

## Utilization Of Outcome Measures By Physiotherapist For Low Back Pain

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### ABSTRACT

**Background:** Rehabilitation of patients with low back pain forms an important part of physiotherapy practice, then also rehabilitation outcomes often are poorly quantified. This study examined the use of outcome measures for low back pain by Indian Physiotherapists.

**Methods:** A survey questionnaire was sent via social media like WhatsApp, Facebook, and email to all physiotherapists via google forms working either in private practice, government organizations, Physiotherapy colleges, free lancing. Link was accessed 125 times and 71 fully filled responses were analyzed.

**Results:** The mail survey achieved a 56.8% response rate and showed that 52.9% physiotherapists used outcome measures. Improvement in person-specific functional activities is the preferred outcome measure used by physiotherapist.

**Conclusion:** Half of the study sample of practitioners used outcome measures in their clinical practice. Therapists who were having a post graduate degree or more experience, were using more outcome measures than those who were having graduation degree or less experience. Further research is needed on how to convey to practitioners that the information they provide can be useful and can improve patient outcomes.

-----Key words: Low Back Pain,  
Outcome Measures, Physiotherapist  
Abbreviations: LBP-Low Back Pain, PT- Physiotherapist

### Introduction

Outcome measures are the tools for assessing and measuring the outcomes of health care services that are provided over time. For physiotherapists, the important outcomes include the improvement in patient impairments and disabilities, activity restrictions, participation limitations, and quality of life, (APA, 2003) as assessed by patient self-report tools. For more than 20 years, outcome measures for low back pain (LBP) are used in research settings to evaluate the effectiveness of treatment techniques (Beattie P et al, 2001) (Schaufele MK, 2003)

Various studies throughout the western world (Canada, Scotland, England, New Zealand, United States of America, and Australia) (Cooperland, 2008) indicated that their use by physiotherapist in routine practice is limited. Moreover, there is increasing pressure on physiotherapist to use evidence based practice and to clearly document the improvements in a person's health status.

Except from these burdens, there has been a gradual variation in health outcome philosophies that could have an impact on physiotherapy treatment or intervention and the choice of outcomes measured. The *International Classification of Functioning, Disability and Health* (ICF) (WHO, 2006) is a body that facilitates a more holistic approach of patient care, with the emphasis on enabling patients to mingle in society, in variation to the previous focus on pathology and impairments. For physiotherapists, this means a step away from focusing on pain and strength, toward a larger emphasis on the person's goal.

Low back pain is an increasing problem, especially in India, and a significant health care cost is incurred by the patients. In Indian health environment, subjects with LBP can sometimes directly access a physiotherapist without any referral, physiotherapist sometime have to deal with more acute problems but, the effectiveness of physiotherapy interventions for LBP is more often questioned due to less use of evidence based measures. physiotherapist spend less time in reading clinical research and predominantly use techniques required during their entry level training a study done on Indian for

the therapy practitioner revealed that 43% use their past experience to decide treatment strategy ( Turner PA and Whiltfield ATW, 1999). With a rise in medical tourism, changing health care delivery system and autonomy in decision-making it is important for therapist to include evidence based practice.

Previously done research on the usage of outcome measures by physiotherapists was an important factor in the design of this study. A Study done in Canada( Cole et'al,1994) on physiotherapists, use of outcome measures during treatment was the first physiotherapy-based research in this domain. They stated that lack of knowledge, time constraints, and the perception that outcome measures is not meeting the needs of their patients were the main reasons for the failure by physiotherapists to use outcome measures in their treatment regime( Kay T, 2001) following this research by Cole and colleagues, a resource book titled *Physical Rehabilitation Outcome Measures* was published; but, follow-up surveys after 6 years still identified a very low level of usage of outcome measures ( Huijbregts M et'al, 2002). After that an Australian study was particularly relevant to this research, as Victoria, Australia has a state-run accident insurance scheme, the Transport Accident Commission (TAC), this research showed an increase in use of outcome measures, from 30% in the survey done in March to 66% in the September survey( Abrams D et'al, 2006).

A study done by Copeland and Taylor in New Zealand with a response rate of 65% showed that only 40% respondents were using outcome measures related to back. They concluded that subjects having master's degree are more commonly using measures to assess outcomes.

This present study is focused to evaluate the beliefs and attitudes of Indian Physiotherapists relative to their use of outcome measures, specifically their use of 3 commonly used outcome measures: the Oswestry Low Back Pain Disability Index (OLBPDI)( Fairbanks et'al,1980) the Roland-Morris Disability Questionnaire (RMDQ)( Roland M and Morris R, 1983)and the Quebec Back Pain Disability Scale (QBPDS)(Kopec JA et'al,1995). A secondary aim was to find out whether the level of exposure to outcome measures that Indian physiotherapists have experienced over the past decade has in any way influenced their use of outcome measures, given changes that have occurred Bachelor's, Master's and Doctoral and changes in health outcome philosophy, in particular the ICF framework model, with its emphasis on activity and participation.

## Methods

The present study was a cross-sectional study using qualitative and quantitative methods used for data collection. All of the participants included were physiotherapists working in India, and the research was limited to those physiotherapists treating patients with Low Back Pain. The mail survey, consent was presumed if the survey questionnaire was returned back. The study participants included physiotherapists working in public hospitals, private hospitals, free lancers, having own clinic, teaching in colleges or universities. Questions were included on whether physiotherapists are using outcome measures, the methods physiotherapists are currently using to measure outcomes and their level of satisfaction with the usage of these methods. Barriers to the use of outcome measures identified in the participants were incorporated into a 23-item questionnaire scored using 5-point Likert scales. Space was left following some questions for free-text comments so that the respondents' can freely give attitudes regarding the use of outcome measures fully captured.

The survey questionnaire was sent to the physiotherapists through e-mails, whats app and other social media platforms via Google Forms. Data collection stopped 4 weeks after the final mailing. The information considered to be most relevant to the research question was whether physical therapists were using any of the standard LBP-related outcome measures.

## Results

Of the 71 participants (47 female, 24 male) 45 were 20 to 29 years of age, 19 were 30 to 39 years of age and 6 were 40 to 49 years of age. Thirty seven of the participants had completed master's degree programme, 29 of the participant had completed bachelor's degree program for their undergraduate training, and 5 of the participants were having a degree of doctor of philosophy.

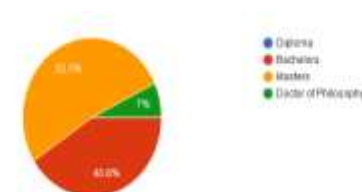


Fig:1 Education level of participant

84.3% felt that the use of clinical outcome measure was encouraged in their service area, however 15.7% felt that use of clinical outcome measure was not encouraged in their practice setting. 36 (52.9%) out of the 71 participants accepted that they often used outcome measures for low back pain and 43 (47.1%) said no or not sure, about the usage of outcome measure for low back pain. This showed a very less difference in those using outcome measures to those not using outcome measures.

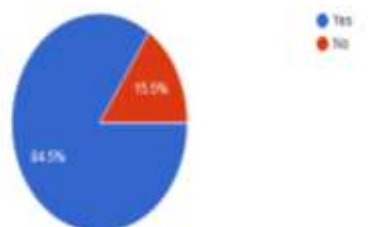


Fig:2 Use of outcome measures at therapist setting

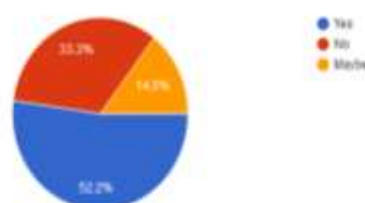


Fig:3 How often you use outcome measures for LBP

Out of these 36 who used outcome measures oftenly, 28 participants used VAS as the outcome measure for Low back pain; 5 used Oswestry low back pain questionnaire; 3 used Ronald Morris disability questionnaire. Only 3 participants mentioned the usage of both Oswestry and Ronald Morris questionnaire. None of the therapist mentioned about the usage of Quebec back pain disability scale. When asked about individual outcome measure at different time of assessment, most of the participants feel that they rarely used Quebec back pain disability scale and Roland Morris disability questionnaire. However Oswestry low back pain disability and VAS were the most commonly used measures in chronic LBP.

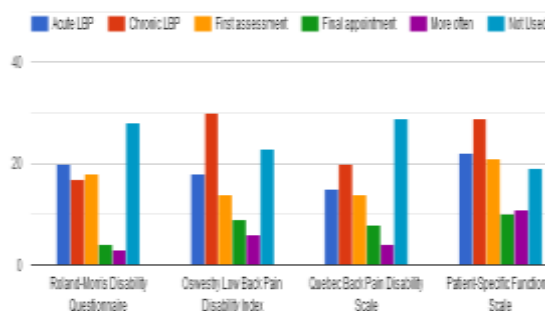


Fig:4, Use of different outcome measure at different assessment level

47.1% who were not sure or not used any outcome measures for LBP, confronted that time was the main barrier. Moreover lack of knowledge was also a major issue, as most of them were having only bachelor's degree. Some therapist also felt that individual patient has individual set of outcome so it was irrelevant to use outcome measures. Some therapists were not even aware about the correct spelling of outcome measures.

## Discussion

The results showed that the usage of outcome measures by the physiotherapists for treating low back pain patients is less. There may be an association between having a post graduate or higher degree and knowledge of outcome measures. For a post graduate degree in physiotherapy or a doctor of philosophy degree in physiotherapy, a research project usually is undertaken, and if this involves any clinical area or domain, it is likely that outcome measures are supposed to be used to

evaluate outcomes. This may result in a higher familiarity with outcome measures so that it becomes quite easy for the physiotherapist to integrate them into routine clinical practice. However, having a master's degree contributed an additional association with use of outcome measures, over and above knowledge, indicating that familiarity with the study process by itself was a factor that may explain the use of outcome measures( Cooperland et'al, 2008).

Although an increased level of expertise or knowledge was an important factor determining the use of outcome measures, the survey confirmed that there was still a lack of knowledge and understanding of outcome measures used for low back pain. This is illustrated by some free-text responses in the mail survey:

I don't know them or how to administer them.

Some physiotherapists think that by using the outcome measures, the assessment might be changed as some patients might not be able to understand the questionnaire and may interpret it wrongly or give wrong responses that might change the final diagnosis and thus the treatment. It could be that these concerns relate more to the individual physiotherapist's level of understanding and knowledge of outcome measures, thereby resulting in a misunderstanding of what outcome measures demonstrate.

The ability to interpret the results from outcome measures could be the reason of the knowledge variable that differentiates physiotherapists who really understand how to use them effectively and, therefore, to incorporate or include them in their practice from those who do not.

The other parameter that was widely discussed was usage of time. Time, as the reason for the failure to use outcome measures, has been identified in previous researches( Cooperland et'al, 2008) and was frequently given by the participants of the study as the reason for the failure to use outcome measures. If they are going to spend an additional time in getting questionnaire filled, then financial loss will be incurred by the therapist only as they have to attend the patients waiting also. This is mainly in private practice and private clinics or hospitals where the more clients you attend, the more money you are going to generate. They felt pressured to see as many patients as possible and did not want to engage in any activity that may have an impact on treatment time and thereby any financial loss or burden.

There is no inclusion of Physiotherapy services in insurance policies that are provided to the individuals in their health insurances by the companies in India. Had there been an insurance cover to the clients for their physiotherapy services, the documentation or paper work would have been stronger that would have included the usage of the outcome measures. Because the insurance companies are not covering physiotherapy services in health insurances, the pressure on the physiotherapists is not there to include paperwork. Their main aim is to treat the patient coming to them and makes him fine. An Australian study showed that the main factor influencing the routine use of outcome measures was a funding body's requirement for the mandatory reporting of outcome measures( Abrams D et'al, 2006).

### Conclusion

The present study showed that the routine use of outcome measures for the treatment of Low Back Pain among Indian Physiotherapists is still low, despite more than a decade of exposure promoting reasons for their use. Although more than 50% of the participants indicated they had used LBP related outcome measures in the past 6 months, it is likely that the routine level of use is far low, and 47.1% pointed that they did not use any outcome measures for treating low back pain. It is identified that a lack of knowledge, understanding of outcome measures and a lack of time, respectively, as the reasons for failing to use them regularly. This result presents a huge challenge to the physiotherapy profession, which needs to inform to physiotherapists, how information obtained from outcome measures can be useful to them and can support improved outcomes for their patients. The physiotherapy profession does not require the diagnosis and treatment being prepared by other health care professionals and physiotherapists work left is to treat on their terms and directions. The profession is likely to have an important component of its practice like proper methodology to assess treatment outcome which is dictated by external sources.

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