

AN ANALYSIS COMPARING THE AWARENESS OF PHYSIOTHERAPY BETWEEN HEALTH PROFESSIONALS AND NON-HEALTH PROFESSIONALS

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Abstract

Physiotherapy has become a crucial element in the current health-care system. The majority of people in urban and suburban settings have a poor comprehension of physiotherapy and the therapeutic approaches that underlie it. As a result, an effort has been made to assess the degree of knowledge about physiotherapy among those who are not trained in the medical field as well as those who are employed in the medical field in Jalandhar's urban and rural places. A convenience sample of 200 persons was recruited from the urban and rural population of Jalandhar. The sample consisted of 100 professionals and 100 non-professionals, with 50 individuals from each category. The results were collected by self-administered and pretested questionnaires that specifically assessed the degree of physiotherapy knowledge among both healthcare professionals and non-healthcare workers. The data underwent a statistical analysis using an independent t-test, and significance was determined at a 95% confidence level ($p < 0.05$). The dependability was determined using Karl Pearson's product-moment approach. The statistical analysis revealed that health professionals possessed a significantly greater understanding of physiotherapy in comparison to non-health professionals ($p < 0.05$), as indicated by a t-value of 28.330. The level of knowledge of physiotherapy was significantly higher among non-health professionals residing in urban areas compared to those in rural areas, as shown by a statistically significant t-value of 3.7819 ($p < 0.05$). Urban health professionals had a notably greater degree of understanding of physiotherapy in comparison to their rural counterparts. The observed difference was statistically significant, as shown by a t-value of 12.567 ($p < 0.05$). Furthermore, urban non-health professionals had a greater level of understanding with physiotherapy compared to their rural counterparts who are also non-health professionals.

Keywords: Physiotherapy, Healthcare Professionals, Non-Healthcare Professionals, Awareness, Therapeutic Techniques

1. Introduction

The management of illness is a long-standing procedure aimed at alleviating pain, suffering, and restoring one's well-being. In essence, the prevention and treatment of diseases improves human capabilities and extends life expectancy, in addition to enhancing physical, mental, and social well-being (Paul & Mullerpatan, 2015). Physiotherapy is a medical field that use physical agents, including light, heat, cold, electrical stimulation, electromagnetic radiation, manual treatment, and mechanical forces, to diagnose and treat physical problems. Physiotherapy encompasses four essential elements: health promotion, sickness prevention, health restoration, and rehabilitation treatments. Today, it has achieved independent standing within the field of health sciences (Shruti et al., 2022).

Currently, several illnesses and unintended accidents result in a lasting disability that cannot be fully healed, necessitating the need for physiotherapy intervention. Therefore, the requests for physiotherapy are continuously growing (Mukoka et al., 2019). The physiotherapist perceives the crippled patient as a familiar figure, a breadwinner with children, who lived with them prior to seeking treatment from the physiotherapist. The physiotherapist is accountable for the rehabilitation of these individuals with disabilities (Jadhav et al., 2021). The purpose of rehabilitation is to reduce impairment and enable individuals to lead a productive life within their limitations, transforming them into individuals with various abilities (Gowing et al., 2017). The physiotherapist has the ability to identify and evaluate all individuals with disabilities in the community, as well as examine their medical and surgical treatments. The physiotherapist primarily focuses on matters related to mobility, pain

management, edema, and instructing patients who are utilising gait aides and orthotics (Pattanshetty & Metgud, 2019).

A comprehensive comprehension of physiotherapy is essential for all members of society, as numerous ailments and anomalies require physiotherapy treatment in addition to conventional medical intervention. The exclusion of physiotherapy may result in an inadequate course of treatment for any given condition. Moreover, in the advanced stages of certain medical illnesses such as cerebral palsy, stroke, polio, and Bell's palsy, there is a need for intensified physiotherapy treatment. Therefore, it is important to foster knowledge and understanding of physiotherapy in both urban and rural regions (Ramanandi et al., 2019). The physiotherapist plays a crucial role in the rehabilitation efforts of many prominent international health organisations, including the WHO, UNICEF, UNESCO, and UNDP. Owing to the fast process of industrialization, an increasing number of industries are emerging in India, resulting in a high incidence of accidents in most of these industrial settings (Zhu et al., 2011). The primary cause of these incidents is mechanical failures. To prevent and cure impairments caused by mechanical factors, it is advisable to create a safety department in every industrial company, led by experienced physiotherapists (Akosile et al., 2022).

The dynamics of physiotherapy and the use of therapeutic methods is mostly limited to urban areas and towns (Gibson et al., 2012). Given that a multitude of disorders and abnormalities need both traditional medical intervention and physiotherapy, it is essential for all individuals in society to possess knowledge about physiotherapy. The remedy for any disorder may remain insufficient in the absence of physiotherapy (Ali et al., 2020). Physical therapy becomes an increasingly indispensable form of treatment during the later phases of certain medical conditions, including cerebral palsy, stroke, polio, and Bell's palsy. Therefore, it is important to foster knowledge and understanding of physiotherapy in both urban and rural regions (White et al., 2021). There is a limited number of studies on the general public's awareness and understanding of physiotherapy, and the ones that have been undertaken are rare, indicating a significant opportunity for further research (Handa et al., 2023). Based on the little available research, it is clear that even in industrialized nations, there is insufficient knowledge about physiotherapy among the general population. Nevertheless, the level of awareness of physiotherapy is quite high in countries like Japan, USA, UK, and Australia, but it is rather low in poorer nations (Domaradzki & Walkowiak, 2021). The additional advantages of physiotherapy services in promoting health, enhancing well-being, and preventing disabilities are not widely acknowledged and little promoted. To the best of our knowledge, there has been no study undertaken to assess the level of physiotherapy knowledge among both non-health professionals and health professionals living in Jalandhar district, Punjab, India (Andersen et al., 2023). Consequently, a research project has been undertaken to evaluate the level of understanding of physiotherapy among individuals who are not involved in healthcare professions, as well as those who are, dwelling in both urban and rural areas of Jalandhar district, Punjab (Shruti et al., 2022).

2. Methodology

➤ This research aimed to evaluate the level of knowledge and understanding of physiotherapy among both healthcare professionals and non-healthcare professionals residing in urban and rural parts of Jalandhar district. The sample size was determined to be 50 professionals and 50 non-professionals, with an alpha error rate of 1% and a test power of 95% (Lee et al., 2022).

➤ The sampling technique employed is convenience sampling. The initial phase of the project involved the classification of Jalandhar district into rural and urban areas. The second part included determining the quantity of health professional colleges, nursing homes, and private practitioners in both rural and urban locations. During the third phase, a variety of urban and rural establishments were chosen to house nonprofessional colleges and universities, including government offices, banks, life insurance company offices, schools, factories, and commercial enterprises. Ultimately, a selection of 100 people was chosen for the research using convenience sampling (Osei-Afriyie et al., 2021). Among the 200 subjects, 100 were from metropolitan regions and 100 were from rural areas.

➤ Among the 100 urban subjects, half were health professionals and the other half were non-health professionals. Similarly, among the 100 rural subjects, there were 50 health professionals and

50 non-health professionals. The data were subjected to statistical analysis using an independent t-test to determine the differences between professions, as well as differences based on the location of residence. The study was performed using SPSS version 20.0 (SPSS Inc., published in 2007). The programme used is SPSS for Windows, specifically Version 16.0. The SPSS Inc. office located in Chicago. The researchers adopted a significance criterion of 5% ($P < 0.05$) to determine the statistical significance of their findings (Fitzgerald et al., 2018).

➤ A preliminary investigation was conducted using a questionnaire created by the participants themselves. The research included a group of 50 individuals, consisting of 25 individuals in the healthcare field and 25 individuals in other professions. The results for the first test and subsequent retests measuring overall awareness of physiotherapy were recorded. The product-moment approach developed by Karl Pearson has been used to determine the dependability. The reliability coefficient was determined to be 0.9168, indicating a high level of dependability. The intrinsic validity was measured to be 95.75%, suggesting a strong degree of internal validity (Lewin et al., 2016).

3. Results

➤ The demographic data of two categories of individuals: Health Professionals and Non-Health Professionals. The data is categorized based on age range, residence (urban or rural), and the general distribution. Within the Health Professionals category, individuals between the ages of 18 and 27 make up half of the whole group. Among these individuals, half live in urban regions while 30% reside in rural areas. The percentage distribution and residency pattern fluctuate across various age groups within this category. The Health Professionals category has a total of 100 persons, with an average age of 28.205 (Table 1).

➤ Likewise, the Non-Health Professionals category is presented in a same manner. Specifically, the group consists of 36% of persons between the ages of 18 and 27, with 38% living in urban regions and 38% dwelling in rural areas. Similar to the Health Professionals category, the distribution of individuals varies across different age groups. The Non-Health Professionals group consists of 100 people, with an average age of 25.98. The table presents a comprehensive analysis of age, urban-rural distribution, and general composition for both Health and Non-Health Professionals, providing valuable information on the demographic features of these two categories (Table 1).

Table 1: Demographic Profile of Health and Non-Health Professionals

Group	Age (in yrs.)	Urban (%)	Rural (%)	Total (%)
Health Professionals	18-27	25 (50%)	15 (30%)	40
	28-37	8 (16%)	14 (28%)	22
	38-47	7 (14%)	12 (24%)	19
	48-57	5 (10%)	5 (10%)	10
	58-67	5 (10%)	4 (8%)	9
	Total	50	50	100
	Mean Age			
Non- Health Professionals	18-27	18 (36%)	19 (38%)	37
	28-37	12 (24%)	10 (20%)	22
	38-47	8 (16%)	7 (14%)	15
	48-57	7 (14%)	7 (14%)	14
	58-67	5 (10%)	7 (14%)	12
	Total	50	50	100
	Mean Age			

➤ At the 5% level of significance, there is a significant statistical difference between health and non-health professionals regarding their knowledge of physiotherapy ($t = 28.330$, $P < 0.05$). In contrast

with the non-health professionals, health professionals demonstrate a notably higher degree of knowledge regarding physiotherapy, as evidenced by the mean scores of 8.80 and 4.41 (Table 2, respectively).

Table 2: T-test Results between health and non-health professionals

Professionals	Mean	S.D	t-value	p-value
Health Professionals	8.80	3.26	28.330	0.0001*
Non-Health Professionals	4.41	2.66		

*p < 0.05

➤ There is a notable disparity in the level of physiotherapy knowledge between health practitioners in urban and rural areas, as shown by a statistically significant difference ($t = 3.423$, $P < 0.05$). Urban health professionals, with a mean knowledge score of 9.146, have a higher level of understanding in physiotherapy compared to rural health professionals, who had a mean score of 8.367 (Table 3). Urban and rural non-health professionals had similar levels of understanding of physiotherapy, as shown by the data ($t = 12.567$, $P < 0.05$). The mean scores of 5.834 and 2.913, as shown in Table 3, indicate that urban non-health professionals possess a higher degree of expertise in physiotherapy compared to rural non-health professionals.

Table 3: T-test Results between health and non-health professionals

Professionals	Group	Mean	S.D	t-value	p-value
Health Professionals	Urban	9.146	3.423	3.7819	0.0001*
	Rural	8.367	3.037		
Non-Health Professionals	Urban	5.834	3.410	12.567	0.0001*
	Rural	2.913	3.332		

*p < 0.05

➤ The current research has shown that health professionals possess a higher level of knowledge on physiotherapy compared to non-health professionals. The observed disagreement is deemed to be statistically significant ($p < 0.01$). The probable rationale for this is that healthcare practitioners have undergone comprehensive research and acquired proficiency in physiotherapy as a component of their medical, surgical, and orthopaedic training. On the other hand, non-health professionals have very limited opportunities to acquire knowledge of physiotherapy during their studies. So far, there have been no studies undertaken to evaluate the level of knowledge of physiotherapy among both healthcare and non-healthcare professions. Therefore, the extent to which this current research may be compared to earlier investigations is restricted. The current study has shown that rural health professionals and non-health professionals had a deficient understanding of physiotherapy expertise. The primary obstacles to the dissemination of physiotherapy knowledge among rural populations may include a scarcity of physiotherapists and an imbalanced distribution of healthcare professionals between urban and rural regions. The current research also shown that urban health professionals had a higher level of awareness of physiotherapy compared to their rural counterparts. The observed difference is determined to be statistically significant, with a p-value of less than 0.01. The likely cause for this might be that the majority of urban healthcare workers are employed in specialised hospitals, nursing homes, and medical college hospitals. These facilities will include a distinct physiotherapy section dedicated to the treatment of patients. The urban health providers may have gained more expertise and awareness of physiotherapy compared to their rural counterparts by consistently recommending needed patients to the physiotherapy department.

➤ A significant portion of India's rural population is experiencing a lack of timely access to physiotherapy treatments. The patient must travel a considerable distance in order to get physiotherapy treatment. Therefore, it is important to enhance the understanding and knowledge of physiotherapy in rural regions by implementing an appropriate healthcare system that is designed to provide preventative, curative, promotive, and rehabilitative treatments. The implementation of periodic physiotherapy health education programmes and treatment camps in remote areas has the potential to improve accessibility to physiotherapy services. By utilising health education to disseminate scientific knowledge regarding physiotherapy, barriers such as rural residents' ignorance, cultural practices, and misunderstandings could be eliminated.

4. Conclusion

Healthcare practitioners had a greater degree of familiarity with physiotherapy in comparison to those who are not involved in the healthcare field. Urban non-health professionals had a greater degree of familiarity with physiotherapy in comparison to their rural counterparts. Urban health practitioners had a greater degree of familiarity with physiotherapy compared to their rural colleagues. Ultimately, the objective of this research was to evaluate the extent of understanding and consciousness of physiotherapy among healthcare professionals and non-healthcare professionals residing in both urban and rural regions of Jalandhar district. The study included a cohort of 200 participants, with an even distribution of professionals and non-professionals in both urban and rural environments. The results indicated a notable disparity in the level of knowledge of physiotherapy between those working in the healthcare field and those who are not. Health professionals had much greater awareness in comparison to non-health professional individuals. Furthermore, the research emphasised disparities in consciousness across urban and rural people. Urban health professionals had a greater level of understanding of physiotherapy in comparison to their rural counterparts. Non-health professionals, including both urban and rural people, showed a discrepancy in awareness, with urban persons demonstrating higher levels of awareness compared to their rural counterparts.

These findings emphasise the need of focused initiatives to improve awareness and understanding of physiotherapy, particularly among non-health professional populations and in rural regions. Healthcare practitioners, by virtue of their educational background, have a more extensive comprehension of physiotherapy, as shown by the research. To mitigate discrepancies in knowledge, it is advisable to provide interventions such as health education camps and treatment programmes in rural regions. Enhancing the availability of physiotherapy services and spreading scientific information will help diminish obstacles and foster greater comprehension of physiotherapy among the general populace. Therefore, this research offers useful understanding on the level of awareness of physiotherapy in the Jalandhar area. It highlights the need of customized interventions to address the lack of knowledge, especially among non-health professionals and rural people. Additional research and actions are necessary to continue eliminating inequalities and promote fair access to physiotherapy knowledge and services.

5. References

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