



# **A study on evidence based practice among physiotherapists working with children having cerebral palsy**

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## **Abstract:**

**Aim:** To study evidence-based practice among physiotherapists working with children having Cerebral Palsy.

**Background and purpose:** The objective of this study was to identify, evaluate, and propose effective approaches for physiotherapists in aiding children with cerebral palsy in developing their motor skills. This research delves into the attitudes, knowledge, and challenges in acquiring and evaluating the evidence. This research aimed to gather research results on the effectiveness of current evidence-based practice (EBP) interventions in physiotherapy to facilitate enhancements in the implementation of EBP quality and uniformity.

**Method:** The research involved physiotherapists employed in various sectors such as government, non-government organizations, rehabilitation centers, rehabilitation institutes, hospitals, medical colleges, and the National Institute. A total of 40 physiotherapists took part in the study. The study utilized a computer-assisted survey to gather data from a random sample of physiotherapists who work with children diagnosed with cerebral palsy.

**Result:** According to the survey results, the importance of utilizing evidence in clinical practice was acknowledged by 94.6% of participants. Additionally, 83% of respondents stated that evidence-based practices were beneficial. A significant 92% of participants expressed the need to enhance their utilization of evidence in their daily practice. On the other hand, 58.33% of participants believe that interventions lacking evidence are currently being implemented in practice.

**Conclusion:** Most physiotherapists have identified a deficiency in search engine training related to evidence-based practice. They have expressed a strong desire to acquire knowledge and apply clinical practice guidelines for treating children with cerebral palsy.

## Introduction:

Movement is the only key for the management of cerebral palsy and children with motor delay. There was a different answer from different professionals to initiate movement and correct posture as it was a multidisciplinary approach. There was always the recognition that children 'do not move by neurophysiology alone' but that learning process enable a child to progress through stages of motor development. Unfortunately, in this complex field and with this heterogeneous population, reliable scientific evidence to support interventions that we make can be difficult to obtain. Therefore, we still rely on long experience and expert opinion. Fortunately, research studies have increased and are becoming more rigorous and we look forward to further clinical progress as a result and current 'Assessment Measures' and 'Appraisal of Research Studies', indicating the current problems in accepting evidence for clinical work. It is worth pointing out that there is a tendency to overrate numerical data which is the norm in the physical sciences. However, while science may often involve numbers, this is not always necessary but good research must always involve careful systematic observation and detailed analysis, i.e. a lot of hard thinking. Again, even when the research is thorough it is often reported in obscurely written papers where little attempt seems to be made to communicate the findings to clinicians who are seeking to use results to improve their practice. There have been some attempts to evaluate effectiveness of therapy intervention (Palmer et al., 1988; Bower et al., 1992; Bairstow et al., 1993; Bower et al., 1996; see Hur, 1995, and Weindling, 2000, for a review). However, little or no evidence is available to show that therapy is effective or that one approach is more beneficial than another. Despite this, therapy programs are an integral part of the management of the child with CP. The other question often asked is how much and how soon, again for these questions there are no definitive answers (Bower et al., 1996; Reddihough et al., 1998; Weindling, 2000).

## Objectives:

The purpose of this study was to identify, evaluate and effective strategies on facilitating handling skills of physiotherapists working among children having cerebral palsy. This study describes the knowledge, beliefs and barriers in accessing and interpreting the evidence. This study aimed to synthesise research findings regarding effectiveness of current EBP interventions in physiotherapy, to help identify methods of increasing the consistency and quality of EBP implementation.

## Methods:

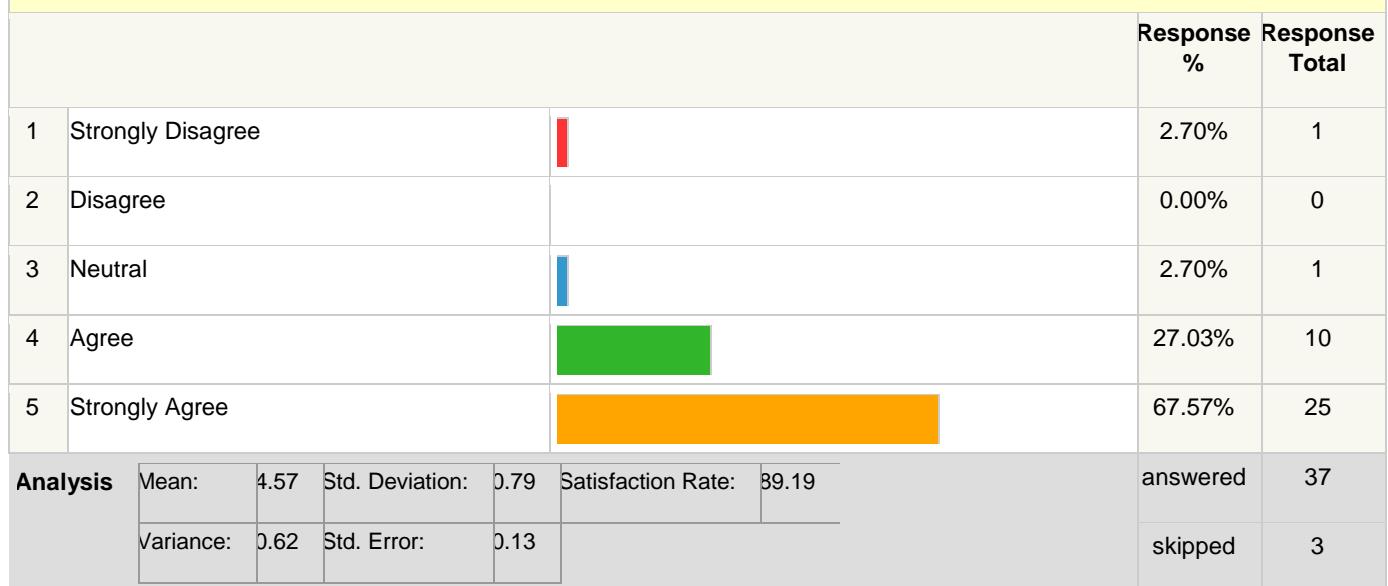
This study was done with physiotherapists working in government, non-government organisations, rehabilitation centres, rehabilitation institute, hospitals, medical colleges and National Institute. 40 Physiotherapists were participated in this study. A computer assisted based survey of a random sample of physiotherapists working with children having cerebral palsy. This study questionnaire consists of 15 items was designed to determine the evidence, attitude, belief, knowledge and barriers regarding evidence based practice and their practice settings. The participants were completed the closed ended type questionnaire and few items was given two or more option to choose the answer.

## Data Analysis:

Data were analyzed using the Microsoft Excel 10 through bar chart. Response frequencies for the survey questions were determined and displayed in tabular and graphic formats for statistical analysis. After examining the response frequencies, and before examining the associations between variables, some variable categories were collapsed in order to allow further analysis using them as dependent measures in logistic regression analyses. For those items with a 5-point Likert scale and a positive response set (ie, agreement with the statement suggested positive regard for EBP), the "strongly agree" and "agree" categories were combined, as were the "neutral," "strongly disagree," and "disagree" categories, so that responses fell into "agree" or "disagree."

First outcome measure for item no. 1 is 57.89% of the respondents felt strongly agree that EBP is necessary in physiotherapy practice for working with children having cerebral palsy and 27.03% of them agreed as per the figure 1.

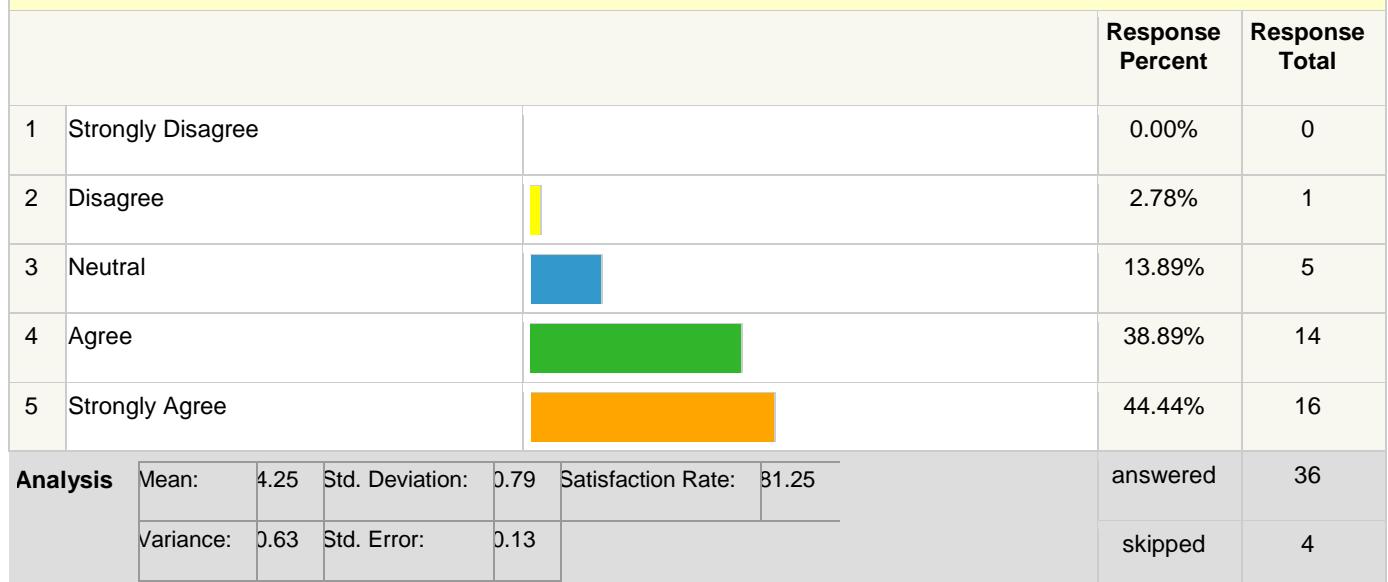
### EBP is necessary in Physiotherapy practice for children having cerebral palsy



**Fig. 1 EBP is necessary for Physiotherapy Practice**

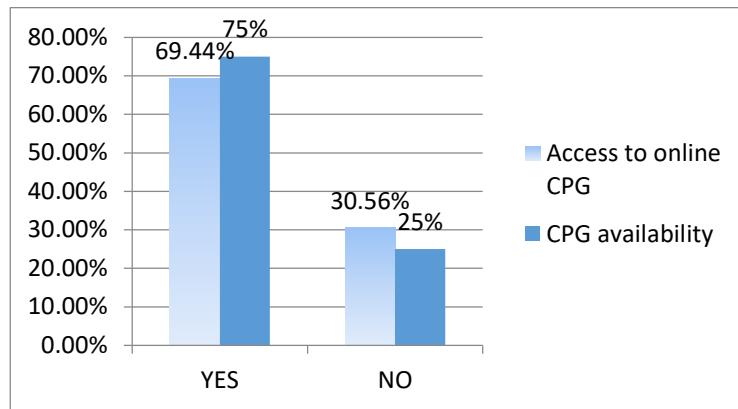
Evidence based practice in physiotherapy has shown significant improvement in motor function of children having cerebral palsy. 30 participants were responded that they found improvement in motor function of children having cerebral palsy as shown in fig.2, 1% disagreed the statement and 5 respondents shown neutral in related improvement of motor function of children having cerebral palsy.

### 2. EBP improves the Motor Function of the children having cerebral palsy



**Fig.2 EBP improves the motor function of children having cerebral palsy**

In relation to the relevant clinical practice guidelines availability for handling children with cerebral palsy, 75% of participants were found available and 69.44% were access to clinical practice guidelines. 25% to 30 % found non availability and unable to access the clinical practice guidelines for handling children having cerebral palsy as shown in the figure.



**Fig.3 Relevant Clinical Practice Guideline availability and access**

The barriers to use evidence based practice among physiotherapist working with children having cerebral palsy were insufficient time, lack of information resources, lack of research skill, inability to apply research findings to individual patient with unique characteristic and lack of availability of research pertaining to native population. 10 participants were responded insufficient time and 3 participants equally responded for lack of information resources, inability to apply research findings to individual patient with unique characteristic and lack of availability of research pertaining to native population as shown in the figure 4.

4. Barriers to the use of EBP			
		Response Percent	Response Total
1	Insufficient time	29.41%	10
2	Lack of information resources	14.71%	5
3	Lack of research skill	8.82%	3
4	Poor ability to critically appraise	5.88%	2
5	Lack of generalisability of the literature findings to patient	2.94%	1
6	Inability to apply research findings to individual patient with unique characteristic	17.65%	6
7	Lack of understanding of statistical analysis	0.00%	0
8	Lack of collective support among colleague	5.88%	2
9	Lack of interest	0.00%	0
10	Lack of availability of research pertaining to native population	14.71%	5
<b>Analysis</b>		Mean: 4.24	Std. Deviation: 3.2
Variance: 10.24		Std. Error: 0.55	Satisfaction Rate: 35.95
		answered	34
		skipped	6

**Fig. 4 Barriers to use Evidence-Based Practice**

## Results:

94.6% of participants agreed that the use of evidence was necessary, that the 83% of respondents found the evidence-based was beneficial in clinical practice. Ninety-two percent of participants found they need to increase the use of evidence in their daily practice. 58.33 % believe that the intervention with lack of evidence is being used in practice. Thirty percent of the respondents stated that they don't have sufficient time, fourteen percentage found lack of information and fourteen percent found lack of availability of research pertaining to native population are the barriers to using the Evidence-based practice. 72.22 % of participants learned the foundation of EBP as their part of academic pursuit. 94.44% of physiotherapists felt EBP helps to make decision about handling skills.

## Conclusion:

Majority of the physiotherapist found there was lack of training in search engine regarding evidence based practice. Physiotherapists they have stated they had a great interest to learn and implement the clinical practice guidelines on handling children with cerebral palsy.

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