

Major Challenges Faced By Intern Radiographers in Northern Nigeria

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Abstract: Study is aimed at identifying challenges faced by intern radiographers in Northern Nigeria. A univariate descriptive survey was adopted. Intern Radiographers in hospitals in Northern Nigeria were invited to complete questionnaire purposely designed to assess challenges involving their training/practice, welfare and mentorship. Also a standard interview guide was for used the chief interns of participating hospitals to assess facilities, manpower, and practice. Data was analyzed using SPSS version 16.0. A total of 55 questionnaires were distributed, out of which 50 were returned filled, providing a return rate of 85.7%. Challenges faced include; interns (34%) spending 8-14 months from graduation before securing a placement, lack of proper orientation by hospital management at commencement (72%), inadequate supervision (73%), no radiation monitoring devices provided (60%), lack of accommodation (60%), poor response of managements to welfare (40%) and lack of functional radiologic equipment with few senior ranking clinical radiographers in the region (21.9%). The study reveal that the major challenges faced by intern radiographers in this region are interrelated, which are inherent in training/practice, and mentorship. The major challenge faced was poor mentorship programme. A more robust periodic monitoring of centers by regulatory body was identified as the panacea for practice improvement.

Keywords: Challenges, Intern, Intern Radiographer

I. Introduction

Radiography is the art and science involving the use of different forms of radiant energy for the purposes of diagnosis and therapy [1]. Radiography is practiced by someone trained in an approved and accredited institution and licensed by a designated authority/regulatory body of the country where the individual wishes to practice. Each country has its own regulatory body like the Radiographers Registration Board of Nigeria (RRBN) in Nigeria. Others include; Health and Care Professions Council (United Kingdom), Australian Institute of Radiography, American Registry of Technologists, Canadian Association of Medical Radiation Technologists (CAMRT) etc.

RRBN was established by Decree No. 42 of 1987, now Cap R1 Laws of the Federal republic of Nigeria 2004. This is the regulatory body tasked with determining the standards of knowledge and skills that should be attained by persons seeking to become members of the profession. The board also maintains a register of members of the profession and publish from time to time list of licensed persons [2]. For an individual to practice radiography in Nigeria, the individual needs to undergo a formal radiography related university education [1]. On graduation, each candidate is inducted by RRBN and is allowed to undergo one year internship program in any hospital approved by RRBN.

Therefore, internship is a supervised practical training undertaken by a students or recent graduate with an emphasis on the job training rather than merely employment [3]. This training period was introduced in the health sector due to the low clinical practice experienced by health graduates. In other words, internship aims to develop a practical experience for beginners in an occupation or profession by providing a supervised practical training. Radiography graduates undertake the internship as 48 full time equivalent weeks of professional clinical practice. With 40 working hours per week and on call duties. During this period it is expected that a radiography graduate would experience and subsequently perform a range of clinical procedures as they progress towards independent practice. These clinical procedures include; skeletal radiography, plain radiography of viscera and soft tissues, contrast agent examinations, dental radiography, paediatric radiography, ward radiography, procedures in the operating theatre, computerized tomography, ultrasound radiography, radionuclide, magnetic resonance imaging, therapeutic procedures etc. [4]. An intern is expected to perform the aforementioned procedures under the supervision of well-trained, qualified and certified/licensed radiographers in accordance with the guidelines from RRBN either directly or indirectly.

Direct supervision is done under the physical presence of the Radiographer, during the conduct of any procedures. He reviews the procedure in relation to the intern's achievement, evaluates the condition of the patient in relation to the intern's knowledge, and reviews and approves the procedure and/or image. During indirect supervision the radiographer is immediately available to assist the intern regardless of the level of intern achievement [5]. This period which could be classified as a transitional period from studentship to professional practice, could come with some challenges thereby affecting the competency of graduates during full time practice. A report on the challenges of internship in general indicates that students lament over unpleasant experience before, during and on completion of internship [6]. These challenges, if not properly identified and tackled could cause the non-accomplishment of the main objective of internship. This is applicable to all professions with radiography not an exception. To the best of the researcher's knowledge; no study has been done within this locality to identify such challenges in Radiography. Therefore, this present study is aimed at identifying these challenges faced by intern radiographers in Northern Nigeria.

II. Subjects and methods

The present univariate descriptive survey study was conducted on 50 participants. These were Intern Radiographers trained in accredited health institutions in Northern Nigeria. A cluster sampling technique was adopted with two institutions randomly selected from each of the three geopolitical zones (clusters) in the North. The questionnaire was designed using reports from previous similar surveys. The questionnaire was a 34-item structured one, designed to identify the challenges faced by intern radiographers. The first part of the questionnaire included the participant's demographic details, and the second part included questions to assess challenges in training/practice. The 3rd and 4th parts were dedicated to assessing challenges related to welfare and mentorship respectively. The questionnaires were sent with a cover letter stating the objectives of the study and that participation was voluntary. Participants were made to consent to participation and all questionnaires were anonymized. Also a standard interview guide was used to interview the chief interns of the participating hospitals to assess facilities, manpower, and practice. All responses were extracted, grouped and analyzed using the statistical package for social sciences (SPSS) 16.0 (IBM, New York, USA), where descriptive statistics such as frequency counts, mean, and percentage were generated and the results presented on tables and figures.

III. Results

A total number of 55 questionnaires were distributed, 50 were accepted and returned giving a response rate of 85.7%. This consisted of 31 (62%) males and 19 (38%) females, with age range of 21-30 years (mean or 26 years +/-2.74 SD) (See table 1 for participants demographics).

Table 1: Demographic Data of Participants

VARIABLES	FREQUENCY	PERCENTAGE (%)
SEX		
Male	31	62
Female	19	38
AGE RANGE (YEARS)		
21-25	12	24
26-30	38	76
Distribution of respondents based on where they were trained		
BUK	6	12
UNEC	2	4
UNIMAID	32	64
UNN	10	20
Distribution of Interns Based on Internship Placement		
UMTH, Borno State	7	14
AKTH, Kano	14	28
ABUTH, Kaduna	8	16
NHA, Abuja	8	16
JUTH, Plateau	6	12
FUTH, Gombe	7	14

Table: 2 Challenges Before Commencement of Internship

VARIABLES	FREQUENCY	PERCENTAGE (%)
Time elapsed between induction and securing placement for Internship		
1-3 Months	17	34
4-7 Months	17	34
8-12 Months	11	22
Above 1 yr	5	10
Time elapsed from completion of degree programme to being inducted by RRBN		
1-3 Months	25	50
4-7 Months	17	34
8-12 Months	4	8
Above 1 yr	4	8
Was there any proper orientation programme organized by management at the start of internship?		
Yes	14	28
No	36	72

Table 3: Challenges During Internship

VARIABLES	FREQUENCY	PERCENTAGE (%)
How long were you under supervision before being allowed to work without direct supervision?		
< 1 Month	16	32
1 Month	23	46
2 Months	6	12
Not Applicable	5	10
How long from start of internship before being placed to work alone during call?		
< 1 Month	11	22
1 Month	23	46
2 Months	9	18
Not Applicable	7	14
Are you paced on work rotation to various units?		
Yes	42	84
No	8	16
How would you rate your level of satisfaction with the rotation practice in the department?		
Excellent	12	24
Good	37	74
Very Poor	1	2
How long from start of internship before being placed to work alone during call?		
< 1 Month	11	22
1 Month	23	46
2 Months	9	18
Not Applicable	7	14
Rating for rate of satisfaction with supervision		
Adequate	14	28
Moderately Adequate	26	52
Inadequate	8	16
Grossly Inadequate	2	4
Rate the level of satisfaction with radiation protection accessories and working environment		
Very Satisfied	8	16
Satisfied	31	62
Dissatisfied	10	20
Strongly Dissatisfied	1	2

Table 4: Radiological equipment available, faulty and accessible at the participating institutions

	Available (%)	Non-Accessible (%)	Accessible (%)
CT	100	33.3	66.7
MRI	83.3	66.7	33.3
Mammography	100	33.3	66.7
X-ray Unit	100	00.0	100
US	100	83.4	16.6
Fluoroscopy	50	83.4	16.6
CR	33.3	83.4	16.6
Angio Unit	33.3	83.4	16.6
Orthopantomography	16.6	00.0	100

Table 5: Challenges with Welfare

VARIABLES	FREQUENCY	PERCENTAGE (%)
Placement for Radiography Interns		
Conhess 7/3	1	2.86
Conhess 8/1	23	65.71
Conhess 8/2	5	14.29
Above Conhess 8/2	6	17.14
Rating for level of satisfaction with response of practicing radiographers towards Interns' Welfare		
Very Satisfied	5	10
Satisfied	32	64
Dissatisfied	12	24
Very Dissatisfied	1	2
Rating for level of satisfaction with response of Hospital Management towards welfare		
Very Satisfied	2	4
Satisfied	26	52
Dissatisfied	21	42
Very Dissatisfied	1	2
Are you provided with accommodation?		
Yes	20	40
No	30	60

Table 6: Mentorship

VARIABLES	FREQUENCY	PERCENTAGE (%)
Distribution of Practicing Radiographers based on rank		
Senior	20	48.8
Principal	12	29.3
Asst. Chief	3	7.3
Chief	3	7.3
Asst. Director	3	7.3
Deputy Director	0	0
Are there mentorship programs implemented in the department?		
Yes	13	26
No	37	74
Reaction of Practicing Radiographers towards interns when interns struggle with procedures		
Calmly	26	52
Moderately Calm	22	44
Abusively	2	4

IV. Discussion

The identification of challenges around a particular concept is essential in the improvement of the concept in question. This was the central point of the present study, which was to identify the challenges encountered by intern radiographers in Northern Nigeria. Findings from the study show that majority of the respondents were males (62% against 38%), which could be linked with the low of girl child education in the region [7]. Majority of the interns were trained at the University of Maiduguri and may due to the institution being the university in the region to offer BSc programme. Only a small percentage of interns came from the southern part of the country, and this may be due to the state of insecurity in the North. Table 2 reveals that majority of the respondents (72%) felt that they were not given proper orientation at the commencement of internship practice and 78% of them were supervised for a month only and less before being allowed to work alone during working and call duty hours without direct supervision. These may have a negative effect on the training with many of them taking longer time to perfect in performing certain radiographic procedures and this may affect their clinical skills during full time practice. Only 40% of the respondents were given radiation monitoring devices, for this reason many of them may not know the amount of radiation they received during the internship training period and this may predispose them to greater radiation hazards. A good percentage of the respondents (84%) were placed on rotation to various units and 98% of them were satisfied with the rotation system in the department; however, some of the facilities though available were non-accessible to interns either due to faulty equipment or interns not allowed to touch the equipment. As a result of this, interns may have less experience in the use of some of the sophisticated imaging modalities on completion of internship. Table 5 shows interns responses on welfare. About 97% of the interns were placed on Conhess 8/1 and above; however, 42% were not satisfied with the response of hospital management towards their welfare as majority (60%) were not offered accommodation but majority (74%) were satisfied with attitude of practicing radiographers towards their welfare. Mentorship was found to be a matter of concern based on the findings. About 78.1% of the practicing radiographers in the region were on the rank of principal radiographer and below while the remaining 21.9% were on the rank of Assistant Chief and above. This is an indication that mentorship in the region is below par as mentorship is about highly experienced person mentoring the less experienced ones [8].

V. Conclusion

The study reveal that the major challenges faced by intern radiographers in this region are interrelated, which are inherent in training/practice, welfare and mentorship, though welfare is a bit optimal. The major challenge faced was poor mentorship programme, as there were very few top ranking radiographers in the region. A more robust periodic monitoring of internship centers by regulatory body was identified as the panacea for further improvement of the practice. This study is limited by the fact that analysis was done based on respondent's responses and some may not have given sincere responses

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