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Satisfaction of Individuals with Selected Musculoskeletal Disorders with Physiotherapy Care at a Tertiary Hospital in Nigeria

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Abstract

Objective: Physiotherapists are leading providers of care for patients with musculoskeletal conditions who often seek treatment to achieve pain management and improvement in functional mobility. Evaluation of patient satisfaction with physiotherapy care provides specific and objective feedback to clinicians about the services they provide. This study investigated factors associated with satisfaction of individuals with selected musculoskeletal disorders over their physiotherapy management at the University College Hospital, Ibadan.

Methods: This is a cross sectional survey study whereby patients with low back pain, neck pain, and osteoarthritis were purposively recruited from the Physiotherapy Department and the Chief Tony Anenih Geriatric Centre, University College Hospital, Ibadan. Data were collected using the MedRisk instrument and a 14-item bio-data form for socio-demographic information of participants. Data were analysed using descriptive and inferential statistics with alpha level set at p=0.05.

Results: Participants were 251(189 females and 62 males) mean age 64.6 ± 13.1 years. A total of 152 (60.6%) reported high level satisfaction while 99 (39.4%) participants reported being less satisfied. Majority of female (n=118) participants reported high level of satisfaction than their male counterparts. Age of the participants, educational status and social support or health insurance status were significantly associated ($p \le 0.05$) with their level of satisfaction.

Conclusion: Factors such as attentiveness, patience, being responsible, respectful, courteous and caring by attending physiotherapists were reported to contribute to high level of satisfaction of individuals with musculoskeletal conditions. Less satisfaction emanated from prolonged appointment time, prolonged waiting period and lack of privacy during management of patients.

Keywords: Patient satisfaction; Physiotherapy management; Musculoskeletal disorders

Introduction

Patient-centered health care is now the dominant paradigm in health service delivery and as such patient satisfaction has emerged as an important patient focused indicator of the quality of patient care [1-4]. Patients' views about their health care are of importance to clinicians and form one of three key elements of evidenced-based physiotherapy practice [4]. Evaluation of patient satisfaction with physiotherapy care provides specific and objective feedback to clinicians about the services they provide. This evidence can be used by physiotherapist to optimize the quality and outcomes of patient care. The significance of patient satisfaction is further emphasized by evidence that satisfied patients are more likely to adhere to treatment, benefit from their healthcare, and have a higher quality of life [4-6]. Regulatory health authorities and health insurers assess patient satisfaction to identify aspects of service delivery that can be improved, while patient satisfaction data have been used for quality assurance and accreditation of hospitals and primary health care centers [7]. Physiotherapists are leading providers of care for patients with musculoskeletal conditions [4] and these patients often seek treatment to achieve pain management and improvement in functional mobility on an outpatient basis [8]. Therefore, study of the determinants of satisfaction with musculoskeletal physiotherapy care is an important direction for research. Musculoskeletal Disorders (MSDs) refer to a broad range of conditions that can affect any part of the musculoskeletal system including the muscles, bones, nerves, joints and spinal disc along with supporting blood

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Variables	N	%	Satisfied n	Less Satisfied n	f ²	Р
Age (years)						
18-29	6	2.39	4	2	0.62	0.050*
30-49	19	7.57	14	5		
50-69	131	52.2	73	55		
70-93	95	37.9	61	37		
ex						
Male	62	24.7	34	28	0.50#	0.288
Female	189	75.3	118	71	0.50#	
larital Status						
Married	183	72.9	112	71	0.747#	0.732
Not Married	68	27.1	40	28	-0.747#	
occupational Status						
Unemployed	25	10.0	19	6		0.129
Employed	92	36.6	60	32	0.694^	
Retired	134	53.4	73	61		
ducational Status						
Primary	65	25.9	33	32		0.049
Secondary	61	24.3	44	17	4.101^	
Tertiary	125	49.8	75	50		
otal Personal Income (Naira)						
None	86	34.3	53	33		0.415
<18,000	97	38.6	61	36		
18,000-49,000	25	10	11	14	0.754^	
50,000-99,000	17	6.8	9	18	0.754	
100,000-149,000	13	5.2	10	3		
≥150,000	13	5.2	8	5		

Table 1: Socio-demographic characteristics and association with level of participa	tion of individuals with MSDs.

Key: n=frequency of occurrence; %=percentage; *=Significant; #=t-value; ^=f value; MSDs=Musculoskeletal Disorders

vessels, connective tissues such as tendons, ligaments, and cartilages [8]. These injuries and disorder may cause impairment such as pains, inflammation, restricted movement, joints instability or weakness [9]. This study focused on musculoskeletal conditions including neck pain, low back pain and osteoarthritis. Neck pain is one of the most common musculoskeletal disorders, second only to back pain [10]. Proposed causes of neck pain include: degenerative changes, disc protrusion, nerve impingement, osteophytosis, spondylosis, and impaired function of muscle, connective tissue and nervous tissue [11]. Neck pain increases with age and is most common in women in midlife. The clinical presentation of individuals with neck pain include: acute neck pain of less than 12 weeks, reduced cervical range of motion, radiculopathy, upper extremity paraesthesia, numbness, radiological imaging may show spondylosis and disc herniation [12]. Aprevious research on the prevalence of neck pain in a rural community in Nigeria reported the lifetime, one year, and point prevalence of neck pain as 67.9%, 65.9%, and 17.0% respectively [13]. Low back pain is a condition of aches, stiffness or fatigue localized to the low back or lumbosacral region of the spine [14]. It is the most prevalent musculoskeletal condition and the most common cause of disability in the developed nations [15]. A systematic review on the prevalence of low back pain in Africa by Louw et al., [15] reported the nature of its global burden and highlighted how its increased prevalence among Africans is of some concern. Osteoarthritis is a condition that is characterized by the degeneration of the cartilage protecting the surface of the bone that forms a joint thus resulting in reduced joint space and frictional rubbing of the bone surfaces resulting in pain and/or stiffness at the joint and osteophytic changes. The joints mostly affected are the knees, hips, and those in the hands and spine. Some symptoms of osteoarthritis are pain and stiffness in the joints during periods of rest including early morning stiffness, reduced range of motion, change in posture, walking and coordination due to pain and/or stiffness [16]. Osteoarthritis is one of the most common causes of pain and disability in the western world and it affects up to 80% of people over the age of 65 years. In Nigeria, a community based study by Akinpelu et al., [17] reported that the prevalence of symptomatic knee osteoarthritis was 19.6%. Physiotherapists play a very prominent role in rehabilitation of individuals with musculoskeletal disorders and disabilities into functional recovery; hence patient satisfaction with physiotherapy care is a right direction for research. A number of researchers have studied patients' satisfaction with treatment of varied conditions [18-20]. This study investigated the level of patient satisfaction with physiotherapy care and the determinants of patient satisfaction.

Participants and Methods

This is a cross-sectional survey study, participants were consenting patients with neck pain, osteoarthritis, and low back pain receiving

Variables	N	%	Satisfied n	Less Satisfied n	f ²	Р	
Condition							
Neck Pain	60	2.39	38	22			
Low Back Pain	104	41.4	62	42	0.436^	0.880*	
Osteoarthritis	87	34.7	52	35			
Ouration Condition (Years)	1		1				
<16	2.4	5	1	1.6		Likelihood ratio=0.031	
1-5	167	66.5	100	67	41^		
6-10	47	18.7	30	17			
11-15	14	5.6	11	3			
16-20	4	1.6	0	4			
>20	13	5.2	6	7	_		
Onset of Physiotherapy (Mon	ths)		1				
1-12	162	64.5	97	65			
13-24	54	21.5	32	22	0.4500	0.926	
25-36	15	6	10	5	0.459^		
>36	20	8	13	7	_		
hysiotherapy Sessions rece	ived		I				
1-10	158	62.9	91	67		0.231	
11-20	64	25.5	42	22	0.004		
21-30	15	6	12	3	0.964^		
>30	14	5.6	7	7	_		
erceived Health Status			1				
Very good	34	13.5	22	12			
Good	12	49.4	73	51	0.557^	0.813	
Fair	93	37.1	57	36			
Social support / Health Insura	ince	I	1				
Yes	122	48.6	88	34		4.101^	
No	129	51.4	64	65	3.99#		
Additional Health Problems		I	1				
None	107	42.6	71	36			
Hypertension	109	43.4	65	44	Likelihood=0.025		
Asthma	4	1.6	3	1			
Diabetes	15	6	4	11			
Ulcer	14	5.6	9	5			
Parkinson's disease	2	0.8	0	2	1	1	

Table 2: Clinical variables and association with level of participation of individuals with MSDs

Key: n=frequency of occurrence; %=percentage; *=Significant; #=t-value; ^=f value; MSDs=Musculoskeletal Disorders

physiotherapy care at the Physiotherapy Out-patient Clinic and the Chief Tony Anenih Geriatric Centre, University College Hospital, Ibadan Nigeria. Ethical approval was obtained from the Research Ethics Committee of the University of Ibadan/University College Hospital before the commencement of the research. Participants were recruited using the purposive sampling technique. Sample size was calculated based on proportions of patients with each of neck pain, low back pain and osteoarthritis as seen over four months in the centers which were included in the study. The rationale behind the study was explained clearly to the participants and their informed consent obtained and the questionnaires were self-administered to the participants.

Instruments

Socio-demographic and clinical data form: This is a researcher developed 14-item form that was used to retrieve information on socio-demographic characteristics of the participants including age, sex, religion, marital status, occupational status, and educational status. In addition, information concerning the condition the patient was being managed for, duration of condition, onset of physiotherapy management and number of physiotherapy treatment sessions the patient had received was obtained. The Med Risk Instrument for Measuring Patient Satisfaction with Physical Therapy Care (MRPS): This questionnaire developed by Beattie et al., [21] was used in this study. There are 10 specific items and 2 global items contained within the Med Risk Instrument for Measuring Patient Satisfaction with Table 3: Overall level of satisfaction of Individuals with Musculoskeletal disorders in the study.

	LEVEL OF SATISFACTION				
	Satisfied	Less Satisfied			
n	152	99			
%	60.6	39.4			

Key: n=frequency; % =percentage

Physical Therapy Care. Items 1 to 3 represent the external factor, while items 4 to 10 represent the internal factor. Items 11 and 12 are global measures of satisfaction. For the purpose of this study, a slight adaptation comprising items 13 and 14 were included in order to get the areas of satisfaction or dissatisfaction in the patient's own words.

Data Analysis

Continuous variables were summarized using descriptive statistics of frequency, mean, percentage and standard deviation. The associations between satisfaction and each socio-demographic and clinical variable of participants was explored using Chi-square analysis. Level of significance was set as α =0.05. A score of 75th percentile and above was considered as 'satisfied' and a score of less than 75th percentile was considered as 'less satisfied'.

Results

Socio-demographic and clinical characteristics of participants

A total of 260 copies of the questionnaires were hand distributed to the participants. Nine copies were not properly filled and discarded remaining 251 that were properly filled and subjected to analysis, thus representing a response rate of 96.5%. The socio-demographic characteristics of participants are as seen in (Table 1). Participants were of modal age group 50-69 years (52.2%), mean age 64.6±13.1 years and majority 185 (75.3%) were females. Most participants 104 (47.1%) were those with low back pain, 87 (34.7%) had osteoarthritis, while 60 (23.9%) had neck pain. Almost half of them 122 (48.6%) were not on the National Health Insurance Scheme (NHIS) - a health and social support initiative by the federal government of Nigeria. These can be observed in (Table 2).

Satisfaction of participants with physiotherapy management

In this study 152 (60.6%) participants reported a higher level of

Table 4: Summary of specific areas of satisfaction and dissatisfaction of participants in the study.

satisfaction while 99 (39.4%) were less satisfied (Table 3). A higher number of participants, 249 (99.2%) agreed to being completely satisfied overall with the services they received from their therapist while 179 (71.3%) disagreed to their therapist not spending enough time with them. Also 39 (15.5%) participants were undecided as to the registration process being appropriate (Table 4).

Factors influencing patient satisfaction

From this study, reported factors that influenced patient satisfaction were closely related to the physiotherapist attributes (being attentive, responsible, respectful, courteous, caring, refined and patient); the treatment style of the physiotherapist which resulted in improvement in symptoms of patients, prescription of home programs and patient education; availability of manpower; privacy during treatment; availability of equipment as well as fees charged.

Association of socio-demographic and some clinical variables with participants' satisfaction

Age (P=0.05) and educational status (P=0.049) of the participants were significantly associated with the level of satisfaction with physiotherapy management, while sex, marital status, occupational status and personal income were not. Also, social support or having the National Health Insurance (NHIS) cover was significantly associated (P=0.00) with level of satisfaction by participants. Those who perceived their health status as very good or good were more satisfied than those who perceived their health status as being fair. Majority of the participants had 1-10 physiotherapy sessions over duration of 1-12 months and were more satisfied compared to those in other groups.

Discussion

Participants socio-demographic and clinical characteristics

The result of this study revealed that more females reported neck pain, osteoarthritis and low back pain compared to their male counterparts. This is in line with previous studies in which it was observed that more females reported neck pain Ayanniyi et al., [22] osteoarthritis Akinpelu et al., [17] and low back pain Schneider et al., [23] compared to the male participants. This observation may not be out of place because the modal age group of 50-69 years of participants in this study is indicative of advancing age. During

Specific areas of satisfaction paraphrased in participants' own	Specific areas of dissatisfaction paraphrased in participants' own words
words	
- My therapists are responsible and respectful whether male or female.	Some of my symptoms are yet to be addressed
- My therapists pay attention.	There are fewer therapists and more students who can't proceed without further instructions
- Most of my symptoms have greatly reduced.	making waiting time to be prolonged
- My therapist has pain management skills.	I am a Muslim woman in Purdah i.e covering of the entire body, I would prefer more privacy
- Courteous and good.	Privacy is not enough
- They are very caring.	Machines that would have made Physiotherapists work easier are lacking
- I love the way I am treated.	Fees charged for the service is too high
- I have seen improvement in my care.	Appointments given are too spaced out which is not good enough
- My therapist talks to me respectfully.	Some Physiotherapists are skeptical about touching my body during treatment
- My therapists are respectful and refined.	
- They are caring and out to see that the best is achieved with regards	
to the pain you go through.	
- The patience of the therapist in getting detailed Information before	
commencing treatment.	
- The home programs recommended are easy to understand.	
- My therapists educate me properly on my condition and how to take	
care of my body.	
- They advise on how to guard against a reoccurrence.	
- As an old person they make me have a sense of belonging.	
- They treat and talk to you friendly and as though you are family.	

this period, degenerative changes in the musculoskeletal system may predispose to musculoskeletal disorders particularly in women subsequent to hormonal changes Kohlman [24], Wijnhoven [25]. Most participants 104 (41.4%) in this study had low back pain. Indeed a systematic review by Louw et al., [15] in which most studies were from developing countries including Nigeria, reported a rising prevalence and global burden of low back pain in Africa.

Satisfaction of participants with physiotherapy management

In this study, majority of participants being managed for musculoskeletal disorders reported being satisfied with their physiotherapy management. Most participants had had 1-10 sessions of physiotherapy treatment over a 1-12 month period and this certainly would have enabled them to make an informed decision as to if they were satisfied or otherwise with physiotherapy management. Two hundred and forty-one participants reported that their therapists treat them with respect; 232 participants also reported that their therapists answer their questions and 225 reported that their therapist gave detailed instructions regarding their home programs. All these suggest that patient satisfaction was influenced by the therapist attributes. This is in accordance with the report of Hush et al., [4] that therapist attributes is the most consistent determinant of patient satisfaction. One hundred and seventy-nine (71.3%) participants disagreed to their therapist not spending enough time with them. This implies that they were comfortable with physiotherapists spending adequate time with them. In fact, Hush et al., [4] reported that the key process variables that result in high satisfaction are adequate duration and frequency of treatment, appropriate follow up, continuity of care, and mode of treatment and involvement of the patient in the decisionmaking process. Clearly, patients need to feel they have had adequate time with the therapist and not feel rushed through an appointment [26,27] and that they have been carefully re-evaluated and followed up [28]. Reducing patient-therapist time, a current pressure in health care, can be interpreted by patients as lack of interest in them and lead to lower satisfaction and quality of care [29]. Majority of participants reported that the records officers are courteous, that the registration process was appropriate and also that the waiting area is comfortable. Well-organized physical therapy care has being reported as a third determinant of high patient satisfaction. Multiple studies found that patients were more satisfied if the physical therapy service had easy access (location, parking, and clinic hours), helpful administrative staff, low waiting times, and premises of a high standard [4]. In this study, fewer numbers of participants were undecided as to whether the registration process was appropriate as well as if the therapist was spending enough time with them. This may be because they do not know what the standard registration process should look like and the standard time a therapist should spend with their patients.

Association of socio-demographic and clinical variables of participants with level of satisfaction

The age of the participants was significantly associated with the level of satisfaction. A higher percentage of older participants reported higher level of satisfaction. This simply implies that more of the older participants had better satisfaction which is in accordance to reports by Ampiah et al., [30] who reported higher satisfaction of older patients with physiotherapy treatment. Jaipaul and Rosenthal [31] also reported that older patients are more satisfied with hospital care than younger patients. This could be due to the fact that younger patients have relatively high expectations that cannot be easily

met compared to older patients [31]. The educational status of the participants was significantly associated with the level of satisfaction. This may be because a higher number of satisfied participants had had their tertiary education which would have made them understand their conditions and line of management better. Rahmqvist [32] and Laitinen [33] reported that respondents who had post-secondary education had higher satisfaction and that their educational attainment had significant influence on their level of satisfaction with health care delivery. In contrast, Perneger [34] opined that patients who had primary/secondary education had higher satisfaction because they were inherently less able to express criticism about their treatment compared to patients who had tertiary education. A higher number of participants who perceived their health status to be good were more satisfied than those who perceived their health status to be fair. The social support or health insurance status was significantly associated with the level of satisfaction. This may be because patients who had a support system as a means of reducing financial burden would be more appreciative of the system of care they are exposed to and hence be more satisfied with the care given to them. Majority of participants who had received physiotherapy care for about one year duration were more satisfied probably because of high expectations compared to those who have had prolonged duration of care.

Conclusion

Physiotherapist attributes and treatment style are major determinants of patient satisfaction. This encompasses attentiveness, being responsible and respectful, caring, refined and being patient. Treatment style which results in improvement of patient symptoms, patient education and prescription of home programs. Issues of prolonged appointment time, prolonged waiting period and inadequate privacy of patients should be addressed to improve level of patient satisfaction.

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