



## DEMOGRAPHIC CROSS-SECTIONAL SURVEY REPORT ON PUBLIC PERCEPTION OF PHYSIOTHERAPY

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### Abstract

**Introduction :-** The aging population and the rise in chronic illnesses have increased the demand for physical therapists and physiotherapy services. However, the general public's understanding of physiotherapy is limited, affecting self-referral and the utilization of these services. An Extended Scope of Physiotherapy (ESP) can serve as a first point of contact practitioner for patients with musculoskeletal (MSK) conditions, independently and successfully

**Aim :-** This cross-sectional survey to assess public perception and awareness of physiotherapy in metro city, town and village regions. The study also explores the public's opinion on the Extended Scope of Physiotherapy (ESP) in different settings

**Material and method :-** The study was conducted in three hospitals located in a metro city, town, and village, with a total of 384 respondents. The investigator approached individuals one-on-one and requested them to complete the survey. The survey instrument utilized in this investigation was a closed-ended questionnaire created for a prior study. There are two sections in the questionnaire. First portion covers (a) Awareness of chiropractic and physiotherapy and (b) treatment for sports and spinal injuries using chiropractic and physiotherapy. Second portion part includes Questionnaire on Extended Scope of Physiotherapy (ESP). (a) The investigative hierarchy. (b.) Give steroid injections and/or independently recommend drugs for MSK disorders in the hamlet and town, such as analgesics or anti-inflammatory drugs

**Statistical Analysis Data:-** were collected and statistically analysed using Statistical Package for the Social Sciences (SPSS) software version 28.0. The level of significance of this study was set to p-value <0.05.

**Result :-** The results showed varying degrees of awareness about physiotherapy, with 57% and 50% of respondents being somewhat or very familiar with the term "physio" respectively. The majority recognized physiotherapy for treating musculoskeletal conditions. However, the awareness of physiotherapy's role in treating other conditions and its extended scope of practice (ESP) was limited. For sports and back injuries, 63% and 23% of respondents in the metro city chose physiotherapy, while in the village, these figures were 19% and 26% respectively. The public response on ESP was overwhelmingly positive, with 90% in the town and 86% in the village responding "Yes definitely".

**Conclusion :-** The study concludes that while physiotherapy is recognized for treating musculoskeletal conditions, there is a need for targeted marketing initiatives to increase public awareness about the full scope of physiotherapy services, especially in rural areas.

**Key words:-** Physiotherapy, Extended scope of physiotherapy, chiropractors

### **Introduction**

The aging of our population is accompanied by a marked increase in the prevalence of chronic illnesses. As a result, all health agencies now require more physical therapists and physical therapy services. According to Webster et al. (2008), self-referral is impacted by the general public's apparent ignorance about physiotherapy, even though all patient referral groups view the practice favourably [1] Doctors disagree in what diseases they believe are likely to respond to physiotherapy and in their goals when prescribing physiotherapy with or without additional drugs. These differences in viewpoints have led to varied referral patterns, as highlighted by Akpala et al. [2]. They claimed that additional variables that could affect referral patterns were the doctors' ages, genders, medical schools attended, and prior hospital or other rehabilitation service experience—especially with physical therapy [2]. The use of evidence-based practice by many physical therapists is likewise problematic. Physical therapists should incorporate more evidence in their daily practice, according to Jette et al. [3].

The art and science of applying physical agents, such as heat, cold, light, electrical stimulation, electromagnetic waves, manual therapy, and mechanical forces, for physical therapy diagnosis and treatment is used in the medical field of physiotherapy.[4] Four main characteristics of physiotherapy are health promotion, sickness prevention, health restoration, and rehabilitation services. It now has autonomy in the field of health sciences.

Nowadays, a lot of illnesses and unintentional accidents leave behind residual impairments that don't fully heal and need for physiotherapy care. As a result, the need for physiotherapy is always growing. Every member of society has to be aware of physiotherapy since many modern diseases and anomalies require not only traditional medical treatment but also physiotherapy treatment, without which any ailment may not be fully treated. Furthermore, more physiotherapy treatment is needed in the later stages of several illnesses, such as Bell's palsy, cerebral palsy, stroke, and polio. Therefore, physiotherapy has to be made more widely known in both urban and rural regions.

The majority of people only have a limited understanding of physiotherapy and the use of various treatment methods in large cities and towns.[4]. The way that physiotherapy is seen in smaller towns may vary depending on a number of circumstances, including cultural attitudes about seeking professional assistance for physical problems, healthcare accessibility, and knowledge of the advantages of physiotherapy. In addition to treating patients, physiotherapists working in these regions frequently take an active role in community outreach and education initiatives aimed at dispelling myths and promoting proactive engagement in rehabilitation and preventative care [5]

But in rural communities, where access to physiotherapy treatments might be scarce, the situation is very different. Here, infrastructure, resource limitations, and the requirement for innovative methods to efficiently provide treatment to the local population may provide particular problems for physiotherapists. Despite these challenges, physical therapy may have a significant positive influence on people's mobility, functional independence, and general health in remote locations. These people may not otherwise have easy access to specialist healthcare services [6]

The way that physiotherapy is viewed and used in different large cities, towns, and villages reflects not just the infrastructure and resources that are available, but also the cultural, social, and economic factors that influence healthcare practices in various contexts. Comprehending these heterogeneous settings is imperative in formulating comprehensive and efficacious approaches to endorse the function of physical therapy in augmenting the welfare of persons in disparate settings.[7]

Research indicates that factors affecting decision-making and service delivery, such as staffing concerns, organizational goals, rising demand, and financial limitations, lead to the rationing of physiotherapy services in rural areas. [5]

Research also highlight the need of cultural humility and awareness in addressing the challenges of retaining and recruiting physical therapists in rural areas. These results emphasize how the field of physiotherapy needs support in these areas, which calls for strategic planning and changes to federal and provincial policies [8]

Physiotherapy has to be made more widely known in both urban and rural regions. There aren't many research on the general public's understanding of physiotherapy, and the ones that have been done are rare and have a wide scope. The limited body of published research makes it clear that, even in industrialized nations, the general public's knowledge of physical therapy is insufficient. Nonetheless, the general public's awareness of physiotherapy is low in poorer nations and rather high in nations like Australia, the United States, the United Kingdom, and Japan[9, 10]. With ESPs in the Forth Valley being among the first in the UK to take up this job, the introduction of Extended Scope of Physiotherapy (ESPs) to these practices provides a unique role within the physiotherapy profession. In primary care, ESPs serve as patients' initial point of contact for musculoskeletal (MSK) disorders ranging from straightforward to complicated. The load on primary care services is anticipated to rise as the population ages and the prevalence of MSK disorders rises with age. Advanced physiotherapists, or ESPs, are primary care providers who independently examine, diagnose, and treat patients. In addition to ordering studies, making referrals to other clinics, and frequently performing steroid injections, the ESP can also independently prescribe medicine for MSK disorders, such as analgesics or anti-inflammatories.[11]

The purpose of this study was to determine public expectations for physiotherapy as well as public awareness of the services provided by physiotherapists.

The public research aimed to ascertain the following:

- the degree of public knowledge regarding physiotherapy;
- the reasons behind the utilization of physiotherapy services; and
- to list rival health service providers that the general public could think about contacting.
- Public opinion on the expanded practice of physical therapy (ESP) in towns and villages.

### **Material and methods**

The purpose of the current study was to determine the public's awareness of physical therapy in the waiting areas and reception areas of three hospitals. Ethical committee No.EC/RMCH2RC/2024/7 of rama medical college hospital and research centre Hapur . The locations of these hospitals are listed in Table 1. Data collection for the metro area was done at Santosh Hospital, for the town at Shankar Lal Hospital, and for the village at Rama Hospital. The investigator approached individuals one-on-one and requested them to complete the survey. The survey instrument utilized in this investigation was a closed-ended questionnaire created for study. Experts in community-based research validated the questionnaire's content, and a pilot study with 20 respondents examined the questionnaire's internal consistency, yielding an outstanding overall internal reliability score of 0.88 using Cronbach's alpha. There are two sections in the questionnaire . First portion covers (a) Awareness of chiropractic and physiotherapy and (b) choice treatment for sports and back injuries by chiropractic and physiotherapy. (c) Awareness of condition treated by physiotherapy. Second portion part includes yes and no Questionnaire on *Extended Scope of Physiotherapy (ESP)*[11]. Whether to give steroid injections and/or independently recommend drugs for MSK disorders in the hamlet and town, such as analgesics or anti-inflammatory drugs.

Table. 1

Hospital	Location	Number respondents
Santosh hospital	Ambedkar road, opposite to old bus stop, Nehru, Nagar, Ghaziabad, Uttar Pradesh, 201001	128
Shankar Lal hospital	Panchvati colony sector 5, Daulatpura, Ghaziabad, Uttar Pradesh	128
Rama hospital	NH-9 Delhi-Hapur Highway, Pilkhuwa, hapur, Uttar Pradesh	128

**Statistical Analysis** Data were collected and statistically analysed using Statistical Package for the Social Sciences (SPSS) software version 28.0. The level of significance of this study was set to p-value <0.05.

### Sample size

The sample size calculation was used to proportions with a population of more than 10,000.  $Z^2 pq / d^2 = n$ . When the population is larger than 10,000, the desired sample size is denoted by n. The standard normal deviate, z, is set at 1.96, which corresponds to a 95% confidence level. The proportion of people in need of physiotherapy services is represented by p, and if it is not available in the literature, 50% will be used (0.50). The error tolerated, d, is set at 0.05 Finally,  $n = (1.962 \times 0.5 \times 0.5) / (0.05)^2 = 384$  individuals [17]

### Results :-

**The obtained data in fig.1 show awareness of physiotherapy and chiro in metro city, town, village for the year 2023**

The respondents' familiarity levels with the terms "physio" and "chiro" are shown in Fig. 1a. The majority are either somewhat familiar (57%) or very familiar (50%) with "physio." Conversely, just 46% of people are extremely familiar with "chiro," and 30% are moderately familiar with it. Remarkably, compared to 1% for "physio," 20% of respondents are unfamiliar with "chiro."

Figure 1b illustrates the respondents' knowledge with the terms "physio" and "chiro." A tiny fraction (14%) have no idea what "physio" is, while a sizable chunk (28%) are aware of the term but are unsure of its definition or purpose. Merely 13% identify it as a medical issue, whereas the majority of 63% are either somewhat (30%) or extremely (33%).

On the other hand, 1% of people do not know what "chiro" means, and 48% of people recognize the phrase but do not know what it means. Only 9% of respondents classify it as medical, although the majority (68%) are at least somewhat familiar with it, with 55% being quite familiar and only 13% being extremely familiar. This implies that although the respondents are aware of both terms to differing degrees, they are more familiar with "physio" than with "chiro."

The terms "physio" and "chiro" are two professional terms that the respondents were familiar with, as shown in Fig. 1c. Only 30% of respondents said they were somewhat familiar with "physio," compared to 33% who said they were extremely knowledgeable

Despite lower numbers in the less familiar categories, "chiro" appears to be more well-known among the respondents, with 57% indicating that they are somewhat familiar and 47% indicating that they are very familiar. This shows that among the persons polled, "chiro" has a greater level of detailed awareness whereas "physio" is more widely recognized.

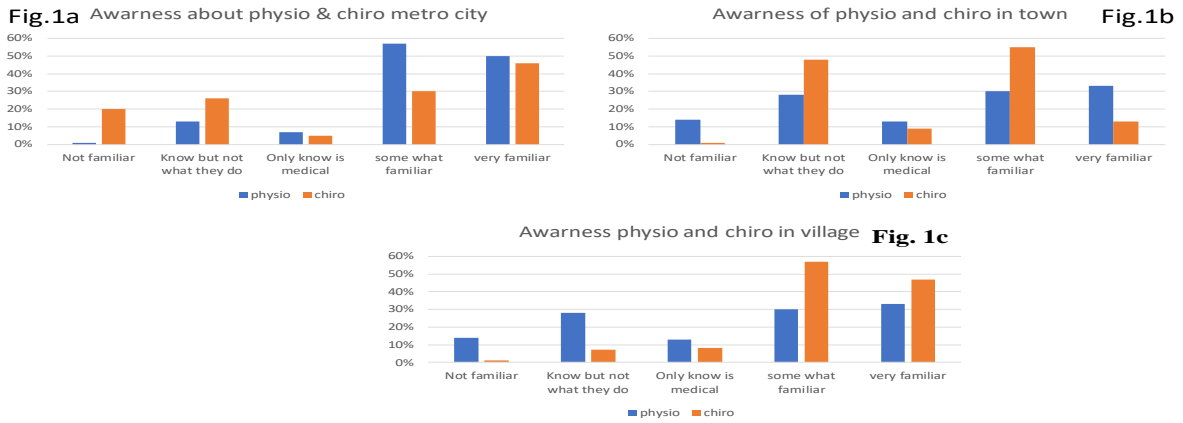


Fig.1

**Fig. 2. Data show awareness of condition treated by physiotherapy.**

Fig. 2a displays the metro city's results. 20% go toward treating muscles, 15% deal with the trunk, 10% mention sports, 11% treat joints, 5% deal with lower limbs, 13% unintentional rehab, 9% deal with neurology, 7% deal with upper limbs, 6% deal with the entire body, and 3% deal with relaxation conditions through physiotherapy.

Fig. 2b displays the town's results. Treatments for muscles account for 12%, trunk accounts for 12%, sports injuries for 21%, joints for 7%, lower limb issues for 15%, unintentional rehabilitation for 0%, neurology conditions for 9%, upper limbs for 11%, cardiopulmonary conditions for 0%, whole body care for 6%, treatment for women, children, and relaxation for 0%

Figure.2c The responses were diverse, indicating that people in the rural community were aware of the condition that physiotherapy treats. The majority of respondents stated that physiotherapy mostly addressed issues related to sports. 9% said neurological issues, 21% said trunk and sports injuries are treated with physiotherapy, and 12% said otherwise. Merely 0% of participants had the belief that physiotherapy addresses cardiopulmonary disorders as well. Just 6% of respondents were aware that physiotherapy also treats issues with the trunk and the entire body, while less than 11%, 15%, and 7% of respondents recognized that physiotherapy helps manage joint diseases in the upper and lower limbs.

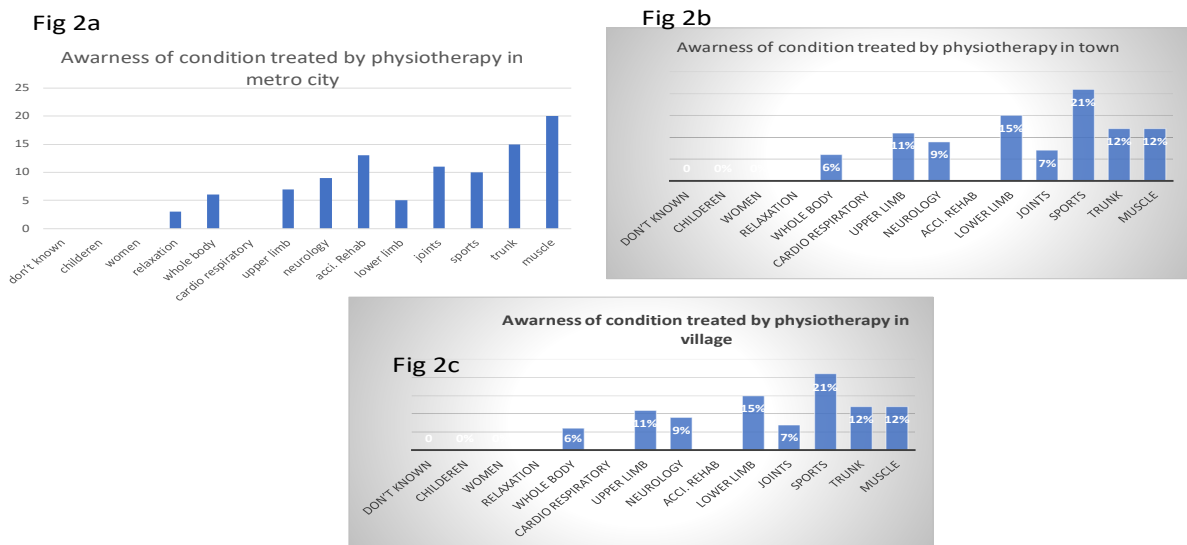


Fig 2

**Fig. 3 Data show choice of treatment for sports and back injury**

The data in Fig. 3a illustrates the options for back and sports injury therapy in metro cities. For sports and back injuries, respectively, 63% and 23% choose physiotherapists, whereas 20% and 53% favour chiropractors. However, for sports injuries and back pain, 40% and 41% choose a doctor.

Figure 3b The majority of respondents said that physiotherapy mostly addressed issues related to sports (25%, back 26%). Only 20% of respondents said that sports injuries are treated with chiropractors, compared to 36% who said that back injuries are. Just 72% and 60% of respondents, respectively, thought that doctors treated back problems and sports injuries.

Figure 3c illustrates the village results. Of the respondents, only 19% , 26% chose physiotherapy for sports, back injuries, while 36% chose chiropractic care. Just 78% of respondents go to doctors because 60% are unaware of the benefits of physical therapy and chiropractic care

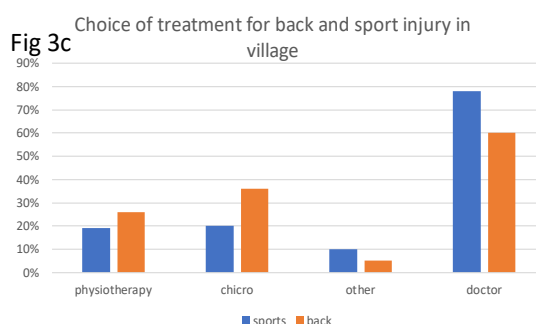
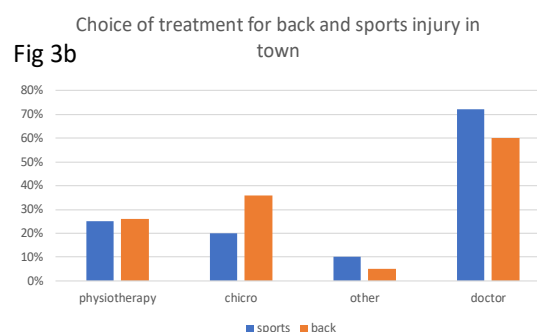
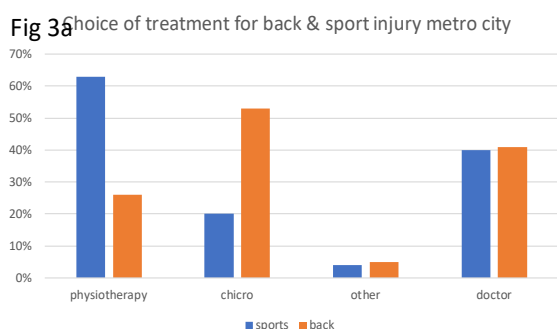


Fig.3

**Table 2. and Fig 4. Show Public response on extended scope of physiotherapy (ESP) administer steroid injection, prescribe drugs anti inflammatory, analgesic for MSK conditions in village and town.**

The public response on ESP (Extended scope of physiotherapy) is overwhelmingly positive both in village (fig. 4a) and in the town (fig 4b), with 86% in the village and 90% in town saying “Yes definitely”. A smaller percentage, 14% in town and 10% in the village, believe in ESP to some extent. Notably, there are no responses indicating outright disbelief or uncertainty about ESP, as both “No, not at all” and “Don’t know / can’t say” categories have 0% responses in both locales.

**Table. 2**

s.no	Public Response on ESP in town		Public response on ESP in village
1.	Yes definitely	110	115
2.	Yes to some extent	18	13
3.	No ,not at all	0	0
4	Don’t know / can’t say	0	0

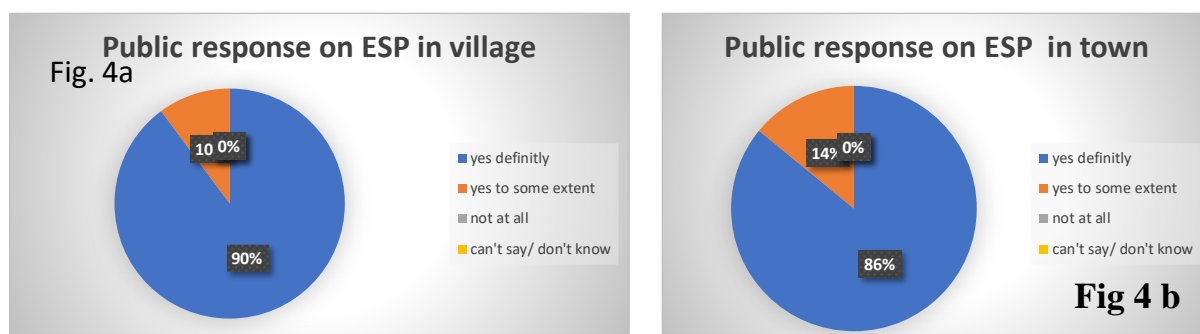


Fig.4

**Discussion:-**

The study aimed to assess knowledge and gain insights into beliefs about physiotherapy among the general population in metro city, town, village. The study demonstrates a high level of awareness among respondents; most knew about physiotherapy practice and services but were unaware of other aspects of physiotherapy practice.

This study's finding that of the respondents knew about physiotherapy is consistent with a number of studies that have reported general population awareness of the treatment [12,13,14,15]. In a survey that was carried out in four different Gujarati cities, 85.4% of the participants reported having a very good understanding of physiotherapy [14].

Similar results were found in a Nigerian survey of senior secondary school students, where 71% of participants said they were aware of physical therapy.[13]

The present investigation suggests that elevated consciousness levels may be linked to the degree of literacy among the participants. Low literacy levels have also been observed by the studies that show low levels (16.8%).[16] In his study, Igwesi-Chidobe [17] showed that 85.2% of participants were not ignorant about physiotherapy.

The majority of survey participants knew what physiotherapy was, but they didn't know how to get access to physiotherapy services. The respondents believed that they need a recommendation to see a physiotherapist, particularly in a town and hamlet.

The reason for this is because in poor nations, physiotherapists are not typically the first healthcare practitioners to treat patients. Every country has a different practice pattern for physical therapy, with variations in both direct and indirect access.[18]

According to the policy statement of the World Confederation for Physical Therapy (WCPT), physiotherapists are independent professionals, and the autonomy of the profession should be highly valued as it denotes professional development. According to Domholdt, professional autonomy is a social compact that has been established between policy elites and a profession because the public trusts professionals to act in society's best interests.

Physiotherapists are encouraged by WCPT to pursue this concept of professional autonomy [16]. Recent research showing physiotherapists to be an effective substitute in the treatment of musculoskeletal diseases lends credence to the direct access [16][19,20]

The relevance of physiotherapy knowledge distribution for first-contact practitioners is underscored by the current study.

However, the participants' ignorance of other physiotherapy specialties is in line with other studies showing that individuals are primarily aware of musculoskeletal treatments .[12,13,14,16]

Few participants knew that physiotherapy therapies can potentially address lung and heart difficulties, according to study by Ramanandi and colleagues.[14]

On the other hand, there doesn't seem to be much public knowledge of the care that physiotherapists give for illnesses affecting women and children, especially prenatal care [21]. Undoubtedly, the most common method of choosing a physiotherapist is through a doctor's referral, while personal recommendation also plays a big role.. ESP for MSK received a good response in the present study



survey, which is not surprising given that physiotherapy is not usually the initial point of contact in developing countries like India. In addition, India's cities and villages lack enough skilled physicians. Future musculoskeletal issues are expected to increase as a result of population aging. 21]

This offers physiotherapy a chance to expand. In a similar vein, there is a great deal of room for improvement in the illnesses affecting women and children, as most people are not aware of the benefits of physical therapy.

To take use of this potential, though, certain early obstacles may need to be surmounted due to this lack of understanding.

A hypothetical question concerning which medical professional they would choose for a back injury or sports injury was posed to questionnaire respondents. In metro cities, physiotherapists had a substantial market share when it came to sports injuries.

But when it came to back problems, that market share dropped significantly, with physiotherapists losing market share to physicians and chiropractors, particularly in small towns and villages. In order to facilitate an increase in the number of back injury referrals to physiotherapy, it is necessary to maintain contact with physicians.[21]

Physiotherapists need to be mindful of the evolving public's expectations for healthcare as they pursue possibilities for professional development. The need for health practitioners to provide additional information and clarification is growing.

More people want more control over their care, and instead of blindly depending on medical professionals, they more and more want exercise regimens and preventative guidance, including back care classes.

The choice of healthcare providers by patients seems to have been impacted by the public's desire for greater control over their care. It seems that clients these days want to know how many treatments they will need as soon as feasible. Nonetheless, a sizable portion of respondents appear to base their assessment of their improvement on the practitioner's judgment. In the focus groups (town, village), there was a noticeable preference for chiropractors over physiotherapists, since they were seen to indicate the necessary amount of visits. Physiotherapists must to make every effort to provide an early estimate of the anticipated number of visits, as customers are increasingly demanding greater control and information. [21]

## Conclusion

According to the survey results, physiotherapists are most recognized for treating musculoskeletal conditions. Research indicates that in Indian towns and villages where there is a shortage of medical professionals, an ESP can serve as a first point of contact practitioner for patients with MSK conditions, independently and successfully. The fact that physiotherapists provide specialized care for mothers and children was not well known. The physiotherapist's location seems to be a significant influence, offering them the opportunity to profit from customizing their service offerings to their specific community. An additional crucial aspect of physiotherapy services recognized was the requirement for patient-centred treatment. Nonetheless, it seems that the general public is not aware of the entire scope of physiotherapy services, indicating the necessity for well targeted marketing initiatives.

### Additional files.1

**Additional file.1 : Title of data: Survey questionnaire.**



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