Perceptions of physiotherapy as a possible career choice among prospective university students in Nigeria

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Abstract

Objectives: This study was carried out to determine the preferences of students in selecting physiotherapy as a career choice and the factors that play key roles in their selection.

Methods: A cross-sectional study involving 297 subjects ranging from 14 to 21 years of age was conducted among prospective university students. They were recruited from seven secondary schools in selected local government areas of Lagos state using a purposive sampling technique. A 14-item questionnaire, comparing physiotherapy to 11 selected occupations on six dimensions, that is, level of physical stress, salary, usefulness to society, responsibility, social status, and personal recognition as well as investigating factors considered important in selecting a career, was adapted from relevant literature. The data was analysed using mean, standard deviation, and Kendall’s coefficient of concordance.

Results and discussion: The responses of 184 males (62.0%) and 113 females (38.0%) were used in the data analysis of this study. Physiotherapy was ranked fourth in terms of level of physical stress, third in terms of salary, fifth in terms of usefulness, fourth in terms of responsibility, fourth in terms of social status, and fourth in terms of personal recognition. Overall, physiotherapy was rated as the fourth-most preferred occupation. Prospective university students perceived physiotherapy as having a high level of occupational prestige, rating it fourth after medicine, engineering, and law.

Conclusions: The profession of physiotherapy is held in high esteem and is seen as a desirable career choice among Nigerian high school students.

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Introduction

Before choosing a career, it is imperative to gain as much information as possible to avoid dissatisfaction and redundancy in an occupation not suitable to one’s aspirations. A career choice is a complex and multifaceted phenomenon, which makes it difficult to predict and understand. There are many competing theoretical approaches for occupational selection or career choice, but it is best understood as the interplay between individual agency and the contextual factors of structure and culture that enhance or construct one’s social world. According to Kochung, choosing a career has become a complex science with the evolution in information technology, the emergence of the post-industrial revolution, and job competition. While it was common practice in the past to select an occupation based on one’s family, in that children inherited their parents’ trade or business or sometimes titles and wealth, this is no longer the norm. Industrialisation and post-industrialisation have made it possible for some people to become richer, as long as they have the necessary expertise and knowledge. Today, one does not only have to engage in appropriate career planning but also exhaustive career research before making a career choice, so as to adapt to the constantly evolving socio-economic situation.

According to Salami, how the youth of today will meet the problems of tomorrow depends on the amount of effort they make in planning for the future. Planning for tomorrow is primarily done with the help of a student’s family, teachers, and school counsellors. Students need proper guidance and direction when entering the world of work, as the choice of career is a delicate issue that requires caution and serious reflection. A youth’s career choice can affect the entirety of their life. For example, it can determine where the individual lives and the type of friends he/she has. It will reflect an individual’s level of education and determine the financial resources that will be at his/her disposal. The factors affecting someone’s career choice can differ: many people desire a high income, others want adventure, while others want to serve people or make the world a better place. Every individual carries the unique history of their past and this determines how they view the world and the career path they choose to follow.

Another major influence on career choice is the social standing that members of a profession enjoy relative to other occupations. People make their educational choices depending on their social integration, and whether their expectations for better education and training dominate all the social levels. The social standing or prestige of an occupation is frequently of interest to its professional members. A previous study in Nigeria reported that the

The field of physiotherapy is a dynamic profession that offers tremendous opportunities in terms of academic learning, clinical practice, and research. Today, physiotherapists are autonomous professionals who take active roles in the prevention of disease and the promotion of wellness, as well as physical fitness and rehabilitation.

Globally, many comprehensive studies have been carried out on perceptions of the profession of physiotherapy, as well as its role in healthcare. These studies have elicited information from different groups such as high school students, future physiotherapists, other medical practitioners, and practicing physiotherapists. Several studies have evaluated the profession relative to other occupations. However, very few studies in Nigeria have evaluated the profession as a career choice in comparison to other occupations or professions, which may be seen as a serious omission in the marketing of the profession of physiotherapy in this country. Marketing the profession should be considered not only in terms of service uptake, but also in terms of desirability as a career selection, because the profession clearly requires sufficient clinicians of the highest calibre if future patient demands are to be met.

After over 50 years of independence, there is still only one physiotherapist for every 30 patients in most Nigerian hospitals, which is far below the recommended number of the World Health Organisation (WHO), which is one physiotherapist for every eight patients. However, Nigeria has less than 1000 physiotherapists serving about 140 million people, and most hospitals have very few or no physiotherapists attending to orthopaedics and trauma cases. This indicates a severe shortage in personnel and the need to promote the profession among young career seekers. Although there are no available statistics concerning the matter, many students who are admitted to university physiotherapy programmes apply because of their failure to secure admission into other preferred courses, such as medicine and surgery. That most undergraduates enter physiotherapy programmes as a last resort is undesirable for the future of the profession in 21st century Nigeria. Hence, this study is designed to evaluate social perceptions of physiotherapy relative to other occupations as a career choice among prospective university students in Nigeria.

Materials and Methods

Study design

A cross-sectional design was employed in this study.

Sample characteristics

A total of 326 secondary school students (male and female) participated in this study. They were recruited from selected public and private secondary schools in three local government council areas of Lagos state between May and October 2014. Before the commencement of this study, ethical approval was obtained from the Health Research and Ethics Committee of Lagos University Teaching Hospital, Idi-Araba Lagos, Nigeria and permission to conduct the
study in secondary schools was obtained from the district offices of the Lagos state Ministry of Education. The aim and objectives of the study were explained to the school authorities and the participants. The selection of local government council areas was done using a purposive sampling technique. When given the directive to carry out the study, informed written consent was duly obtained from the schools' administration and the students before involving them in the study. Data from students who were members of these schools but not in their final year were excluded from the analyses of this study. Copies of the questionnaires were distributed by hand to the participants by one of the researchers and collected after completion.

**Questionnaire design**

The questionnaire was adapted from two occupational prestige questionnaires: one designed by Turner and the other by Akinpelu et al. Copies of the questionnaire were sent to three randomly selected physiotherapists to ascertain the content validity. The questionnaire consisted of 14 closed-ended questions and was divided into the following two sections.

**Section A**

Collected the socio-demographic data of the participants regarding gender, age, class, parents' professions, availability of a mentor, and their mentor's profession.

**Section B**

Consisted of the evaluation of physiotherapy along with 12 different occupations under six different dimensions, namely: perceived level of physical stress, salary, usefulness to society, responsibility, social status, and personal recognition. The dimensions employed were derived from those present in both questionnaires. It also included questions concerning the important factors involved in career selection statements about career preferences and future ambitions. The students were requested to rank the listed 12 occupations using a 6-point, bipolar interval scale on six dimensions (i.e., perceived level of physical stress, salary, usefulness to society, responsibility, social status, and personal recognition). On the scale, 1 and 2 represented a low ranking, 3 and 4 a moderate ranking, and 5 and 6 a high ranking.

**Data analysis**

The data collected were analysed using the Statistical Package for the Social Sciences (SPSS) software, Version 21. Descriptive statistics of the mean, standard deviation, frequency, percentages, and bar charts were used to organise the results. The level of agreement among respondents for each dimension was measured using Kendall’s coefficient of concordance (Kendall’s W).

**Results and discussion**

A total of 326 copies of the questionnaire were distributed and 297 copies were returned and deemed valid for analysis, which represented a response rate of 91.1%. This included 184 (62.0%) males and 113 (38.0%) females. The ages of the respondents ranged between 14 and 21 years with a mean of 15.76 ± 1.061 year. Due to school policies on class distribution, it was not possible to distinguish between health science and technology students; these students were combined under the science course. The respondents were distributed among the science, commerce, and art programs (Table 1).

This study aimed to determine the perceived occupational prestige of physiotherapy as a career choice among prospective university students, in comparison to other selected occupations. There was high response rate of (91.1%) in this study, which might be a result of the mode of questionnaire distribution and retrieval from the respondents. This suggests that the results are representative of the subjects sampled. This assumption is in line with the findings of Akinpelu et al. and Turner, who also reported high response rates from their participants. There were more males than female respondents in this study, which is consistent with the findings of Akinpelu et al. who studied the perception of practicing physiotherapists of their occupation’s prestige. However, the results are inconsistent with those of Fahad et al., whose population consisted of university students.

Differences were found in the perceptions of Nigerian senior secondary school students and those of the participants in the studies of Turner and Akinpelu. The findings from this study showed that secondary school students in Lagos state in Southwestern Nigeria rated the profession of physiotherapy higher, which is consistent with the findings of Turner but inconsistent with those of Akinpelu. This result is also consistent with the findings of Fahad et al., who compared perceptions of physiotherapy among PhD physical therapy students in public and private universities and a short review by Rajan on the perceptions of physiotherapy as a profession.

By combining the univariate results, a profile of physiotherapy in relation to the 11 other occupations and professions was generated.

The respondents gave physiotherapy generally high ratings in all dimensions, especially for its level of salary. Within the health-related field, it was rated below medicine, but above medical laboratory science, pharmacy, and nursing. These results are consistent with the findings of Turner, who found that physiotherapy was perceived with an almost equal level of esteem.

Concerning the perceived level of physical stress, physiotherapy ranked below medicine and medical laboratory

| Table 1: Socio-demographic data of the respondents. |
|--------------------------------------------------|
| Parameters | Subgroups | Frequency (n) | Percentage (%) |
|-----------|-----------|---------------|----------------|
| Age group (yrs) | 14–17 | 284 | 95.60 |
| | 18–21 | 13 | 4.40 |
| Mean age (yrs) | 15.76 ± 1.061 | 95.60 |
| Sex | Female | 184 | 62.00 |
| | Male | 113 | 38.00 |
| Class | Arts | 85 | 28.60 |
| | Commerce | 97 | 32.70 |
| | Science | 115 | 38.70 |
science, but above pharmacy and nursing. Concerning perceived salary or income level, in both Turner and Akinpelu et al.,9 physiotherapy was ranked third. This result is inconsistent with the findings of Akinpelu et al. and Prendushi,16 which ranked physiotherapy as seventh and fourth, respectively. This may be due to the exposure of secondary school students in Lagos state to more information regarding physiotherapy as a profession. The level of perceived usefulness of health-related professions was considerably high, which displayed the respondents’ appreciation of the presence of health workers in society, although physiotherapy was not ranked high when compared to the results of previous studies.8,9

Regarding the perceived level of responsibility, three out of five of the listed health-related professions (i.e., medicine, physiotherapy, and medical laboratory science) were ranked in the upper and middle quarter of the occupations, indicating an above average association of a high level of responsibility with these professions. In addition, regarding social status, three out of five of the health professions (i.e., medicine, physiotherapy, and medical laboratory science) were ranked in the upper half. This represents an association of certain health professions with a fairly high or high social status. Regarding the perceived level of personal recognition, the health-related professions were highly ranked, with doctors and physiotherapists being ranked in the upper third of the listed occupations. Overall, of all six dimensions, physiotherapy was ranked among the top four occupations, which was a similar rating given by Australian physiotherapy students’ and Albanian physiotherapy students.16

The two factors with the highest mean scores were ‘education’ and ‘responsibility’. Taking a mean score of above 3.00 as an index of majority agreement to a question or statement, the secondary school students agreed that the level of education and amount of responsibility associated with the listed occupations determined their opinions when ranking. ‘Social image’ and ‘creativity’ were the least considered factors while ‘salary’, ‘authority’, and ‘autonomy’ were considered to be fairly important in the rankings. A line of consistency can be drawn regarding the students’ opinions of the factors of ‘salaries’, ‘responsibility’, and ‘contribution to society’. These are important factors in the classification of occupations, and the ranking of physiotherapy under the dimensions of salary, responsibility, and level of usefulness to society demonstrated high levels of approval by the students. This finding is inconsistent with the findings of Sibson,1 where level of income was not one of the top priorities of the participants in their study. However, it is consistent with the findings of Prendushi,15 which physiotherapy was ranked first for its level of usefulness and second for its level of responsibility.

In the statements regarding career preferences, consistency was also observed in the mean score of ‘achievement of a high level of education’; this was consistent with ‘education’ when classifying the occupations. Although level of education was not one of the dimensions used in this study, its presence as a factor in the pursuit of a future career and the association of physiotherapy with a high rating as a dimension in the studies of Turner and Akinpelu et al., even supports it well, according to this study, for its option as a career choice. This result was indicated in the present study by the scores for ‘earning a high salary’ and ‘earning trust and respect from family’. In addition, the reported high rankings for ‘contribution to society’ and ‘influence on society’ relative to other occupations, as well as a high mean score for ‘putting effort into community activities such as volunteer and neighbouring groups’ can be said to be representative of the respondents’ willingness to serve in the central role of service delivery, which is in tandem with the World Confederation for Physical Therapy policy statement.12

The limitation of this study is that its results are sample-specific, and thus cannot be generalised beyond Nigeria. However, these results are nonetheless consistent with those of recent studies and can be considered to be indicative of a likely trend.

Evaluation of the dimensions of occupational prestige

To better understand the relationship between the selected dimensions of occupational prestige, Kendall’s coefficient of concordance was employed to derive levels of agreement in the answers given by both male and female respondents. This was achieved by a further evaluation of the data provided by the respondents for each profession in all six dimensions. The level of agreement (Kendall’s coefficient of concordance) for all dimensions was greater among male than among female respondents (Table 2). The level of personal recognition had the highest degree of consensus (Kendall’s coefficient of concordance) among all six dimensions (Table 2).

Factors and preferences considered in career selection

Table 3 shows the mean scores and standard deviations for each of the combined factors and statements regarding career choice. The factors are ranked from the highest mean score to the lowest.

Ratings for the six dimensions of occupational prestige by the respondents

Regarding perceived level of physical stress for the different occupations, the respondents ranked doctors and engineers at the highest level (Figure 1), while pharmacists and police officers were ranked at the lowest level. Physiotherapy was ranked fourth-highest with a rating of 2.95, closely followed by journalists and architects with ratings of 2.90 and 2.89, respectively (Figure 1).

Regarding level of salary, pharmacy and nursing were rated the lowest, with 2.43 and 2.09 respectively (Figure 2). Physiotherapy was ranked third-highest in terms of salary,

| Table 2: Evaluation of Kendall’s coefficient of concordance for the dimensions of occupational prestige. |
|-----------------------------------------------|
| Dimension                          | Kendall’s $W$ (Males) | Kendall’s $W$ (Females) |
|-----------------------------------------------|
| Level of physical stress              | 0.747                | 0.559                |
| Level of salary                      | 0.762                | 0.754                |
| Level of usefulness                  | 0.780                | 0.630                |
| Level of responsibility              | 0.764                | 0.614                |
| Level of social image                | 0.843                | 0.639                |
| Level of personal recognition        | 0.856                | 0.755                |
with a mean rating of 3.18. Law followed close behind it, with a rating of 3.11.

Concerning perceived level of usefulness, secondary school teachers received the second-highest rating of 3.49 (Figure 3), closely followed by engineers and lawyers. Physiotherapy was tied with architecture, at 3.12 and a ranking of fifth. Among the health professions, the scores were distributed in a fairly high sequence (doctor = 3.82, physiotherapy = 3.12, medical laboratory scientist, 3.10; pharmacist, 2.94; and nurse, 2.93).

Regarding perceived level of responsibility, police officer was positioned just three places above two occupations ranked at the lowest extreme (Figure 4). Physiotherapy, with a mean rating of 3.27, was positioned in fourth place, just below medicine (3.68), engineering (3.39), and secondary school education (3.32).

Concerning the perceived level of social status, physiotherapy was rated 3.02 (Figure 5), well above medical laboratory science (2.86) and architecture (2.77).

Finally, physiotherapy was ranked fourth-highest (3.12) (Figure 6), well above accounting (2.98) and architecture (2.92) regarding the perceived level of personal recognition.

**Evaluation of overall occupational prestige**

In all the six dimensions for occupational prestige, the profession with the highest mean ranking was medicine (21.53)
Figure 2: Mean rank for perceived level of salary.

Figure 3: Mean rank for perceived level of usefulness.
Figure 4: Mean ranks for perceived level of responsibility.

Figure 5: Mean rank for perceived level of social status.
Physiotherapy was ranked fourth, with 18.66. At the other end of the spectrum, nursing ranked 11th (15.11), while law enforcement (police officers) ranked the lowest (13.55).

**Conclusion**

The findings of this study suggest that physiotherapy is associated with a high level of prestige among secondary school teachers.
school students in Nigeria. This high regard that members of the future Nigerian workforce hold for physiotherapy can be seen as a promising indication for the future of the profession of physiotherapy.

Furthermore, the findings indicate a fairly high likelihood that physiotherapy will be considered as a career path by health-oriented secondary school students.

One key theme that was observed among the responses and evident in the list of factors was related to the students’ desire to follow their own selected career paths. This relates to strong perceptions of self, and was reinforced by the students’ responses concerning the need for a high level of education and salary, as well as a desire to engage in community service. These are factors that reaffirm the suitability of physiotherapy as a career option for students who wish for success in their future lives.

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Conflict of interest

The authors have no conflicts of interest to declare.

Ethical approval

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Authors’ contributions

The authors testify that all persons designated as authors qualify for authorship and have checked the article for plagiarism. If plagiarism is detected, all authors will be held equally responsible and will bear the consequences. AK was involved in the study concept and design and the interpretation of data, and wrote the initial and final drafts of the article. AM was involved in the study design and the interpretation of data. AC was involved in the acquisition of data and its analysis. All authors have critically reviewed and approved the final draft and are responsible for the content and similarity index of the manuscript.

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