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A study of the attitude of radiographers in Edo and Lagos states of Nigeria to postgraduate education

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Abstract

Background There is a paucity of radiographers with postgraduate (PG) qualifications even though such qualifications in radiography started in Nigeria almost two decades ago. There is, therefore, a need to evaluate the attitude of radiographers to PG education with a view to establishing their major constraints and ways to enhance enrollment for study further.

Aim and objectives This study determines the level of awareness of the existence of PG education opportunities among radiographers in Edo and Lagos states, their willingness to enroll for PG courses, their disposition towards self-sponsored PG education as well as their opinion on how to improve PG enrollment among radiographers.

Method Self-administered, semi-structured questionnaires were given to radiographers to complete. Respondents were all visited at their places of work by a research assistant.

Results Eighty-five questionnaires were sent out and 75 were returned with an 88% response rate. Seventy radiographers (93%) in the two states were aware of PG programmes; 60 (80%) indicated their willingness to enroll, while 35 (47%) were willing to sponsor themselves. Sixty-eight (91%) identified instability in the university system as a hindrance to PG enrollment; 74 (99%) saw lack of career advancement prospects, after the acquisition of PG qualification, as a major hindrance. All the respondents agreed that lack of government sponsorship is a major obstacle.

Conclusion Radiographers in the two Nigerian states have a positive attitude to PG education. They are, however, constrained by poor remuneration, lack of career advancement opportunities for those with post basic qualifications, instability in the university system and lack of sponsorship.

Keywords

Nigerian radiographers; continuous professional development

Introduction

Since the discovery of x-rays in 1895, radiography has remained one of the most evolving professions allied to medicine. The profession has expanded tremendously with new modalities, such as magnetic resonance imaging (MRI), computed tomography (CT) and ultrasonography all coming on board [1]. Current advances in technology have made it imperative for present day radiographers to constantly learn and develop new skills. To cope, the present day radiographer must therefore be trained far and above the basic qualification requirements so as to remain useful in an environment that is constantly changing. Post qualification education and training and continuous professional development programmes (CPD) are of utmost importance for capacity building in any professional group [2]. Presently, radiographers are so passionate about professional role extension that it was described as 'the most talked about topic within the profession in South Africa' [3]. More importantly,

radiographers who are desirous of professional role extension must possess more than just basic knowledge. They must develop a keen interest in PG education and research to acquire cutting-edge skills [4]. Furthermore, more radiographers with post basic qualifications may serve as resource persons to universities that are presently experiencing a dearth of academic radiographers.

PG education, by nature, is designed to equip a graduate student with in-depth theoretical, practical and other essential knowledge often beyond the grasp of his or her colleague with just the basic qualification. Many institutions all over the world have recognized the importance of PG education in radiography thus have commenced relevant programmes for radiographers. PG studies started about two decades ago in Nigeria. The University of Nigeria in Nsukka, the Nnamdi Azikiwe University in Awka, and the Institute of Radiography (an arm of the radiographers' registration board of Nigeria), are the foremost institutions presently offer-

ing PG degrees and certificate courses in radiography. In spite of this, there is still a paucity of radiographers in Nigeria with relevant post basic qualification(s), especially in the clinical setting [5]. Evidence-based practice, which is the most current trend in modern medical practice, requires rigorous training [6], so 21st century radiographers must embrace PG training in order to remain relevant. It is therefore imperative to study the attitude of medical professionals, and radiographers in particular, to PG training and also find out from them what factors could improve enrollment into such programmes [7]. The specific objectives of this study are to assess the awareness level of the existence of PG programmes, the willingness to enroll for such programmes and, also to find out whether radiographers in the two states have the desire to bolster their knowledge base through self-sponsored, self-motivated PG enrollment.

Materials and methods

A semi-structured questionnaire was designed and self-administered and

Table 1: Radiographers' attitude to PG education

	Edo	Lagos	Significance
Awareness	31 (94%)	39 (93%)	P>0.05
Willingness	24 (73%)	36 (86%)	P>0.05
Self-motivation	16 (48%)	19 (45%)	P>0.05
PG needed for role extension	28 (85%)	36 (86%)	P>0.05

Table 2: Obstacles to PG enrolment

	Edo	Lagos	Total	Significance
Unstable university system	27 (82%)	41 (98%)	68 (91%)	P>0.05
Lack of career advancement	32 (97%)	42 (100%)	74 (99%)	P>0.05
Financial constraint	33 (100%)	42 (100%)	75 (100%)	P>0.05
Logistic problems	29 (88%)	41 (98%)	70 (93%)	P>0.05

Table 3: Influencing factors to improve PG enrolment

Factors	Edo: n=33	Lagos: n=42	Total: n=75	Significance
Remuneration; promotion; salary for those with PG qualification	33 (100%)	42 (100%)	75 (100%)	P>0.05
PG studies as residency programmes	24 (73%)	26 (62%)	50 (67%)	P>0.05
Sponsorship	32 (97%)	40 (95%)	72 (96%)	P>0.05
Decentralization of PG programmes	31 (94%)	41 (98%)	72 (96%)	P>0.05

Table 4: Disposition to self-sponsored PG education

	Edo	Lagos
Strong self-sponsorship desire	13 (39%)	15 (36%)
Self-sponsorship is part of immediate plan	8 (24%)	13 (30%)
Would sponsor self within the next one year	16 (48%)	18 (43%)

retrieved. Radiographers with only a basic qualification, namely a Bachelor of Science (B.Sc) degree, Diploma of the College of Radiography (DCR) or the Diploma of the Institute of Radiography (DIR), were eligible for the study. Prior to the study, six radiographers (three from each state) were interviewed. Responses and comments from this pilot study were noted and reviewed to provide a guide in the formulation and sequence of the questions^[8]. A questionnaire (research tool) was then designed and validated by two colleagues with vast research experience and who also possess post basic qualifications. A purposive sample of 85 (n=85) radiographers was used based on the selection of 37 participants (respondents) in Edo and 48 in Lagos. All respondents had full or provisional registration with the radiographers' registration board of Nigeria (RRBN). Respondents included radiographers in both public and private health institutions within the two

Nigerian states. The study was completed within six weeks. However, only 75 questionnaires were completed and returned by the respondents, thus there was an 88% response rate.

Data analysis

Statistical analysis was done using the statistical package for social sciences (SPSS) version 17.0. Descriptive statistics were derived from responses made, while inferential statistics were used to test differences in responses of radiographers in the two states and a two-tailed t-test was used to test for significance at $p < 0.05$.

Results

Among the 33 respondents in Edo state, 15 (46%) were males and 18 (55%) were females. Of the 42 respondents in Lagos, there were 22 (52%) males and 20 (48%) females. Among the respondents in Edo state, 31 (94%) said they were aware of opportunities to take up PG courses in radiography. In Lagos 39 respondents

(93%) stated they were aware of PG study opportunities. The respondents were asked if they would be willing to take up a PG in radiography. Their responses are presented in Table 1.

In terms of the respondents in Edo 24 (73%) stated they were willing to enroll in PG education courses compared to 86% of respondents in Lagos. Sixty-four (86%) respondents (n=28 in Edo and n=36 in Lagos) identified PG education as essential in radiographers' yearning for role extension. There were, however, no statistically significant differences ($p > 0.05$) in both groups' awareness level and willingness to enroll for a PG programme as well as the understanding of the importance of PG education in the attainment of role extension. On the issue of self-sponsorship (self-motivation) to acquire PG education just for the sake of knowledge alone, 16 (48%) of the Edo respondents, and 19 (45%) in Lagos, were willing. In other words 47% of respondents in both states expressed such sentiments. There was no statistically significant difference in the two states ($p > 0.05$). The difference between awareness and willingness to enroll for a PG course in radiography on one hand, and the readiness of respondents in both states to sponsor themselves to acquire PG qualification just for the sake of improved knowledge on the other, was also not statistically significant ($p > 0.05$).

On what they considered as hindrances to PG enrollment, 68 (91%) of respondents in the two states said that instability in the university system is a major obstacle (Table 2).

Seventy-four (99%) said a lack of a legal framework (financial reward) for career advancement for those with PG training is a disincentive. All the respondents in both states were unanimous that lack of sponsorship (financial aid) posed a major obstacle to PG enrollment. Seventy (93%) stated that a major challenge is a logistical problem since it would seem that there is an inadequacy in institutions offering PG courses in radiography.

On how to improve PG enrollment among radiographers generally, all the respondents believe that an enhanced pay structure to reflect the status of those with PG qualification(s) is essential; an enabling law permitting those with higher than the basic qualification to practice as specialists would greatly improve PG enrollment (Table 3).

Fifty (67%) said that introducing residency (the so called 'working-student programme') would improve PG enrollment. While 72 respondents (95%) indicated interest to enroll for PG programme, if sponsorship for overseas training, were made available; 64 respondents (85%) were of the view that more institutions should decentralize courses: weekend short courses, distant learning and internet-based PG programmes should be spread across the country in order to considerably improve PG enrollment.

On radiographers' disposition to self-sponsored PG education, 13 (39%) of the radiographers in Edo state said they are strongly disposed to self sponsorship, while 15 (36%) of their colleagues in Lagos state expressed the same opinion (Table 4).

Only 8 (24%) of the respondents in Edo state and 13 (30%) of those in Lagos state admitted having self-sponsored PG enrollment as part of their immediate plan. Sixteen (48%) and 18 (43%) of the respondents in the respective Edo and Lagos states said they would be willing to sponsor themselves within the next one year.

Discussion

Postgraduate studies prepare a graduate, among other things, for adaption to current trends in line with evidence-based practice. It is therefore an essential foundation in the training of radiographers; not just for better clinical practice but also to imbibe them with research mindedness that is needed to impact on their work environments. The findings of this study show: the awareness level of the existence of PG courses, and the willingness to enroll for such courses, is high among radiographers in the respective Edo and Lagos states of Nigeria. The respondents agree that post basic education is necessary for possible role extension for radiographers. However, their desire to enroll for PG courses appears to largely depend on whether, and when, such PG qualifications will attract an enhanced pay packet and also on whether sponsorship is available. It should be noted that only 35 (47%) respondents are willing to enroll in further studies to meet their primary interest to acquire more knowledge (academic reasons). This scenario is not entirely unexpected as basically all radiographers in Nigeria (except those employed as university teachers and perhaps a few others) are not remunerated and or promoted based on

evidence of PG qualifications. This study has thus established that although a majority of radiographers in the two states may wish to acquire PG qualification(s), poor remuneration may scuttle their desires. It also appears that radiographers in the two Nigeria states, compared to their counterparts in United Kingdom (UK) and New Zealand, are keener to take up PG courses. The attitude of UK and New Zealand radiographers, to continuous professional development (CPD) and PG education, has been described as 'ambivalent' ^[9]. However, this positive attitude of the Nigerian respondents is not backed up by self-motivation as only about 47% (rather below average) of all the respondents indicated interest to seek PG education even at cost to themselves. Only 28% of the respondents expressed a strong desire to undertake self-sponsored PG studies; 21% have self-sponsored education as part of their immediate plans while only 34% would consider self-sponsorship within the next one year period.

Although higher qualifications seldom attract higher pay among radiographers in Nigeria, it is not the only impediment to PG enrollment. The findings of this study, in terms of other impediments to PG enrollment among radiographers, include lack of government sponsorship, lack of legal backing, and job specification in the clinical setting for radiographers with higher qualifications, financial handicap, logistic problems (institutions with PG courses are not always within easy reach of prospective enrollees), unstable university system (in Nigeria, academic programmes are frequently interrupted by persistent labour disputes between the government and the academic staff union of universities [ASUU], over sundry issues. This scenario makes the duration of most university courses in Nigeria unpredictable), over stretched work schedule and lack of opportunities for overseas PG training ^[10].

This study shows that radiographers in the two Nigerian states are positively disposed to PG. However, the respondents identified incentives to PG enrollment as being: government sponsorship; the introduction of residency programmes in radiography; enhanced pay with a law backing them to practice their chosen areas of specialization after qualification; the establishment of more PG study centres across Nigeria. It seems paradoxical that the same set of radiographers who are aware of PG study opportunities as

well as indicating a strong willingness to enroll for such PG programmes are the same people who are not so enthusiastic about self-sponsorship. The positive attitude found in the study tends to be rather negated by the seeming laissez-faire attitude of the respondents to self-sponsorship and self motivated studies. This fact may rather be an indicator of the financial inadequacy among the respondents rather than a negative attitude to PG education. Granted that although all the impediments identified by the respondents are pertinent, Nigerian radiographers should understand that knowledge acquisition through education is of paramount importance in role extension ^[11], while the lack of it is a barrier, both to research and informed decision making ^[12].

Recommendations

To be in tune with current global best practices, we recommend that it is imperative for Nigerian radiographers to enroll in PG courses to prepare them, not just for possible role extensions, but also to enable them to meet the challenges of adapting to new technologies. With the worldwide economic down-turn, waiting for government sponsorship may be counter-productive. Self-motivation may be the key for now, so we suggest a re-ordering of priorities among radiographers in the two states that favour PG enrollment. Government must create an environment that is conducive for interested radiographers to take up PG studies. It is our recommendation that a comprehensive legislation to make radiography more attractive as a profession should be enacted in Nigeria. We also recommend that institutions already offering PG courses should consider decentralizing their programmes and that they should place more emphasis on internet based and short duration studies rather than on conventional classroom type of education. More institutions should set-up PG programmes at different geographical locations in Nigeria. We equally recommend that in view of the present economic situation, it is better to look inwards instead of laying too much emphasis on overseas training as this study suggested. There is however evidence to show that PG training in Nigeria does not meet the requirements of regulators in both the education and health ministries. If all these are put in place more radiographers would probably enroll for PG programmes and sooner than later, radiographers with post basic qualifica-

tions will cease to be scarce commodities in Nigeria.

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