



ATTITUDE, PERCEPTION, AND KNOWLEDGE OF OCCUPATIONAL THERAPY AND PHYSIOTHERAPY STUDENTS ABOUT EACH OTHER'S PROFESSIONS

Michael O. Egwu¹, Olayinka B. Musa¹, Chidozie E. Mbada¹, Anthony O. Jejelaye², Funmini S. Olatoye¹, Oluwatoyin Olatoye³, Oluwatobi A. Sonuga¹, Francis Fatoye⁴

¹ Department of Medical Rehabilitation, College of Health Sciences, Obafemi Awolowo University, Ile-Ife, Nigeria

² Faculty of Medical Rehabilitation, University of Medical Sciences, Ondo, Nigeria

³ Department of Occupational Therapy, Lund University, Sweden

⁴ Manchester Metropolitan University, United Kingdom

Abstract

Purpose: This study sought to assess attitudes, mutual perceptions, and knowledge of each other's professional roles as obtained from occupational therapy (OT) and physiotherapy (PT) students.

Method: A cross-sectional study was carried out among OT and PT students in a Nigerian university. Fifty-six copies of a revised questionnaire were used as the survey instrument, all of which were returned fully completed. The data obtained were analyzed using descriptive statistics of mean and standard deviation, frequencies, and inferential statistics of chi-square tests. Alpha level was set at $p < 0.05$.

Results: Fewer PT students (16.7%) demonstrated good knowledge of the scope of OT, while 64.3% of OT students showed good knowledge of PT. There was a 100% positive attitude from both sets of students towards each other's profession. 11.9% of the PT and 28.6% of the OT students perceived the two professions as being in direct competition. There was a significant difference between the PT and OT students surveyed in the knowledge of the other profession ($\chi^2 = 11.842$, $p = 0.001$).

Conclusion: More OT students were familiar with PT than PT students with OT. Both OT and PT students declared positive attitudes towards the other profession, with a minority in either group representing the view that the two professions are in direct competition.

Key words: occupational therapy, physiotherapy, knowledge, attitude, perception

Introduction

Occupational Therapy (OT) is a holistic health and social care profession that seeks to promote health and wellbeing through occupation. The main purpose of OT is to enhance everyday performance of individuals and communities. This goal is achieved by working with individuals and communities to improve their capacities to participate in the occupations that are meaningful and purposeful to them for their role fulfilment or by occupational or environmental modification to enhance occupational engagement [1]. Similarly, Physiotherapy (PT) is a dynamic and

autonomous profession characterized by a body of knowledge with an established theoretical base and widespread clinical applications in the assessment, treatment, and rehabilitation of neuro-musculoskeletal, cardiovascular, integumentary, and respiratory disorders to preserve, develop, and restore physical functions [2].

These two rehabilitation professions play vital roles in the promotive, preventive, therapeutic, and rehabilitative care of patients with varying conditions and disabilities. One of the features of any profession is that it occupies

a social standing relative to other professions [3]. Therefore, the knowledge and perception that other professionals have of a particular profession ultimately affects, if not determines, the way they interact with members of the profession. The roles of both occupational therapists and physiotherapists sometimes overlap and/or complement each other in the provision of care, working with other professions in the holistic care of patients [4]. Good knowledge and positive attitudes together with positive perceptions of each other's profession are of importance as they foster a better working relationship among members of both professions, which ultimately results in better care of patients.

The level of inter-professionalism and the practice of team work have an effect on how students perceive other related professions while in training. Hind et al. [5], in a study among undergraduate health care students from the faculties of medicine, nursing, dietetics, pharmacy, and physiotherapy in the United Kingdom, observed that the students rated their own profession as caring with good communication with their patients. Among all the groups surveyed, the pharmacy students rated their profession highest. In another study, nursing students surveyed by Dalley and Sim [6] perceived the physiotherapists' role as essentially "being concerned with mobility and movement," and felt that physiotherapists underestimated the demands and pressures of nursing and the role of nursing staff as decision-makers in rehabilitation. Brussee et al. [7] reports that although many general practitioners seem to have positive attitudes toward communication with others, barriers and deficiencies in actual communication do occur.

Negative experiences, the use of confusing terminology, stereotyping, and insufficient awareness of the scope of related medical fields seem to be the major factors weakening the communication process. Therefore, inter-professional relationships among the different health care groups need attention and improvement. Naidoo and Buhler [4] posit that current perceptions and levels of awareness may also be influenced by competition for patients and conflicts of

opinion. If these different groups could develop a better working relationship, this could ultimately lead to more effective health care. OT and PT are two rehabilitation professions that are distinctively similar in practice. In Nigeria, occupational therapy training as a degree programme is fairly recent and offered by one university only compared with PT. With the expected rise in the development of both fields, the aim of this study was to assess the perceptions, attitudes, and knowledge of OT and PT students about each other's professions, which are relevant for improved inter-professional communication.

Method

Participants

Respondents in this study were OT and PT students from the Department of Medical Rehabilitation, Obafemi Awolowo University (OAU), Ile-Ife, Nigeria. All participants were in the clinical year of their training.

Sample

The total accessible population for this study was 196, out of which the total number of clinical students in OT was 14. Given the small number of the subjects and in order to increase the power of the study, a non-proportionate quota sampling method was chosen with a 100% representation of OT. Accordingly, with a 1: 3 ratio for OT and PT, a sample size of 56 was adopted. This sample size and the total population were fed into a sample size calculator [8] to determine the margin of error and the power of the study, thus yielding 11.10%.

Procedure

Approval for this study was obtained from the ethics committee of the Institute of Public Health (IPH) in the College of Health Sciences (IPH/OAU/12/1419), Obafemi Awolowo University, Ile-Ife, Nigeria. Eligible respondents were briefed about the purpose of the study and gave their signed consent. The questionnaire used in this study was an adapted version of those developed by Naidoo and Buhler [4] and Puckree et al. [9]. The questionnaire was pilot tested for content

validity by two occupational therapists and physiotherapists, respectively.

The questionnaire consists of three sections. The first section seeks information on the demographic characteristics of the participants. The second and third sections assess the knowledge, attitudes and perceptions of the participants towards each other's profession.

Data analysis

The data obtained were summarized using the descriptive statistics of frequency mean and standard deviation. The Chi-square

test inferential statistics were also used. IBM Statistical Package for Social Sciences (SPSS) version 20.0 was used for analysis. The alpha level was set at $p < 0.05$.

Results

General characteristics of participants

Table 1 shows the general characteristics of participants. A slight majority (51.8%) of the participants were male and 87.5% of the respondents were within the age group of 20-24 years. The respondents were predominantly single (92.9%), of Christian faith (80.4%), and in 500 level class (51.8%).

Table 1. Sociodemographic characteristics of the respondents

Variable	Frequency	Percentage
Gender		
• Male	29	51.8
• Female	27	48.2
Age		
• 20-24	49	87.5
• 25 – above	7	12.5
Class		
• Part 4	27	48.2
• Part 5	29	51.8
Marital status		
• Single	52	92.9
• Married	4	7.1
Religion		
• Christianity	45	80.4
• Islam	11	19.6
Course		
• Physiotherapy	42	75.0
• Occupational therapy	14	25.0

Knowledge and attitude scores of respondents

Table 2 shows the distribution of knowledge and attitude scores, with the mean knowledge score of 48.76 (range = 28-65) and 62.07 (range = 50-76) for OT and PT students, while the mean attitude scores for respective groups were 8.62 (range = 6-10) and 9.0 (range = 8-10). Knowledge scores were categorized into three levels as poor, average, and good knowledge using cut points of 0-29, 29-58, and 69-86 respectively. Similarly, attitude was classified as negative or positive based on 1-5 and 6-10 cut points, respectively.

The majority (78.6%) of PT students showed average knowledge of OT, while 64.3% of OT students demonstrated good knowledge

of PT. Both groups had a 100% positive attitude towards the other profession (Table 3).

The results indicated that there was a significant relationship between variables ($\chi^2 = 11.842, p = 0.001$).

Table 4 shows the perception of OT and PT students about each other's profession. The PT students regard occupational therapists as well qualified (95.2%), providing good care for their patients (90.2%), carefully diagnosing their patients (69.0%) and offering effective treatments (92.7%). Likewise, OT students perceive physiotherapists as well qualified (78.6%), providing good care (57.2%), carefully diagnosing their patients (71.4%) and offering effective treatments (92.9%).

The percentages of students who feel these two professions are in direct competition

were 11.9% for the PT students and 28.6% for the OT students (Table 4).

Table 2. Knowledge and attitude scores for occupational therapy and physiotherapy students about each other's professions

Variable	n	Mean	Std. deviation	Minimum	Maximum	Total obtainable scores
Knowledge Scores						
• Physiotherapy	42	48.76	10.645	28	65	86
• Occupational Therapy	14	62.07	7.985	50	76	86
Attitude scores						
• Physiotherapy	42	8.62	1.081	6	10	10
• Occupational Therapy	14	9.00	961	8	10	10

Table 3. Knowledge and attitude categories in occupational therapy and physiotherapy students about each other's professional roles

Variable	n (%)	n (%)	n (%)	χ^2	p-value
Knowledge					
	Poor	Average	Good		
• Physiotherapy	2 (4.8)	33 (78.6)	7 (16.7)	11.842	0.001
• Occupational Therapy	0 (0.0)	5 (35.7)	9 (64.3)		
Attitude					
	Negative	Positive			
• Physiotherapy	0 (0.0)	42 (100.0)			
• Occupational Therapy	0 (0.0)	14 (100.0)			

Table 4. Perception of occupational therapy and physiotherapy students about each other's professional roles

Variable	OT n (%)	PT n (%)
Readily available to patients		
• Agree	29 (69)	10 (71.4)
• Neutral	8 (19)	2 (14.3)
• Disagree	5 (12)	2 (14.3)
Well qualified		
• Agree	40 (95.2)	11 (78.6)
• Neutral	2 (4.8)	3 (21.4)
• Disagree	0 (0)	0 (0)
Caring to their patients or clients		
• Agree	37 (90.2)	8 (57.2)
• Neutral	4 (9.8)	5 (35.7)
• Disagree	0 (0)	1 (7.1)
Mainly interested in making money		
• Agree	11 (27.2)	6 (42.9)
• Neutral	13 (31.0)	4 (28.6)
• Disagree	18 (42.9)	4 (28.6)
Generally offer effective treatment		
• Agree	38 (92.7)	13 (92.9)
• Neutral	3 (7.3)	1 (7.1)
• Disagree	0 (0)	0 (0)
Spend time to carefully diagnose their patients		
• Agree	29 (69.0)	10 (71.4)
• Neutral	11 (26.2)	4 (28.6)
• Disagree	2 (4.8)	0 (0)
Physiotherapy and occupational therapy are in direct competition		
• Agree	4(28.6)	5 (11.9)
• Neutral	4(28.6)	16 (38.1)
• Disagree	6(42.9)	21(50.0)

Responses on occupational therapy or physiotherapy work settings and source of knowledge about each other's professions

With regard to occupational areas, the majority of PT students assume that occupational therapists work predominantly in mental health care facilities (82.9%) and

educational institutions (78%). Likewise, most OT students surveyed assume that physiotherapists work in mental health care settings (92.9%), general hospitals (78.6%) and rehabilitation facilities (78.6%). Participants point to teachers/lecturers (72.7%) and the Internet (61.8%) as the main sources of their knowledge.

Table 5. Responses on occupational therapy/physiotherapy work settings and source of knowledge about each other's professions

Item	Frequency (n)	(%)
Settings in which occupational therapists work		
• General hospital	31	75.6
• Rehabilitation facilities	31	75.6
• Mental health care	31	82.9
• Hospice care	25	61.0
• Educational institutions	32	78.0
Settings in which physiotherapists work		
• General hospital	11	78.6
• Rehabilitation facilities	11	78.6
• Mental health care	13	92.9
• Hospice care	8	57.1
• Educational institutions	7	50.0
Distribution of sources of knowledge		
• Career aptitude test	11	20.0
• Educational coach	17	30.9
• Newspaper	11	20.0
• Career counsellor	10	18.2
• Career literature	10	18.2
• Movies	20	36.4
• Television/radio	10	18.2
• Pamphlets	14	25.5
• Teacher/Lecturer	40	72.7
• Magazine	10	18.2
• Internet	34	61.8
• Books	24	43.6
• Friends	34	61.8
• Family members	15	27.3

Discussion

This study assessed the attitudes, perceptions, and knowledge of OT and PT students about each other's professional roles. Inter-professional education and practice have been promoted/advocated as major means of achieving the best outcomes in health care. For instance, Lee and Sheppard [10] claim that interdisciplinary interaction within the health care team is imperative for effective health care delivery. This view is supported by Curran et al. [11] who note that positive perceptions and mutual respect among health care teams are needed towards fostering healthy interactions. This study has found a significant difference in the knowledge shown by OT and PT students about each other's professions. This result echoes that from Puckree et al. [9] who reported

a significantly higher level of knowledge of the scope of physiotherapy among occupational therapy students compared to medical and sport science students. More OT students had good knowledge of PT, while the majority of PT students demonstrated average knowledge of OT. These findings seem to be consonant with earlier studies [9, 12-14].

A report by Golledge [15] revealed that occupational therapists were deviating from core OT skills and adopting skills and therapeutic modalities associated with physiotherapy. The results also indicate that most physiotherapy students do not possess more than average knowledge of occupational therapy. This discrepancy in knowledge could be attributed to the deficiency in inter-professional education despite the co-location

of the two groups at the study site, which would indicate that the curricula fail to sufficiently address the scope of practice of other related professions. For instance, PT students may not see the need to develop good knowledge of OT if it is not captured in the physiotherapy curriculum. As research suggests there may be few, if any, forms of interdisciplinary education or awareness among professionals in the health care system [16, 17]. Why OT students show a commendable level of knowledge of PT remains unclear. It might be speculated that either personal interests or other reasons beyond educational practice.

Another explanation for the observed discrepancy in knowledge could be prior knowledge and exposure to PT by the OT students as reported by Puckree et al. [9]. However, the paucity of occupational therapists in Nigeria [18] could have stymied the exposure of physiotherapy students to the occupational therapy profession thereby translating to average or poor knowledge. Suggested avenues for the improvement of the knowledge among physiotherapists include observing an occupational therapy session, attending a workshop or presentation on the scope of occupational therapy practice [12], and participation in a supervised one or two-week training session in ward-based inter-professional care involving both professions [13]. Olaoye et al. [14] further recommended shared learning and comprehensive clinical rotation postings encompassing all disciplines to mitigate the low level of knowledge of OT among other students, particularly at this study site.

All the participants expressed a positive attitude towards the other occupation, with slightly higher attitude scores (mean = 9.00 \pm 0.961) in OT students compared to PT students (mean = 8.62 \pm 1.081). This may be connected to the fact that the OT students were more knowledgeable about PT than vice versa. The findings are also consistent with those of Puckree et al. [9], with the majority of OT students declaring positive attitudes towards the PT profession. As Kim et al. [19] reported, inter-professional attitudes of occupational therapists and physiotherapists improved following a four-hour inter-professional

education session. This result further reinforces the need for shared learning to foster adequate knowledge and positive attitudes among PT and OT students. This predisposition will then engender seamless inter-professional practice for the benefit of the service users in terms of health outcomes.

As figures obtained in this study indicate, most of the participants felt professionals of the other occupation were readily available to patients. This was agreed upon by 71.4% and 69.0% of OT students and PT students respectively. The participants also generally agreed that their counterpart professionals were well qualified with 95.2% and 78.6% positive responses from PT and OT students respectively. Notwithstanding their high level of knowledge of PT, 42.9% of the OT students surveyed felt that physiotherapists were primarily motivated by financial rewards, while a slender majority of 57.2% agreed that physiotherapists were well caring to their patients. This may imply that OT students tend to rely on a stereotypical view that physiotherapists prioritize money over patient care, which stands to be revised. This feeling among OT students that physiotherapists are more interested in financial gain than caring for clients is discrediting and therefore warrants further probing through qualitative investigation.

Few participants in this study, 11.9% and 28.6% of PT and OT students respectively, considered these two professions to be in direct competition. This feeling of competitiveness could stem from the fact that there are certain areas of overlap in the practice of both professions; both are seen to use similar therapeutic modalities and treat similar functional impairments in patients. For instance, physiotherapists use activities in the management of patients and occupational therapists use physical agent modalities as adjuncts to purposeful activities in patient care. This apparent overlap between the two professions implies the need for increased education and communication on the roles and scope of each profession to foster effective relationships. This is reinforced by the findings of Kenny and Adamson [20] who concluded that the results of their study "confirm that

inter-professional conflict and competition continues to feature in the healthcare system." It is worrisome that final year students who are preparing for their careers perceive a direct competition from the other profession. This may imply that the professional identities of the representatives of the two professions have not been well delineated during training and requires urgent intervention.

With reference to the sources indicated by those surveyed, the majority of the respondents attribute their knowledge of the other profession to teachers/lecturers (72.7%) as well as to the internet and friends/family (61.8%). Sources from which individuals obtain their information may influence their knowledge and their perceptions and thereby alter their attitudes towards the other profession [21-23]. The current study showed that "word of mouth" through friends and family and the internet were among the major sources of information, and these may provide inaccurate information, leading to

misconceptions [9]. This result further reinforces the need for the incorporation of inter-professional education in the curriculum of health professionals to ensure the veracity of the information students imbibe because the knowledge they embody will consequently influence their practice after graduation. A potential limitation of this study is the small sample size of OT students, due to the low overall number of students enrolled in the programme, as this profession is still evolving in Nigeria.

Conclusion

The occupational therapy students surveyed for this study demonstrated satisfactory knowledge of physiotherapy, while the other group, PT students, demonstrated less satisfactory levels of knowledge of OT. Mutual attitudes and perceptions were positive, however, several students felt that their professions were in direct competition.

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CORRESPONDENCE

Anthony Oluwaseun Jejelaye

Faculty of Medical Rehabilitation, University of Medical Sciences,

Ondo, Nigeria

E-mail: ajejelaye@unimed.edu.ng

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