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Physiotherapists' perception on first contact practice in Nigeria: a cross-sectional survey

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Abstract

Objectives: Physiotherapy has evolved over the years in training and practice. Physiotherapists' perception of first contact physiotherapy (FCP) and the patient self-referral (PSR) practice model in Nigeria may form a basis for the actualization of FCP practice in Nigeria. This study assessed physiotherapists' perception of FCP practice and PSR in Nigeria.

Design and setting: This study was a cross-sectional survey of 72 physiotherapists from purposively selected academic and health institutions.

Methods: A previously validated questionnaire on the global view of FCP and PSR was used in this study. Data were analyzed descriptively.

Results: The majority of the physiotherapists were aware of national legislation regulating physiotherapy practice (97.2%) and defined the scope of practice (94%) in Nigeria. Respondents who expressed the view that the expected competency of entry-level physiotherapy is sufficient for first contact practitioners were in preponderance (75%). More than half (52.8%) of the respondents perceived medical and political views, as well as professional skills of the physiotherapists as strong barriers to first contact physiotherapy practice in Nigeria.

Conclusion: Physiotherapists in Nigeria seem to intuitively recognize some form of first contact practice or direct access to patients, but unfortunately lack the legislative backing for such practices. There is a widespread assumption of professional autonomy among physiotherapists in Nigeria.

Keywords: Physiotherapist, Professional autonomy, Perception, Nigeria, Scope of practice

Introduction

Physiotherapists are professionals trained to provide rehabilitative care, among other services, in a wide range of disabling conditions to restore, maintain, and promote function and quality of life [1]. The physiotherapy profession has made significant improvements in curricula contents and clinical practices services over the years [2].

First contact physiotherapy (FCP) practice (direct access and service users'/patient self-referral) signifies

the state of affairs where physiotherapy services are attainable to service users without the need for a referral from an intermediary. It represents a model of practice supported globally by the profession, growing research evidence and health policies in some health systems. Since the mid-1990s, the World Confederation for Physical Therapy (WCPT) position on practice autonomy is that physiotherapists can practice as first contact practitioners and clients may seek services directly without a referral from another health-care professional [3]. There were conflicting opinions on the cost-effectiveness of FCP practice [4]. However, contrary to these arguments, Webster et al. [5] reported that patient self-referral to physiotherapy

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as first contact is clinically cost-effective and results in patients' satisfaction and reduced waiting time of patients/clients.

Presently, direct access is practiced and legalized in Australia [6], New Zealand, the United Kingdom, and the USA [7]. Other countries include Thailand and some African countries such as Cameroon and Ethiopia [7].

The merits of FCP practice have been highlighted by Crout and colleagues [4] to include the provision of additional entry points into the healthcare system, cost reduction without the extra cost of physician consultations for referral, decrease in waiting time for treatment and increase in treatment success [4]. In Nigeria, physiotherapists are not first contact practitioners and depend on physicians' referrals from different fields of medicine [8]. Ganiyu [9] highlighted the legislation that established the Nigeria Medical Rehabilitation Therapists' Board (MRTB), which stipulates the law that guides physiotherapy practice, physiotherapists are not permitted to see any patient without a doctor's order, even if the patient were an excellent candidate for physiotherapy.

Studies in Bangladesh [10] and Ghana [11] showed that physiotherapists have positive views on first contact physiotherapy practice, and a strong desire to work as first contact practitioners. From an extensive literature search, studies on the perception of physiotherapists on first contact practice seem to be scarce in Nigeria, except for those of Obajuluwa, et al. [12] which was a review study published online in 2009, and Mbada et al. [13]. These two studies were conducted in the Southwestern part of Nigeria. With the growing trend in FCP practice and evolution of Doctor of Physiotherapy (DPT) training globally, studies on physiotherapists' perception of FCP practice and PSR from different regions within and outside a country have become imperative. It is envisaged that these studies if conducted, may inadvertently contribute to the advocacy process for FCP and help give directions as regards policy formulation on FCP practice and PSR. Based on the aforementioned reasons, the authors conceived and designed this study which had attempted to investigate the perception of physiotherapists on first contact practice at public healthcare and training facilities in the three regions that make up present-day Northern Nigeria.

Materials and methods

Study design

This study was a cross-sectional survey of physiotherapists working at public academic and health institutions. A purposive sampling technique was used to select the academic and health institutions.

Participants

Participants include qualified physiotherapists practicing in Nigeria and licensed by the medical rehabilitation and therapist board of Nigeria (MRTB) to practice Physiotherapy. Physiotherapy training in Nigeria entails a 5-year undergraduate training which culminates in the award of a bachelor's degree. This is followed by a 1-year mandatory internship training at an MRTB accredited hospital.

Some selected institutions in the Northern geopolitical region of Nigeria (Northeast, Northcentral, and North-west) were the study sites. Physiotherapists working in these selected institutions were all invited to participate in this study. The selected institutions were the State Specialist Hospital, University of Maiduguri Teaching Hospital, and its affiliated University (University of Maiduguri), all in Maiduguri, Borno State, and the Federal Medical Centre, Nguru, Yobe State. Borno and Yobe States are in the Northeast. From the Northwest, Murtala Mohammed Specialist Hospital, Aminu Kano Teaching Hospital and its affiliated University (Bayero University), all in Kano, Kano State, were chosen. The University of Jos Teaching Hospital was selected from the Northcentral; its affiliated University (University of Jos) does not offer a physiotherapy program yet.

Inclusion and exclusion criteria

Physiotherapists at the selected study sites with at least 1 year of working experience were invited and earnestly implored to participate in the study. Physiotherapists on internship were excluded from the study as they are still under the supervision of a physiotherapist.

Instrumentation

A previously validated questionnaire designed by Bury and Stokes [3], for the World Confederation of Physical Therapists (WCPT) on a global view of direct access and patient self-referral for physiotherapy was used in this study. This questionnaire was also utilized by Mbada et al. [13] in a Nigerian population in the Southwest. Despite its previous application in a Nigerian study, the authors gave out the questionnaire to three experienced physiotherapy professors in different physiotherapy speciality areas for content and face validity. None of the professors knew that the scale was given to another professor. They returned the questionnaire without altering any item.

The survey instrument consists of eleven sections with 42 items comprising non-homogeneous responses that require the respondents to fill in the blank spaces, tick or comment were appropriate because the questionnaire contains both open and closed-ended questions. *Section A* contains questions on socio-demographics and academic-related data of the participants; *section*

B embraces questions on method of payment for physiotherapy services; *section C* comprises questions on legislation/regulation of physiotherapy practice and first contact/direct access physiotherapy practice; *section D* encompasses questions on availability of self-referral to physiotherapy, limitations, and reimbursement; *section E* covers questions on the expected competency of graduate of entry level physiotherapy programs to accept self-referral on qualification; *section F* is made up of questions on support by the Nigerian Society of Physiotherapy, the public and doctors for direct access and patient self-referral; *section G* includes questions on the extent of direct access and patient self-referral services in Nigeria; *section H* involves questions on the barriers to advancing direct access/self-referral services; *section I* encompasses questions on facilitators to direct access and self-referral services; *section J* contains questions on the strategies/processes and resources that would help take direct access/self-referral services forward in Nigeria, and *section K* includes question on resources that can be shared with other member organizations globally to assist them in developing direct access/self-referral services and in negotiations.

Data collection procedure

A focal person for each of the selected facilities was identified. Copies of the questionnaire were sent to each of the identified focal persons through standard mail. The questionnaire was then administered to the physiotherapists by the focal person. After the administration of the questionnaire, the focal person at each institution enquired from each participant when it would be convenient to collect it, and they were also told to drop the questionnaire in an improvised carton box that was placed at their various workplaces. This collection method adopted for the administered and completed questionnaire and the comprehensive recruitment of every physiotherapist willing to participate guaranteed anonymity and aimed at increasing response rate respectively.

Ethical consideration

The Research and Ethics Committee of the University of Maiduguri Teaching Hospital, Nigeria issued the authors an ethical approval. The Heads of the Department of Physiotherapy of each selected health care and training facility permitted the researchers to administer the instrument to the eligible and willing participants. Each participant signed informed consent as a requirement to participate in the study.

Data analysis

Descriptive statistics of mean, standard deviation, frequency counts, and percentages were used to summarize

the data. Data were analyzed using Statistical Package for Social Sciences (SPSS) version 20 [14].

Results

A total of 72 physiotherapists participated in the study, with male participants accounting for 72.2%. The mean age and age range of the respondents in years were 32.57 ± 8.40 and 24–57 respectively. Table 1 shows the overall socio-demographic characteristics of the participants.

A majority ($n = 70$; 97.2%) of the respondents were aware that there is national legislation regulating physiotherapy practice in Nigeria. Ninety-four percent ($n = 68$; 94.4%) of the respondents stated that the national legislation defines the scope of physiotherapy practice, while ($n = 50$; 69.4%) asserted that the national legislation supports patient self-referral. A substantial proportion ($n = 68$; 94.4%) of the respondents reported that in

Table 1 Socio-demographic characteristics of the participants

Variable	Frequency	Percentage
Gender		
Male	52	72.2
Female	20	27.8
Age		
Mean SD	32.57 ± 8.40	
Range	24–57	
Age group		
20–30	41	56.9
31–40	20	27.8
41–50	5	7.0
50 and above	6	8.3
Years of experience		
1–3	39	54.2
4–6	14	19.4
6 and above	19	26.4
Location of practice		
Northeast	37	51.4
North central	22	30.6
Northwest	13	18.0
Area of specialty		
Orthopedics	22	30.6
Neurology	11	15.3
Cardiopulmonary	2	2.8
Pediatrics	6	8.3
Obstetrics and Gynecology	1	1.4
General	26	36.0
Others (Sports, geriatrics etc.)	4	5.6
Area of practice		
Academic	5	6.9
Clinic	67	93.1

the absence of national legislation, the professional body allows service users to refer themselves for physiotherapy. Table 2 shows the respondents' responses on awareness of physiotherapists in National/professional bodies regulating physiotherapy practice.

Most ($n = 67$; 93.1%) respondents were of the view that clients can self-refer themselves to physiotherapists in private practice, while 47 (65.3%) posited that there should be no limitation in this regard. Forty-five (62.5%) of the respondents reported that insurance reimburses physiotherapy services in private settings, but this reimbursement according to the respondents, depends on the insurance policy of the patient. Table 3 illustrates the response to self-referral for physiotherapy.

A majority ($n = 54$; 75%) of the respondents reported that the expected competency of entry-level physiotherapy programs prepares physiotherapists enough to act as first contact practitioners, and most ($n = 66$; 91.7%) reported that there were no limitations to the expected competency of a graduate of entry-level qualification. Table 4 depicts physiotherapists' perception of the expected competency of a graduate of entry-level physiotherapy on qualification.

More than a third ($n = 27$; 37.5%) of the participants were of the view that the Nigeria Society of Physiotherapy (NSP) is completely supportive of physiotherapy first

Table 2 Existing legislature/professional body regulating physiotherapy practice

Category	Response	Frequency	%
Legislature			
There is legislature	Yes/no	70/2	97.2/2.8
It defines SOP	Yes/no	68/4	94.4/5.6
It allows FCP	Yes/no	40/32	55.6/44/4
It supports PSR	Yes/no	50/22	69.4/30.6
Allows PTs to:			
Assess	Yes/no	70/2	97.2/2.8
Diagnose	Yes/no	70/2	97.2/2.8
Treat	Yes/no	71/1	98.6/1.4
Refer	Yes/no	69/3	95.8/4.2
Other preventive advise	Yes/no	70/2	97.2/2.8
Professional body			
Allow PSR	Yes/no	68/4	94.4/5.6
Allows PTs to			
Assess	Yes/no	69/3	95.8/4.2
Diagnose	Yes/no	67/5	93.1/6.9
Treat	Yes/no	69/3	95.6/4.2
Refer	Yes/no	65/7	90.3/9.7
Other preventive advise	Yes/no	68/4	94.4/5.6

Key: PTs physiotherapists, FCP first contact practice, SOP scope of practice, PSR patient self-referral

Table 3 Availability of self-referral to physiotherapy in private and public settings, limitations, and reimbursement

Category	Frequency	(%)
Availability of PSR in private settings		
Yes	67	93.1
No	5	6.9
Limitations		
No limitations	47	65.3
Musculoskeletal and neurological conditions	10	13.8
Conditions within scope of physiotherapy	9	12.5
Lack of awareness	2	2.8
Red and yellow flags	2	2.8
Lack of equipment	1	1.4
In adequate PT-service users ratio	1	1.4
Reimbursements		
Depends on insurance policy	45	62.5
Yes in part	4	5.6
Yes in full	6	8.3
No	5	6.9
Not applicable	12	16.7
Availability of PSR in public settings		
Yes	53	73.6
No	19	26.4
Limitations		
No limitations	59	81.9
Conditions within scope of physiotherapy	6	8.3
Red and yellow flags	2	2.8
Report late	1	1.4
Musculoskeletal and Neurological conditions	4	5.6

Key: PSR patient self-referral, PT physiotherapy

Table 4 Expected competencies of entry level physiotherapy programs to accept self-referral on qualification of physiotherapists

Perception	Frequency	%
Entry level qualification		
Yes	54	75
No	18	25
Limitations		
No limitation	66	91.7
Legislation	2	2.8
Lack of experience	2	2.8
Critical condition	1	1.4
Under supervision	1	1.4
Measures to be taken by PT		
Period supervised	7	9.7
Period of continuing professional service	4	5.6
Masters level education	7	9.7

Key: PT physiotherapists

contact practice. A larger number ($n = 46$; 63.9%) of the respondents reported that the public is in support of first contact physiotherapy practice. More than half ($n = 39$; 54.2%) of the respondents were of the view that physicians are not in support of first contact physiotherapy practice. Table 5 displays physiotherapists' perception of the Nigerian Society of Physiotherapy (NSP), the public and physicians' support for first contact practice.

Forty-four (61.1%) of the participants responded that they were unaware of the extent of first contact physiotherapy practice, 24 (33.3%) asserted that it is very low, 2 (2.8%) reported moderate, and 2 (2.8%) posited that the extent of first contact physiotherapy practice is good in Nigeria. Table 6 represents physiotherapists' perception of the extent of first contact physiotherapy practice.

Fifty-two per cent (52.8%) of the participants perceived medical view as a strong barrier while the political view and professional skills of physiotherapists were also seen as part of the strong barriers to FCP practice. Similarly, medical support, service user support, evidence supporting the effectiveness, and political views were also noted as part of the strong facilitators of FCP practice. Tables 7 and 8 represents barriers and facilitators to first contact practice.

Discussion

This present study evaluated the perceptions of physiotherapists in the regions that constitute Northern Nigeria on FCP. Our respondents were mostly young male physiotherapists aged between 24 and 57 years with working

Table 6 Extent of first contact physiotherapy practice in Northern Nigeria

Extent	Frequency	%
Unaware	44	61.1
Limited	24	33.3
Moderate	2	2.8
Good	2	2.8

experience of not more than 3 years and the majority were general physiotherapy practitioners. This seems not confounding because this age group is the age of productivity in most organizations and the age of graduation from physiotherapy programs in Nigeria. Also, physiotherapy programs in Nigeria, especially in the Northern part, are dominated by males. Additionally, it takes about 6 to 9 years post-graduation in Nigeria before a physiotherapist acquires experience, qualifies, and decides on an area of speciality to practice. This finding is not at variance with that of Mbada et al. [13].

Respondents were asked questions about the existing legislation, payment, or reimbursement of physiotherapists' services, perceived barriers, and facilitators of first contact physiotherapy in Nigeria. The finding of this study is in tandem with a previous study by Mbada et al. [13], which reported that there is legislation that regulates the practice of physiotherapy in Nigeria, and this also defines the scope of practice of physiotherapists. In our study, the respondents asserted that the national

Table 5 Physiotherapists' awareness on Nigerian Society of Physiotherapy (NSP), public, and physicians support for first contact practice and the evidence to support their views

Category	Frequency (%)	Category	Frequency (%)
NSP support		Evidence to support view	
Completely against	4 (5.6)	None	39 (54.2)
Not supportive	5 (6.9)	Personal opinion	17 (23.6)
Unsure	17 (23.6)	Conference	1 (1.4)
Limited support	19 (26.4)	Member organization policy	10 (13.9)
Complete support	27 (37.5)	Board level discussion	5 (6.9)
Public support		Evidence to support view	
No	10 (13.9)	None	34 (47.2)
Yes	46 (63.9)	News items	2 (2.8)
Do not know	16 (22.2)	Personal opinion	11 (15.3)
Service users request	25 (34.7)		
Physicians' support		Evidence to support view	
No	39 (54.2)	None	38 (52.8)
Yes	19 (26.4)	Publications	4 (5.6)
Do not know	14 (19.4)	Personal opinion	6 (8.3)
		Discussion with doctors	21 (29.2)
		News items	3 (4.2)

Table 7 Past and current barriers to first contact physiotherapy practice

Barrier		Minor (%)	Moderate (%)	Major (%)
Medical view	Past	5 (6.9)	6 (8.3)	1 (1.4)
	Current	13 (18.1)	9 (12.5)	38 (52.8)
Political view	Past	6 (8.3)	4 (5.6)	1 (1.4)
	Current	11 (15.3)	19 (26.4)	25 (34.7)
Lack of evidence	Past	19 (26.4)	7 (9.7)	6 (8.3)
	Current	17 (23.6)	14 (19.4)	9 (12.5)
Scope of Practice	Past	18 (25)	6 (8.3)	4 (5.6)
	Current	19 (26.4)	12 (16.7)	13 (18.1)
Lack of prof. autonomy	Past	15 (20.8)	7 (9.7)	9 (12.5)
	Current	16 (22.2)	9 (12.5)	16 (22.2)
Economic considerations	Past	15 (20.8)	6 (8.3)	3 (4.2)
	Current	16 (22.2)	12 (16.7)	20 (27.8)
Legislation	Past	4 (5.6)	2 (2.8)	3 (4.2)
	Current	20 (27.8)	16 (22.2)	27 (37.5)
Entry level PT education	Past	15 (20.8)	6 (8.3)	5 (6.9)
	Current	24 (33.3)	9 (12.5)	13 (18.1)
Lack of support from prof.	Past	11 (15.3)	5 (6.9)	3 (4.2)
	Current	24 (33.3)	15 (20.8)	14 (19.4)
Professional skills of PTs	Past	16 (22.2)	5 (6.9)	4 (5.6)
	Current	24 (33.3)	11 (15.3)	12 (16.7)
Reimbursements mode	Past	7 (9.7)	2 (2.8)	2 (2.8)
	Current	31 (40.1)	17 (23.6)	13 (18.1)
Economic considerations	Past	15 (20.8)	6 (8.3)	3 (4.2)
	Current	16 (22.2)	12 (16.7)	20 (27.8)

Key: PT physiotherapists, Prof. profession

Table 8 Facilitators to first contact physiotherapy practice

Facilitator	Minor (%)	Moderate (%)	Major (%)
Medical support	22 (30.6)	17 (23.6)	33 (45.8)
Political support	21 (29.2)	16 (22.2)	34 (47.2)
Service user support	13 (18.1)	18 (25)	41 (56.9)
Legislation	18 (25)	15 (20.8)	39 (54.2)
Evidence supporting effectiveness	16 (22.2)	15 (20.8)	40 (55.6)
Political autonomy	11 (15.3)	18 (25)	42 (58.3)
Economic considerations	23 (31.9)	25 (34.7)	24 (33.3)
Waiting lists/service demand	24 (33.3)	18 (25)	29 (40.3)
Entry-level PT education	28 (38.9)	17 (23.6)	27 (37.5)
Professional organization lead	26 (36.1)	9 (12.5)	37 (51.3)
Professional skills of PTs	17 (23.6)	13 (18.1)	42 (58.3)
Scope of practice	16 (22.2)	17 (23.6)	38 (52.7)
Reimbursement models	26 (36.1)	20 (27.8)	26 (36.1)
Workforce-related issues	26 (36.1)	19 (26.4)	27 (37.5)

Key: PT physiotherapists

legislation permits the practice of physiotherapy as a first contact profession and this contradicts the finding by Mbada et al. [13] in a similar study among physiotherapists who practice in Southwestern Nigeria. In their study, the authors noted that though physiotherapists in Southwestern Nigeria practice as first contact professionals, there was no legal backing to that effect. This could be confusing that physiotherapists in some parts of Nigeria are already practicing as first contact professionals without any legislative support; hence, the respondents in our study assumed that the existing legislation permits physiotherapists to take up the role. This depicts the poor implementation of Nigerian Laws.

First contact physiotherapy practice may be feasible in Nigeria as shown by the current practice as asserted by the respondents in this study and that of Mbada et al. [13] but it may require advanced qualifications and competency. For instance, Onyeso and colleagues had reported deficient medical imaging training in most physiotherapy programs in Nigeria [15]. However, the undergraduate training for physiotherapists in Nigeria was perceived as adequate in preparing graduate physiotherapists to function as first contact practitioners. Most of the respondents, however, suggested that it is important to have advanced training to acquire more skills and relevant competencies to be able to qualify as a first contact practitioner. Conversely, a previous study had reported service competence for FCP model of primary care [16]. In our study, the majority of the respondents noted that advanced training and continuing professional development programs organized by professional bodies such as the Nigeria Society of Physiotherapy (NSP) and Medical Rehabilitation Therapist Board of Nigeria (MRTBN) are vital.

The first contact practice model was perceived by many of the respondents in this study to receive support from NSP, the general public, and service users. This again shows the feasibility of this practice in Nigeria. This further underscores the importance of professional bodies in activating needed policy changes and subsequent implementation. A reference to such positive change as a result of professional advocacy can be seen in the Australian Physiotherapy association's advocacy for referral policy change from referral policy to direct access in the 1970s [17]. With the emergence of a new professional body in recent times known as the Association of Clinical and Academic Physiotherapists of Nigeria (ACAPN), there is a need for synergistic action of the two professional bodies toward advocacy and action to actualize FCP and improve the professional status of physiotherapy in Nigeria.

Most respondents asserted that physicians are not in support of this model of practice. This mirrors the

interprofessional rivalry between medical doctors and other healthcare practitioners in Nigeria [18]. To reinforce the claim of poor referral by physicians, the respondents reported that even with the current intermediary referral model of practice, the referring physicians rarely refer patients for physiotherapy timeously [8]. This may be due to low-level awareness among medical doctors on the role of physiotherapy inpatient management or poor system setup that hinders smooth referral. It could also be due to interprofessional ego and rivalry.

Furthermore, on the issue of barriers and facilitators of first contact physiotherapy in Nigeria, the respondents identified barriers to this model of practice as non-support by the physicians, lack of policies, lack of relevant skills and competencies by physiotherapists, poor public awareness, and professional autonomy. Alnaqbi et al. [19] had reported similar findings such as limited support from the physicians and policymakers, professional autonomy, and the limited scope of practice for physiotherapists, as well as evidence-based practice as barriers to FCP among physiotherapists in Saudi Arabia. In Nigeria, the medical profession is a major player in the health policy and implementation landscape. Hence, the full support of medical practitioners is seen as a major facilitator of the adoption of FCP in Nigeria. Further, facilitators to FCP include support by the physicians, adequate training for and skills by physiotherapists, legislative support, and creation of public awareness. The perceived barriers to and facilitators of first contact practice around the views of key stakeholders (the medical profession, policy makers, and the public), represent the views of physiotherapists and may not be an accurate representation of those stakeholder groups. Since all appear to some extent as both barriers and facilitators, it shows how important they are to the profession and that, whether real or perceived, they need to be addressed. The perceived influence of policy makers on the availability of first contact physiotherapy, irrespective of whether it was permitted under legislation, was evident from the respondents and is consistent with previous studies [13, 20]. A latent limitation in the findings of this study is the respondents' obliviousness of the current activities of the physiotherapy association (The Nigerian Society of Physiotherapy) which may not be in tandem with current realities thus depicting the association as ineffective in the advocacy for FCP of physiotherapists in Nigeria.

Conclusion

Physiotherapists in Nigeria seem to practice some form of first contact or direct access but is lacking the legislative backing for such practices. There is a widespread assumption of professional autonomy among Physiotherapists in Nigeria; however, they seem to be unaware

of the absence of legislative backing. The current syllabus for physiotherapy training in Nigeria was perceived to be adequate for autonomous practice in Nigeria.

Lastly, the perceived major barriers to the actualization of legislation for FCP in Nigeria are medical and politicians (legislators) support.

Limitations

The non-probability sampling technique used in recruiting the respondents in this study may have resulted in selection bias and may limit the generalizability of our findings.

In addition, the small sample size could affect the reliability of the survey results due to a higher variability, which could lead to bias.

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Authors' contributions

Maduagwu S and Muftaadeen M conceptualized the study, drafted first protocol, and conducted data collection. Chidile M, Umeonwuka C, Nwanne CA, Cornelius I, Uchenna O, Ebere, YI Nwosu I, and Ali AM drafted the manuscript, reviewed the manuscript, and reviewed the statistical analysis used in this study. All authors read and approved the final manuscript.

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Availability of data and materials

Please contact the authors for data requests.

Declarations

Ethics approval and consent to participate

The Research and Ethics Committee of the University of Maiduguri Teaching Hospital, Nigeria issued the authors an ethical approval. The Heads of the Department of Physiotherapy of each selected health care and training facility permitted to enable the researchers to administer the instrument to the eligible and willing participants. Each participant signed informed consent as a requirement to participate in the study.

Consent for publication

Not applicable

Competing interests

The authors declare that they have no competing interests.

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