

A CROSS-SECTIONAL STUDY COMPARING PHYSIOTHERAPISTS' PREFERENCES FOR ELECTROTHERAPY AND EXERCISE THERAPY

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Abstract

The purpose of this study is to determine the treatment preference of professional physiotherapists for patients, specifically focusing on electrotherapy and exercise therapy. A total of 80 physiotherapists were chosen via convenience sampling. This cross-sectional study involved physiotherapists who have successfully completed both the BPT and MPT courses and are currently practicing in clinics and hospitals. The participants completed a Google self-designed, close-ended questionnaire that was distributed over social platforms in several physiotherapy groups. The data was analysed descriptively using Microsoft Excel. Electrotherapy combined with exercise therapy is utilised by 51% of physiotherapists for treating patients, while 28% of physiotherapists solely rely on exercise therapy. 24% of physiotherapists employ electrotherapy during the initial stages of new cases, while 17% utilise exercise therapy. Approximately 58% of physiotherapists employ exercise therapy to achieve lasting outcomes. 36% of those surveyed express a preference for electrotherapy to have long term effects. A survey also reveals that 77% of Physiotherapists exhibit a greater preference for employing Electrotherapy as opposed to Exercise therapy when it comes to treating patients. Physiotherapists believe that both electrotherapy techniques and exercise therapy can be used to reduce pain. Electrotherapy is thought to have an immediate effect, while exercise therapy is believed to have a sustained effect.

Keywords: Electrotherapy, Exercise Therapy, Physiotherapist, Preference.

Introduction

In the healthcare industry, occupations such as Doctors and Nurses are more widely recognised compared to other paramedical professions like Physiotherapy (Dissanayaka & Banneheka, 2014). Physical therapists are professionals specialised in enhancing the quality of life by implementing prescribed physical exercises, providing hands-on treatment, and educating patients. Physiotherapists evaluate each individual and create a customised strategy, employing various therapeutic strategies to address the root cause of the disease. Physiotherapists aid in alleviating pain, restoring mobility, recovering strength following injuries, and promoting overall health and ergonomics (Pachpor et al., 2021). Physiotherapy management techniques are applicable across all medical specialties, including neurology, orthopaedics, obstetrics & gynaecology, cardio-respiratory, and sports injuries. These approaches can effectively treat a wide range of disorders, spanning from juvenile to geriatric age groups (Rathi & Chandra, 2020).

The future of the physiotherapy profession in India is determined by the skills possessed by existing physiotherapists, given that the profession is still in its early stages of development (Dean et al., 2011). Hence, the talents cultivated today will demonstrate the superior quality and standards of practice in the future, thereby playing a crucial role in advancing the profession. Exercise is the fundamental aspect of physiotherapy and the paramount ability that must serve as the basis for every physiotherapy student. Nevertheless, electrotherapy is the prevailing method in India, while exercise therapy has been marginalised.

Exercise therapy encompasses a range of motions and physical activities aimed at enhancing strength, functionality, and alleviating discomfort (Hayden et al., 2015). If someone receive physiotherapy for an injury or a chronic ailment, the course of action may incorporate exercise therapy. The objective of the exercise therapy treatment plan is to enhance the strength of the unaffected muscles and muscle groups while safeguarding the impaired muscles (Kolt & Snyder-Mackler, 2007). Furthermore, engaging in consistent physical activity and exercise can contribute to an extended and healthier

lifespan by diminishing the likelihood of developing specific forms of cancer, heart attacks, strokes, obesity, high blood pressure, anxiety-related conditions, depression, rheumatism back discomfort, and even dementia (Georgy, 2021). The impact of exercise therapy on the aetiology of disease and if specific elements of exercise regimens are linked to the magnitude of treatment outcomes (Hagen et al., 2012).

Electrotherapy is a natural method of pain treatment that use energy (Armstrong, 2016; Coskun Benlidayi, 2020). Electrotherapy methods are employed to alleviate pain and enhance the body's natural healing process by augmenting energy levels through the use of electricity, light, sound, magnetic fields, and temperature (Watson, 2000). Various modalities are employed for specific conditions, with some yielding optimal results when used in conjunction with others. The electrotherapy techniques commonly employed in physiotherapy settings include Interferential therapy (IFT), Ultrasound, Transcutaneous electrical nerve stimulator (TENS), Electrical muscle stimulator, Heat fermentation, Cryotherapy, infrared radiation (IRR), ultraviolet radiation (UVR), and short-wave diathermy (SWD) (Eftekharsadat et al., 2015). Electro physical specialists employ physiological effects to provide therapeutic benefits, with the changes induced by these effects being more advantageous than the therapy approach itself. The use of evidence-based guidelines should facilitate the selection of the most appropriate treatment options for a specific patient. Indiscriminate application of electrotherapy is unlikely to yield significant benefits, but when used appropriately, it has the potential to have a favourable outcome (Hege et al., 2022).

The field of physiotherapy consists of two main components: exercise treatment and electrotherapy. Novice physiotherapists and students are still uncertain about which treatments provide advantages for patients. The long-term and short-term impacts of electrotherapy and exercise therapy have caused a conflict of interest among inexperienced physiotherapists and physiotherapy students. This research aims to determine the treatment preference of clinical physiotherapists between electrotherapy and exercise therapy for clients.

Objectives of the study

To determine the treatment choice of clinical physiotherapists for patients, namely between electrotherapy and exercise therapy.

Research Methodology

A cross-sectional descriptive study was carried out between October 2023 and December 2023.

➤ ***Sample and Sampling Procedure:*** A convenience sampling technique was employed to choose a sample of 80 physiotherapists. A cross-sectional study was done with a self-designed questionnaire developed by Google.

➤ ***Criteria for inclusion:*** Included in the study were physiotherapists who have successfully completed both the Bachelor of Physiotherapy (BPT) and Master of Physiotherapy (MPT) courses, and are now practicing in clinics and hospitals. programme,

➤ ***Criteria for exclusion:*** Students enrolled in the Bachelor of Physical Therapy (BPT) programme and the Master of Physical Therapy (MPT) were omitted.

➤ ***Data:*** The present study employed both primary and secondary data. Primary data is primarily utilised to generate the findings of the investigation. Conversely, secondary data is employed to understand the context, analyse existing literature, identify research gaps, and formulate the questionnaire for the present study.

➤ ***Data Collection Instrument and Process:*** A Google self-designed questionnaire was created and distributed to five experienced physiotherapists working in hospitals and clinics. These physiotherapists reviewed the questionnaire and provided feedback on whether any questions should be added, removed, or modified. Once the writers gave their final clearance for the content of the questions, the questionnaires were distributed through several physiotherapy groups on a social network. Prior to distributing the questionnaire, the text message was used to elucidate the nature and goal of the study. They were instructed to fill out the questionnaire subsequent to getting the consent document. The questionnaires consisted of two parts. Fiest section inquire about the subjective

information. Second section include items related to Physiotherapists' preference for electrotherapy or exercise therapy. The questions required a time commitment of 5-10 minutes for completion.

➤ **Data Analysis:** The analysis was conducted using Microsoft Excel and presented in the form of graphs.

Results

The current study involved a participation rate of 27.5% female physiotherapists and 27.5% male physiotherapists. The statement on the physiotherapy methods used in clinics and hospitals revealed that 96% of them employ exercise and electrotherapy for treatment. Additionally, 83% of these facilities utilise manual therapy, while 85% also incorporate ice/heat therapy. The utilisation of hydrotherapy in physiotherapy was minimal. Regarding the subjects of the study, 29% possess worked experience of less than 1 year, 27% have 1-3 years of experience, 24% have 2-6 years of experience, while the remaining individuals have work experience beyond 6 years.

In the current study, 59% of physiotherapists were working under the supervision of other physiotherapists, whereas 41% were practicing independently.

Table 1 Subjective Analysis

Gender	Frequency	Percentage
Male	58	72.5
Female	22	27.5
Modes of Physiotherapy		
Manual therapy	67	83.75
Ice/Heat therapy	68	85
Hydrotherapy	42	52.5
Electrotherapy and exercise therapy	77	96.25
Work Experience		
Less than 1 year	23	28.75
1-3 years	22	27.5
3-6 years	19	23.75
More than 6 years	16	20
Professional practice Pattern		
Working under Physiotherapist	47	58.75
Working independent	33	41.25

Out of electrotherapy and exercise therapy, which mode of therapy is more recommended to patients?

Figure 1 indicates that the mode of therapy is more frequently recommended to patients. Analysis indicates that the majority of physiotherapists (51%) suggest a mix of electrotherapy and exercise

therapy, while 28% recommend exercise therapy alone, and only 21% advocate electrotherapy as the sole modality of therapy.

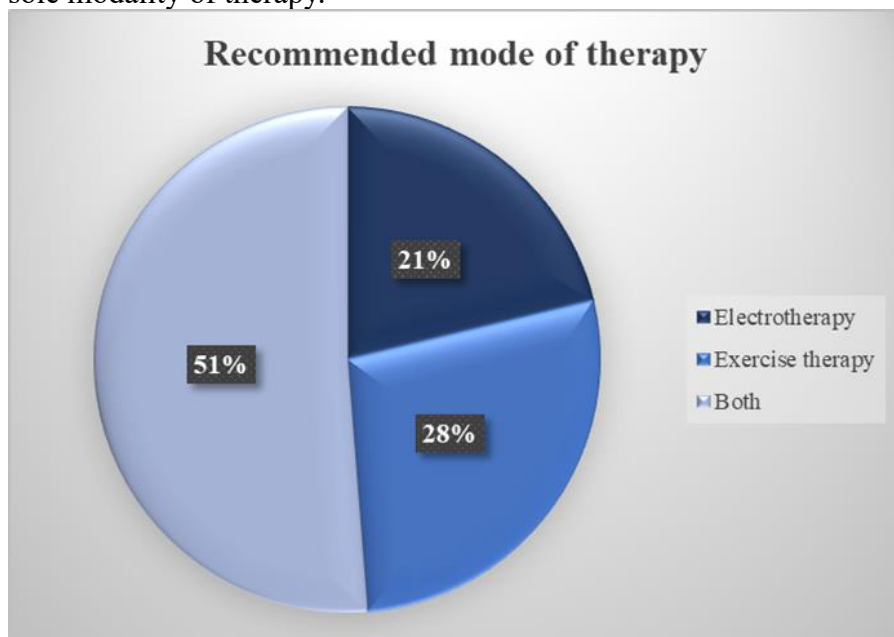


Figure 1 Recommended mode of therapy

Between electrotherapy and physical therapy, which mode of therapy do you prefer for a fresh case during the first couple of days?

Figure 2 displays the preferred mode of therapy for new cases during the initial days. In the case of a new injury, physiotherapists often opt for a mix of therapies. Specifically, 55% of them prefer a combination of both electrotherapy and exercise therapy, whereas 24% prefer electrotherapy alone and 17% prefer exercise therapy alone. However, data reveals that 4% of individuals favour alternative ways instead of these two.

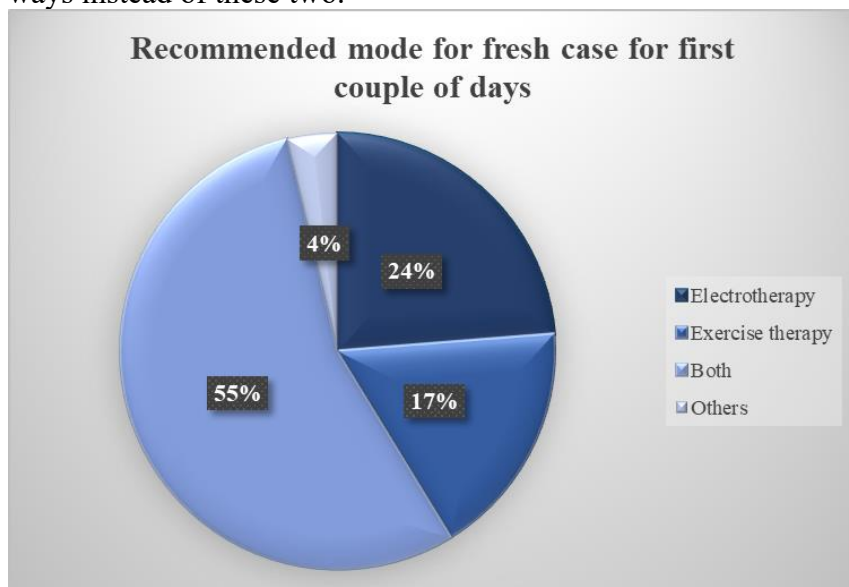


Figure 2 Recommended mode for fresh case for first couple of days

Figures 3 and 4 depict the utilisation of electrotherapy and exercise therapy in patient treatment.

Figure 3 indicates that 12% of the sample abstains from using electrotherapy entirely. Approximately one-third (33%) of individuals consistently utilise electrotherapy, while a majority (51%) use it on many occasions. Only 4% of them consistently utilise electrotherapy.

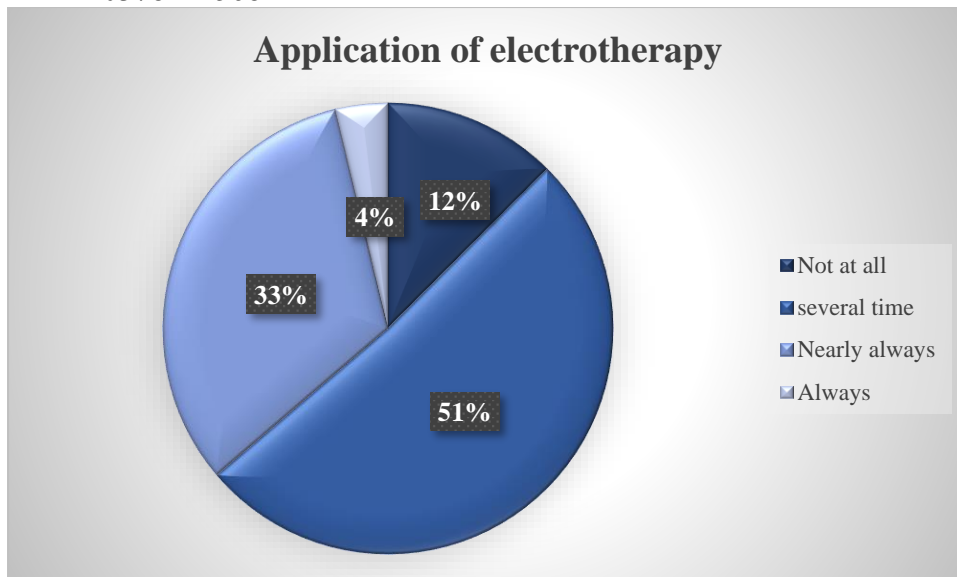


Figure 3 Utilisation of electrotherapy

Figure 4 shows that none of the sample deny to utilises exercise treatment. Approximately 74% of the individuals utilise electrotherapy almost always, whereas 11% utilise it multiple times. Only 15% of them consistently utilise electrotherapy.

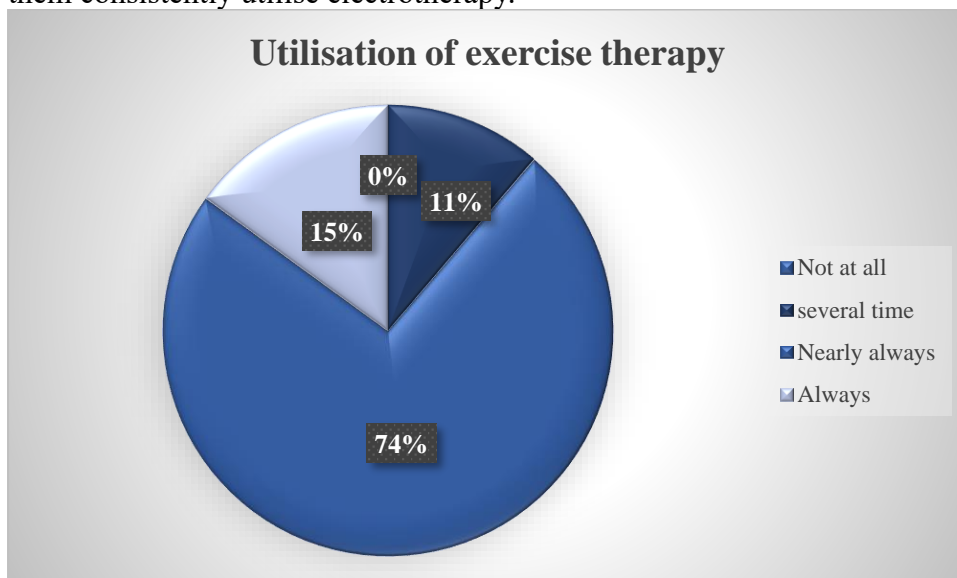


Figure 4 Utilisation of exercise therapy

Between electrotherapy and exercise therapy, which mode of treatment is preferable for long-term benefits?

Figure 5 shows the preferred treatment modality based on the expected long-term benefits to the patients. 6% of individuals favour electrotherapy, 58% favour exercise therapy, and 36% favour a mix of both therapies.

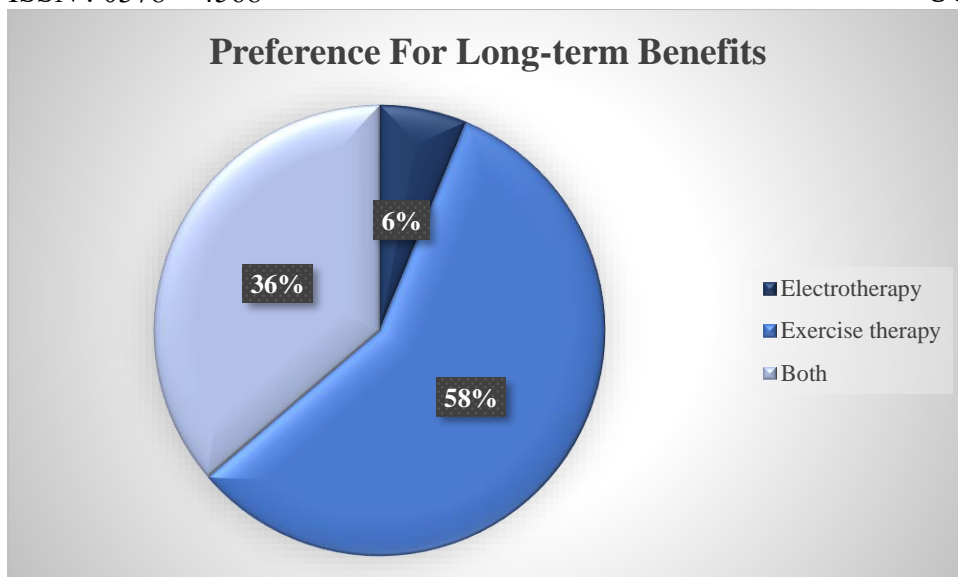


Figure 5 Preference for Long-term Benefits

For physiotherapy, which approach—electrotherapy or exercise therapy—should be prioritised?

Figure 6 demonstrates a greater inclination towards utilising Electrotherapy or Exercise therapy for physiotherapy treatment. 77% of individuals prioritise electrotherapy over exercise therapy and the combination of both therapies.

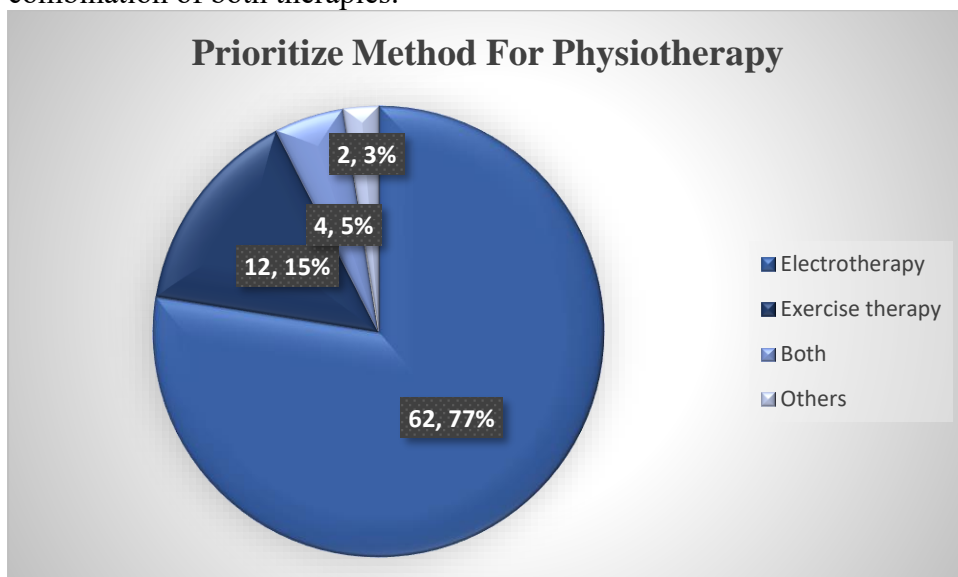


Figure 6 Prioritize Method for Physiotherapy

Discussion

In this survey, it was shown that 51% of physiotherapists utilise a combination of electrotherapy and exercise therapy for treating patients. Additionally, 28% of physiotherapists alone employ exercise therapy, while 21% exclusively utilise electrotherapy. 24% of physiotherapists utilise electrotherapy as a treatment modality for new cases during the early days. Additionally, 17% of physiotherapists employ exercise therapy, while 55% utilise a combination of electrotherapy and exercise therapy for the treatment of new cases during the initial days. These findings align with Vedang et al. (2017). Electrotherapy provides an instant benefit, while exercise has a sustained effect.

51% of physiotherapists utilise electrotherapy on multiple occasions, while 33% use it nearly always, 4% use it always, and 12% do not use electrotherapy at all in patients. While, 11% of physiotherapists sometimes utilise exercise therapy, while 15% of physiotherapists consistently use it as a treatment method in physiotherapy. These findings align with Dhaniwala, (2018) who discovered that physical activities have significant advantages in promoting the development and upkeep of robust and healthy muscles and bones, in addition to contributing to our overall benefit. The role of exercise is crucial in

preventing osteoporosis and the resulting fragility fractures, especially in the current period of sedentary lifestyles that are associated with a high prevalence of obesity, osteoporosis, diabetes, and hypertension. A majority of physiotherapists, namely 58%, utilise exercise treatment to get long-lasting results. 6% of individuals express a preference for electrotherapy to exhibit immediate effects, align with finding of Almalty et al. (2013)

According to a study, 77% of Physiotherapists have a stronger inclination towards using Electrotherapy rather than Exercise therapy for treating patients. Watson (2000) discovered that they also examine some prevailing principles in electrotherapy and exercise therapy in order to establish connections between these principles and the overall and targeted therapies for particular illnesses. The present study is limited by a small sample size and a lack of multivariate analysis.

Conclusion

Overall, this study revealed that Physiotherapists perceive both electrotherapy methods and exercise therapy as effective in relieving pain. Electrotherapy is found to have an immediate effect, while exercise therapy has a sustained effect. In a developing country such as India, where physiotherapy is still in its nascent stage, it is imperative for physiotherapy experts to deliver high-quality and standardised care in order to foster the advancement of the profession. In order to guarantee this, prompt measures must be implemented to reverse the current approach and establish exercise therapy as the primary method of treatment. Physiotherapy schools should incorporate exercise therapy as a central component of their curriculum, so that graduates may effectively apply it in their future practice as physiotherapists.

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