

## A Qualitative Study into Nigerian Patients' Satisfaction with Physiotherapy Management of Low Back Pain

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### Abstract

**Introduction:** Patients' satisfaction with physiotherapy management of low back pain has been studied in various settings. However, knowledge about patients' satisfaction with health-care provision in the field of physiotherapy from the Nigerian setting is underreported. The purpose of this study was to examine a qualitative study into patients' satisfaction with physiotherapy management of low back pain in Nigeria.

**Methods:** A total of 60 patients with low back pain were enrolled into the study. A focus-group discussion of three-four participants lasting for 30 minutes was conducted. Interviews were carried out by the lead researcher and two other colleagues. Transcribed audiotapes and field notes were taken to record all verbal and non-verbal behaviors. Content analysis was used to analyze the interview texts.

**Results:** Patients' reports were numbered in codes which were classified into positive, negative and neutral codes. When the codes were summed up for judgment and classifications, there were 43 patients in the positive group, 12 patients in the negative group and 5 patients in the neutral group. The findings were grouped into 3 themes; "satisfied, dissatisfied and neutral."

**Conclusion:** The outcomes of this study indicated that low back pain patients in Nigeria were mostly satisfied with physiotherapy management of their conditions. This study was approved by the ethics committee of Federal Medical Center, Nguru, Yobe State, Nigeria (Ethics Approval Number: FMC/N/CL.SER/355/VOL IV/219).

**Key- Words:** Low Back Pain; Satisfaction; Qualitative study; Nigeria.

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### I. Introduction

Low back pain (LBP) syndrome has been considered as one of the most important causes of disability[1], [2]. It has become a major medical and socioeconomic problem among several populations in industrialized countries of the world[3]. Low back pain can significantly impact an injured person's quality of life and productivity, generating substantial costs related to medical service use, sick leave compensation, disability pension and replacement costs[3]. It affects approximately two-thirds of adults at some point in their lives and it occurs at least once in 85% of adults younger than 40 years of age[4]. It affects men and women equally and the onset occurs more frequently at the age of 30-50 years[5].

However, while the epidemiology and impact of low back pain on life participation can better be quantitatively explored, the resulting patient behavior, attitude or belief and adherence to physiotherapy sessions as well as the overall satisfaction or perception of care, can on the other hand better be qualitatively examined. In view of this, qualitative research was designed as a specialized technique for obtaining in-depth responses about what people think or how they feel and it is seen as the type of scientific research that seeks answer to the question in the real world [6].

Historically, qualitative research methods have their roots in several disciplines however, in recent years there has been a revival of interest about qualitative research methods in the healthcare setting[7]. More importantly, qualitative research methods in the field of physiotherapy are gaining grounds following the emergence of evidence-based physical therapy which is determined to move the profession away from practice

based on habit and tradition to a more organized and structured patient centered care which raises a high concern for the integration of patient perspectives of care in the field of physical therapy practice globally[8]. Within this perspective, patient satisfaction has emerged as an important outcome in its own right[9] and is also associated with other important outcomes, such as, greater treatment adherence, better overall outcome, and a higher quality of life[10].

In addition, investigations into patient satisfactions are common, with a systematic review from 2011 reporting on 15 such studies[11]. However, these studies showed that satisfaction was generally very high and is a multidimensional phenomenon, related in particular to the interpersonal attributes of the therapist and the process of care, whereas treatment outcome was infrequently and inconsistently associated with patient satisfaction[11]. Moreover, these studies about satisfaction were conducted predominantly in the UK, Ireland, and North America and other developed areas of the world where physiotherapy care is extensive and based on high quality evidence[12]. Furthermore, limited sample sizes, differences in patients' healthcare literacy and clinical settings have diminished the transferability of the previous studies to the Nigerian context and to date knowledge about patients' satisfaction with health-care provision in the field of physiotherapy from the Nigerian setting is underestimated. For these reasons this study was examined to explore a qualitative study into patients' satisfaction with physiotherapy management of low back pain in Nigeria.

## **II. Material And Methods**

### **Study Design and setting**

This study was designed as a qualitative research method. Ethics committee of Federal Medical Center (FMC), Nguru, Yobe State, Nigeria, have approved the study.

### **Subject recruitment**

A total of 60 low back pain patients were enrolled for the purpose of this study. Patients were recruited from the physiotherapy department of Federal Medical MedicalCenter, Nguru, Yobe State, Nigeria. Purposive sampling method was used to recruit eligible patients who were receiving physiotherapy management of low back pain. Criteria for inclusion included; 1) Patients with non-specific low back pain of any duration, 2) Patients who have received six weeks of physiotherapy sessions and above, 3) Patients who were 18 years old or above to ensure their ability to provide an informed consent, 4) Those who can speak Hausa or English to suit the principle researcher, 5) Those who willingly volunteered to join the research. Exclusion criteria included; 1) Patients with LBP who required urgent physiotherapy or are medically unstable, to avoid interrupting their management, 2) Patients who have received less than six weeks of physiotherapy management, 3) Patients who were less than 18 years old, 4) Those who cannot speak Hausa or English, 5) Those who do not wish to join the study.

### **Study Procedures**

A focus-group discussion of three-four participants lasting for 30 minutes was conducted. Thus, each patient had adequate time for reflection and making statements. Interviewer stimulations, both verbal and non-verbal were conducted to capitalize on group interaction. Interviews were carried out by the lead researcher and two other colleagues. Transcribed audiotapes and field notes were taken to record all verbal and non-verbal behaviors. All discussions were directed by a flexible topic guide developed from the pertinent literature[13]–[16] to enable similar broad issues to be covered. The topic guide (Table 1) comprised semi-structured non-leading questions phrased in clear laymen's terms[17] and not all prompts were used for all data collection, as sometimes the issues surfaced naturally through the conversation. Non-verbal probes, such as smiles and hand gestures, were used to prompt respondents' reflective thinking and encourage their active participation. In order to ensure investigator triangulation, data collection was conducted by the lead researcher and two other colleagues to ensure that the generated themes were comprehensive and representative of the collected data. To ensure clarity of data interpretation, two independent interpreters were equally collaborated. Participants' safety, dignity and human rights were protected throughout the study according to the declaration of Helsinki's guidelines.

### **Data Analysis**

The interview texts were analyzed using content analysis[18]. Documents were read several times by the lead researcher (MSD) and other two colleagues (MAF & ABH) to understand the text and meaning of the content according to the local context. In addition, other research colleagues (SUI, UUZ & AY) were also collaborated and all disagreements were resolved. In the next step, the documents were combined into meaningful and understandable units which were labeled as codes. The coding process was performed by two researchers separately, and then compared, discussed and consensus was reached within the research team. In the third step, the codes were synthesized in detail and were grouped together into meaningful sub-categories

and were labeled with appropriate titles. In the fourth step, subcategories were merged into broader categories which were pooled into major themes. Through proper collaboration with the research team codes were finalized, sub-categories and categories were identified and themes emerged.

### III. Results

#### Number of codes

The number of codes and the themes that emerged were illustrated in Table 2. High numbers of codes were found in the theme "*satisfied*". Based on the patients' reports codes were classified into positive, negative and neutral codes (Table 3). When the codes were summed up for judgment and proper classifications, there were 43 patients in the positive group (*satisfied*), 12 patients in the negative group (*dissatisfied*) and 5 patients in the neutral group (*neutral*).

#### Themes and Sub-themes

The findings were grouped into 3 themes; "*satisfied, dissatisfied and neutral*" and 7 sub-themes; "*strongly satisfied, moderately satisfied, slightly satisfied, strongly dissatisfied, moderately dissatisfied, slightly dissatisfied and neutral*".

#### Satisfied

The theme satisfied was classified into 3 sub-themes; *strongly satisfied, moderately satisfied and slightly satisfied*.

**Strongly satisfied;** In this sub-theme patients usually reported high levels of satisfaction with every aspect of physiotherapy care. The feedbacks that we received from our patients were; "*Physiotherapy management is very effective for me and I am now getting better than ever before*". Thereafter the patients continued to express that physiotherapy management have with no doubt met their expectations and they appreciate the number of hours they spent with their therapists.

**Moderately satisfied;** In this sub-category, patients usually reported physical therapy as having cured some of their symptom to a greater extent. Some of our patients used to report that; "*I am relieved of my problems by more than average and I can now walk with bearable pain*". Then they continued to express their views about the whole physiotherapy sessions as adequately improve their life and wellbeing.

**Slightly satisfied;** In this sub-group, patients usually indicated mild improvement in their symptoms. Some patients used to tell us that; "*Although, I can now sleep for few hours before waking up, I am a little bit better than before*". Others used to tell us that; "*Of course you are really trying but I still have more worries*". Many of these patients reported to us that they were not fully satisfied and they wished to continue with their care.

#### Dissatisfied

The theme dissatisfied was classified into 3 sub-themes; *strongly dissatisfied, moderately dissatisfied and slightly dissatisfied*.

**Strongly dissatisfied;** Patients in this sub-category usually expressed serious dissatisfaction with physiotherapy care of their conditions. A number of them used to tell us that; "*I am worried because of my pain, I am not improving*". While others used to tell us that; "*I once thought to stop coming, my pain is always increasing*". Some of them even told us that they would prefer to take medications than waiting in physiotherapy management queues. Most of our patients made the those statements in grimace with others even making a hissing sound. This was very clear to the research team because non-verbal behaviours were also recorded.

**Moderately Dissatisfied;** Patients in this sub-group expressed physiotherapy care as taking too long and they used to ask, "*why not just prescribing medication?*" In fact some of them used to tell us that when they first heard of physiotherapy they thought it would relief all their worries only to find out that physiotherapy treatment is not better than the others. In addition, when these categories of patients were further probed as to whether they could recommend physiotherapy to a colleague with similar condition, some of them used to reply that; "*honestly I may or not recommend physiotherapy to a colleague*".

**Slightly dissatisfied;** In this category of patients physiotherapy management of low back was viewed from a different perspective in that many of them reported that physiotherapy care is important particularly when you do it abroad but here you lack so many things that we used to see in the internet. When further probed some of them told us that; "*I am not saying that you people do not know what you are doing but at least you need to honestly improve, some of you used to relate with us while others don't*".

### **Neutral**

This category of patients usually reported physiotherapy care as something that needed patience and regular visits. Many of them used to tell us that; “*I cannot say I am improving or not, I just think that I need more sessions to clarify that*”. Others when asked about whether their expectations have been met or not some of them used to reply that; “*Hmmm.... I don't think my expectation is met or will be met I just need more time to consider*”. Many of these patients were smiling while answering their questions and we thought that they were not truthfully speaking their minds.

## **IV. Discussion**

Qualitative research methods are explored to understand how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences. It is seen as the type of research that determines answer to the question from the first person narrative materials[8]. One purpose of qualitative research is to generate hypothesis and this is in contrast to quantitative research in which the stated hypothesis is tested[19]. In this study, patients' satisfaction with physiotherapy management of low back pain in Nigeria was qualitatively examined and the outcomes were reported.

The findings of this study revealed that patients with low back pain undergoing physiotherapy management have *satisfaction* with physiotherapy care of their conditions. In this study group, *satisfaction* with physiotherapy management of low back pain could have been due to significant improvement in their conditions. In this study populations adherence to physiotherapists' advice and treatment sessions have also been observed and all these factors could be attributable to their significant *satisfaction* with overall care of their conditions.

However, not all patients reported *satisfaction* with their care as there were some patients who expressed *dissatisfaction* with physiotherapy management of their conditions. In this patients group lack of adherence to physiotherapy sessions could have been the possible reason for their lack of improvement and therefore they were *dissatisfied* with physiotherapy management of their conditions. Another reason that could have been possible for *dissatisfaction* could have been that the patients' problems were not properly addressed by the therapists. However, in any of these circumstances patients in this group are less in number than those in the *satisfied* group.

In addition, the outcomes of this study also showed that some group of patients indicated *neutrality* about *satisfaction* with physiotherapy management of their conditions. This could have been due to some untapped personal reasons by the patients to continue coming to physiotherapy because their answers during the interviews were not very clear and some were even smiling throughout the interview sessions. These reasons and many more non-verbal behaviors that were observed by the therapists during the interview processes might have been the possible causes for *neutrality* in these patients' categories. However, whichever the likely reasons might be these groups of patients were the least in numbers among all the patients' categories that emerged.

The outcomes of this study were similar to those of previous studies[15], [20]–[23] which examined patients' satisfaction with physiotherapy management of low back pain. However, differences in data analysis and research settings have made these studies to differ from that of the present one. For example, framework work analysis was the most commonly used method for identifying themes about patients' satisfaction in the previous studies which contrasted the current study in which content analysis was used. In addition previous studies were predominantly conducted in the Scotland[21], England[15], [22], [23], Egypt[20] and Kenya[24] and some of them have very limited sample sizes[15], [20], [23]. Furthermore, differences in the themes that emerged have also differentiated our current study outcomes from those of the previous ones. In our study, themes were classified as *satisfied*, *dissatisfied* and *neutral*, whereas in the previous studies themes were mostly classified in form of aspects of physiotherapy care or outcomes that most influence patient satisfaction. Some of these outcomes included therapists' communication skills, decision making, individual care, professionalism and patients' expectations.

However, as with all qualitative studies, this research may have the potential for biases, especially with regards to sampling and recruitment biases, as well as analysis bias. This study was conducted in only one Nigerian hospital and may not be transferrable to other settings. In addition, only patients who have had 6 weeks of physiotherapy sessions and above were recruited for inclusion in this study. This was necessary to ensure that patients have received sufficient therapy sessions to enable them to give their expectations and satisfactions about the overall management of their conditions.

On the other hand, this study also has some sort of strength. To ensure investigator triangulation, data collection was conducted by the lead researcher and two other colleagues to ensure that the generated themes were comprehensive and representative of the collected data, which increases quality control and also ensures rigor in the data analysis process. To ensure credibility, positive and negative quotations about the presence and absence of an aspect of care were equally observed and recorded. In addition, prolonged engagement, persistent observation, low-inference descriptors (verbatim), peer review, and participants' feedbacks were also examined

to add credibility to the findings. Furthermore, to endorse dependability, no patients who were treated by the lead researcher were involved in the study which also allowed participants to freely offer negative feedbacks.

## V. Conclusion

The outcomes of this study indicated that low back patients in Nigeria were mostly satisfied with physiotherapy management of their conditions. It is recommended that Nigerian physiotherapists may consider patients' satisfaction as appropriate outcome measure in the management of low back pain.

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## Authors' Statements

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**Conflict of interest:** We declare that we do not have any conflict of interest.

**Informed consent:** Informed consent has been obtained from the research participants.

## Author Contributions

PT. Danazumi and PT Ibrahim developed this idea. Data was collected by PT Danazumi, PT Abubakar and PT Hassan. Dr. Yakasai and Dr. Zakari helped with data analysis and manuscript writing. All authors were involved in the manuscript writing and revision.

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**Table 1: Topic Guide**

<b>Domains</b>	<b>Questions</b>
Expectations	Before receiving any physiotherapy, what did you think the treatment will consist of? Where did you get these ideas from? Were your expectations met? Do you think the treatment is effective or are you getting better? Were you really satisfied with the treatment?
Information and education	Was your problem fully and easily explained? Were you given enough information about your condition? Were all of your questions answered to your content? Was an explanation given on how a particular treatment worked? Was information/advice provided to help you manage your problem by yourself? Were you really satisfied with every information and explanation by the therapist?
Interaction	Do you prefer working with a therapist of the same gender? Was the physiotherapist understanding and helpful? Do you prefer to be actively involved with the therapist in choosing what treatment you get or do you prefer to leave it all to the physiotherapist? Were you really satisfied with the therapist manner of approach?
Practicalities	What do you think about the cost of physiotherapy sessions? Do you have any comments on the sessions' time? Do you have any comments on the available facilities? Do you think the facilities satisfied you?
Overall satisfaction	How can you grade your general satisfaction with physiotherapy care? Do you have any other points?

**Table 2: Themes, sub-themes and number of codes**

<b>Themes</b>	<b>Sub-themes</b>	<b>Number of codes</b>
Satisfied	Strongly satisfied	432
	Moderately satisfied	341
	Slightly satisfied	143
Dissatisfied	Strongly dissatisfied	146
	Moderately dissatisfied	69
	Slightly dissatisfied	11
Neutral	Neutral	38

**Table 3: Number of positive, negative and neutral codes**

<b>Positive codes</b>	<b>Negative codes</b>	<b>Neutral codes</b>
916	226	38

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