



PHYSIOTHERAPY AWARENESS AMONG MIDDLE AGED CITIZENS IN AHMEDABAD CITY: A QUANTITATIVE STUDY

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ABSTRACT **Background:** The prevalence of musculoskeletal disorders is common among middle-aged individuals, highlighting the importance of physiotherapy in managing and preventing these conditions. Despite its potential, awareness of physiotherapy services and treatment modalities may vary. This study aimed to assess the level of physiotherapy awareness among middle-aged citizens in Ahmedabad, focusing on the knowledge of services, conditions treated, treatment modalities, and the sources of information that shape this awareness. **Methodology:** A quantitative survey was conducted with 100 participants aged 35-44 years in Ahmedabad, with an equal gender distribution (48% male, 52% female). Respondents were asked about their sources of information regarding physiotherapy, knowledge of locations where physiotherapy services can be accessed, common disorders treated, and the modalities used in treatment. Descriptive statistics were used to analyze the data and summarize the findings. **Results:** The findings revealed that 35% of respondents primarily obtained information about physiotherapy services from health professionals, followed by newspapers (25%) and television (20%). The majority (70%) were aware that physiotherapy services are available in hospitals, while fewer recognized clinics (20%) and home-based services (5%) as options. Back pain (40%) and neck pain (25%) were the most commonly identified conditions treated by physiotherapists, with exercise (50%) and massage (30%) being the most recognized treatment modalities. Notably, 70% of participants expressed a positive attitude toward encouraging the use of physiotherapy services. **Conclusion:** The study highlighted a general awareness of physiotherapy services, particularly in hospitals, and identified musculoskeletal disorders such as back and neck pain as the most recognized conditions treated. However, there is potential for increased public knowledge regarding non-hospital-based services and a broader range of treatment modalities. The results suggest that healthcare professionals and media outlets play critical roles in disseminating information. There is a need for further educational campaigns to improve public understanding and utilization of physiotherapy services among middle-aged citizens in Ahmedabad.

KEYWORDS : Physiotherapy awareness, middle-aged citizens, musculoskeletal disorders, treatment modalities, health professionals, Ahmedabad, public health education.

INTRODUCTION:**Background And Importance Of Physiotherapy**

Physiotherapy is a crucial healthcare discipline focused on enhancing functional movement and physical resilience. It plays a vital role in managing and preventing conditions that impair physical function, mobility, and quality of life. From musculoskeletal disorders to neurological and cardiopulmonary conditions, physiotherapy interventions can aid in addressing a wide spectrum of health issues, particularly in aging populations where the risk of physical decline is heightened^{1,2}. Globally, as life expectancy rises, there is an increasing need to manage age-related physical challenges. Physiotherapy provides an effective, non-invasive means of improving health outcomes, reducing disability, and promoting independence among older adults and middle-aged individuals^{3,4}.

Research has demonstrated the effectiveness of physiotherapy in treating various chronic conditions, such as arthritis, chronic back pain, and hypertension. Middle-aged adults, specifically those between the ages of 45 to 65, are often on the brink of facing these issues, making them an ideal demographic to benefit from early intervention and preventive physiotherapy practices. Studies reveal that physiotherapy can reduce the need for surgical interventions, decrease dependence on medication, and contribute to mental health improvements by fostering a sense of well-being and physical autonomy⁵.

Physiotherapy's Role in Addressing Age-Related Health Issues

Middle age marks the onset of natural physical changes, including reduced muscle strength, decreased bone density, joint stiffness, and slower healing capacities. Physiotherapy techniques, which include strength training, stretching, mobility exercises, and manual therapies, are designed to counteract these changes by promoting physical activity, enhancing balance, and supporting joint health. Addressing these factors through structured physiotherapy helps mitigate the risk of conditions like osteoporosis, cardiovascular disease, and obesity that are prevalent in middle-aged populations^{6,7}.

In addition, the sedentary lifestyle that often accompanies middle age due to work or family commitments increases susceptibility to musculoskeletal problems and lifestyle diseases. Physiotherapy provides specific interventions, such as ergonomic advice and

personalized exercise regimens, to address these challenges and encourage a more active lifestyle. Studies have shown that even minor improvements in flexibility, strength, and endurance through physiotherapy can significantly impact individuals' ability to perform daily activities and reduce healthcare costs related to long-term care^{8,9}.

Physiotherapy Awareness And Accessibility Issues In India

Despite the proven benefits of physiotherapy, awareness and understanding of this field remain limited in many parts of India. Physiotherapy is often misconceived as a treatment for post-surgical recovery or severe injuries only, neglecting its preventive and holistic health benefits. This lack of awareness is attributed to several factors, including cultural attitudes towards alternative medicine, inadequate dissemination of information about physiotherapy services, and the healthcare system's historical focus on curative rather than preventive health practices^{10,11}.

The awareness gap is particularly evident among middle-aged adults, who may only consider physiotherapy when facing acute physical issues or upon referral by a physician. The common misconception that physiotherapy is unnecessary unless prescribed after surgery or trauma significantly limits its proactive use among those who would benefit most from it. Furthermore, accessibility issues—such as the limited number of physiotherapy clinics in rural areas, high costs in private sectors, and lack of public awareness campaigns—have hindered the reach of physiotherapy to the general public, especially in urban centers like Ahmedabad^{12,13}.

Ahmedabad City As A Case Study

Ahmedabad, one of India's rapidly growing cities, has experienced significant changes in lifestyle patterns due to urbanization. These lifestyle shifts have led to an increase in health conditions like obesity, hypertension, diabetes, and joint pain, which are prevalent among middle-aged individuals. The demanding work culture and sedentary habits associated with urban life have compounded health issues, making preventive healthcare measures such as physiotherapy more relevant than ever in this context¹⁴.

Ahmedabad's healthcare system is evolving, with numerous hospitals and clinics offering physiotherapy services. However, utilization remains low, indicating a gap in awareness or acceptance. A

comprehensive study in Ahmedabad can illuminate local attitudes, beliefs, and practices related to physiotherapy. This city represents a diverse population with varying levels of education, access to healthcare, and awareness, making it a valuable case study for examining the factors influencing physiotherapy uptake among middle-aged citizens¹⁵. Such insights can inform broader public health strategies aimed at promoting physiotherapy across similar urban settings in India.

AIM OF THE STUDY

The aim of this study is to assess the level of awareness, knowledge, and perceptions regarding physiotherapy among middle-aged citizens (aged 45–65) in Ahmedabad City, Gujarat. The study focuses on identifying awareness gaps, common misconceptions, and factors influencing knowledge and attitudes toward physiotherapy within this demographic. Through quantitative analysis, the research aims to measure general understanding, detect misconceptions, and explore how socio-demographic factors—such as age, gender, education, socioeconomic status, and health conditions—correlate with awareness levels. Additionally, the study will evaluate the impact of accessibility and prior experiences with physiotherapy services on participants' perceptions. Ultimately, this research aims to provide evidence-based insights to support public health initiatives, guiding local healthcare providers and policymakers in promoting physiotherapy awareness and accessibility as part of preventive healthcare strategies for healthier aging and improved management of lifestyle-related conditions among middle-aged residents of Ahmedabad.

NEED OF THE STUDY

The study is essential as physiotherapy remains an underutilized and often misunderstood aspect of healthcare among middle-aged citizens in India, particularly in urban centers like Ahmedabad. As this population group (aged 45–65) begins to experience age-related physical changes, they are increasingly vulnerable to chronic conditions such as arthritis, back pain, cardiovascular issues, and other lifestyle-related diseases. Physiotherapy, with its focus on prevention, rehabilitation, and pain management, offers a proactive way to maintain physical health, reduce the risk of disability, and enhance quality of life.

Despite these benefits, limited awareness, misconceptions, and cultural attitudes have often restricted middle-aged individuals from seeking physiotherapy unless prescribed after injury or surgery. There is also a significant gap in the dissemination of information on physiotherapy's role in preventive health, as well as on accessibility and service availability. Understanding how socio-demographic factors—such as education, income, and health status—influence awareness and attitudes toward physiotherapy can reveal barriers and areas for improvement.

This study aims to address these gaps by providing a comprehensive evaluation of physiotherapy awareness among middle-aged citizens in Ahmedabad. The insights gathered can inform public health campaigns and policies aimed at increasing physiotherapy uptake, making preventive healthcare more accessible and familiar to the target population. By highlighting the need for enhanced education and outreach, the study contributes to building a healthcare environment where physiotherapy is recognized as a valuable and accessible option for promoting long-term health and managing age-related physical challenges.

OBJECTIVE OF THE STUDY

The primary objective of this study is to assess the level of awareness, understanding, and perceptions of physiotherapy among middle-aged citizens (aged 45–65) in Ahmedabad City. Specifically, the study aims to:

- 1. Evaluate General Awareness:** To measure the overall awareness of physiotherapy and its applications among middle-aged individuals in Ahmedabad.
- 2. Identify Knowledge Gaps and Misconceptions:** To uncover common misconceptions and knowledge gaps regarding the benefits, applications, and role of physiotherapy in preventive and therapeutic healthcare.
- 3. Analyze Influential Socio-Demographic Factors:** To examine how demographic factors—such as age, gender, education level, socioeconomic status, and existing health conditions—correlate with awareness and perceptions toward physiotherapy.

4. Assess Accessibility and Utilization: To investigate the impact of accessibility to physiotherapy services and previous experiences with physiotherapy on the participants' level of awareness and acceptance.

5. Support Public Health Initiatives: To provide evidence-based insights that can guide healthcare providers and public health policymakers in developing targeted awareness programs, aiming to promote physiotherapy as a preventive healthcare measure for middle-aged individuals in Ahmedabad.

STUDY DESIGN AND STUDY SETTING

Study Design

This study will be a cross-sectional quantitative survey designed to evaluate the awareness, perceptions, and understanding of physiotherapy among middle-aged citizens in Ahmedabad, Gujarat. The cross-sectional design is appropriate to gather data at a single point in time, allowing for an efficient analysis of awareness levels and their association with various socio-demographic factors within the target population.

Study Duration

The study will be conducted over a period of six months, including phases for survey development, data collection, data analysis, and report preparation.

Population

The study population consists of middle-aged adults, defined as individuals between the ages of 35 and 44, residing in Ahmedabad City. This age group is chosen due to the higher likelihood of experiencing health issues that could benefit from physiotherapy and the potential for preventive healthcare awareness.

Selection Criteria

1. Inclusion Criteria

- o Residents of Ahmedabad City.
- o Aged between 35 and 44 years.
- o Individuals who can understand and respond to the survey in either English or Gujarati.
- o Willingness to participate in the study, indicated through informed consent.

2. Exclusion Criteria

- o Non-residents of Ahmedabad City.
- o Individuals with cognitive or communication impairments that could hinder accurate responses.
- o Individuals unwilling or unable to provide informed consent.

Sampling Method And Sample Size

Sampling Method: Simple random sampling will be used to ensure that all eligible individuals within the population have an equal chance of being selected, reducing bias and allowing for generalizability within Ahmedabad's middle-aged demographic.

Sample Size: Based on the study's scope and resources, a total of 100 participants will be selected. This sample size allows for sufficient data to analyze awareness and demographic associations while being manageable within the study's timeframe and resource constraints.

METHODOLOGY

Table: I(A) Flow Chart Of Procedure

Participant Recruitment

Recruitment Strategy: Participants will be recruited through community centers, health clinics, and social media platforms targeting residents of Ahmedabad aged between 45 and 65 years. Posters and flyers will be displayed at various locations, such as parks, local clinics, and malls, to advertise the study and invite eligible individuals to participate.

Initial Contact: Interested participants will be contacted via phone or email and provided with detailed information about the study. They will be informed about the voluntary nature of participation, confidentiality, and the consent process.

Informed Consent: Before participation, all individuals will be required to sign an informed consent form detailing the study's objectives, procedures, potential risks, and benefits. Consent will be obtained in writing to ensure ethical compliance.

Data Collection Setup

Survey Instrument: A structured questionnaire will be developed to assess participants' awareness of physiotherapy. The survey will cover topics such as general knowledge of physiotherapy, its benefits, types of treatments, misconceptions, and sources of information. It will also include socio-demographic questions such as age, gender, education, and health status.

Mode of Data Collection: Data will be collected using face-to-face interviews or online surveys, depending on the participants' preferences. The questionnaires will be available in both English and Gujarati to accommodate participants from diverse linguistic backgrounds.

Trained Research Assistants: Data collection will be carried out by trained research assistants to ensure consistency and minimize biases in responses.

Screening And Initial Assessment

Eligibility Screening: Upon initial contact, individuals will be screened for eligibility based on the inclusion and exclusion criteria. A brief phone interview or form will be used to confirm their age, residence, and willingness to participate.

Initial Assessment: Once eligibility is confirmed, participants will undergo an initial assessment where they will be asked a set of questions to verify their basic understanding of physiotherapy and their willingness to engage in the full survey.

Assessment Of Awareness

Awareness Assessment: Participants will be asked to respond to a series of structured questions designed to assess their knowledge of physiotherapy. Questions will include:

- o The role of physiotherapy in injury recovery and disease management.
- o Types of physiotherapy treatments and techniques.
- o Benefits of physiotherapy in preventing age-related ailments.
- o Participants' personal experiences or prior exposure to physiotherapy services.
- o Misconceptions or barriers to physiotherapy awareness.

Socio-Demographic Data Collection: In addition to the awareness questions, participants will be asked to provide information on their age, gender, educational background, income level, occupation, and current health conditions. This data will allow for the analysis of how socio-demographic factors influence physiotherapy awareness.

Data Recording And Verification

Data Recording: All responses from participants will be recorded on pre-designed data collection sheets or entered directly into a secure electronic database. To ensure consistency, all research assistants will follow the same protocol for recording responses.

Data Verification: After data collection, research assistants will cross-check completed questionnaires to ensure that all questions have been answered accurately. Incomplete or unclear responses will be flagged for follow-up or clarification. Data verification ensures the integrity of the collected data.

Data Analysis

Data Cleaning: After the data is collected, it will undergo a cleaning process to address any inconsistencies, missing values, or outliers.

Statistical Analysis: Descriptive statistics (mean, frequency, percentages) will be used to analyze the overall awareness levels and perceptions of physiotherapy among the participants. Inferential statistics such as chi-square tests or t-tests will be used to examine the relationship between socio-demographic factors and awareness levels.

Software: The data analysis will be conducted using statistical software such as SPSS or Excel, allowing for the generation of graphs, charts, and tables that summarize the findings.

Feedback And Recommendations

Individual Feedback: Upon completion of the survey, participants will be provided with feedback regarding their responses, including general information on physiotherapy and its benefits. If any misconceptions were identified, participants will be provided with accurate information to increase their knowledge.

General Recommendations: Based on the findings of the study, a set of recommendations will be formulated to improve physiotherapy awareness in Ahmedabad, especially targeting middle-aged adults. These may include public health campaigns, community outreach programs, and healthcare provider training.

Report Preparation And Dissemination

Report Preparation: A comprehensive report will be prepared to summarize the study's objectives, methodology, findings, and conclusions. The report will also include statistical analysis, interpretations of the data, and any recommendations for improving physiotherapy awareness.

Dissemination: The findings will be disseminated through various channels:

- o **Academic Publication:** The study will be submitted to peer-reviewed journals related to physiotherapy, public health, or gerontology for publication.
- o **Community Outreach:** A summary of the findings will be shared with local healthcare providers, community centers, and relevant public health authorities in Ahmedabad to inform future awareness initiatives.
- o **Presentations:** The research findings may be presented at local health conferences, seminars, and workshops to further promote awareness of the role of physiotherapy in middle-aged adults.

RESULT

Gender Distribution:

The study included a total of 100 participants, with a slight majority of female respondents. Out of the total respondents:

- Female participants accounted for 52% (52 individuals).
- Male participants made up 48% (48 individuals).

This gender distribution indicates a nearly balanced representation of male and female respondents, with a slight female majority, which may help in capturing diverse perspectives regarding physiotherapy awareness.

Age Distribution:

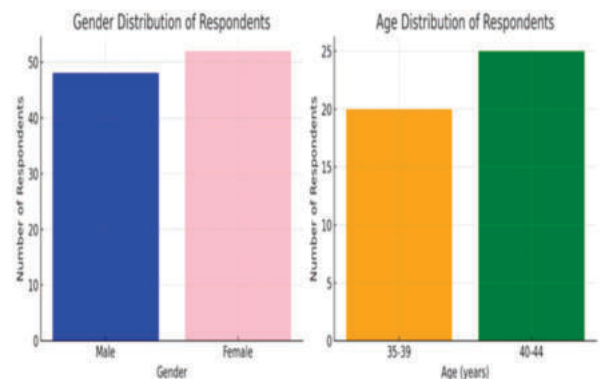
The age range of respondents was limited to two middle-aged categories, capturing individuals in their late 30s and early 40s:

- 20% (20 individuals) of the respondents were aged 35-39 years.
- 25% (25 individuals) were aged 40-44 years.

This age distribution focuses on citizens in the middle-aged bracket, making it relevant to understanding physiotherapy awareness within a demographic likely to experience early signs of musculoskeletal issues.

Table 1: Demographic Characteristics Of The Respondents (N=100)

Gender	Male	Female
N	48	52
%	48.0	52.0
Age (years)	35-39	40-44
N	20	25
%	20.0	25.0



Graph 1: Demographic Characteristics Of The Respondents (N=100)

Source Of Information About Physiotherapy Services

Health Professionals: The most significant source of information about physiotherapy services is health professionals, accounting for

35% of respondents. This suggests that healthcare providers play a crucial role in disseminating information about physiotherapy and its benefits.

Media: Newspapers (25%) and television (20%) are also important sources of information, indicating the potential of media campaigns in raising awareness about physiotherapy.

Knowledge Of Where Physiotherapy Services Can Be Received

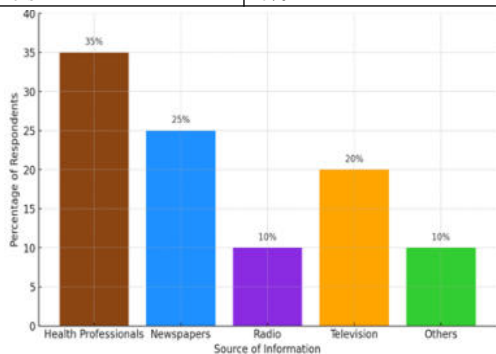
- **Hospitals:** Hospitals are the most recognized place for receiving physiotherapy services, with 70% of respondents aware of this option.
- **Clinics and Home-Based Services:** Clinics (20%) and home-based services (5%) are also recognized, indicating a growing awareness of alternative settings for physiotherapy.
- **Gyms and Physiotherapy Centers:** A smaller proportion of respondents are aware of gyms (3%) and dedicated physiotherapy centers (2%) as providers of physiotherapy services.

Encouragement Of Physiotherapy Use

Positive Attitude: A significant majority of respondents (70%) expressed their willingness to encourage the use of physiotherapy services. This positive attitude highlights the growing recognition of physiotherapy as an effective modality for managing various health conditions and improving quality of life.

Table: 2 Respondents' Sources Of Information About Physiotherapy

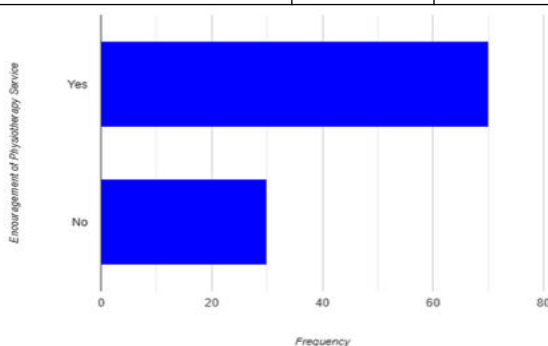
Source of Information	Percentage of Respondents
Health Professionals	35%
Newspapers	25%
Radio	10%
Television	20%
Others	10%



Graph : 2 Respondents'sources Of Information About Physiotherapy

Table 3: Knowledge Of Where Physiotherapy Services Can Be Received

Place	Frequency	Percentage
Hospitals	70	70.0
Clinics	20	20.0
Home-Based Services	5	5.0
Gyms	3	3.0
Physiotherapy Centers	2	2.0
Total	100	100.0



Graph 3: Respondents' Encouragement Of The Use Of Physiotherapy Service

Knowledge Of Disorders Treated By Physiotherapists

The most commonly recognized disorders treated by physiotherapists are back pain (40%) and neck pain (25%). This aligns with the prevalence of musculoskeletal disorders in the middle-aged population. A significant proportion of respondents are also aware of the role of physiotherapy in managing arthritis (15%) and sports injuries (10%). Additionally, 10% of respondents recognize the potential of physiotherapy in treating neurological disorders such as stroke and other neurological conditions.

Knowledge Of Treatment Modalities Used In Physiotherapy

Exercise (50%) and massage (30%) are the most widely recognized treatment modalities used by physiotherapists. This indicates a general understanding of the importance of physical activity and manual therapy in physiotherapy interventions. A significant proportion of respondents are also aware of the use of heat therapy (10%) and electrotherapy (5%).

Table 4: Knowledge Of Disorders Treated By Physiotherapists

Disorder	Frequency	Percentage
Back Pain	40	40.0
Neck Pain	25	25.0
Arthritis	15	15.0
Sports Injuries	10	10.0
Stroke	5	5.0
Other Neurological Disorders	5	5.0
Total	100	100.0

Table 5: Knowledge Of Treatment Modalities Used In Physiotherapy Your Study.

Modality	Frequency	Percentage
Exercise	50	50.0
Massage	30	30.0
Heat Therapy	10	10.0
Electrotherapy	5	5.0
Cold Therapy	3	3.0
Others	2	2.0
Total	100	100.0

DISCUSSION

This study aimed to assess the awareness of physiotherapy services, treatment modalities, and conditions treated by physiotherapists among middle-aged citizens in Ahmedabad. The results shed light on various aspects of public knowledge and the sources of information that contribute to shaping these perceptions. The findings reveal several key trends in demographic characteristics, sources of information, understanding of physiotherapy services, and knowledge of disorders and treatment modalities.

1. Demographic Characteristics

The study included a near-equal gender distribution, with 52% female and 48% male participants. This gender balance ensures a comprehensive view of physiotherapy awareness from both male and female perspectives. Additionally, the age group of 35-44 years was specifically targeted, with 20% of respondents aged 35-39 years and 25% in the 40-44 years category. This middle-aged cohort is particularly relevant, as individuals in this age group often begin to experience musculoskeletal issues such as back pain, neck pain, and arthritis, which are commonly addressed through physiotherapy. By focusing on this demographic, the study provides insights into the awareness and attitudes of individuals who may be at risk for such conditions but are still active in their professional and personal lives.

2. Sources Of Information

The primary source of information about physiotherapy services was health professionals, with 35% of respondents indicating that they had learned about physiotherapy through healthcare providers. This highlights the important role that healthcare professionals play in educating the public about physiotherapy's benefits and services. It also indicates that there may be an opportunity to enhance this role further through targeted educational campaigns or direct consultations during health check-ups.

Media also served as a significant source of information, with newspapers (25%) and television (20%) being crucial platforms for raising awareness. This suggests that media campaigns, including advertisements, educational programs, and informative articles, could be effective in reaching a broader audience and reinforcing the messages provided by healthcare professionals. The relatively smaller

proportion of respondents (10%) who relied on radio and other sources points to an opportunity for diversifying media strategies to enhance awareness across different media channels.

3. Knowledge of Physiotherapy Service Locations

The awareness of where to access physiotherapy services varied among respondents. A large majority (70%) recognized hospitals as the primary location for physiotherapy services, reflecting the common association of hospitals with medical care and rehabilitation. Clinics (20%) and home-based services (5%) were also recognized as potential sources of physiotherapy, indicating growing awareness of more convenient and accessible options beyond traditional hospital settings. However, only a small percentage of respondents were aware of physiotherapy services in gyms (3%) and specialized physiotherapy centers (2%). This points to a gap in public awareness regarding non-hospital-based physiotherapy options, which may be of interest to individuals seeking less conventional or more flexible approaches.

4. Encouragement Of Physiotherapy Use

A majority of respondents (70%) expressed a positive attitude towards encouraging others to use physiotherapy services. This indicates a high level of support for physiotherapy as an effective healthcare modality. The willingness to promote physiotherapy services suggests that, even if there may be gaps in awareness or understanding, there is strong confidence in its therapeutic benefits. It may also reflect the growing recognition of physiotherapy's role in managing and preventing various health conditions, particularly musculoskeletal disorders.

5. Knowledge Of Disorders Treated By Physiotherapists

The study found that back pain (40%) and neck pain (25%) were the most commonly recognized conditions treated by physiotherapists, which is consistent with the prevalence of these musculoskeletal disorders among middle-aged individuals. The recognition of arthritis (15%) and sports injuries (10%) aligns with the idea that physiotherapy is widely associated with the rehabilitation of injuries or conditions that affect mobility. Interestingly, 10% of respondents were aware of the potential role of physiotherapy in managing neurological disorders such as stroke. This suggests that while physiotherapy is primarily linked to musculoskeletal conditions, there is also a growing awareness of its broader therapeutic applications.

6. Knowledge Of Physiotherapy Treatment Modalities

When it comes to the modalities used in physiotherapy, exercise was the most recognized treatment (50%), followed by massage (30%), indicating that respondents associate physiotherapy with active rehabilitation and hands-on therapeutic techniques. Heat therapy (10%) and electrotherapy (5%) were also recognized, though to a lesser extent. The fact that 50% of respondents are aware of the role of exercise suggests that physical activity is central to their understanding of physiotherapy. The lower recognition of modalities such as electrotherapy and cold therapy points to an opportunity for further public education on the diverse range of techniques used in physiotherapy.

CONCLUSION

This study provides valuable insights into the awareness of physiotherapy services among middle-aged citizens in Ahmedabad. The results highlight the importance of healthcare professionals as key sources of information, while also pointing to the potential of media campaigns in reaching a broader audience. Despite the general recognition of physiotherapy for common musculoskeletal disorders, there remains room for improving public knowledge about the diverse locations where physiotherapy can be accessed and the various treatment modalities employed. Overall, there is a positive attitude toward physiotherapy, and this enthusiasm could be harnessed to further promote its use in managing a wide range of health conditions, especially as middle-aged individuals begin to experience age-related physical challenges. Future efforts should focus on enhancing education and access to physiotherapy services, particularly in non-hospital settings, to increase public engagement and utilization of physiotherapy services.

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