

The Impact of Covid-19 Pandemic on Academic and Professional Development Programmes Organized by the Radiographers Registration Board of Nigeria

Michael Promise Ogolodom^{1*}, Awajimijan Nathaniel Mbaba², Victor Kelechi Nwodo¹, Christopher Chukwuemeka Ohagwu¹, Hyacienth Uche Chiegwu¹, Muhammad Akram³, Daniel Chimuanya Ugwuanyi¹, Valentine C. Ikamaise⁴, Michael Sunday Okpaleke¹, Angel-Mary Chukwunyelu Anakwue⁵, Joseph Chukwuemeka Eze¹, Oluwafemi O. Egbeyemi⁶, Muhamed Sidi⁷, Uche Nathaniel Eja-Egwu

¹Department of Radiography and Radiological Sciences, Nnamdi Azikiwe University Awka, Nnewi Campus, Nigeria

²Rivers State University Teaching Hospital, Port Harcourt, Rivers State, Nigeria

³Department of Eastern Medicine Government College University Faisalabad-Pakistan

⁴Department of Radiography and Radiological Sciences, University of Calabar, Nigeria

⁵Department of Radiography, University of Nigeria, Enugu Campus, Nigeria

⁶Department of Radiography and Radiation Sciences, Ajayi Crowther University, Oyo State, Nigeria

⁷Department of Medical Radiography, Bayero University, Kano State, Nigeria

***Corresponding author:**
Michael Promise Ogolodom

✉ mpos2007@yahoo.com

Department of Radiography and Radiological Sciences, Nnamdi Azikiwe University Awka, Nnewi Campus, Nigeria

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Abstract

Background: The policy response to subdue the spread of Covid-19 initiated by the Radiographers Registration Board of Nigeria (RRBN), has serious impact on its academic programmes. This study aimed at assessing the perception of the impact of Covid-19 pandemic on the academic progress of participants of the RRBN programmes.

Materials and Methods: This was a questionnaire-based descriptive survey. We employed both hardcopy and electronic version of the questionnaire in this study. The completed hardcopy questionnaires were retrieved immediately while the responses from the electronic version were retrieved electronically. The data obtained were analyzed using descriptive statistics.

Results: Majority 82.35% (n=98) of the respondents perceived that Covid-19 pandemic affected their academic advancement due to the suspension of RRBN programmes. Majority 88.24% (n=105) of the respondents agreed that they could have gotten a new job if they had completed the programme. Majority 43.70% (n=52) of the respondents were mostly affected during their coursework. The respondents 100% (n=119) agreed that the board should reduce the cost of the programme at this period. A larger number 86.55% (n=103) of the respondents perceived Covid-19 pandemic to affect their normal work place duties. All the respondents 100% (n=119) said that RRBN had earlier fixed their programme activities, which were suddenly cancelled due to the pandemic.

Conclusion: This study has shown the negative impact of Covid-19 pandemic on the academic programmes of the RRBN, which include undue delay in completion of the programmes with concomitant increase in expenses and loss of job opportunities.

Keywords: Covid-19 pandemic; Radiographer's programmes; Radiographers Registration Board of Nigeria

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Introduction

Coronavirus disease (Covid-19) is a highly communicable disease which was first reported in Wuhan in Hubei province; China on 19th December 2019 and rapidly became a pandemic [1, 2]. It has been reported in many countries of the world and Nigeria recorded her first case on 27th February 2020 [3]. The World Health Organization (WHO) classified Covid-19 as a pandemic on 11 March 2020 [4]. The Covid-19 pandemic has resulted in

an unprecedented health care crisis and devastated economic activities worldwide.

Nigeria; like many other nations; embarked on measures to quell the spread of Covid-19 with the Nigerian Centre for Disease Control (NCDC) at the helm of affairs. These measures adversely impacted on every facet of human endeavour including radiography as evidenced by rapid publications of national and international guidance on changing radiography schedules [5-7] with differing levels of evidence to support the recommendations [6, 7]. A study in Nigeria documented the impact of the pandemic on the health care workers as it relates to health care delivery [8].

The policy response to contain the spread of Covid-19 initiated by the Radiographers Registration Board of Nigeria (RRBN); the body saddled with the responsibility to regulate radiography profession [9] negatively impacted on its academic programmes. The board response to the pandemic included the suspension of its numerous programmes. The resultant downstream effect was a delay of academic progress of student and graduate radiographers. The programmes of the radiographers' board include among others the postgraduate diploma in ultrasound and echocardiography. Others are courses in magnetic resonance imaging; mammography; computed tomography; pattern recognition and dental radiography [9]. Many radiographers needed these programmes to apply for jobs; admissions and promotions at work. The interim suspension of these professional development programmes of RRBN invariably led to delay in the academic progress of many young radiographers and stagnation in professional status with detrimental economic impact. This may have also affected many students and young graduate Radiographers in various ways; which have not been properly explored. This study aimed at assessing the impact of the Covid-19 pandemic on the academic progress of Radiographers enrolled in Board programmes.

Materials and Methodology

A cross-sectional survey targeting radiographers enrolled in academic and professional development programmes organized by RRBN was conducted. The data collection instrument was a 26 items structured and self-completion questionnaire designed by the authors in line with the aim of the study. The validity of the questionnaire was calculated using the index of Item Objective Congruence (IOC) method used by previous authors [8, 10]. The content validity of the questionnaire was assessed by calculating the IOC. Based on the index parameters; an IOC score >0.6 was assumed to show excellent content validity. All the scores obtained in this study for all the items of the questionnaire after IOC interpretation were >0.6. Twenty copies of the questionnaire were pretested among selected enrollees in academic and professional development programmes organized by RRBN before the commencement of data collection. A Cronbach alpha reliability value of 0.86 for internal consistency was obtained before data collection commenced.

The questionnaire consisted of two sections. The first section contained questions on the participants' sociodemographic

variables namely age, gender, marital status, years of experience, practice location, health sector, programme enrolled in at the RRBN and Radiographers' registration status. The second section consisted of 19 questions which evaluated the participants' perception of the impact of Covid-19 pandemic on their programmes. Both the hardcopy and an electronic version of the questionnaire were administered to the respondents. The electronic version designed using the Enketo Express for Kobo Toolbox was used to obtain information from the participants who were not proximate with the researchers. The link of the electronic version of the questionnaire was sent to the respondents through their email addresses and Whatsapp platforms where they had access to fill the questionnaire. The hardcopy was administered to the respondents by direct issuance. The completed copy of the questionnaire was retrieved immediately after being filled out by the respondent while the responses from the electronic version were collated in an electronic spreadsheet.

The purpose of the study was explained in the questionnaire and the respondent's consent to participate in the study was sought before his participation. The respondent's private information was treated with confidentiality. The respondents were instructed to fill the questionnaire just once to avoid duplication of data and their participation in this study was entirely on voluntary bases.

The data generated in this study analysed using the Statistical Package for Social Sciences (SPSS) version 21.0 (SPSS Inc, ILL, USA, 2003). The data were analyzed using descriptive statistical tools such as frequencies and percentages and presented in tables and charts.

Results

The respondents were made up of 60.5% (n=72) males and 39.5% (n=47) females. **Table 1** Shows the socio demographic characteristics of the respondents. A majority of the respondents (48.7%, n=58) were within the age group of 30-39 years. A greater proportion of the respondents 64.7% (n=77) were married (64.71%) while 35.3% (n=42) were not married. A majority of 48.7% of the respondents (n=58) had practiced radiography for 5-9 years. The respondents predominantly (60.5%, n=72) practiced in cities. The respondents were predominantly private sector employees (68.9%, n=82).

Table 1: Socio-demographic data of the respondents.

| Social demographic variables | Frequency | Percentage |
|------------------------------|-----------|------------|
| Age (years) | | |
| 18-29 | 5 | 4.2 |
| 30-39 | 58 | 48.7 |
| 40-49 | 41 | 34.5 |
| 50-59 | 15 | 12.6 |
| TOTAL | 119 | 100 |
| Marital Status | | |
| Married | 77 | 64.7 |
| Single | 42 | 35.3 |
| TOTAL | 119 | 100 |
| Years of Experience | | |

| | | |
|--------------------------|-----|------|
| <5 years | 34 | 28.6 |
| 5-9 years | 58 | 48.7 |
| 10-14 years | 18 | 15.1 |
| 15-19 years | 6 | 5.04 |
| 20-24 years | 3 | 2.52 |
| 25-29 years | 0 | 0 |
| TOTAL | 119 | 100 |
| Practice Location | | |
| Suburban | 31 | 26.1 |
| City | 72 | 60.5 |
| Rural | 16 | 13.4 |
| TOTAL | 119 | 100 |
| Health sector | | |
| Private | 82 | 68.9 |
| Public sector | 37 | 31.1 |
| TOTAL | 119 | 100 |

Figure 1 Shows the distribution of the respondents according to the practice specialty. A majority of the respondents 65.5% (n=78) practiced ultrasonography. A majority of the respondents 68.07% (n=81) were fully registered radiographers as shown in **Figure 2**.

A majority of the respondents 82.35% (n=98) perceived that Covid-19 pandemic affected their academic advancement due to the suspension of the academic and professional development programmes of RRBN. All the respondents 100% (N=119) changed

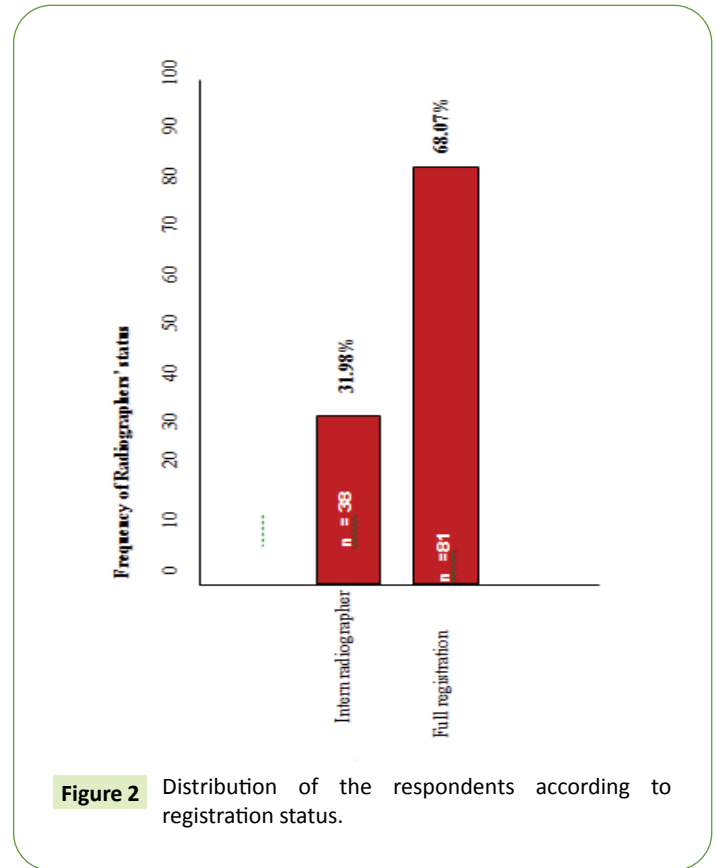


Figure 2 Distribution of the respondents according to registration status.

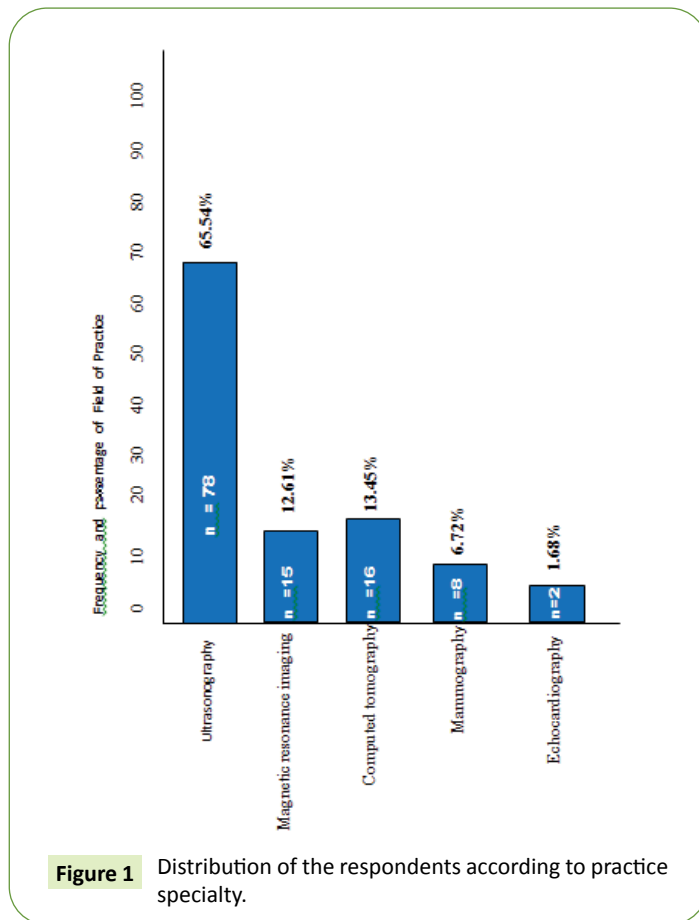


Figure 1 Distribution of the respondents according to practice specialty.

their academic advancement plans following the suspension of the academic and professional development programmes. A majority of the respondents 88.24% (n=105) thought that they could have gotten a new job if they had completed the programme. Also, 89.92% (n=107) of the respondents perceived Covid-19 pandemic to have greatly affect their programmes. The respondents were mostly affected were at coursework stage (43.7%, n=52); 21.01% (n=22) at examination stage (21.01%) and 15.13% (n=18) at graduation stage as shown in **Table 2**.

All the respondents were of the opinion that the Board should reduce the cost of the programmes during this period of the pandemic as shown in **Table 2**. The Covid-19 pandemic was perceived to have affected the normal work place duties by 86.55% (n=103) of the respondents. All the respondents indicated that their fixed their programme of activities were suddenly cancelled due to the pandemic while 74.79% (n=89) had secured approvals from their employers to attend the Board programme before the pandemic as shown in **Table 2**.

Out of 74.79% (n=89) respondents that did not attend the Board programmes due to the pandemic after obtaining approval to attend, 58.42% (n=52) felt comfortable while 6.74% (n=6) were not sure of how they felt. Also, 58.82% (n=70) of the respondents opined that the Board wasted money in the re-organization of the programme following the Covid-19 pandemic.

In terms of financial involvement in the programme, majority of the respondents 86.7% (n=96) think they spent more money on the programme during the pandemic than the precovid-19 era.

The perceived expenses were adjudged to be twice the previous ones by 43.7% (n=52). A greater proportion of the respondents 62.18% (n=74) wanted the Board to complete the course work before conducting the written the examinations **Table 2**.

Table 2: Impact of Covid-19 on Radiography Board Programmes in Nigeria.

| S/N | Questions | Frequency | Percentage |
|-----|---|------------|------------|
| 1 | Do you think Covid-19 affected your academic advancement as regards the suspension of radiographers' board programmes? | | |
| | Affected | 98 | 82.35 |
| | Mainly affected | 21 | 17.65 |
| | Mainly not affect. | | |
| | Not affected | | |
| | Not specified | | |
| | TOTAL | 119 | 100 |
| 2 | Did you have to change your academic advancement plans following the suspension of radiographers' board programmes? | | |
| | Yes | 119 | 100 |
| | No | | |
| | TOTAL | 119 | 100 |
| 3 | Do you think you could have gotten a new job if you had undergone the programmes? | | |
| | Yes | 105 | 88.24 |
| | No | 14 | 11.76 |
| | TOTAL | 119 | 100 |
| 4 | How did Covid-19 affect your programme? | | |
| | Greatly | 107 | 89.92 |
| | Slightly/moderately | 12 | 10.08 |
| | Not at all | | |
| | TOTAL | 119 | 100 |
| 5 | Which areas of your programme has this pandemic affected? | | |
| | Course work | 52 | 43.7 |
| | Examination | 22 | 21.01 |
| | Graduation | 18 | 15.13 |
| | Project writing | 27 | 20.16 |
| | Others | | |
| | TOTAL | 119 | 100 |
| 6 | Do you think radiographer's board should reduce the cost of the programme at this period of the pandemic? | | |
| | Yes | 119 | 100 |
| | No | | |
| | TOTAL | 119 | 100 |
| 7 | Does the impact of the Covid-19 pandemic on your program affect your normal workplace duties? | | |
| | Yes | 103 | 86.55 |
| | No | 16 | 13.45 |

| | | | |
|----|---|--------------|------------|
| | TOTAL | 119 | 100 |
| 8 | Did Radiographers Board fix any of the program activities; which was suddenly cancelled due to the pandemic? | | |
| | Yes | 119 | 100 |
| | No | | |
| | TOTAL | 119 | 100 |
| 9 | Where you permitted from your work place to attend Radiographers Board programme before the episode of the pandemic? | | |
| | Yes | 89 | 74.79 |
| | No | 30 | 25.21 |
| | TOTAL | 119 | 100 |
| 10 | If yes to the question above; how did you feel when the programme was cancelled due to pandemic? | | |
| | Sad | 20 | 22.47 |
| | very sad | 11 | 12.36 |
| | Comfortable | 52 | 58.42 |
| | not sure | 6 | 6.75 |
| | TOTAL | 89 | 100 |
| 11 | Radiographer Board had wasted so much money during the Covid-19 pandemic especially in re-organization of the program; re-printing and dissemination of information on the status of the program | | |
| | Agreed | 70 | 58.82 |
| | Strongly Agreed | 15 | 12.61 |
| | Disagreed | 6 | 5.04 |
| | Strongly Disagreed | 4 | 3.36 |
| | Not sure | 24 | 20.17 |
| | | TOTAL | 119 |
| 12 | Have the Board resumed the programme you enrolled into? | | |
| | Yes | 89 | 74.79 |
| | No | 30 | 25.21 |
| | TOTAL | 119 | 100 |
| 13 | How would you compare your performance in the program pre-Covid-19 pandemic to this period? | | |
| | Excellent | 12 | 10.08 |
| | Very Good | 35 | 29.41 |
| | Good | 52 | 43.7 |
| | Poor | 3 | 2.52 |
| | Very Poor | | |
| | No idea | 17 | 14.3 |
| | TOTAL | 119 | 100 |
| 14 | In terms of financial involvement; do you think you spend less in the programme now when compared to pre-Covid-19 pandemic era? | | |
| | Yes | 23 | 19.33 |
| | No | 96 | 80.69 |
| | | TOTAL | 119 |
| 15 | How would you rate your expenses now? | | |

| | | |
|---|-----|-------|
| Two times the previous expenses | 52 | 43.7 |
| Three times the previous expenses | 35 | 29.41 |
| Four times the previous expenses | 13 | 10.92 |
| No idea | 19 | 25.8 |
| TOTAL | 119 | 100 |
| 16 If you are at the course work stage of the programme; following the delay of the program and financial involvement due to Covid-19 pandemic; do you think the Board should resume the program with examinations without completing the course work? | | |
| Yes | 45 | 37.82 |
| No | 74 | 62.18 |
| TOTAL | 119 | |

Discussion

The Covid-19 pandemic has had a tremendous impact on the global economy with evaporation of economic activities of several sectors including education. The result of this study revealed that majority of the respondents perceived their academic advancement plans to be thwarted due to the suspension of the RRBN programmes following the Covid-19 pandemic. This implies that the Covid-19 precautionary measures to quell the spread of COVID-19 undertaken by the RRBN negatively affected the participants' academic plans. Our observation is in consonant with the observation documented by Verhoeven et al. [11]. According to Verhoeven et al. [11] in their study; which evaluated the consequences of Covid-19 pandemic on the core competences of the general practice; they observed that the Covid-19 pandemic as well as the control measures have great impact on health.

Our findings revealed that majority of the respondent's academic programmes were affected by the pandemic, as a good number of them were affected during their coursework and they consequently lost offers of new jobs during this period due to the delay in the completion of their programmes as most reputable employers always request for certificates of proficiency in the required job.

In our study, we found that the respondents agreed that the RRBN should reduce the cost of the programmes especially at this period of the Covid-19. This is so because a lot of the respondents worked in the private sector and were financially down due to the economic downturn that snowballs from the Covid-19 pandemic.

In this study, we found that majority of the respondents perceived their normal work place duties to be greatly affected as many of them had already obtained permission and possibly embarked on journey to their various study centers before the outbreak of Covid-19; which led to the suspension of the board programmes. The alteration in the normal economic activities of various industries due to Covid-19 pandemic has been documented also by Cavallo and Forman [12]. According to Cavallo and Forman [12], the necessary measures taken to prevent the spread of Covid-19 has resultant downstream consequences; which

impacted negatively on the economy; as economic activity in various sectors vanished.

The suspension of the board programmes by RRBN as a measure to curtail the spread of Covid-19 has also affected the board, which according to the respondents, the radiographer's board had spent so much money for the re-organization of the suspended programmes especially through adequate dissemination information and updates on the status of the programmes. This finding is in consonance with the observation documented by Cavallo and Forman [12]. In the study conducted by Cavallo and Forman [12], which evaluated the economic impact of Covid-19 pandemic on the radiology practice, reported that academic; private and community care systems also experienced significant shortfall in revenues alongside with increased expenditures from facility modifications and increased numbers of staff.

We also found in our study that majority of the respondents spent more money now in the programme than the pre-covid-19 era and those whose expenses now were twice the previous expenses in the programme before Covid-19 pandemic were highest. This could be ascribed to the fact that Covid-19 pandemic has affected every facet of the economy; which led to drastic increase in the price of goods and services and also reduction in both salaries and the number of staff in most facilities.

Despite the fact that the respondents perceived their expenditure in the programme now to be higher than the pre-covid-19 era, greater numbers of the respondents at course work levels; agreed that the board should complete all the course contents before giving them an examination.

The major limitation of this study is that we did not capture information on radiography programmes run in the universities in Nigeria. This is because during the period of this study; majority of the schools offering radiography programmes were not in session. Further study should be carried out to evaluate the impact of Covid-19 pandemic on Radiography universities' students in Nigeria.

The respondents also recommended the followings measures to close the gap created by the pandemic on academic programmes, virtual lecture and reduction in school charges; devising other ways of accessing project writing; adopting pandemic protocols and adopting online course and clinical demonstrations.

Conclusions

This study has shown the negative impact of Covid-19 pandemic on the academic programmes of the Radiographers Registration Board of Nigeria; which include undue delay in completion of the programmes with concomitant increase in expenses and loss of job opportunities. It is deemed necessary that the board should devise other means including online courses and clinical demonstrations to close the gap created in the academic programmes at times like this.

Conflicts of Interests

The other authors have no conflicts of interest to disclose.

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