (2.7%)
Area of pharmacy practice	Industry (production)	4 (5.3%)
	Industry (marketing)	10 (13.3%)
	Industry (Administration)	4 (5.3%)
	Community	27 (36.0%)
	Hospital	30 (40.0%)
Residence	Ibadan city	64 (85.3%)
	Outside Ibadan	11 (14.7%)
Postgraduate Degree in Pharmacy	Yes	26 (34.7.0%)
	No	49 (65.3%)
Ongoing Postgraduate Degree in Pharmacy	Yes	24 (32.0%)
	No	51 (68.0%)

Correlation between year of graduation and possession of PG degree in pharmacy ( $r=0.073$ ,  $p=0.237$ ).

Correlation between year of graduation and ongoing PG degree in pharmacy ( $r=0.129$ ,  $p=0.135$ )

Years since graduation ranged from 1 to 42 years. Majority of the respondents (72.0%) had less than 20 years of practice experience. As of the time of data collection, about 65.3% of the respondents had no additional degree in pharmacy discipline. While 26 (34.7.0%) had one degree or the other in pharmacy discipline ranging from Master of Science (M.Sc) in pharmacy (10; 13.3%), Fellow of West African Post graduate College of Pharmacist (FWPCP) (3, 4.0% ) and P.G certificate in herbal medicine (1, 1.3%), however, 12 of this pharmacist did not indicate area of pharmacy where the PG degree was obtained. Out of the 26 pharmacist with PG degree in pharmacy, 14 were male and 12 were females. However, 24 indicated

they have an on-going PG degree program in a pharmacy discipline, out of which 10 respondents already had PG degree in pharmacy discipline and are also undergoing another PG study in pharmacy discipline. Thirteen (17.3%) of the respondents have postgraduate degree outside pharmacy discipline of which 9 had a Master of Business Administration (MBA). Passion and fulfillment were the reasons identified by 26.6% of the respondents for being in their present area of practice. While 16.0% chose their present area of practice because it gives them the opportunity to render pharmaceutical services (Table 2).

**Table 2: Reason for choosing present area of practice**

Reason for choosing present area of practice (n=75)	Frequency	Percentage (%)
Passion and fulfillment	20	26.6
Ability to render pharmaceutical care	12	16.0
To have clinical experience	8	10.7
Enjoy meeting people	5	6.7
Flexibility of time and opportunity for self-development	4	5.3
Rendering services to the grass-root	4	5.3
Profitability and increase financial status	3	4.0
Most comfortable	3	4.0
Temporarily in this area now because I have not been able to secure a placement in my area of interest	2	2.7
No Response	14	18.7
<b>Total</b>	<b>75</b>	<b>100</b>

The study further sought to know obstacles preventing the 49 respondents from seeking postgraduate education in pharmacy. Factors identified as obstacles included, unfavourable undergraduate experiences as indicated by 71.4%; 34.7% of them agreed that uncertainty of time of completion of the PG program is an obstacle to seeking for PG degree. For some, (26.5%) had difficulty seeking study leave from their present employer to go for PG study. While 30.6% of these respondents agreed that they could not seek for PG degree because of family pressure, so also 30.6% of respondents agreed that they don't have time for PG study. However, finance seems not to be a serious obstacle preventing them from seeking PG degree as 53.0% disagreed that financial is not an obstacle to them while 16.3% were undecided on this point. It is of importance to note that 63.2% agreed that inconsistency in Nigerian University

(mostly due to strike by Academic Staff Union of University and other Association within the Universities) was considered an obstacle from seeking for PG study in Nigeria as shown in Table 3.

When factors which could motivate them to seek for PG degree were considered, 75.5% agreed that if offered financial assistance, they will be motivated. Despite the fact that 85.7% of these respondent agreed that having a postgraduate degree will enhance their professional development, yet they have not sought for it. However, the organizations where some respondents work encourage them towards obtaining a PG degree as indicated by 69.4% of them. This study also shows that majority (83.7%) of these respondents are willing to obtain PG program if the program is available on part-time basis (Table 4).

**Table 3: Obstacles given by pharmacists for not seeking postgraduate education**

Statement	Agree	Neutral	Disagree
I don't need any additional degree in pharmacy	36 (73.5%)	7 (14.3%)	6 (12.2%)
Postgraduate degree is too stressful	13 (26.5%)	7 (14.3%)	29 (59.2%)
Postgraduate degree studies outside pharmacy discipline like MBA would add more value to my practice	6 (12.2%)	8 (16.3%)	35 (71.4%)
I do not need a postgraduate degree in pharmacy since I am not practicing as a pharmacist	29 (59.2%)	12 (24.5%)	8 (16.3%)
Unfavourable undergraduate experiences would prevent me from seeking a postgraduate study in pharmacy	11 (22.4%)	3 (6.1%)	35 (71.4%)
Schools offering a postgraduate degree in pharmacy are far from my residence	7 (14.3%)	8 (16.3%)	34 (69.4%)
My organization does not encourage postgraduate studies	5(10.2%)	10 (20.4%)	34 (69.4%)
Postgraduate degree in pharmacy does not enhance remuneration at my place of work	25 (51.0%)	9 (18.4%)	15 (30.6%)
No certainty on the completion of postgraduate study in pharmacy within stipulated time frame	17 (34.7%)	14 (28.6%)	18 (36.7%)
I really do not have time for a postgraduate study in pharmacy	15 (30.6%)	5 (10.2%)	29 (59.2%)
I am unable to seek study leave from my present employer	13 (26.5%)	16 (32.7%)	20 (40.8%)
Inadequate laboratory facilities in pharmacy schools in Nigeria is preventing me from seeking postgraduate study in pharmacy	15 (30.6%)	17 (34.7%)	18 (36.7%)
I cannot afford a postgraduate study in pharmacy now	15 (30.6%)	8 (6.3%)	26 (53.1%)
Family pressure is preventing me from seeking postgraduate degree in pharmacy	15 (30.6%)	9 (18.4%)	25 (51.0%)
Inconsistency of Nigeria academic calendar mostly due to strike of university workers is an obstacle for me to seek postgraduate study in pharmacy	31 (63.3%)	44 (8.2%)	14 (28.6%)

**Table 4: Factors that motivate pharmacist towards seeking postgraduate education in pharmacy**

Statement	Agree	Neutral	Disagree
I am willing to engage in pharmacy Postgraduate studies if available on part-time basis	41(83.6%)	4 (8.2%)	4 (8.2%)
Additional Postgraduate degree in pharmacy will enhance my professional development	41 (83.6%)	4 (8.2%)	4 (8.2%)
I will only seek for Postgraduate studies overseas	8 (16.3%)	12 (24.5%)	29 (59.2%)
Provision of financial aid will assist me in obtaining a Postgraduate degrees in pharmacy	5 (10.2%)	7 (14.3%)	37 (75.5%)

Factors that could encourage pharmacist to seek for PG degree as identified by other pharmacists who already have PG degree in pharmacy are; securing study leave by pharmacist in their places of work should be made easy as

indicated by 96.2% of respondents, 88.5% agreed that young colleague should be assisted by Pharmaceutical Society of Nigeria (PSN) financially in their PG programs. Majority (73.1%) of respondents agreed that

PG degree qualifications should be a prerequisite for promotion in both public and private sectors.

## DISCUSSION

There were more males than females respondents in this study in contrast to some studies in other parts of the world (Sivakami and Paraidathathu, 2007; Ignacio et al, 2013) which showed more practicing female pharmacist than male. Majority of the pharmacists in some studies conducted in other part of the world showed higher number of practicing pharmacist in the community pharmacy as seen in Malaysia and Trinidad and Tobago (Sivakami and Paraidathathu, 2007; Ignacio et al, 2013) as compared to our study where the response rate was highest among pharmacists practicing in hospitals.

Passion and fulfillment were rated as main reasons why pharmacists in this study were in their present area of practice while financial gain was rated low, this is contrary to the perception of people who believe that pharmacist are primarily business people and are concerned with making money (Sharma et al., 2009; Al-Arifi, 2012; Khan et al, 2013; Al Akshar et al., 2014).

Higher education or further training is expected to enhance professional skills and knowledge. This study indicated that majority of pharmacists in the study did not have postgraduate qualification in pharmacy discipline. This result is similar to the findings of a study conducted in Malaysia, where 82.2% of the pharmacists involved in the study had no post graduate qualification(s) (Sivakami and Paraidathathu, 2007). In South Africa, Truter (2009) showed that 75.9% of the pharmacist students indicated their interest in PG study. There is no significant correlation between year of graduation and possession of PG degree in pharmacy ( $r=0.073$ ,  $p=0.237$ ) neither did years of graduation have positive effect on respondent's present status on ongoing Pg programmes ( $r=0.129$ ,  $p=0.135$ ). However, respondents identified factors that hindered them from seeking higher degree (e.g M.Sc, M.pharm) in pharmacy discipline. Some of the respondents felt PG degree is of no use in their present practice and that the program is too stressful. These reasons appear too flimsy because they are professionals who require postgraduate courses in order to be relevant in their field of practice (Ng et al, 2014). Though majority agreed that PG degree will enhanced their professional development, some agreed that they can only seek postgraduate degree in pharmacy school abroad.

The respondents who have PG degree indicated the following factors which can encourage other pharmacist to obtain PG degree; provision of financial aids by PSN to

young pharmacist, access to study leave by pharmacists that are interested in furthering their education especially in public sector. In addition, they also indicated that if postgraduate qualification in pharmacy is a prerequisite for promotion in organizations (both public and private sectors), pharmacists in such sectors will be prompted to obtain postgraduate qualification since postgraduate degree will no doubt enhance their professional development as indicated by some of the respondent and it will definitely enhance their financial incentives. Although a previous study in Trinidad and Tobago showed that increase financial incentives was not found to be a significant factor that will encourage pharmacist in the country to obtain post graduate degree (Ignacio et al., 2013).

Factors rated high and that were considered important by pharmacist who wish to seek PG degree in pharmacy discipline included, availability of PG program in part time basis, completion of the study at stipulated time by the university, and their ability to also meet family obligations while obtaining PG degree. These factors were also rated highest in Ignacio et al study, (Ignacio et al, 2013). It will be of benefit to the pharmacy profession if postgraduate degree programs can be available in Nigeria's universities on part time basis to accommodate those

pharmacists who will like to have the program as such. There is need for stakeholders to work on improving the stability within Nigerian universities calendar especially in public universities, because this invariably affects the quality of graduates and also affects professional development of those already practicing. This will be of great benefit to professional development for an individual and the profession. It requires a professional to train the upcoming professionals. The graduates of pharmacy schools will benefit more if a wide pool of well-trained pharmacist with postgraduate education is available to contribute into their training during their study of pharmacy.

## CONCLUSION

This study gave an insight into interest, motivational factors, and obstacles to the pursuit of postgraduate degree in pharmacy among pharmacists practicing in Oyo state Southwest Nigeria. The study showed that pharmacist can be encouraged to acquire PG degree if some PG programs within the faculty of pharmacy can be available on part-time basis and there is consistency in academic calendar. It is therefore important for stakeholders to encourage pharmacists to acquire PG degrees by putting these factors into consideration.

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