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A survey on "Knowledge, attitude and practice of evidence based practice in clinical physiotherapists practicing in Mumbai and Navi Mumbai, India"

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Abstract
Background: Evidence based Practice has been well-defined as "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patients" by sackett *et al*. The Physiotherapy profession has been experiencing a period of change as a result of pressure from different health care provider groups in recent times. In order to meet these challenges. Physiotherapists (PTs) have been encouraged to prove the effectiveness of their interventions through scientific evidence referred to as evidence-based Practice
Aim: To study the knowledge, attitude and practice of evidence-based practice in clinical physiotherapists practicing in Mumbai and Navi Mumbai.
Methodology: One hundred clinical physiotherapist practicing in Mumbai and Navi Mumbai were included using convenience sampling. Participants were given the Evidence-Based Practice questionnaire (EBPQ) to complete via social media. The Evidence-Based Practice questionnaire takes 10-12 minutes to complete and consists of a total of 24 items, each using a 7-point Likert scale. The questionnaire includes 3 domains. Descriptive Analysis was done in Microsoft excel.
Result: According to the survey, 37% had rated themselves neutral over their research skills and 34% of them reported that they had bad IT skills. A neutral response was given towards ability to analyze critically evidence against set standards (34%). Almost 54% believe that evidence-based practice is fundamental to professional practice and is not a waste of time. 46% disagree to new evidence being so important they will make time in work schedule because their workload is too great for them to keep up to date with all the new evidence. 50% of the respondents have rarely formulated a clearly answerable question as the beginning of the process towards filling this gap and 55% have rarely critically appraised, against set criteria, any literature that they have discovered.
Conclusion: There is poor to fair knowledge of Evidence Based Practice in clinical physiotherapist practicing in Mumbai and Navi Mumbai. They have a positive attitude to Practice EBP but, they are unable to practice EBP in day-to-day life. They feel it is due to lack of time.

Keywords: evidence-based practice; clinical physiotherapist, Mumbai, Navi Mumbai

Introduction

Evidence Based Practice (EBP) became progressively important in healthcare because they offer a framework for clinical problem solving that allows practitioners to stay up to date with current best practice in their field. Clinical decisions should be informed by up to date, relevant evidence rather than outdated primary training or over interpretation of individual patient experiences [1].

The Physiotherapy profession has been experiencing a period of change as a result of pressure from different health care provider groups in recent times. In order to meet these challenges. Physiotherapists (PTs) have been encouraged to prove the effectiveness of their interventions through scientific evidence referred to as evidence-based Practice [2,3].

Evidence based Practice has been well-defined as "the conscientious, explicit and judicious use of current best evidence in making decisions about the care of the individual patients" by sackett *et al* [4]

A Number of studies have observed the views and knowledge of health care professionals towards EBP. Most of those studies have targeted medical practitioners. For instance, a study has suggested that family or general practitioners report mainly positive attitudes [5,6]. Although barriers like lack of time [7] and understanding of terminology [8] have hindered the progression of EBP.

Many physiotherapists have only limited access to the present high-level evidence (due partly to restricted access to databases that archive clinical trials and reviews or may be an awareness of those databases) which has led to the assumption that there is little evidence about the effect of physiotherapy interventions [9].
The concept of EBP marks a shift among health care professionals from a standard emphasis on action supported on the "opinions of authorities to guide clinical practice" to a stress on "data based clinically relevant studies and researches" [10]. Although strongly held views supported belief instead of sound information still exerts much influence in healthcare delivery [11].
There are a number of challenges for Physiotherapists who are trying to use research to assist clinical deciding and most of those challenges are grouped into 3 areas: research methods, clinician's skill and administrative factors [12]. The Physiotherapy evidence Database (PEDro) was launched in oct.1999 to support an evidence-based approach to teaching and practice of Physiotherapy [13].
Physiotherapists seemed to rely more heavily on initial education and training when selecting treatment techniques or modalities as an alternative of using scientific evidence to guide practice thus; clinical decision making had been guided by personal experience and expert opinion [14].

Need For Study
EBP is important in order to
a. Underpin and shape how the profession delivers patient care.
b. promote the value and impact of physiotherapy's contribution to meeting population and patient needs in clinically and cost-effective ways and inform the development of physiotherapy practice, service delivery and education and physiotherapy's development as a workforce.
c. Progress the profession's approach to developing, using and promoting research and its contribution to generating new evidence, knowledge transfer and service improvement.

However limited information is available to know to what extent physiotherapists in Mumbai and Navi Mumbai have adapted and included EBP in clinical practice.
The data thus obtained from this research will help in understanding knowledge, attitude and practice of EBP in physiotherapists of Mumbai and Navi Mumbai and will thus help in planning awareness programmes about EBP

Aim and Objectives
Aim: To study the knowledge, attitude and practice of evidence-based practice in clinical physiotherapists practicing in Mumbai and Navi Mumbai.

Objectives
- To study the knowledge of evidence-based practice in clinical physiotherapists practicing in Mumbai and Navi Mumbai.
- To study the attitude towards the evidence-based practice in clinical physiotherapists practicing in Mumbai and Navi Mumbai.
- To study the practice of evidence-based practice in clinical physiotherapists practicing in Mumbai and Navi Mumbai.

Methodology
Study Design: Cross sectional survey.
Sampling: Convenience Sampling.
Sample Size: 100 participants
Study Set Up: Mumbai and Navi Mumbai

Inclusion criteria
1. Male and female clinical physiotherapists practicing in Mumbai and Navi Mumbai.
2. Male and female clinical physiotherapists who have an experience of more than a year.
3. Male and female clinical physiotherapists who treat at least one patient per day.

Exclusion criteria
1. Male and female physiotherapists who are into the field of academics and research.

Instrumentation: Validated evidence-based practice questionnaire [EBPQ] by prof.Dominic Upton and Dr. Penelope Upton with their permission.

Procedure
- An ethical approval was taken from the ethics committee of Lokmanya medical college of physiotherapy.
- It was a cross sectional survey with convenience sampling having 100 participants.
- Participants fulfilling the inclusion criteria were included after taking the informed consent form.
- All the participants were given a questionnaire via google forms through emails and social media platforms.
- Their IAP / Maharashtra OT/PT council registration number were noted to avoid repetition of data.

- The EBPQ is a self-reported questionnaire and has four sections.

1. Practice of EBP subscale (6).
2. Attitude towards EBP subscale (4).
3. Knowledge/skills associated with EBP subscale (14).
4. Demographic data includes gender, age, profession, year of qualification, specialty and position at the workplace.

- Cronbach's alpha was 0.87 for the entire questionnaire.
- Cronbach's alpha being 0.85 for practice of EBP subscale.
- Cronbach's alpha was 0.79 for the attitude towards EBP subscale.
- Cronbach's alpha was 0.91 for the knowledge/skills associated with EBP subscale.

Data Analysis and Results

Data analysis was done using MS EXCEL for windows, the frequency distribution and percentage values were calculated and reported. Higher scored indicated better awareness.

Table 1: sex wise distribution of the respondents.

Gender	Number	Percentage
Male	32	32.00%
Female	68	68.00%

Majority of the respondents were female (68%).

Table 2: age wise distribution of the respondents.

Age range	Number	Percentage
20-29	26	26.00%
30-39	34	34.00%
40-49	21	21.00%
50-59	11	11.00%
60-69	8	8.00%

Majority of the respondents belonged to age group 30-39 (34%).

Table 3: distribution of respondents according to the years of practice.

Years of practice	Number	Percentage
0-5	22	22.00%
6-10	22	22.00%
11-15	13	13.00%
16-20	16	16.00%
21-25	8	8.00%
>26	19	19.00%

Majority of respondents had 0-5 years of practice (22%) and 6-10 years of practice (22%).

Table 4: distribution of respondents according to the degree obtained.

Degree obtained	Number	Percentage
Bachelors	36	36.00%
Masters	57	57.00%
Phd	7	7.00%

Majority of respondents had obtained their master's degree (57%).

Table 5: distribution of respondents according to the type of condition for majority of patient (speciality).

Speciality	Number	Percentage
Orthopaedics	60	60.00%
Neurological	34	34.00%
Cariovascular/pulmonary	6	6.00%

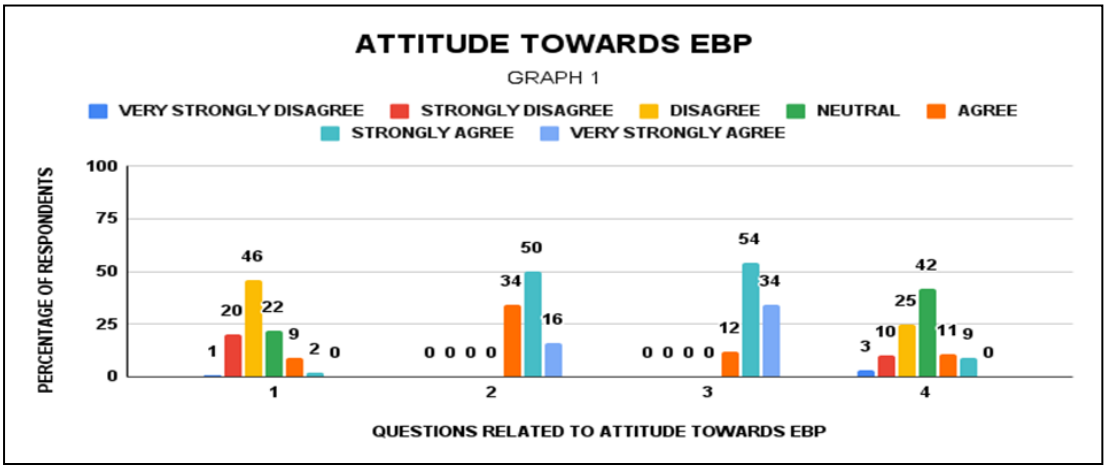
Majority of respondents usually treated the orthopedic patients (60%).

Table 6: skills/knowledge related to ebp.

Skills / knowledge	Very very bad	Very bad	Bad	Neutral	Good	Very good	Very very good
Research Skills	0	1	22	37	35	5	0
IT skills	1	4	34	25	33	2	1

Monitoring and reviewing of practice skills	0	0	20	40	38	2	0
Converting your information needs into a research question	0	0	26	28	35	11	0
Awareness of major information types and sources	0	0	27	35	23	15	0
Ability to identify gaps in your professional practice	0	3	16	45	32	4	0
Knowledge of how to retrieve evidence	0	1	23	26	39	11	0
Ability to analyze critically evidence against set standards	0	1	17	34	27	21	0
Ability to determine how valid (close to the truth) the material is	0	4	16	27	35	18	0
Ability to determine how useful (clinically applicable) the material is	0	4	15	24	31	26	0
Ability to apply information to individual cases	0	1	12	25	38	24	0
Sharing of ideas and information with colleagues	0	5	11	28	39	17	0
Dissemination of new ideas about care to colleagues	0	5	34	30	26	5	0
Ability to review your own practice	0	1	17	19	43	20	0

According to the survey, 37% had rated themselves neutral over their research skills and 34% of them reported that they had bad IT skills. Most of the respondents showed neutral response over their knowledge to monitor and review of practice skills (49%) and rated themselves good over their ability to convert the information needs into a research question (35%). A neutral response was given towards awareness of major information types and sources (35%), ability to identify gaps in your professional practice (45%) and ability to analyze critically evidence against set standards (34%). Most of the respondents rated themselves good over their knowledge of how to retrieve evidence (39%), Ability to how valid (close to the truth) the material (35%), ability to determine how useful (clinically applicable) the material (31%), ability to apply information to individual cases (38%), sharing of ideas and information with colleagues (39%) and their ability to review your own practice (43%). However according to most of them they were bad at dissemination of new ideas about care to colleagues (34%).

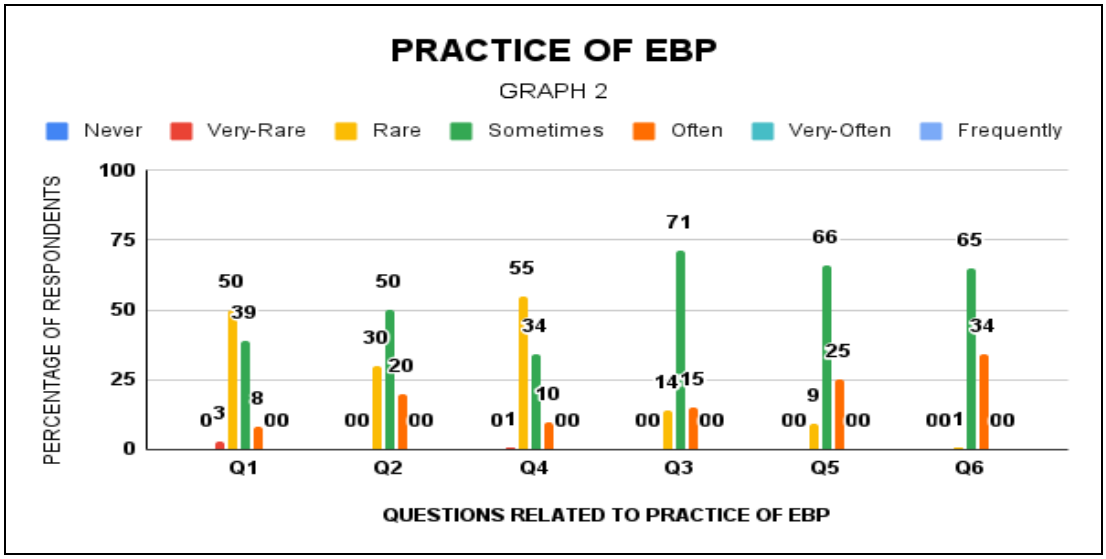


Graph 1: attitude towards evidence-based practice.

Table 7

Statement no.	Statement 1	Statement 2
1	My workload is too great for me to keep up to date with all the new evidence	New evidence is so important that I make the time in my work schedule
2	I resent having my clinical practice questioned	I welcome questions on my practice
3	Evidence based practice is a waste of time	Evidence based practice is fundamental to professional practice
4	I stick to tried and trusted methods rather than changing to anything new	My practice has changed because of evidence I have found

According to the results, 50% of the respondents strongly agree that they welcome questions on their practice and do not resent having their clinical practice questioned. Almost 54% believe that evidence-based practice is fundamental to professional practice and is not a waste of time. Where else 42% of them have neutral attitude towards their practice being changed because of evidence that they have found. Also, 46% disagree to new evidence being so important they will make time in work schedule because their workload is too great for them to keep up to date with all the new evidence.



Graph 2: practice of ebp.

Table 8

Question no.	Questions related to practice of ebp
Q1	How often have you formulated a clearly answerable question as the beginning of the process towards filling this gap?
Q2	How often have you tracked down the relevant evidence once you have formulated the question?
Q3	How often have you critically appraised, against set criteria, any literature you have discovered?
Q4	How often have you Integrated the evidence you have found with your expertise?
Q5	How often have you evaluated the outcomes of your practice?
Q6	How often have you Shared this information with colleagues?

According to this study, 50% of the respondents have rarely formulated a clearly answerable question as the beginning of the process towards filling this gap and 55% have rarely critically appraised, against set criteria, any literature that they have discovered. Most of them have sometimes tracked down the relevant evidence once they have formulated the question (50%), Integrated the evidence you have found with your expertise (71%), evaluated the outcomes of your practice (66%) and shared this information with colleagues (65%).

Discussion

In this study, the respondents fairly lacked knowledge and skills related to EBP but had positive attitude towards EBP similar to a study on medical students by Manjula R, *et al* where most of the participants hold positive attitudes toward EBP but lack sufficient knowledge and skills for implementation [15]. This may be due to many factors, such as lack of discussion towards EBP in the curriculum and the existing gap between the academic knowledge and clinical practice since the undergraduate curriculum in India is majorly based on textbooks and theory rather than evidence-based approaches towards clinical practice. Also, in this study the respondents were asked to rate their skills and knowledge over EBP but the assessment of knowledge descriptively could not be done.

In this study, a positive attitude was seen amongst the respondents towards EBP which was similar to Alshehri, M. A., *et al* where a positive attitude was seen towards EBP, where most participants responded 'agree' or 'strongly agree' (81– 95%) towards EBP being fundamental in practice [16].50% of the respondents strongly agree that they welcome questions on their practice and do not resent having their clinical practice questioned. Almost 62% showed "neutral – very strong agreed" attitude towards EBP changing their practice when evidence is used. When EBP is applied, it results into a better patient centric outcome in a cost-effective way and helps in eliminating risky practices.

Identification of barrier should be important in determining potential reasons for clinical physiotherapists not being able to practice EBP on daily basis. Similar to a study by Majid *et al*, where lack of time was the primary

barrier to the use of EBP (42.3%) [17] even the respondents in this study reported that couldn't practice EBP in day-to-day life because their workload is too great for them to keep up to date with the new evidence.

According to this study, 50% of the respondents have rarely formulated a clearly answerable question as the beginning of the process towards filling this gap and 55% have rarely critically appraised, against set criteria, any literature that they have discovered. Most of them have sometimes tracked down the relevant evidence once they have formulated the question (50%), Integrated the evidence you have found with your expertise (71%), evaluated the outcomes of your practice (66%) and shared this information with colleagues (65%). Recently, a systematic review investigated physiotherapists knowledge, skills, behavior's, opinions and barriers regarding EBP. This review looked at 12 studies and found that the major three barriers reported in these studies were lack of time, difficulties in understanding statistics and absence of support [18]. However, Ramı´rez-Ve´lez *Et al*. reported that a lack of research skills was the primary barrier for Colombian physiotherapists [19], in terms of EBP implementation, whereas difficulty in accessing full-text articles was the most frequent barrier for Brazilian physiotherapists [20].

Clinical physiotherapists are in contact with the patients for majority of time unlike many of the other health care workers hence there will be a direct impact on patient's health care if the knowledge, attitude and practice of EBP is altered because it will result in altered health care delivery. Policy makers should consider these findings to make appropriate changes in training to obtain maximum patient benefits.

Conclusion

There is poor to fair knowledge of Evidence Based Practice in clinical physiotherapist practicing in Mumbai and Navi Mumbai. They have a positive attitude to Practice EBP but, they are unable to practice EBP in day-to-day life. They feel it is due to lack of time.

Clinical Implications

To improve and encourage the practice of EBP and clinical decision making, more attention should be paid to including EBP training in the curriculum and educating students for EBP training / course at the graduate level. This will advance the profession's approach to developing, using, and promoting research and its contribution to generating new evidence, knowledge transfer, and health care.

Limitations

1. Small sample size.
2. The study was carried out only amongst clinical physiotherapist practicing in Mumbai and Navi Mumbai.

Future Scope

To study the correlation between Knowledge, Attitude and Practice of Evidence Based practice in clinical physiotherapists practicing in Mumbai and Navi Mumbai. To compare Knowledge, Attitude and practice level Pre and Post Evidence based practice training in clinical physiotherapists practicing in Mumbai and Navi Mumbai. To study the Knowledge, Attitude and Practice of Evidence Based practice in clinical physiotherapists practicing in other cities.

References

1. Peckham M. Filling the lacuna between research and practice: an interview with Michael Peckham. Interview by Richard Smith. BMJ.,1993:307(6916):1403-7.
2. Taylor-Piliae RE. Establishing evidence-based practice: issues and implications in critical care nursing. Intensive Critical Care Nursing.,1998:14(1):30-7.
3. Herbert R, Jamtvedt G, Mead j, hagen KB. Practical Evidence based Physiotherapy. Butterworth Heinemann, 2005, 170-197.
4. Sackett DL, Rosenberg WM, Gray JA, Haynes RB, Richardson WS. Evidence based medicine: what it is and what it isn't. BMJ.,1996:312(7023):71-2.
5. Mayer J, Piterman L. The attitudes of Australian GPs to evidence-based medicine: a focus group study. Fam Pract.,1999:16(6):627-32.
6. Young JM, Ward JE. Evidence-based medicine in general practice: beliefs and barriers among Australian GPs: EBM in general practice. J Eval Clin Pract.,2001:7(2):201-10.
7. Young JM, Glasziou P, Ward JE. General practitioners' self-ratings of skills in evidence-based medicine: validation study. BMJ.,2002:324(7343):950-1.
8. Harrison MA. Evidence-based practice - practice-based evidence. Physiotherapy Theory Practice.,1996:12(3):129-30.
9. Bithell C. Evidence-based physiotherapy. Physiotherapy.,2000:86(2):58-9.
10. Guyatt GH, Haynes RB, Jaeschke RZ, Cook DJ, Green L, Naylor CD, *et al*. Users' Guides to the Medical Literature: XXV. Evidence-based medicine: principles for applying the Users' Guides to patient care. Evidence-Based Medicine Working Group. JAMA.,2000:284(10):1290-6.
11. Panzer RJ, Black ER, Griner PF. Book Review: Diagnostic Strategies for Common Medical Problems. Medical Decision Making.,1991:13(2):174-174.

12. Harrison M. Evidence Based Practice: Challenges in Practice Based on Evidence. Physiotherapy Theory and Practice.,2002:25:80-112.
13. Sherrington C, Herbert RD, Maher CG, Moseley AM. PEDro. A database of randomized trials and systematic reviews in physiotherapy. Man Ther.,2000:5(4):223-6.
14. Turner P, Whitfield A. Journal readership amongst Australian physiotherapists: a cross-national replication. Aust J Physiotherapy.,1997:43(3):197-200.
15. Manjula R, Srivastava AK, Dorle AS. Evidence based practice: knowledge, attitude and practice among undergraduate and postgraduate medical students of a medical college in North Karnataka, India. Int J Community Med Public Health.,2018:5:2411-5.
16. Alshehri MA, Alalawi A, Alhasan H, Stokes E. Physiotherapists' behaviour, attitudes, awareness, knowledge and barriers in relation to evidence-based practice implementation in Saudi Arabia: a cross-sectional study. International Journal Evidence Based Healthcare.,2017:15(3):127-41.
17. Majid S, Foo S, Luyt B, Zhang X, Theng Y-L, Chang Y-K, *et al*. Adopting evidence-based practice in clinical decision making: nurses' perceptions, knowledge, and barriers. J Med Library Association,2011:99(3):229-36.
18. Silva D, Costa TM, Garcia C. What do physical therapists think about evidence-based practice? A systematic review. Manual Therapy,2015:20:388-401.
19. Ramı´rez-Ve´lez R, Correa-Bautista JE, Mun˜oz-Rodrı´guez DI. Evidence-based practice: beliefs, attitudes, knowledge, and skills among Colombian physical therapists. Colomb Med.2015:46:33-40.
20. Silva TM, Costa L, Lo C. Evidence-Based Practice: a survey regarding behavior, knowledge, skills, resources, opinions and perceived barriers of Brazilian physical therapists from Sa˜o Paulo state. Braz J Phys Ther,2015:19:294-303.