

Patient Perceptions of Physiotherapy for Knee and Hip Osteoarthritis: a Qualitative Study

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Abstract

Physiotherapy is a mainstay treatment of osteoarthritis plays a central role in the management of patients with functional limitations. Though physiotherapy is recommended as the main treatment, there is conflicting evidence in literature on perception of patients with osteoarthritis on the benefits of physiotherapy. The main objective was to explore the perceptions of patients with knee and hip osteoarthritis on benefits of physiotherapy. Purposive sampling was used in the study. Ten patients already diagnosed with hip or knee osteoarthritis were sampled. In-depth one to one interviews were conducted and interviews were recorded and transcribed, then themes were generated and analyzed. Four main themes emerged. These were perception of physiotherapy by patients, reduction of pain, improvement of physical function, and need of more information. The study showed that the majority of patients with osteoarthritis of the hip and knee view physiotherapy as beneficial. Most said that physiotherapy treatment has resulted in reduction of pain and improvement of physical function.

Keywords: Perceptions, physiotherapy, knee, hip, osteoarthritis

Introduction

Osteoarthritis (OA) is defined as a degenerative joint disease involving the cartilage and many of its surrounding tissues (Cooper et al., 2013). In addition to damage and loss of articular cartilage, there is remodeling of sub articular bone, osteophyte formation, ligamentous laxity, weakening of periarticular muscles and, in some cases synovial inflammation. Disease progression is usually slow but can ultimately lead to joint failure with pain and disability (Hinnman, 2012). Although OA can occur in all the joints due to aging, it is more commonly seen in weight-bearing joints like the knee and hip. Symptoms of OA include joint pain, stiffness, and limitation of movement (Symmons et al, 2006).

Physiotherapy is a mainstay treatment of OA (Hinnman, 2012; Page et al 2011), it plays a central role in the management of patients with functional limitations. Aims of physiotherapy treatment include pain and spasm relief, reducing stiffness, muscle strengthening, increasing range of motion, increasing flexibility, gait training, balance improvement, and improving functional activities (Potts 2015), which in turn encourages healing of the cartilage as it is stimulated by weight bearing in the joints. Though physiotherapy is the major treatment of OA, patients have varying views about physiotherapy. Some patients with knee osteoarthritis are not aware of the benefits of physiotherapy (Thorstenson, 2014). For example in a study done in New Zealand on patient perception of benefits of physiotherapy, many were unaware of the different interventions that physiotherapy could provide. Furthermore the majority of these patients stated that, they would consider seeing a physiotherapist if they had known the benefits (Reid et al, 2015).

Other patients feel that there is no available treatment, like In India it is a common perception that joint replacement surgery is the only treatment of OA (Patil et al., 2012). Showing that they are unaware of other treatment options including physiotherapy which is the main treatment of knee and hip osteoarthritis (Hinnman, 2012). On the other hand other patients perceive physiotherapy as beneficial in the treatment of OA as shown in the study done in Egypt (Hanan & Sahar, 2011). Poor perception of physiotherapy benefits may affect adherence to treatment. This is because patients may not be committed to an exercise programme and thereby miss appointments which in turn will affect the treatment. This was shown in the study done in India on perceptions of physiotherapist on factors that influence adherence, which

showed that poor awareness of physiotherapy benefits was a barrier to patient's attendance by most participants (Marwaba et al, 2010).

In Zambia there is scarcity of published information on perception of osteoarthritis patients on benefits of physiotherapy. Nonetheless, patients with OA are seen at various institutions in the country. At University Teaching Hospital in Lusaka for example, outpatient physiotherapy department attend to osteoarthritis patients from various localities. In 2013 from January to December, the number of recorded patients with osteoarthritis of knee and hip were 186, and in 2014 there were 196, showing that on average 15 patients are seen each month. The patients with OA make up most of the new patients attended to.

In South Africa the management of osteoarthritis include exercises which should be encouraged in all patients, irrespective of age (Ickinger & Tickly, 2010). There is now convincing evidence that exercise reduces pain, improves functional capacity, and reduces long-term disability, providing adherence is maintained. Transcutaneous electrical nerve stimulation (TENS) is also recommended in most guidelines as safe adjunctive modalities for pain relief. And in Australia, physiotherapy treatment of hip and knee osteoarthritis encompass advice, information and education, exercise programs, joint mobilization, muscle re-education, massage, assistance with use of aids and electrotherapy modalities (Hinnman, 2012).

Benefits of Physiotherapy

Physiotherapy is a non-pharmacological conservative treatment approach, that is recommended in clinical guidelines as the mainstay for the management of knee and hip osteoarthritis. This shows that Physiotherapy should be considered prior to pharmacological interventions for patients with osteoarthritis (Chapple, 2012). Aims of physiotherapy treatment include pain and spasm relief, reducing stiffness, muscle strengthening, increasing range of motion, increasing flexibility, gait training, balance improvement, and improving functional activities (Potts, 2015). Treatment of osteoarthritis may encompass advice, information, education, exercise program, joint mobilization, muscle re-education, massage, assistance with use of aids and electrotherapy modalities (Neogi, 2013).

There is evidence to show that exercise can decrease knee pain and improve function (Guadreaux, 2010; Page et al., 2011). From

this it can be seen that exercises can help reduce pain in osteoarthritis. It may also help improve mobility, strength, and function. Another treatment modality used in treating osteoarthritis is Transcutaneous Electrical Nerve Stimulation (TENS) which has shown significant benefit in pain relief. Both high frequency and strong burst mode TENS have shown benefit (Shamiliyan et al., 2012). Specialized therapy is needed in combination with conventional resistance exercise to overcome decreased neural drive to the muscle. In this regard Sensory Transcutaneous Electrical Nerve Stimulation (TENS) applied to the knee has been reported to excite inhibited motor neuron pools and immediately increase maximal quadriceps voluntary strength. Therapeutic exercise, especially with specialized hand-on exercise training and an element of strengthening, is an effective treatment for hip OA which helps to reduce pain and increase function. There is evidence from a high quality randomized controlled trial that manual therapy may be more effective than exercise in hip OA (Bennel et al., 2010). Ultrasound therapy is yet another treatment modality used to manage osteoarthritis. Application of high frequency sound waves to tissues enhance soft tissue healing, cartilage repair, which goes a long way in improving physical function and reducing pain, this view was also stated (Sanchez et al., 2010). Several studies have shown the benefits of physiotherapy to include pain relief, improvement in function, and reduction in stiffness and increase in strength.

Perception Of Physiotherapy Benefits by Patients

In the last few decades there has been a gradual change in models of healthcare and the way to understand the physician-patient relationship. From a medical model based on the disease and symptoms, there has been a gradual progression towards what has been called patient- focused care whose main features would be respect for the patient's choices and values (Santana et al., 2012). This goes to show the importance of knowing patients perceptions. It is further stated that, the health care professionals should adopt strategies for enhancing patient's self-efficacy, and tailor exercise interventions to the different needs and perceptions of the patients with osteoarthritis (Hanan & Sahar, 2011). Patients with osteoarthritis have varying views on benefits of physiotherapy. According to Thorstenson (2014), most osteoarthritis patients are not aware of benefits of physiotherapy. And in a study done in New Zealand on patient perception of benefits of physiotherapy majority of these patients revealed that they would consider seeing a physiotherapist if they had known the benefits (Reid et al, 2015). In India, according to Patil, Dixit and Shetty (2012) it is a common perception that there is no available treatment other than joint replacement surgery, showing that they are unaware of other treatment modalities

including physiotherapy which is the mainstay treatment of osteoarthritis (Hinnman, 2012). Another study that was done in India on perceptions of physiotherapist on factors that influence adherence reviewed that poor awareness of physiotherapy benefits was identified as a barrier to patient's attendance by most participants. Many patients are not aware of the aim of physiotherapy to bring about independence for patients and their families (Marwaba et al., 2010).

On the other hand, other patients perceive physiotherapy as beneficial in the treatment of OA. This was shown in a comparative study between OA and Osteoporosis patients in Egypt by (Hanan & Sahar, 2011). The study findings pointed to a higher commitment to exercise in both groups with significant differences between them, where osteoporotic patients had significantly higher scores of commitment and self-efficacy, osteoarthritis patients had higher perception of exercise benefits. Another study done in London UK, on patient treatment preferences of OA, of the participants who expressed a preference, the most popular option was physiotherapy. The most frequent reason for choosing physiotherapy was that it was previously beneficial (Mitchel & Hurley, 2008).

Methods

The design of the study was explorative design using qualitative research methods. Purposive sampling was used in the study. The study setting was University Teaching Hospital, physiotherapy outpatient department, which approximately attends to 15 patients with knee and hip OA in a month. Ten (10) patients already diagnosed were sampled. The purpose of study was explained and consenting patients who met inclusion criteria were interviewed using one to one in-depth interview. The interviews were semi structured.

A topic guide adopted from a study done by Hendry et al. (2006) which consisted of several key questions was used. The questions were modified to answer the study objectives. The information generated was recorded using a tape recorder. To establish whether the interview questions were understood correctly, a pilot study was conducted at Levy Mwanawasa Hospital on six patients who consented. The results showed that the interview questions were understood correctly. Thematic analysis was used in the study (Jailan & Ibrahim 2012). Analysis of data firstly involved recording the interviews using tape recorder, then transcribing the recorded interviews, making sure that the character of respondents comments were maintained, then familiarization with the information was done, after that codes were generated manually using highlighters, then

development of themes from the codes and finally analyzing the themes (Fereday & Muir-Cochrane).

Approval to carry out the study was sought from Tropical Diseases Research Centre Ethics Committee. And permission was also sought from UTH to conduct the study at the institution and LMGH to conduct a pilot study. Consent was sought from the patients, who were not be forced to participate and were free to withdraw any time. The patients were informed on the use of tape recorder in the interviews. Confidentiality of all information collected was ensured as the interviews did not require names but number codes were used instead.

Results

Ten eligible patients were identified. They all agreed to participate and were interviewed. Of the ten (10) who were interviewed, nine were women and one man. Their age range was 52– 75 years, and the duration of attending physiotherapy was a month on average.

Emerging themes

Four main themes emerged. These were, perception of physiotherapy by patients, reduction of pain, improvement of physical function and need of more information.

Perception of Physiotherapy by Patients.

Most patients interviewed stated that they viewed physiotherapy as helpful. Eighty percent of the patients 80% (n=8) thought physiotherapy is important in the management of arthritis. The following were some of the responses.

“I think it really helps a lot. After a few sessions you feel the difference, you come very bad but by the time you leave you are much better....” (5)

“What I think is that it helps the person get better than before, it is an important treatment...” (3)

Reduction of Pain

The majority of respondents representing 80% (n=8) said that physiotherapy helped in the reduction of pain. They stated that the treatment received made the pain to be less than before. Below are some of the responses.

“When I came I was in pain but now am okay (1)”.

“The pain is better than before (2)”.

“Physiotherapy treatment has helped to reduce the pain (8)”.

The minority of the respondents representing 20% (n=2) said that there was no improvement in pain. Some responses were as follows.

“I am waiting to get better for I am still in pain (6)”.

There has not been change in pain (10)”.

Improvement of Physical Function

The majority of respondents representing 90% (n=9) said that there has been improvement in physical function. Some of the responses were as follows.

“Because the knee has no pain I walk well and can stand for a long time (8)”.

“At least now I can walk, sweep the house and cook (5)”.

“There has been great improvement in walking and doing house work (3).

Need for More Information.

Under this theme the researcher wanted to know if patients are aware of how the treatments given to them works. The majority of the respondents representing 70% (n=7) said that they did not know how the treatment given to them works. Below are some of the responses.

“I do not know exactly (3)”.

“It is difficult to explain how it works (4)”.

“I do not know how the treatment works (10)”.

The minority of the respondents representing 30% (n=3) expressed an idea of how physiotherapy treatment works.

“Helps to release the muscles (5)”.

“Reduce stiffness (8)”.

Discussion

Most of the patients interviewed, which represents 80% (n=8), stated that they viewed physiotherapy as beneficial in the treatment of arthritis, and that the treatment was helpful. This is in line with the study that was done in Egypt Hanan and Sahar (2011), which showed that patients with osteoarthritis perceive physiotherapy as beneficial. Other studies share same view (Pisters et al 2010). Another study done in London UK, on patient treatment preferences of OA, the most popular option was physiotherapy and the frequent reason for choosing physiotherapy was that it was previously beneficial (Mitchel & Hurley 2008). On the other hand, a few of the patients representing 20% mentioned that they were not aware of the benefits of physiotherapy. Literature shows that some patients are not aware of the benefits of physiotherapy. According to a study done in New Zealand on patients views of benefits of physiotherapy, some of the patients revealed that they would consider seeing a physiotherapist if they had known the benefits (Reid et al., 2015), indicating that they were not aware of the benefits of physiotherapy. Another study that was done in India conflicts with the result of the study, in which it was stated a common perception is that there is no available treatment other than joint replacement surgery showing that patients are unaware of other treatment modalities including physiotherapy which is the mainstay treatment of osteoarthritis (Patil et al., 2012). From the study the results showed that most patients are aware of the benefits of physiotherapy while a few are not.

Majority of respondents which represented 80% (n=8) showed that physiotherapy helped to reduce the pain. Literature shows that physiotherapy treatment aims include pain and spasm relief (Potts, 2015). One of the treatment modality used in treating osteoarthritis is Transcutaneous Electrical Nerve Stimulation (TENS) which has shown significant benefit in pain relief. Both high frequency and strong burst mode TENS have shown benefit (Shamiliyan et al., 2012). There is evidence to show that exercise can decrease knee pain and improve function (Page et al., 2011), and therefore the management of osteoarthritis include exercises which should be encouraged in all patients, irrespective of age (Ickinger & Tikly 2011). It is further stated that there is now convincing evidence that exercise reduces pain, improves functional capacity, and reduces long-term disability, provided adherence is maintained. This view is also shared by Guadreaut (2010). From this it can be seen that physiotherapy can help reduce pain in osteoarthritis. It may also help improve mobility, strength, and function. But a study that was done by Bennel (2014) have a different view from the results of this research. The study showed that physical therapy does not appear

to relieve pain or increase function in hip and knee osteoarthritis.

The majority of the respondents representing 90% (n=9), stated that physiotherapy helped them to improve physical function like walking, kneeling and performing house chores. Literature shows that therapeutic exercise, especially with specialized hand-on exercise training and an element of strengthening, is an effective treatment for hip OA which helps to reduce pain and increase function. There is evidence from a high quality randomized controlled trial that physiotherapy may be effective in improving physical function (Bennel et al., 2010). Literature also show that ultrasound physiotherapy treatment, used to manage osteoarthritis enhance soft tissue healing, cartilage repair, which goes a long way in improving physical function and reducing pain (Sanchezi et al., 2010). On the other hand a study that was done by Hills & Kitchen (2016) that looked at satisfaction of patients on physiotherapy revealed that patients had lower satisfaction on clinical outcomes of physiotherapy. This study do not agree with the findings of the study.

The majority of the respondents representing 70% (n=7) said that they did not know how the treatment given to them works. One of the participants said "I do not know exactly how the treatment works". While the other said "It is difficult to explain how it works". The minority of the respondents representing 30% (n=3) expressed an idea of how physiotherapy treatment works. One said "Helps to release the muscles, and another said "Reduce stiffness". According to a study done in New Zealand on patient perception of benefits of physiotherapy majority of these patients did not know the benefits of physiotherapy (Reid et al 2015).

Conclusion

The study showed that the majority of patients with osteoarthritis of the hip and knee view physiotherapy as beneficial. Most said that physiotherapy treatment has resulted in reduction of pain and improvement of physical function. As the treatment has helped to reduce the pain, they are able to walk for a longer distance and find it easier to perform house chores. The study also showed that most patients need information of how physiotherapy treatment works. Many had no idea of how physiotherapy works in treatment of arthritis. There is therefore need to educate patients on how physiotherapy works.

Recommendation

More information should be made available to patients on how

physiotherapy works to bring about benefits.

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