A Survey-Based About Knowledge and Awareness of Physiotherapy Among Villagers in Dankaur Village of Greater Noida

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Abstract: - Physiotherapy is regarded as a dynamic profession that employs a variety of approaches to restore motion and function to the body. Over the last few years, the field has become more evidence-based and focused on providing quality health care. Individuals are aware to some extent of physiotherapy despite utilizing its services. The purpose of this study was to understand the level of physiotherapy knowledge and awareness among the villagers in Dankaur village of Greater Noida.

Study Design: Descriptive Observational Survey-Based Study

Methodology: The study used a descriptive observational survey design to accomplish the study. There are 326 subjects were selected through a convenient sampling technique from Dankaur village of Greater Noida and a self-designed Hindi questionnaire collected the data. They were circulated among rural people via a door-to-door method.

Results: In this study, the results of the survey were assessed using SPSS Version 17.0 and chi-square tests to determine the correlation between the variables of responses present in graphs, tables, and pie charts, with only 20.2% of rural people knowing the importance of physiotherapy in the health care sector (HCS). More than half of the participants (53.4%) were rural people unaware of the physiotherapy profession and its services.

Conclusion: The villagers who took part in the study lacked understanding and awareness of physiotherapy. It is possible to help rural people in need of physiotherapy services by creating adequate awareness programs through medical camps, seminars, etc.

Keywords: Knowledge, rural areas, awareness, physiotherapy services

1. Introduction

Physiotherapy is regarded as a dynamic profession that employs a variety of approaches to restore motion and function to the body. ¹ Since the last 5-6 years, it has been seen that less students are pursuing physiotherapy as a career in India, and fewer physiotherapy students and professionals are continuing their education. ² Hippocrates and Galen, two of the earliest known practitioners of physical therapy, endorsed methods that are still widely practised today and have outstanding results. ³ A physiotherapist's job is to use their knowledge and skills in physiotherapy to assess, plan, administer, and evaluate physiotherapeutic treatments in order to manage a variety of problems involving severe or persistent illness, impairment, or disability. ⁴

By improving health care quality and outcomes through impairment management, treatment, and prevention, physiotherapists make significant contributions to the reform of the health care delivery system. It is taken into account that there is a substantial lack of public awareness about physiotherapy, which leads to misunderstandings regarding the relationship between physiotherapists and other medical professionals. ^{5.6} India is a developing nation where it can be challenging for the general people to get specialised services like physiotherapy. ⁷ The rural population works in physically demanding professions like farming, which increases their risk of developing

back pain and related disabilities. ⁸ Due to the overall inadequate information, understanding, and awareness regarding physiotherapy treatments, India has the highest percentage of disabilities (93.3%), with 62.03% of males and 37.97% of females reporting movement impairments. ⁹ Rural areas do not have many physiotherapy clinics, and those who do not hesitate to open them do so out of fear that their patients will not be able to pay their cost and because of lack of public awareness. ¹⁰ Rurality is typically thought to be a barrier to receiving medical care, which is intended to lead to a decrease in the use of health resources. ¹¹

Despite physiotherapy's advancements and outstanding outcomes in providing high-quality healthcare, clinical specialists and the general public do not have a firm knowledge of physiotherapy. ¹² The public's perceptions and use of healthcare system could be affected by knowledge of the profession's position in quality of care, which would have an impact on the efficient provision of medical treatment. ¹³ Though knowledge of the physiotherapy profession has growing in recent years, full awareness is still lacking. ¹⁴

The stigma associated with the physiotherapy profession is that it mostly involves massage and exercise. ¹⁵ Although physiotherapy has an important function to play in society, it lacks a distinct identity in the public's eyes, who show little comprehension of the breadth of the profession's responsibilities and have trouble differentiating it from other practitioners. ¹⁶ They work with interdisciplinary rehab programs as well as autonomously of other health care providers and service providers. ¹⁷ In the present day, physiotherapists have begun coordinating with other practitioners to offer their patients the finest options for rehabilitation and therapy. ¹⁸ Rural therapists were used to long commutes as part of their daily work. ¹⁹ It is clear that the only rural residents with sufficient awareness of physiotherapy are those who were either advised by doctors or may have learned about it through the media, such as the internet or television, which is why this study was felt essential.

2. Methods

Study Design: - The study employed a descriptive observational survey methodology to assess the knowledge and awareness of physiotherapy among villagers in Dankaur village of Greater Noida. Two separate self-designed questionnaires were created and validated for the rural population. The questionnaires were written in Hindi and simple language to avoid medical terminology. Face validity of the questionnaires was assessed by three physiotherapy professors.

Sample Size: - A total of 326 individuals from Dankaur village were included in the study.

Study site: - The survey was conducted specifically in Dankaur village, located in Greater Noida to assess the level of physiotherapy knowledge among rural individuals residing in that area.

Sampling technique: - The survey was conducted through convenient sampling, where researchers select individuals based on their easy availability and accessibility.

Procedure

The procedure involved distributing 350 questionnaires door-to-door in rural areas, with 326 responses meeting the inclusion criteria. Participants aged 18 to 56 years from Dankaur village were selected based on their willingness to participate and residency status. Data collection utilized a self-designed Hindi questionnaire, with participants informed about the study's purpose and assured of data confidentiality. Consent was obtained before participants answered questions on background information and physiotherapy knowledge. The questionnaires consisted of two sections:

Section 1 asked for background information and included eight questions such as name, age, gender, marital status, educational qualification, occupation, address, and phone number.

Section 2 consists of 15 questions and requires details on knowledge of information and services about the physiotherapy profession.

Responses were collected and analysed, focusing on participants' self-reported awareness and understanding of physiotherapy without the use of scales or instruments.

Analysis of data

The data analysis process involved inputting and coding each respondent's information and responses. Each participant provided a single response to the questionnaire, and the frequency of each response was examined. The data was subsequently organized and explained based on the content of each question within the questionnaire. The data were examined using SPSS version 17.0, a statistical tool for social research and Pearson chi-square tests to determine the correlation between the variables of responses.

3. Results

The survey conducted door-to-door involved 326 individuals who met the specified inclusion and exclusion criteria, and each participant provided comprehensive and consistent responses.

Background Information

The study included participants ranging from 18 to 56 years old. The majority of participants (52%) were in the 18–30 years age group, followed by 37% in the 31–43 years age group, and 11% in the 44–56 years age group. In terms of gender, 53% were females and 47% were males. Regarding marital status, 78% of the participants were single, while 22% were married. In relation to educational level, 25% had a Bachelor's degree or higher, 48% had completed higher secondary education, and 27% had completed secondary education. The participants had diverse occupations, with categories including 1% farmers, 8% civil servants, 4% artisans, 21% students, 24% engaged in business, and 42% categorized as others, such as housewives and doctors. (Figure 1)

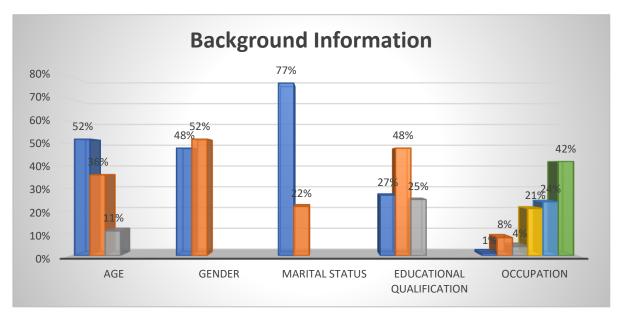


Figure 1 (Background Information)

Knowledge of information and services about physiotherapy profession

In the study, 53.4% of rural participants (n=174) were not aware of the physiotherapy profession, while 46.6% (n=152) had some knowledge about it. This indicates a significant lack of awareness about physiotherapy among rural populations. A mere 20.2% of individuals residing in rural areas (n=66) were knowledgeable about the significance of physiotherapy within the healthcare sector, whereas a substantial majority of 79.8% (n=260) lacked awareness regarding the vital role that physiotherapy plays in healthcare. Among the villagers, 19.9% (n=65) had received physiotherapy treatment. The distribution of treatments included 0.3% for Headache, 8.6% for Low back pain, 3.1% for Fracture, and 8% for other conditions like cervical pain and knee pain. Additionally, 17.2% of those who received treatment reported relief, while 2.8% were not satisfied with the treatment they received. These figures indicate that while a portion of the population has accessed physiotherapy services, there is room for improvement in ensuring effective treatment outcomes and patient satisfaction. (Figure 2)

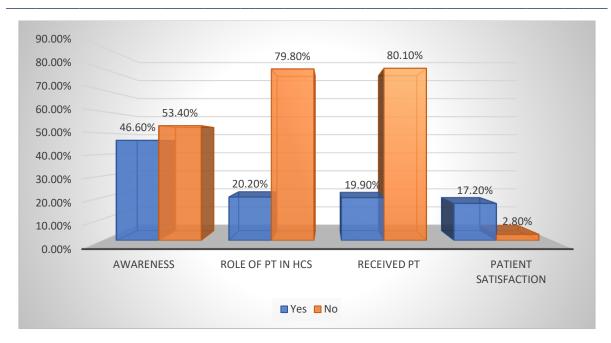


Figure 2

Among the participants, 7.1% received physiotherapy services in Private Hospitals, 9.8% in General Hospitals, 0.9% in clinics, and 2.1% through other means like home visits. There is limited knowledge about physiotherapy service providers. Villagers were informed about physiotherapy through various sources: relatives (25.50%), media (25.20%), doctors (23%), friends (19.90%), and others (6.40%). Around 55.2% of participants had one physiotherapy center in their area, while the rest had 2, 3, or 4 centers in their area. A large percentage of villagers (85.9%) were unaware of Primary Health Care facilities having physiotherapists, while 14.1% had some knowledge about it. Merely 30.7% of villagers were referred for physiotherapy treatment, with referrals coming from doctors (20.5%), nurses (4%), bone setters (3.1%), and others (3.1%). A significant portion (69.3%) were not referred for physiotherapy. Most villagers (59.5%) received physiotherapy services from a far township, while 29.1% received services from their community, and 11.3% received services at home. A total of 58.3% of villagers were aware of the nearest physiotherapy center, with varying percentages identifying different locations as the center. A high percentage (90.2%) of participants expressed interest in learning more about physiotherapy, while 8.9% were not interested. These findings highlight the need for increased awareness, accessibility, and referral mechanisms for physiotherapy services in rural areas to ensure better healthcare outcomes for the population. (Table 1)

	Percent
Physiotherapy service providers	
Private Hospitals	7.1%
General Hospitals	9.8%
Clinics	0.9%
Others	2.1%
Sources of information	
Doctor	23%
Relative	25.50%
Friend	19.90%
Mass Media	25.20%
Others	6.40%
PT center in their area	
1	55.2%

2	23.9%
3	7.1%
4	13.8%
PHC having Physiotherapists	
Yes	14.1%
No	85.9%
Referral for PT	
Yes	30.7%
No	69.3%
Referral Person	
Doctor	20.5%
Nurse	4%
Bone setter	3.1%
Area of PT service	
your community	29.1%
a far from township	59.5%
your home	11.3%
Nearest Pt center	
Yes	58.3%
No	41.7%
Nearest Pt center in their locality	
Bus stand	33.4%
Jhajhar Road	13.5%
Baba Sukhamal Dalchand Nambarbar Hospital	11.3%
Interested to know about PT	
Yes	90.2%
No	8.9%
No answer	0.9%

Table 1

Correlation between Knowledge of information and services about physiotherapy profession and Background information

The statistical analysis of data was conducted using SPSS Software version 17.0 with a significance level of p<0.05. The Chi-square test was utilized to assess the correlation between variables, revealing that rural individuals generally lacked understanding and awareness of physiotherapy, particularly among those aged 31-43 years (p<0.05), single individuals (p<0.05), those with secondary education (p<0.05), and farmers (p<0.05). However, there was no significant difference (p>0.05) in awareness between men and women. Interestingly, 91% of the villagers expressed interest in furthering their knowledge about the physiotherapy profession. (Table 2)

	Total (%)	Age	Gender (P	MS	EQ	Occupation
		(P value)	value)	(P value)	(P value)	(P value)
Awareness		0.018*	0.351	0.001*	0.001*	0*
Yes	46.6%					
No	53.4%					
Role of PT in HCS		0.06	0.024*	0.017*	0.252	0.2
Yes	20.20%					
No	79.80%					
Treatment taken		0.239	0.233	0.013*	0.655	0.052
Yes	19.90%					
No	80.10%					

Diseases		0.813	0.761	0.455	0.238	0.891
Headache	1.50%	0.000	0.1.00	******		
Low back pain	43.10%					
Fractures	15.40%					
Others	40%					
Patient satisfaction		0.909	0.406	0.427	0.156	0.064
Yes	86.20%					
No	13.80%					
Place of treatment		0.59	0.036*	0.278	0.323	0.483
Private Hospital	35.40%					
General Hospital	49.20%					
Clinics	4.60%					
Others	10.80%					
Acquaintance of PT services		0.021*	0.074	0.162	0.56	0.099
Doctor	23%					
Relative	25.50%					
Friend	19.90%					
Mass Media	25.20%					
Others	6.40%					
PT center in their area		0.945	0.803	0.716	0.161	0.919
1	55.20%					
2	23.90%					
3	7.10%					
4	13.80%					
PHC having physiotherapists		0.637	0.931	0.158	0.45	0.477
Yes	14.10%					
No	85.90%					
Referral for PT		0.504	0.336	0.299	0.949	0.508
Yes	30.70%					
No	69.30%					
Referral Person		0.442	0.231	0.71	0.255	0.403
Doctor	67.30%					
Nurse	12.90%					
Bone Setter	9.90%					
Others	9.90%					
Area of PT services		0.13	0.703	0.286	0.02*	0.22
your community	29.10%					
a far township from	59.50%					
your home	11.30%					
Nearest PT center		0.221	0.103	0.045*	0.264	0.028*
Yes	58.30%					
No	41.70%					
Interested to know about PT		0.747	0.009*			
Yes	91%					
163	11/0					

Table 2

4. Discussion

The goal of the study was to determine the level of knowledge and awareness about physiotherapy among the villagers of Dankaur village in Greater Noida. In this survey of 326 people in rural areas, the majority of rural

villagers 171 (52%) being between the ages of 18 to 30 years. The educational levels of the participants show that 25% have a bachelor's degree or above, 27% have completed their secondary education, and 48% have completed their higher secondary education. In comparison to the other variables, 46.2% people with higher secondary education have more knowledge of physiotherapy. According to a recent study by Prerna Mehndiratta et al., 2021, there is a moderate degree of knowledge and awareness of physiotherapy among high school students in various government and private schools in New Delhi. ¹⁶ Additionally, according to research by Vivek H. Ramanandi et al. (2019) on the general awareness levels, attitude, belief, and use of physiotherapy services in major Gujarat cities, there is a high level of general public awareness of physiotherapy practise in India. This could be as a result of the majority of study participants being post-secondary students, who have a higher educational background than most ¹³

The findings of this study indicate that 46.6% of participants have knowledge and awareness of the profession of physiotherapy. Additionally, about 80% of rural residents are unaware of the crucial role that physiotherapy plays in the HCS. Only 19.9% of people in rural areas had gotten physiotherapy service out of the whole population. Most respondents (8.6%) reported having received physiotherapy treatment for low back pain, and general hospitals provided the majority of those treatments. Tania Johnsey et al. conducted a study in 2013 on physiotherapy awareness among Anganwadi staff in Dakshina Kannada: The same findings came from a survey.

Less than 50% were aware about physiotherapy profession, who were informed by a variety of sources, including 25.5% by relatives, 25.2% by the media, 23% by doctors, 19.9% by friends, and the remaining 6.4% by hospitals or the internet. When compared to the other two age groups, the young (18–30 years) had the greatest amount of awareness of the physiotherapy profession through the media (26.9%). A study conducted in 2017 by Harikrishnan R et al., on awareness and attitude towards physiotherapy among higher secondary students shows that friends, family and media are the main sources of information about physiotherapy. ¹⁴

A smaller number of participants that is 30.7% had approached for physiotherapy treatment. The leading sources of information among rural population are visit to the General hospital through medical professionals like doctor or nurse. According to a study by Apurva Shimpi et al. (2014) titled "role of physiotherapy in India" a significant portion of doctors (69.9%) were aware of the physiotherapist who was treating their patients. Additionally, they discovered that the majority of the clinicians in their survey (95.5%) recommended patients for physiotherapy treatment. ⁴ The same outcome was also observed by Chinonso Igwesi-Chidobe (2012) in her article entitled obstacles to receiving optimum physiotherapy services in a rural community in Southeast Nigeria. This study demonstrates that very few people were recommended for physiotherapy due to non - availability of physiotherapy services. ²⁰

As according educational level, those with a bachelor's degree or higher have enough knowledge and understanding regarding physiotherapy services compared to those with a secondary or upper secondary level of education. According to research by Pallavi Vitthal Bargaje et al. (2017) on junior college students' perceptions of physiotherapy as a profession, accessibility of physiotherapy services was determined to be at its highest in these respective regions, i.e., private clinics and hospitals, government hospitals, and Nongovernmental organizations (57.5%). $\frac{21}{2}$

More than 50% of rural residents are knowledgeable of the nearest PT center. When compared to single people in rural areas, those who are married (68.5%) know more about the nearest PT center. Additionally, only artisans (30.8%) have sufficient knowledge of the nearest PT center when compared to student, businessman, farmer, government servant, or other variables. Although 91% people indicated interest in learning more about the profession of physiotherapy, more than 50% of them are unaware of it.

According to our findings, a small percentage of the people is aware of the services provided by PT, with only 19.9% of people in rural areas correctly identifying the various treatments. Another important finding that demands attention is that 79.8% of villagers are unaware of the role of physiotherapists in the HCS and 85.9% of villagers are unaware that PHC has physiotherapists on work. This may be one among the contributing factors to inequities in India's public healthcare systems, as many rural dwellers do not receive enough PT treatments. Despite the fact that one of the goals of the PWD act is to educate the public through PHC, village health workers

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ISSN: 1001-4055 Vol. 45 No. 2 (2024)

(VHW), and Anganwadi workers (AWW), it has been discovered that the rural community lacks adequate knowledge regarding physical rehabilitation. ⁵ The need for physiotherapists is really high. In India, there are over 30,000 certified physiotherapists. The WHO recommends that there be one physical therapist for just about every 10,000 people. ²¹As a result, India is lacking around 95,000 physiotherapists.

Most respondents who had received care from physiotherapists expressed satisfaction, which may account for the fact that most participants preferred and would suggest physiotherapy services to those in need of them. The results of a study by Mbada et al., who stated that the respondents who might have been treated by physiotherapists were satisfied with the care, revealed a similar finding. ²²These results are further supported by the information that the majority of study participants say there are not many PT centre in their area that offer physiotherapy services. In fact, the vast majority of participants expressed a desire to learn more about the field of physiotherapy. In this way, the participants' attitude toward physiotherapy might be seen as good and favourable. Findings from earlier studies by Mbada et al., Maruf et al., and Puckree et al. provide evidence in favour of the participants' favourable attitudes in the current study. All of these authors stated that physiotherapy services were well received by the general public. ^{22,23,24}

This study's limitation is that only the people living in rural areas of Dankaur village are taken into account. The purpose of this study is to spread information about the physiotherapy profession, the level of understanding regarding physiotherapy, and its facilities to the villagers in order to encourage them to seek treatment.

5. Conclusion

This study discovered that people in rural areas had low levels of knowledge about physiotherapy. Furthermore, participants in the study have a poor understanding of the role of physiotherapy in the HCS. A significant majority of the respondents in the village are unaware of physiotherapy services. Even participants' knowledge and awareness of PHC services are relatively limited. Participants also lack information and awareness of PT services. The study's findings also point to the need for boosting the physiotherapy professions and its offerings to rural dwellers in Greater Noida's Dankaur village. It is essential to regularly conduct medical camps, workshops, seminars, and other events so that they can transfer knowledge and understanding and build positive relationships. Therefore, we must promote programs to enhance knowledge of physiotherapy treatments and urge more research into them.

Future scope of study

One of the significant findings of the study was that only 25% of the participants had knowledge or awareness of physiotherapy services. It is essential to further investigate the reasons behind the underutilization of physiotherapy services in rural areas. Understanding these factors can help in developing strategies to increase awareness and access to physiotherapy services within the community. Recommendations to enhance physiotherapy services include organizing regular workshops or seminars with physiotherapists to educate rural communities about the field and its benefits. Multidisciplinary teams should conduct awareness campaigns and educational events to promote the value of physiotherapy services in rural areas. Additionally, promoting the Galgotias University's physiotherapy Out Patient Department and organizing medical camps can help increase awareness among rural residents. Collaboration among healthcare professionals, including doctors, nurses, and members of the health care sector, is essential to enhance health education and raise the standard of physiotherapy services in rural communities. Further research is recommended to explore how rural residents perceive physiotherapy services, assess the effectiveness of physiotherapy in treating various conditions, and identify barriers to accessing physiotherapy services for existing health issues.

Acknowledgment

The author is highly thankful to all the study participants who took part in this study.

Financial support and Sponsorship

Nil

Conflict of interest

Nil

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