

# Role of Physiotherapy in India – A Cross-sectional Survey to Study the Awareness and Perspective among Referring Doctors

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**Abstract:** Purpose of Study: Physiotherapy plays a major role in rehabilitating a patient. The role of a Physiotherapist is to deal with application of physiotherapy skills & knowledge to the assessment, design, delivery & evaluation of physiotherapeutic treatments in the management of the various conditions of acute or chronic sickness, disability or handicap. The history of physiotherapy, in India, was laid back in 1952 following an epidemic of poliomyelitis. Slowly and steadily physiotherapy did establish a firm base in India with lot of new developments, but still by large, physiotherapy remains a secondary referral profession not only in our country, but in other countries too. Further development of physiotherapy would be dependent on the awareness of referring physicians. It has been seen in the literature that there is a lack of awareness among the general practitioners and physician students. Hence this study was conducted to look at the Physicians (Doctors) Perspective as to how much importance is given to Physiotherapy, their perception of the role of a Physiotherapist & their need to interact with the Physiotherapist for effective treatment outcome of the patient.

## THESIS SUMMARY

### Introduction

The year 2014 marks the completion of 62 years of Physiotherapy in India. Physiotherapy may be defined as, 'A Health care profession concerned with human function & movement & maximizing its potential. It uses physical approaches to promote, maintain & restore physical, psychological & social wellbeing, taking account of variations in health status [1]. The role of a Physiotherapist is to deal with application of physiotherapy skills & knowledge to the assessment, design, delivery & evaluation of physiotherapeutic treatments in the management of the various conditions of acute or chronic sickness, disability or handicap [2]. Physiotherapy took a firm base around World War I when surgery gave rise to the new branch of orthopedics with improved treatment techniques & followed by rehabilitation of the injured soldiers [3]. The foundation of Physiotherapy was laid in India in 1952 following a major epidemic of poliomyelitis in Mumbai & soon in 1953 the first school & centre for Physiotherapy was established in Mumbai as a joint collaborative project of Government of India, State Government, & the then Bombay Municipal Corporation (BMC) with technical support by World Health Organization (WHO) [4]. Slowly but steadily

Physiotherapy formed a firm base with the formation of its own association, The Indian Association of Physiotherapists (IAP), in 1962. Although a number of achievements have been noted in this duration, but the awareness among the other medical professionals about the science & field of physiotherapy still remains a question. Survey by Sheppard et al aimed at knowing the awareness of the field of physiotherapy in general public in Australia [5]. They felt this to be an important tool in understanding the scope of physiotherapy and the extent to which it meets the demands. It is still seen that physiotherapy, by large, remains a secondary referral profession not only in our country, but in other countries too [4]. Thus the further development of it will depend on the awareness among the referring fraternity. The reference depends on the referring professional, his interest, understanding & interaction with the physiotherapist and his ideas and concepts about physiotherapy. This may also be a reason for variation in referral rates [6]. A lack in awareness among the general practitioners and physician students has been reported in literature [7, 8]. A better awareness will also lead to better patient management and resource utilization [9]. Studies have shown that physiotherapy services can be more efficiently utilized by early referral to

physiotherapist [6, 10]. To the best of our knowledge a survey among the referring fraternity for physiotherapy is not reported in literature. In this study, we tried to look at the Physicians (Doctors) Perspective as to how much importance is given to Physiotherapy, their perception of the role of a Physiotherapist & their need to interact with the Physiotherapist for effective treatment outcome of the patient. Prime issues were raised consisting of the awareness & interaction with the Physiotherapists, types of references with inclusion / exclusion of patient's diagnosis, a professional autonomy regarding choice of Physiotherapy treatment & duration of treatment & autonomy regarding patient practice i.e. a first contact practice with the patients.

### Methodology

The 'E' Ward of BMC [Brinhanmumbai Municipal Corporation] was identified as the study area. The doctors to be included in the study were: General Practitioners - minimum MBBS degree with internship completed & into active clinical practice, Specialty Practitioners (Consultants) - Having MD, MS or higher degree & attached to a consultancy clinic or nursing home; Hospital Residents/Registrars - Post Graduation students (any year) belonging to any clinical field/ specialty within a post-graduation (MD/MS) teaching institution; Hospital Teachers - Post Graduate Doctors (MD, MS or higher) involved in teaching clinical medical subjects & appointed as Lecturers, Associate Professors, Professors, Heads of Unit, Heads of Department. These doctors were classified according to their specialties e.g. General Practitioners, Orthopedics, Medicine etc. A sample size calculation was done using a doctor population ratio of 200 per 100000 populations with power of 90% and p value of 0.05%. With assumption of 20% contingencies like non responder, incomplete form filling etc we calculated a sample of 254 doctors. The Post - Graduation Academic Committee & the Ethics Committee of this Institution also approved this sample size. These 250 doctors were selected randomly with an equal number of selections from each group & also near equal selection into each specialty. Doctors were selected depending on their availability & interest to participate in the study and a written informed consent was taken from them. In keeping with the above-mentioned objectives, a Questionnaire was prepared to be administered among the doctors. Care was taken to keep the Questionnaire Self Informed & Self Administered to prevent any misinterpretation & also as far as possible the questions were closed ended for easier grouping & to prevent any statistical errors. This questionnaire was piloted within fifteen doctors (subjects) selected unevenly from the different groups at random. Post-pilot study, a few changes were brought forward & were made & questionnaire finalized [Appendix A]. It was administered to all the doctors at their place of work, at their convenient timings & a blank white envelope was provided along with it to seal the questionnaire to maintain secrecy & preserve confidentiality. The subjects were left to their options to tick/ circle the required answers or cancel the non-required options & no instructions were provided for this. Q 10 was left open ended for the subjects to write what they feel. The Questionnaires were sealed & coded. All suggestions were welcomed either on the questionnaire or on personal meeting (during collection of sealed envelopes) & doubts, queries; debates by the doctors were answered to best of our abilities. The analyst opened the sealed

envelopes and all valid & acceptable data was entered and a master chart was formed to be analyzed group wise, specialty wise & question wise on a computer (on Microsoft Excel and SSPS). The result of Two hundred & Twenty doctors was found favorable for the study. The data was analyzed, according to the pre requisites with test of significance applied to the formed tables. (Pearson's Chi-Square Test).

### Results

All the included doctors responded to the questionnaire and all had idea regarding scope of physiotherapy and 95.9% (188 out of 196) did refer their patients. There was a significant awareness of Physiotherapy and its various functions (150 out of 196) with a high number of written informed references (172 out of 196). Most of the doctors did include a medical diagnosis in the reference. Significant number of doctors not only allowed physiotherapists to decide choice of treatment (110 out of 196) but also interacted with the physiotherapists (123 out of 196). Most of them did interact regarding the home management of the patient and were willing to extend the duration of therapy if necessary. The Physiotherapists were given the autonomy of patients' treatment but 56% (110 out of 196) doctors objected to the Physiotherapist having a first contact practice.

### Discussion

Such surveys help in recognizing the importance of a faculty not only by the faculty members but by the fellow medical fraternity too. According to this survey there exists reasonably high awareness of physiotherapy practices in major faculty groups however many variations exist among the referring patterns and involvement in patient treatment. According to us this is a first of its kind survey in this country. Although specialties like PSM, ophthalmology and psychiatry had a very less sample size still some interesting observations were made. With the participation of physiotherapists in community care programs along with the PSM department, referrals from hospital PSM department too were significantly high (87.5%) showing awareness of physiotherapy in the area of prevention, rehabilitation & care. The only fields referring lesser patients were ophthalmology & psychiatry. Ophthalmology is one field in which physiotherapy does lack any major application & hence there were no references. Among psychiatrists, the awareness of occupational therapy was found to be far more than that of physiotherapy. This was probably due to the involvement of the occupational therapists in the field of psychotherapy. Although physiotherapist do deal with pain & pain relating to psychosomatic origin and with problems related with depression which has a major application in psychiatry [11]. However references were very few from the psychiatrists (33.3%) and the awareness of physiotherapy application was poor. Although oncology gave 100% reference for physiotherapy, the sample size was extremely small. This was because community practitioners in oncology were less in the chosen area and in the institutes, not many oncologists could be contacted. Further discussion will focus on the main groups that were studied in detail namely medicine, Orthopedics, general practitioners and others. All the doctors included in the study claimed awareness of the role of physiotherapy in patient care &

only 23.5% of these doctors felt that they were not aware of all the various functions carried out by the physiotherapist. Similarly, it can be seen that a significant number of doctors (69.9%) knew the name of the physiotherapist working with them. We also found that a significant number of doctors from all the groups (95.5%) made references for physiotherapy. This clearly indicates a high level of awareness among the various faculties although a good number of general practitioners (36%) felt that they lacked knowledge about various functions of physiotherapy. Most of the doctors (87.8%) provided a medical diagnosis while making a reference. In a retrospective study by Wong & Galley, a decrease in the number of doctors providing diagnosis in the references was seen in 1989 as compared to 1982 [12]. This might mean greater autonomy expected from the physiotherapists. In our series the doctors explained that they wanted to target the attention of the physiotherapists towards a particular problem of the patient and that the autonomy to the Physiotherapists was not questioned by them. The remaining doctors (12.2%) did not provide with a medical diagnosis as they expected the physiotherapists to diagnose and decide the patient's treatment. The percentage of these doctors was almost similar in all faculties with slightly higher percentage among the general practitioners. Among all the specialties, a significant number of the doctors (74.5%) gave a written reference. They did this in order to make the patients' treatment program legal and said that a written documentation was important. Also within institutions, it was a rule to give the patients references in writing. But only 10% of doctors commented that no follow up or feedback (written or oral) was provided to them by the physiotherapists & were of an opinion that bilateral communication was important to seek out this problem. This written method of reference was significantly less popular among the general practitioners (56%), ( $p=0.002$ ) as they preferred to refer verbally or on telephone. The other less popular methods of references were by verbal communication (40.3%) & references over the telephone (34.7%). But these methods helped in improving the communication between both the fields & increasing the awareness of physiotherapy further as an exchange of information & ideas occurs & thus queries are resolved faster. Also a greater interaction occurs, which increases the respect of both the fields to each other. In the study done by Sheppard, she concludes that an increase in communication between the doctors & physiotherapists indirectly creates an increased awareness within the public [5]. Wong & Galley had mentioned about an increased need of autonomy, which was expected from the physiotherapists regarding not only the patient's diagnosis but also choice of physiotherapy treatment [12]. In our study we observed that a significant number of doctors (55.6%) left the treatment decisions to the physiotherapists (especially doctors from medicine, other groups & general practice). However 26.5% of the doctors felt it important to direct the physiotherapists a significant number of whom were from orthopedics (47.4%) & cardiology. They thought it was necessary in order to inform the physiotherapists about what they expected in the patients' treatment and not to question the competency of the physiotherapists. One study reported significant variability among the orthopedic surgeons and physiotherapist regarding need for physiotherapy in a trauma

case. This may be one of the factors why there exists a need to guide the therapist and highlights need for better communication. [13] Only 14.3% of doctors insisted on a dialogue or discussion between them and the physiotherapists rather than directing or giving complete autonomy, as they were the primary treating faculty and had more knowledge about details of the medical conditions of the patients. The given options of choice of communication were consult/ approach/ interact and showed varying level of interaction among the physiotherapist and the faculties. Consult with the physiotherapist showed a higher degree of respect given to the therapist as masters of their science and indicated that the field of physiotherapy as an accepted and much needed branch in health care management. Approach to the physiotherapist also shows an active initiation taken by the physician but slightly masks the position given to the physiotherapist in consult category no such mark of authority can be seen in interact although a great deal of interaction occurs with exchange of ideas & views. It shows an equal need towards each other by both the fields. Our study reports that a significant number of the doctors (63.3%) from orthopedics, medicine & other groups claimed to interact with the physiotherapists rather than approaching or consulting them showing that they respected the profession equally & needed to communicate with the physiotherapists. While a significantly small number (10.2%) approached & (19.4%) consulted their physiotherapists and felt that they could look up to the physiotherapists as masters in their own field. Among the 7.1% of doctors that did not interact at all 22% were General practitioners who showed a less awareness regarding all functions carried by the physiotherapist (maximum references being for physiotherapy in orthopedics) & did not voice their need for feedback from the physiotherapists. This point is also reported by other studies [6, 14]. The knowledge and importance of a field also depends on the number of times a person seeks help from that field. Thus the frequency of interaction is important as with more interaction, a better communication occurs. Orthopedics (31.6%) & Medicine (28.6%) showed an increased frequency of references given daily or at least once a week where as frequency of interaction was significantly less among the General Practitioners (less than once a week i.e. 'sometimes'). All the doctors were asked if they knew the difference between Occupational Therapy & Physiotherapy. This was done because a large number of references for physiotherapy had common reference for occupational therapy or at times references of occupational therapy sent to physiotherapy & vice versa. Although there is overlap between these, however there exists sufficient diversity to label them as different [15]. In the questionnaire, none of the doctors were asked to specify the differences but were only asked if they knew the differences. A significant number of the doctors (81.1%) claimed to be aware of the differences. (But almost 12% were unable to explain when just asked out of curiosity. But this was beyond the scope of this study). All the doctors were also asked if they would extend the patients' Physiotherapy treatment sessions if the therapist so desired. Although a significant number of doctors of all the specialties & general practice (69.9%) did agree, an early discharge was sought due to financial restraints. This shows that the doctors respected the physiotherapists in being responsible



for the functional independence of the patients and also felt that the functional independence should be the criteria for the patient's discharge. However, community hospitals, being acute care setup with less number of beds and the huge load of patients, this was always not possible. This emphasizes the need of a ward or an indoor area, which could be specific for rehabilitation and restoration of functions of the patients and can be a transient home for the patients before discharge. This also shows the trust & acceptance of the physiotherapist's decision regarding the duration of the patients stay. Home management program was discussed with the therapist by 53.6% of the doctors. Of these doctors, a statistically significant number of orthopedic surgeons (84.2%) took interest in the patient's discussions with the therapist showing an extreme awareness & a good interaction. The rest of the doctors claimed to respect the therapist's decision as a professional & thus let them decide the patient's home management program. Surprisingly, we see that only 44.4% of the doctors felt that a physiotherapist could have a first contact practice with the patients. It was a decision challenging the very norms of the autonomy & decision making capacity of the physiotherapist. The reasons for disagreement varied from questioning the knowledge of the physiotherapist for a first contact with the patients to the existence of their own practice if the physiotherapists directly take over the patients thus hampering the referral practice with its associated customs. In the study carried out by Ferguson & Griffin in 1999, this very issue of a first contact practice was raised [15]. The Department of Health in Britain and in Australia has already accepted the Physiotherapists capability to handle the patients directly. The one major factor that holds a barrier to such a practice, especially in third world countries like India is the low level of literacy and thus lack of awareness of the availability of special Medical & allied health services among the patients. This awareness is poor even in the educated or the literate class. Also the availability of Physiotherapists is not uniform where only a few areas may be targeted depending on its Geography & Economy & the rest neglected. Also Ferguson & Griffin stated that many of the physiotherapists restrict their freedom to treat patients without reference from a doctor for a variety of reasons [15]. According to the solution offered by Sheppard, marketing & advertising can be done in a fair manner to increase the awareness of our profession among the doctors & among the public [5]. Ritchey et al stated that expanding physical therapy role will not lead to a turf battle and that physician education is of utmost importance if autonomy has to be gained by the physiotherapist [10]. Self referral is a feasible and acceptable option [17] but lack of awareness among the public will not help because patients will not approach the physiotherapist directly until and unless he knows for sure what the physiotherapist can offer or do for him. Thus it is very important to maintain an excellent rapport with all the doctors, as an awareness of physiotherapy within them will create an improved awareness within the general people. Nevertheless a traditional doctor therapist relation and a team approach is most desirable [18]. Even all the doctors in the study found it important to maintain a good rapport between the physicians & the physiotherapists to obtain a better patient treatment outcome. Important factors like faculties years of practice, expectation

from the physiotherapist, institutional or private practice into account [5] which is one of the main limitations of our study. Also this being a self informed community based survey the results and interpretation are limited by information provided by the responders. In view of specific context, limited sample size and restricted geographical area, we are unable to comment on generalization of our results. However we do believe that important conclusions have been reached in our study.

### Conclusion

We found that there is a significant awareness about Physiotherapy & the various functions of Physiotherapy including a high number of informed references sent for Physiotherapy, preferably given in writing. Also a significant number of doctors let the physiotherapists decide the choice of treatment for the patients taking care to interact with the physiotherapists. The physicians did agree with physiotherapist's choice of management & decision for their patient care but more than half of the physicians objected to the physiotherapists having a first contact with the patients.

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