



# AWARENESS OF EVIDENCE-BASED PRACTICE AMONG PHYSIOTHERAPISTS IN JALGAON: A CROSS-SECTIONAL STUDY

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## ABSTRACT

**BACKGROUND:** Evidence-based practice (EBP) is 'the integration of best research evidence with clinical expertise and patient's values. The practice of physiotherapy improves through EBP as it has been linked to better health outcomes in the patients as their needs are identified and incorporated into the tailored treatment plans. The study aimed to evaluate the awareness of the Evidence-Based Practice among the Physiotherapists in Jalgaon.

**METHOD:** A survey based cross-sectional study was conducted among hundred and eight Physiotherapists in Jalgaon. Self-made questionnaire was distributed among the participants who were included in the study through personal contacts and mail. The responses were collected from the participants and then the results were calculated.

**RESULT:** Majority of the participants were females (71.30%). The majority of the participants (44.40%) reported that they read 2 – 5 articles per month. 37.1% of the participants reported that they either never or rarely consulted literature and research findings for their clinical decision-making. 97.30% of the total participants reported that they are interested in using EBP in their practice. The majority of the total participants (64.80%) reported that insufficient time is their greatest barrier. Only 33.40% of the total participants of this study felt EBP is time-consuming and places a burden on them.

**CONCLUSION:** Physiotherapists in Jalgaon have awareness of Evidence-Based Practice. Furthermore, the participants also have a positive attitude towards EBP. A majority of the respondents indicated an interest in adopting and implementing EBP in their clinical setup by understanding the perceived benefits with personal understanding, limitations, and barriers.

**KEYWORDS:** Evidence-Based Practice, Physiotherapist.

## INTRODUCTION

An important role in implementing evidence-based practice (EBP) in community care settings is played by health practitioners' attitudes and values <sup>(1)</sup>. Assessment of general and specific attitudes toward EBP can assist in the adaptation and evaluation of an implementation program. <sup>(2)</sup> Evidence-based practice (EBP) is 'the integration of best research evidence with clinical expertise and patient's values' <sup>(3)</sup>. Evidence-Based Practice (EBP) describes the problems and the steps involved with EBP.

Evidence-Based Practice (EBP) is defined as "the conscientious, judicious, and explicit use of current best evidence in making decisions about the care of individual patients" <sup>(4)</sup>. In the current era of clinical practice, Evidence-based practice (EBP) is considered a cornerstone. In line with other healthcare professionals, physiotherapists are also using the highest quality of research evidence in their clinical practice, in which they stated that "Physical therapists have a responsibility to use evidence to inform practice and ensure that the management of patients/clients, carers, and communities is based on the best available evidence" this was stated in the policy statement on EBP, in the World Confederation of Physical Therapists, 2003 <sup>(5)</sup>. An important factor determining the quality of healthcare is Evidence-based practice (EBP). EBP has been used as an important decision-making model <sup>(6)</sup>.

Evidence-Based Practice (EBP) is a 5-step process whereby clinicians integrate the best research evidence with clinical expertise and client preferences, producing the most appropriate and effective service <sup>(7, 8)</sup>. And contains five basic steps that should be followed to achieve success in applying its principles (shown in Fig. 1). EBP has been visualized as a process that begins with the articulation of a need or problem, moving on to a search for possible options that can satisfy the need, evaluating them to see if they can meet the need, implementing the best solution, and reviewing it to see if the expected benefits from its application have been achieved <sup>(9, 10)</sup>.

Despite its well-defined principles, some obstacles may interfere with EBP, such as the limited availability of resources, the physical therapist's ability to competently apply an intervention considered to be the best based on the clinical evidence, socioeconomic and

cultural factors <sup>(11)</sup>, or perhaps problems related to current health policies, the complexity of the physical therapy practice, access to full-text papers and continuing education programs <sup>(12)</sup>.

Evidence-Based Practice (EBP) is considered to be an essential component of clinical service delivery in the healthcare system <sup>(13)</sup>. Physiotherapy as a profession is increasingly using an evidence base to demonstrate best practice which is based on scientific principles and research. It has been known for some time now that the attitude and knowledge of physiotherapists are based on the use of evidence from research in forming clinical decisions since the 1980s <sup>(14)</sup>. EBP is the application of the best available evidence sourced from research findings into a clinical setting that ensures best practice <sup>(15)</sup>.

Physiotherapy is as much of an art as it is a science. Scientific evidence from scholarly studies and the primary data collected from the patients and their caregivers can assist physiotherapists in their diagnosis, as well as, the creation of specific treatment plans, these aspects can be achieved with the help of Evidence-based practice (EBP). The practice of physiotherapy improves through EBP as it has been linked to better health outcomes in the patients as their needs are identified and incorporated into the tailored treatment plans <sup>(16, 17)</sup>. Moreover, physiotherapists gain valuable experience by involving themselves in EBP <sup>(18)</sup>.

Evidence-based physiotherapy practice (EBPP) is “open and thoughtful clinical decision making” about the physical therapy management of a patient/ client that integrates the “best available evidence with clinical judgment” and the patient/ client’s preferences and values, and that further considers the larger social context in which physical therapy services are provided, to optimize patient/client outcomes and quality of life <sup>(19)</sup>. Engaging with both research and clinical findings can enhance the proficiency of physiotherapists’ clinical practices <sup>(20)</sup> and help prevent the misuse, overuse, and underuse of healthcare services <sup>(21)</sup>.

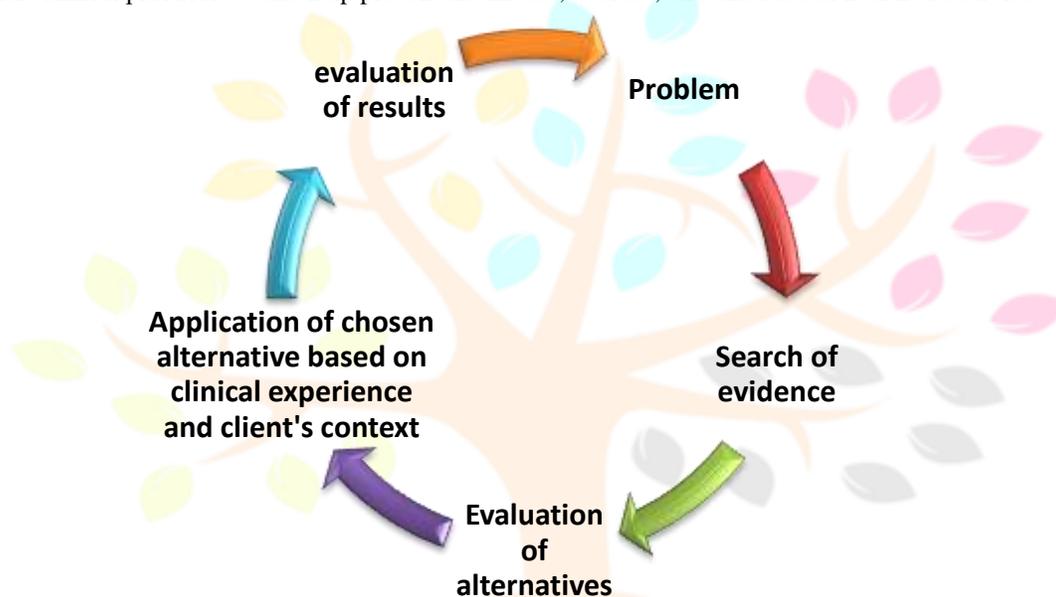


Fig. 1 EBP process. Adopted from Haynes et al., 1997

## MATERIALS AND METHODOLOGY

A present study is cross-sectional study. After taking permission from the Institutional Ethical Committee, informed consent form was collected from a convenient sample size of 108 including Physiotherapy Interns, Physiotherapy Postgraduates, Physiotherapy Clinicians & Practitioners from Jalgaon district. Undergraduate students in the 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and, 4<sup>th</sup> year of their bachelor’s program were excluded from the study. E-mails were sent with an invitation to participants in the survey, instructions and a link to the questionnaire. A survey questionnaire was developed based on possible items from previously developed surveys that applied to the target population. It is a 31-item self-reported measure that includes 14 items of Personal Data & the remaining 17 items based on personal understanding, attitudes towards and perceived benefits and limitations of Evidence-based Practice. The face validation of the tool was obtained with the assistance of senior academicians and final revisions were made. A questionnaire was distributed to five senior academicians from which 4 were from Physiotherapy Department and 1 was from Other Department for their comments on its content, and the survey tool was then subsequently edited and validated according to their feedback. The validated survey tool was subsequently provided to 10 students to ensure that the questions asked were clear and understood. Final adjustments were made, following which the validated final version was shared with participants through personal contacts and mailing address. They were asked to complete the questionnaire over a period of time and were given privacy to answer each of the questions. Follow-up emails were sent to participants who did not return the completed questionnaire within two weeks. Responses were rated using a four-point Likert scale ranging from strongly disagree, disagree, agree and strongly agree. The results were calculated by converting the four-point Likert scale into two points i.e., strongly agree and agree forms one point and, strongly disagree and disagree forms another point.

## STATISTICAL ANALYSIS

The collected data was managed & subjected to basic descriptive statistics in MS-Excel. A total number of 126 Physiotherapists were sent the google form from which 108 responses were collected. 18 participants didn’t respond to the mail. Response frequencies to the survey questions were determined and presented in tabular and graphic formats.

**RESULTS**

Characteristics of the participants are as follow.

**1. GENDER:**

	No of participants	Percentage
Male	31	28.7%
Female	77	71.3%

**Table No. 1**

Interpretation: The majority of the participants in this study were females (71.30%).

**2. AGE (years):**

	No of participants	Percentage
22 – 31	96	88.9%
32 – 41	10	9.3%
42 – 51	1	0.9%
52 and above	1	0.9%

**Table no. 2**

Interpretation: The majority of the participants were of the young adult generation i.e. 22 – 31 yrs (88.90%)

**3. HIGHEST QUALIFICATION:**

	No of participants	Percentage
Diploma Degree	0	0.0%
Bachelor's Degree	74	68.5%
Master's Degree	33	30.6%
Doctoral Degree	1	0.9%

**Table No. 3**

Interpretation: The majority of the participants had Bachelor's Degree (68.50%) as their highest qualification.

**4. SPECIALIZATION:**

	No of participants	Percentage
Musculoskeletal	16	33.3%
Neurology	14	29.2%
Cardiorespiratory	3	6.3%
Pediatric	2	4.2%
Sports	3	6.3%
Community Physiotherapy	4	8.3%
Others	6	12.5%

**Table No. 4**

Interpretation: Many participants had specialization in different fields. The majority had Musculoskeletal as their specialization (33.30%) and some had neurology as their specialization (29.20%).

**5. AREA OF PRACTICE:**

	No of participants	Percentage
Government Hospitals	7	6.5%
Private Hospitals	62	57.4%
Private Clinics	32	29.6%
Home Care	26	24.1%
Academics	30	27.8%

**Table No. 5**

**Interpretation:** The majority of the participants work in private hospitals (57.40%) and some work in private clinics (29.60%).

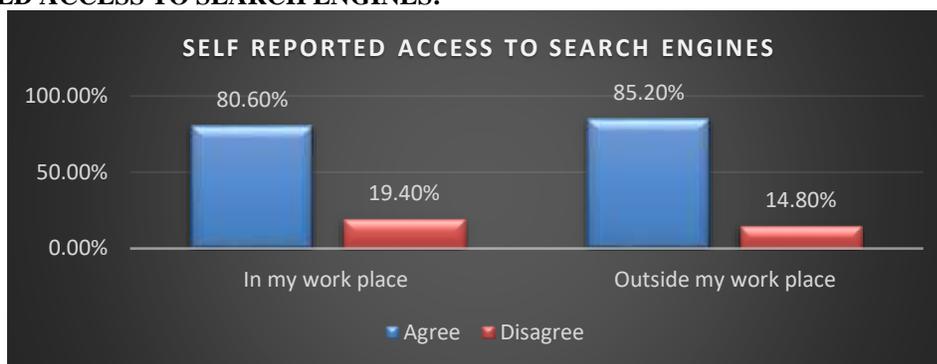
**6. WORK (in years):**

	No of participants	Percentage
< 2 years	59	54.6%
2 – 5 years	34	31.5%
5 – 10 years	6	5.6%
>10 years	5	4.6%
>15 years	3	2.8%
>20 years	1	0.9%

**Table No. 6**

**Interpretation:** The majority of the participants worked less than 2 years up till now (54.60%) and only one respondent worked more than 20 years (0.9%).

**7. SELF REPORTED ACCESS TO SEARCH ENGINES:**



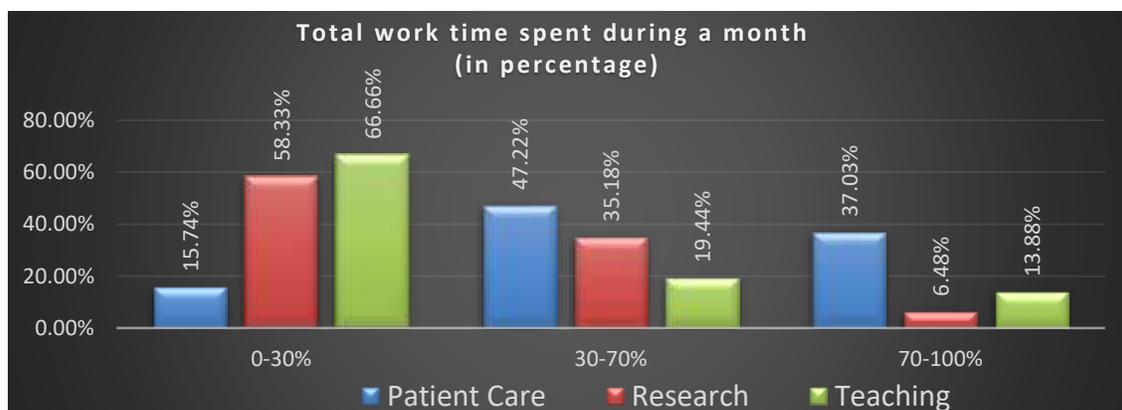
**Graph: 1**

**Interpretation:** 80.60% of the participants agreed that they had access to the search engine in their workplace. While 85.20% of the participants also agreed that they had access to search engines outside their workplace.

**8. TOTAL WORK TIME SPENT DURING A MONTH (In Percentage):**

	0-30%	30-70%	70-100%
<b>Patient Care</b>	17	51	40
<b>Research</b>	63	38	7
<b>Teaching</b>	72	21	15

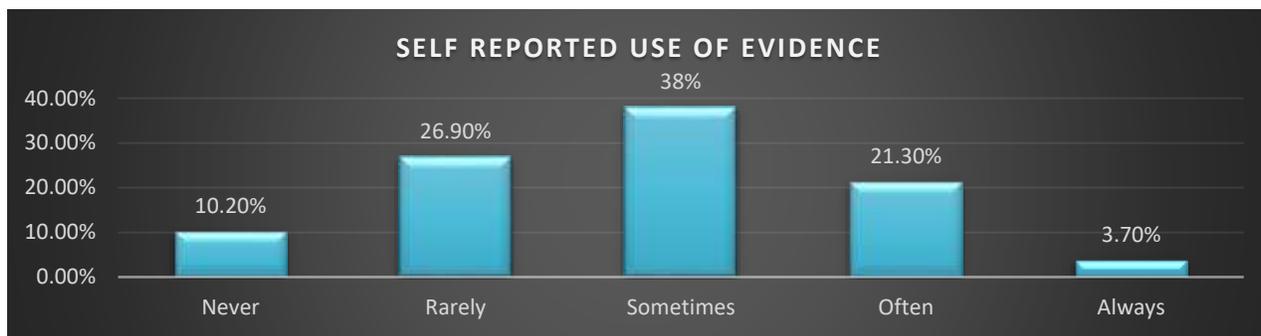
**Table No. 7**



**Graph: 2**

**Interpretation:** In a month, 47.22% of participants said that they spent their 30-70% of work time doing patient care, while 58.33% spent 0-30% of work time doing research and 66.66% spent 0-30% of work time doing the teaching

**9. SELF REPORTED USE OF EVIDENCE:**



**Graph: 3**

Interpretation: 37.1% of the participants reported that they either never or rarely consulted literature and research findings for their clinical decision-making.

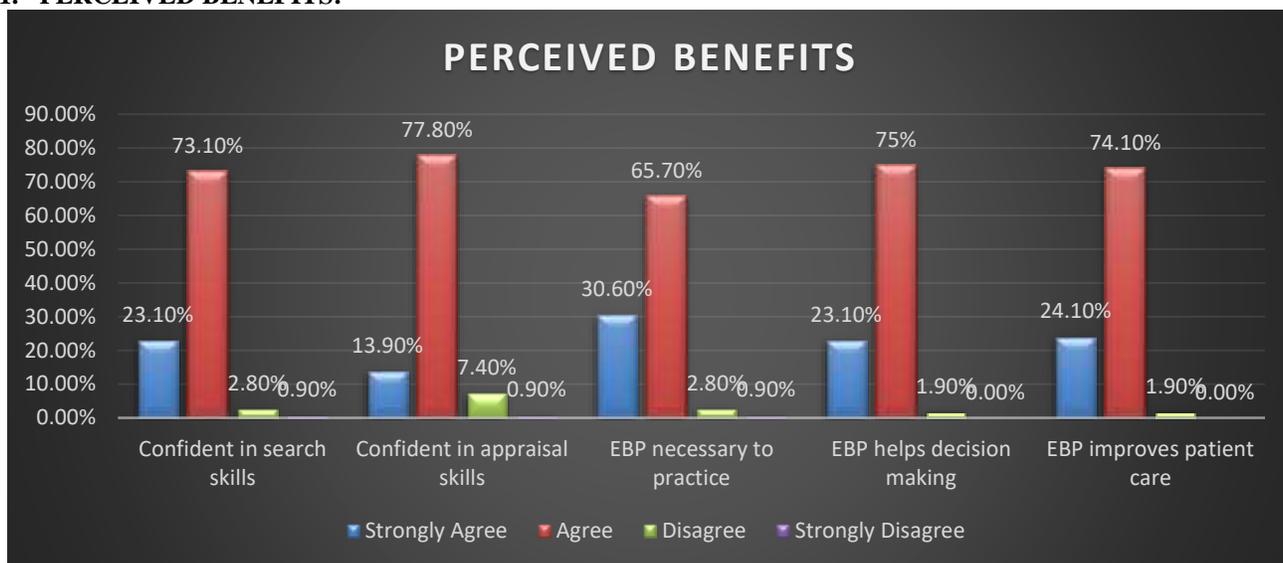
**10. SELF REPORTED ARTICLES READ PER MONTH:**



**Graph: 4**

Interpretation: The majority of the participants (44.40%) reported that they read 2 – 5 articles per month. While 27.00% and 3.70% of participants read less than 2 articles and more than 15 articles per month, respectively.

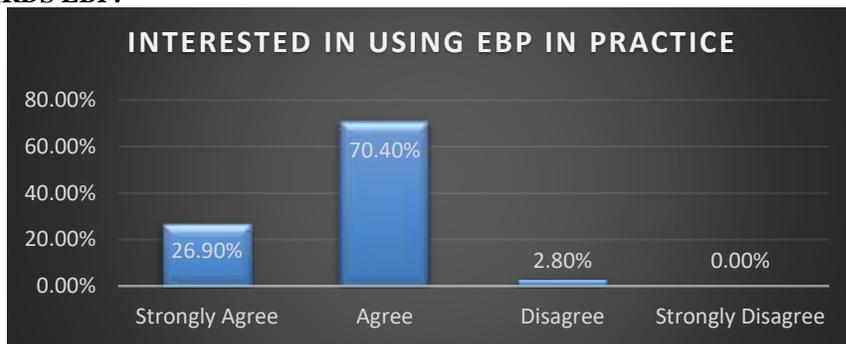
**11. PERCEIVED BENEFITS:**



**Graph: 5**

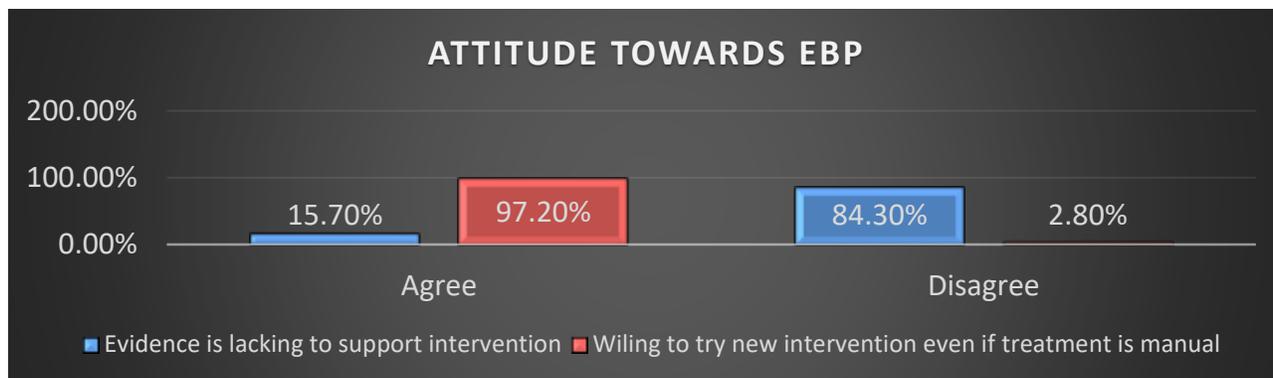
Interpretation: 96.20% of the total participants are confident in their search skills, 92.70% are confident in their appraisal skills, 96.30% agreed that the EBP is necessary for their day-to-day practice, 93.10% reported that EBP helps in their decision making, 98.20% said that EBP improves their patient care.

**12. ATTITUDE TOWARDS EBP:**



**Graph: 6**

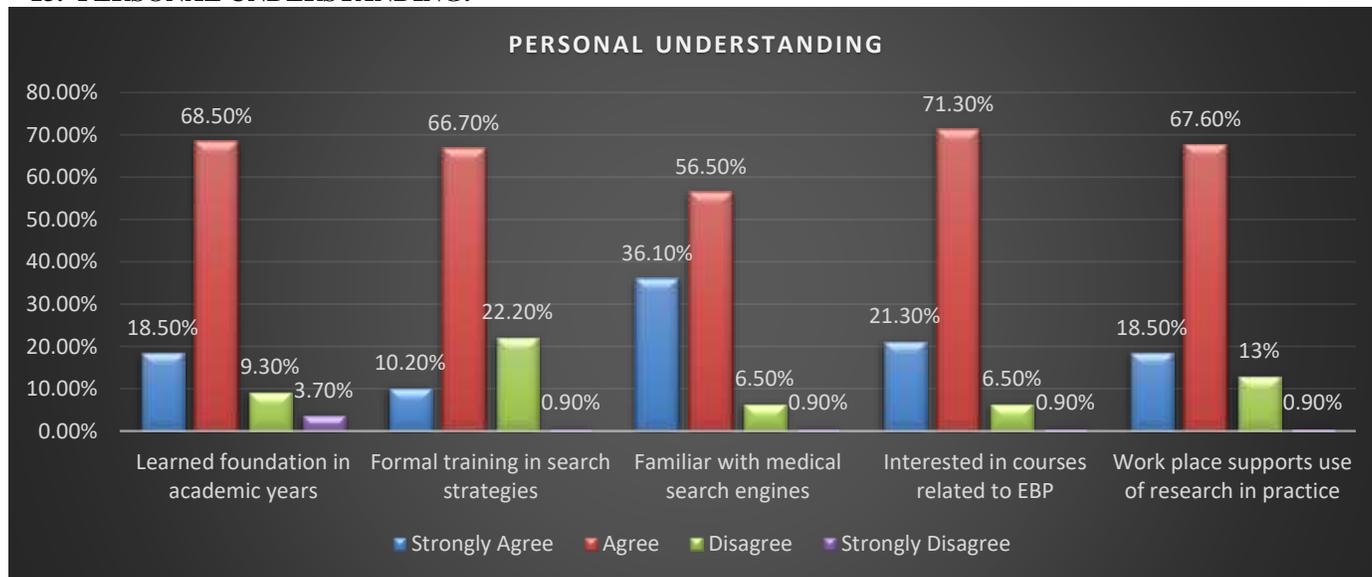
Interpretation: 97.30% of the total participants reported that they are interested in using EBP in their practice.



**Graph: 7**

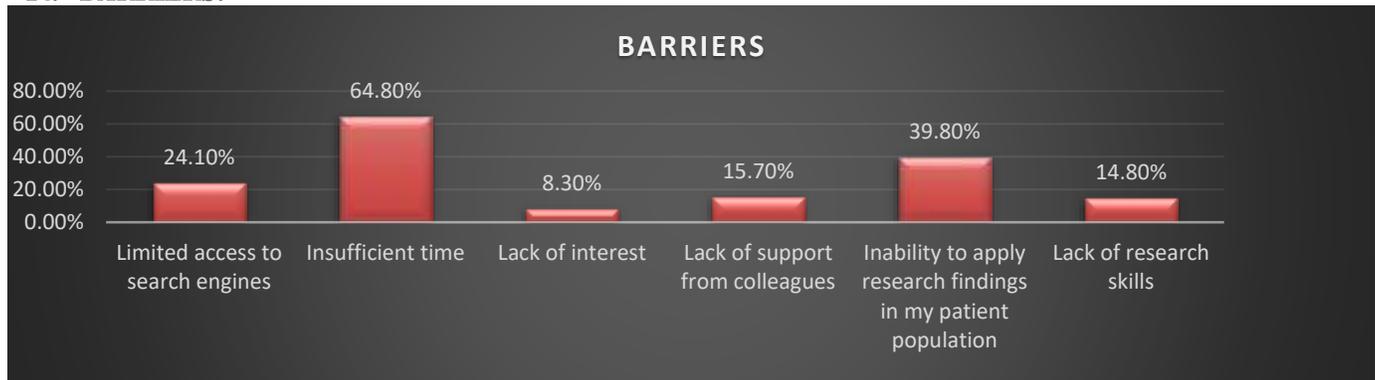
Interpretation: Only 15.70% of the total participants stated that evidence is lacking to support their interventions, whereas 97.20% of the total participants are willing to try new interventions even if treatment is manual.

**13. PERSONAL UNDERSTANDING:**

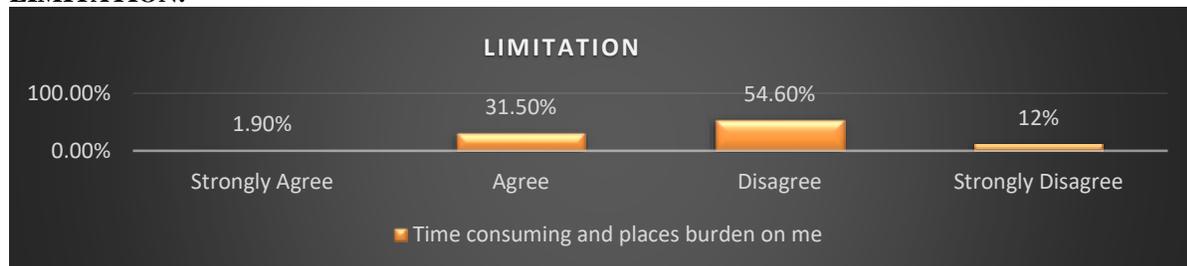


**Graph: 8**

Interpretation: The majority of the participants (87.00%) learned the foundation of EBP in their academic years. 76.70% of the total participants agreed that they went through the formal EBP training search strategies. 92.60% of the participants reported that they are familiar with the medical search engines. 92.60% said that they are interested in the courses related to EBP. 86.10% agreed that their workplace supports the use of research in their practice, while only 1 person (0.9%) disagreed with that.

**14. BARRIERS:****Graph: 9**

**Interpretation:** The majority of the total participants (64.80%) reported that insufficient time is their greatest barrier. According to the present study second most common barrier is an inability to apply research findings in their patient population (39.80%), while the third most common is limited access to search engines (24.10%). Other than these are lack of support from colleagues (15.70%), lack of research skills (14.80%) and lack of interest (8.30%) are some other common barriers faced by the Physiotherapists in Jalgaon.

**15. LIMITATION:****Graph: 10**

**Interpretation:** Only 33.40% of the total participants of this study felt EBP is time-consuming and places a burden on them, while 66.30% of them disagreed with others i.e., they didn't feel that EBP is time-consuming and places a burden on them.

**DISCUSSION**

The present study aimed to find out the awareness of the EBP among the Physiotherapists in Jalgaon. The need of this study was to explore the awareness, knowledge, benefits, limitations, understanding, and also the attitude toward EBP among the Physiotherapists in Jalgaon. The results of this study demonstrated that the Physiotherapists in Jalgaon are well aware of the EBP.

The majority of participants were from the young adult generation, and they have learned the foundations of EBP during their academic years (87.0%). This may be due to the introduction of EBP into the physiotherapy curriculum in the past decade.

Participants in this study had a positive attitude toward EBP and the perceived benefits of EBP. Most of the participants (93.3%) agreed that EBP is necessary for their day-to-day practice and that EBP is required to provide higher quality service for their patients (98.1%).

In addition, although attitudes toward EBPs have been shown to be related to organizational climate, culture, and leadership, it will be important to examine evidence of both concurrent and predictive validity.

27% of the participants reported that they read <2 articles in a typical month, and 37.1% of the participants reported that they either never or rarely consulted literature and research findings for their clinical decision-making. This finding did not correlate with the studies by Jette et al [22] and Akinbo et al [23], in which 17% and 8% of their participants, read <2 articles in a month, respectively, but is correlated with the study by Hannah C. Yahui et al [5], in which 30% of their participants read <2 articles in a month. This could be attributed to the fact that there is a lack of access and awareness to journal articles among physiotherapists in Malaysia [24]. A study of 106 musculoskeletal Kuwaiti physiotherapists found that physiotherapists relied on very minimal research findings for day-to-day clinical decision making [25].

For EBP to be used effectively in clinical practice, consideration should be given to the availability of information technology support. Most of the participants reported that they have access to search engines, although more had access outside their workplace (85.2%) than at their workplace (80.6%). These findings are almost similar to that of participants.

A study by Hannah C. Yahui et al [11] among 102 physiotherapists in Malaysia reflected similar results to the present study. They reported that 87.3% of participants are familiar with the search engines while 86.2% are confident in their search engines with 67.5% of the total participants confident in their appraisal skills. These results are almost similar to the present study i.e. 92.6% are familiar with the search engines, 96.1% are confident in their search skills and 91.7% are confident in their appraisal skills.

The barriers identified in this study were reflected in other studies among Physiotherapists [5, 22]. The primary barrier to implementing EBP was an insufficient time (64.8%). In the UK, Igo [26] found that, although Hannah C. Yahui et al [11], understand the process of appraising a research article, it was still considered a demanding and time-consuming process. Organizations may therefore

discourage activities related to EBP during working hours, as it is more cost-effective for employees to spend time attending to patients that to are involved in EBP.

Other barriers identified in this present study were an inability to apply research findings in their patient's population (39.8%), limited access to search engines (24.1%), lack of support from colleagues (15.7%), lack of research skills (14.8%) and also lack of interest in EBP (8.3%). Another study among Malaysian healthcare practitioners also found that a lack of information technology support in their facilities increased the difficulty of implementing EBP <sup>[24]</sup>.

The awareness of EBP leads to EBP behavior while positive attitudes improve its knowledge and help get a more realistic idea of the barriers of EBP. All of these factors lead to more positive behavior towards EBP. Increasing the EBP awareness will directly impact the positive outcomes on quality of both clinical and research applications of physiotherapy <sup>[27]</sup>.

In this study, the majority of the participants (54.6%) have less than 2 years of working experience, and thus it can be assumed that most of the participants are only graduated. This study has shown how the variables of awareness, knowledge, attitudes, and behavior towards EBP affect how physiotherapists perceive the concept and apply it in their practice.

## CONCLUSION

- Physiotherapists in Jalgaon have awareness of Evidence-Based Practice.
- Furthermore, the participants also have a positive attitude towards EBP.
- A majority of the respondents indicated an interest in adopting and implementing EBP in their clinical setup by understanding the perceived benefits with personal understanding, limitations, and barriers.
- According to this study, the most common barrier faced by Physiotherapists is that they don't have sufficient time for EBP. While there are other barriers also like the inability to apply research findings to their patient population, limited access to the search engines, lack of support from colleagues, lack of research skills, and lastly lack of interest in EBP.

## LIMITATIONS

- The study is limited to the Jalgaon district only.
- The maximum population has less than 2 years of working experience.

## SUGGESTIONS

- Future studies can be done among a large population.
- Future studies can be done among students also.

## FUNDING

- Self-Funding

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