

## Patient's Adherence to Physiotherapist Prescribed Self-management Strategies: A Physical Therapist's Perspective

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**Abstract:** Background: Few studies have been done in India about factors which can influence patient's adherence to self-management protocol and a physiotherapist's view on subject of adherence. Material & Methods: This cross-sectional study was conducted via a self-made questionnaire consisting of 20 items. Fifty final BPT and 1<sup>st</sup> year post graduate students were asked to choose the most appropriate answer from options given. Descriptive analysis was done using Google Forms. Results: 62% strongly agreed that self-management is important. Good self-management strategies should have clarity of instructions (66%), be proper and should be easy to follow (50%). 86% believed proper communication skills, strategy prescription, knowledge, monitoring and follow up by therapist will help patient adhere to strategies. Willingness to exercise (48%), Positive belief in exercise (44%) and Age (56%) were thought to influence patient adherence. Stigma associated with disability (52%), poor inter-professional relation (86%), are barriers. Properly educating the patient about his condition (96%), involving the family members (92%) were believed to be facilitators. 46% therapists agreed that a passive approach should not be used. 54% strongly disagreed they don't have time to assess patient adherence. Conclusion: Physiotherapists agree that patient's adherence to physiotherapist prescribed self-management strategies is essential for clinical practice. There is a need to use different approaches to increase patient adherence. [Baxi H Natl J Integr Res Med, 2020; 12(1):68-73]

**Key Words:** Patient adherence, Self-management, Physiotherapist, Review.

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**Introduction:** The terms Self-care, adherence, and self-management are used interchangeably within the literature. Self-management of any chronic condition is an imperative aspect of rehabilitation. Self-management is "the ability to manage the symptoms, treatment, physical and psychosocial consequences, and lifestyle changes inherent in living with a chronic condition." Self-management fits the positive health concept ("the ability to adapt and to self-manage, in the face of social, physical, and emotional challenges")<sup>1</sup>. The term was first employed by Thomas Creer suggesting that patients are active participants in their own treatments.

Conceptually, it has been described and considered for more than 40 years<sup>2</sup>. Self-management of any disease depends upon the patient's understanding, co-operation and also the inter-personal dynamics between the health care alliances and the social relationships. For osteoarthritis, self-management strategies have been shown to significantly reduce catastrophizing and fear-avoidance beliefs,

increase pain self-efficacy beliefs, reduce pain, disability and depressive symptoms<sup>3</sup>. Self-management of neurological conditions has improved cardio-respiratory fitness, stress management, mental health<sup>5</sup>.

Adherence has been defined as: "the extent to which a person's behaviour corresponds with agreed recommendations from a healthcare provider"<sup>5</sup>. It requires patient's agreement to the given recommendation. For physiotherapy, the concept of adherence is multi-dimensional, relating to attendance at appointments, following advice, undertaking prescribed exercises, frequency of undertaking prescribed exercise, correct performance of exercises or doing more or less than advised<sup>6</sup>.

Adherence has been identified as a precedent to successful patient outcomes, especially for musculoskeletal disorders<sup>7</sup>. WHO's approach for studying adherence is formed of the interplay between these five dimensions: patient-related factors; social/economic factors; therapy-related factors; condition-related factors and health-

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system related factors<sup>8</sup>. In the current scenario, it is difficult for patients to visit a physiotherapy clinic everyday due to work and financial constraints. This is true especially for India. India still has 73 million persons living below poverty line which makes physiotherapy services scarce to them. The overall literacy rate in India is was 74.04% (2011 census)<sup>9</sup>, which means that many people may not understand the need for physiotherapy or the need to adhere to any protocol described by their therapist.

Also, the Indian government hospitals has increased number of patients coming to the clinics and the number of machines of modalities per patient is deficient which increases the patient load for the staff resulting in compromised health care and insufficient outcomes. Persons with long working hours will not be able to attend their therapy sessions owing to the different timings of the clinic and their jobs. Distance of the clinic also plays an important role in determining patient's co-operation as job seekers have time constraints and the poor persons cannot afford the cost of travelling and treatment.

In chronic conditions, intervention for maintenance of the condition post betterment is essential, hence for long term treatment, self-management is required. The problem with Indian patients is dependence on modalities and therapist even after significant improvement of their condition. They are unwilling to understand and follow active exercise prescription on their own which adversely affects treatment outcomes, especially quality of life. Despite many efforts by the therapists to increase awareness towards physiotherapy and self-management strategies, poor cooperation has been found in adherence.

The rehabilitation of a patient depends on proper manual techniques as well as the therapists understanding of the psychological needs of the individual and his/her ability to direct therapy to meet the goals. The physiotherapist's influence may play a role in patient co-operation.

It is necessary to understand which factors are responsible so that appropriate strategies can be used to improve the therapists' efforts and the patients' willingness. Hence it is necessary to know a physical therapist's perspective regarding the prescription of self-management strategies

and the possible factors which may influence patient's adherence to it.

**Material & Methods:** This cross-sectional study was conducted via a self-made questionnaire at SBB college of Physiotherapy in September 2019. Permission to conduct the study was obtained. Fifty final BPT and 1st year post graduate students participated in this survey via convenience sampling. The questionnaire consisted of 20 items. The topics covered were the need of self-management, the strategies to be used, characteristics of a good self-management strategy, patient related facilitators and barriers, therapist related facilitators and barriers. Some questions had a 4 point Likert scale: 'strongly agree, Agree, Disagree, Strongly disagree' whereas others had suitable options in accordance with the question. The participants were explained the study, and students both males and females, in the age group of 20-25, willing to participate were enrolled in the study.

They were asked to fill the questionnaire by choosing the most appropriate answer from the options given. Multiple options could be chosen in all the questions except the ones which had a response in Likert Scale rating. Descriptive analysis was done using Google Forms.

**Results:** Total 55 students were given the form out of which 50 students completed the questionnaire; hence the response rate was 90%. Out of the 50 students, 18 were 1<sup>st</sup> year post graduate students of physiotherapy and 32 were final year bachelor of physiotherapy students; 43 females and 7 males filled the questionnaire.

Figure 1 depicts the answers to the questions with maximum percentage. Sixty two percent strongly agreed that Self-management strategies are important for the long term management of any musculoskeletal/neurological/cardiac conditions. Fifty six percent agreed that by teaching self-management strategies, a physiotherapist can help the patient in preventing the negative impact of their condition. Fifty percent agreed that self-management strategies should address the bio-mechanical, psychosocial, individual characteristics of the patient and not just the patient's current condition.

Forty six percent agreed that Self-management strategies should not use too much of a passive

approach (i.e. medications, hot packs) as it may increase the perceived disability and pain behaviour. Seventy two percent therapists agreed that self-management should use active approach like exercises to make the patient realize that he/she is an important decision. Good self-management strategies should have clarity of instructions (66%), proper therapist support and communication(56%), should be pain free(26%), tailor made(18%), should have 2-4 exercises(6%) and should be easy to follow(50%). Eighty six percent believed that proper communication skills, strategy prescription, knowledge, monitoring and follow up by the therapist will help the patient adhere to the strategies.

Willingness to exercise (48%), Positive belief in exercise (44%), self-motivation (40%) were the modifiable patient characteristics thought to influence patient adherence while Age (56%) and co- morbidities (33%) were thought to be the non-modifiable characteristics. Level of education (49%), emotional and mental support from family/ friends (55%) were thought to be the influential social factors. Stigma associated with disability (52%), visiting chiropractors (32%) visiting saints/babas (40%) were thought to be important cultural factors in India. Poor inter-professional relation (86%), is a barrier. Properly educating the patient about his condition (96%), involving the family members (92%) were believed to be facilitators.

Practicing strategies (58%), motivational support (44%) were thought to help the therapist aid the patient's adherence, while some supported the use of videos and smartphone applications and various other methods.

Ninety percent believed that patient's adherence to physiotherapist prescribed self-management strategies is essential for clinical practice. Fifty four percent therapists strongly disagreed that they don't have time to assess patient adherence.

**Discussion:** The principal findings of this survey show that physiotherapy students believe that self-management strategies are important but patients will not completely adhere to it. Forty six percent participants believed that excessive passive approach should be avoided but majority (72%) agreed that active approaches should be used. A systematic review conducted by S.F.

maker and it may reduce the perceived disability and pain behaviour. Sixty four percent agreed that self-management strategies are necessary to change the patient's perception of their condition and helps set realistic goals.

Anderson regarding the adherence to exercise prescription in spondylolytic patients found poorly reported adherence along with the results suggestive of the patients not fully adhering to the treatment strategy<sup>10</sup>. Survey conducted by Marvah et al showed that forgetfulness and time are barriersto patient adherence.<sup>11</sup> These factors have not been included in this survey. Sixty two percent agreed that self-management strategies are important. However, according to the survey by Kerry Peek et al 89% of therapists agreed that self-management strategies are important<sup>12</sup>. This difference may be due to the fact that final year students do not have sufficient technical knowledge regarding patient management.

In the present study, 54% strongly disagreed that lack of time to assess patient is an influential factor. NJ Roberts et al found that patient factors and understanding such as literacy, cognition, intelligence, and language barriers and lack of resources for example, lack of training, staff and resources hamper self-management. Lack of time was considered the most important barrier from therapist point of view<sup>13</sup>.

This discrepancy may have occurred due to the fact that students are given sufficient time in their clinical postings for evaluating every aspect of the patient while clinical therapists and therapists going for home visits may wish to analyse it but lack time owing to outpatient management and treatment of patients and stiff market competition for providing better and quicker patient care.

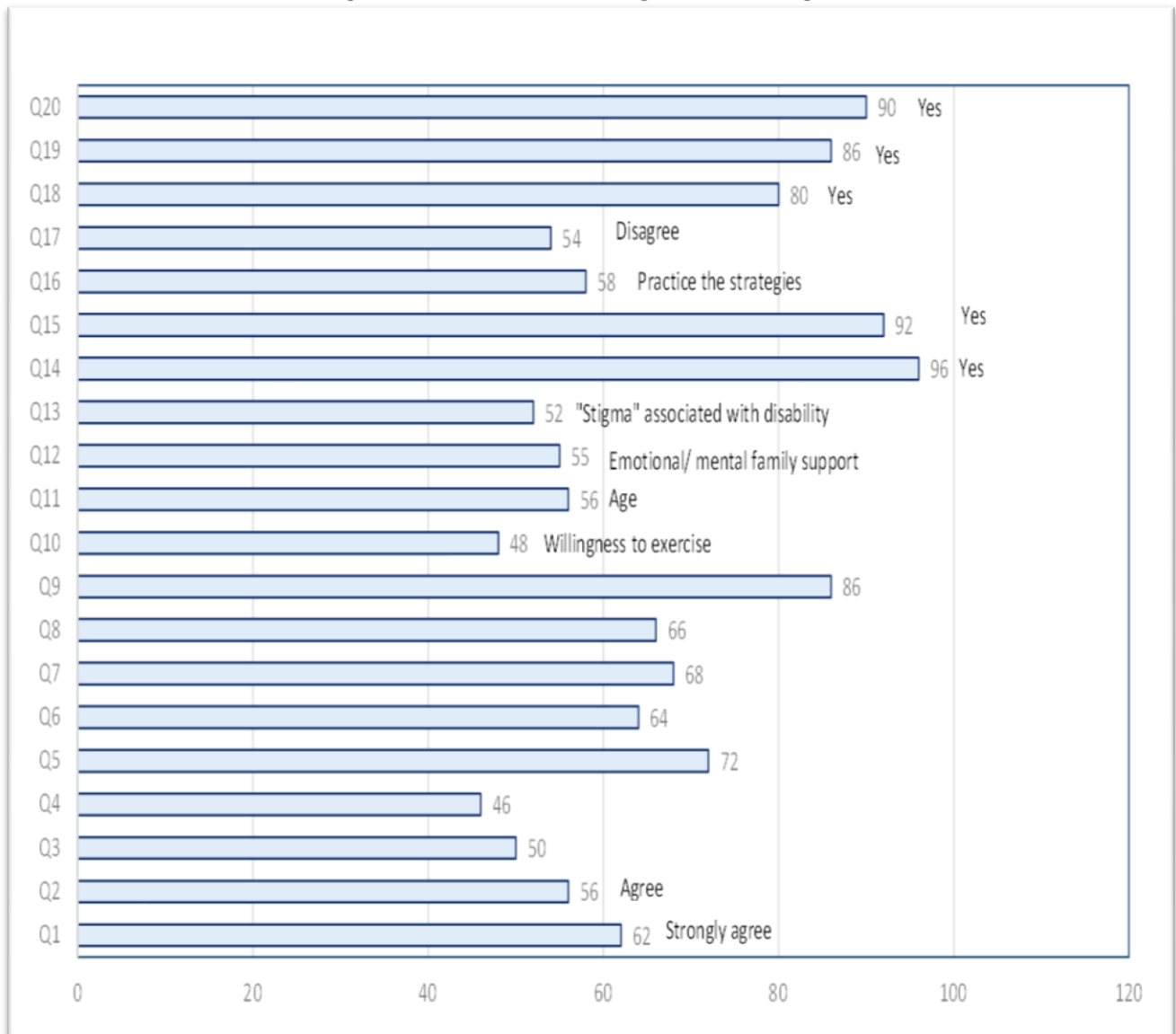
Properly educating the patient about his condition (96%) has been thought to be a facilitator. Similar results have been found in various studies. PilarEscoral-Reinar found that all the participants will chronic neck and back pain perceived lack of knowledge about the condition a barrier to treatment adherence. Sufficient knowledge motivated them to follow the exercise prescription as they were prescribed with proper explanation and justification<sup>14</sup>. Mahmoud Usman et al found significant level of association between knowledge and adherence level in care givers of children cerebral palsy<sup>15</sup>.

In this study, Willingness to exercise(48%), Positive belief in exercise(44%),self-motivation (40%) were the modifiable patient characteristics thought to influence patient adherence. For the physiotherapy protocol of post oesophageal cancer, patients' own attitudes (motivation, commitment and personal goals) towards exercise was found to be one of the discerning facilitators<sup>16</sup>. A combination of indigent self-regulation and negative implicit attitudes may

leave individuals at risk of mental and physical health consequences of low physical activity<sup>17</sup>.

Ninety two percent therapists have agreed that strong support from family is an important social factor.A systemic review by K Jack et al, found strong evidence suggesting that poorfamily support is a socio-demographic barrier<sup>18</sup>.

Figure:1 Answer With The Highest Percentage



In this study, 52% agreed that stigma associated with disability is an important. This is in consistency with the findings of other studies.Stigma is a well-documented global barrier to health-seeking behaviour<sup>19</sup>, engagement in care, and adherence to treatment<sup>20</sup>.Stigma influences population health outcomes by worsening, undermining, or impeding a number of processes, including social

relationships, resource availability, stress, and psychological and behavioural responses, exacerbating poor health<sup>21</sup>. By knowing the perception of physiotherapist students, changes can be made in the therapist's approach to the patient as well as different strategies should be used to increase patient cooperation and awareness. BPT and MPT students were the participants in the study is one of the limitations.

However, this was done to know the thoughts of students before they complete their graduation. Due to time constraints few were unable to submit the questionnaire. The questionnaire had close ended questions which limited the opinions. However, many questions had an option for suggesting different approaches which was given by 4 participants. More research is required for understanding these factors and the role of a physiotherapist in overcoming or facilitating adherence need to be explored further.

Physiotherapists should consider all the environmental, personal, socio-economic factors while prescribing any strategy and encourage the use of self-management as early as possible to reduce patient dependence on therapist and to rehabilitate the patient in its true sense.

**Conclusion:** Physiotherapy students agree that self-management strategies need to be prescribed by the therapist but have insufficient knowledge regarding the importance of giving active approach as well as the practical need of giving self-management strategies. Students should also be educated about the importance various psychosocial factors. Modification of approaches needs to be done to increase patient's cooperation to self-management.

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