

# Preference of Electrotherapy versus Exercise Therapy in Physiotherapists: A Cross-Sectional Study

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## ABSTRACT

**Aims:** To find the preference of electrotherapy and exercise therapy in clinical physiotherapists for treatments of the patients.

**Method:** 90 physiotherapists, selected by convenience sampling. Physiotherapists who have completed BPT and MPT course and practising in clinics and hospitals, participated in this cross-sectional study. The participants filled a Google self-designed, close-ended questionnaire of 11 items which was circulated via WhatsApp in different physiotherapist groups. Descriptive analysis was done using Microsoft excel.

**Results:** 68% of physiotherapists use electrotherapy + exercise therapy, 26% of physiotherapists use exercise therapy for treatments of patients. 38% of physiotherapists use electrotherapy in new case during initial days whereas 15% uses exercise therapy. 77% of physiotherapists uses exercise therapy for long-term effects. 66% prefer that electrotherapy have short-term effects whereas 73% of Physiotherapists prefer that exercise therapy have long-term effects.

**Conclusion:** Physiotherapists have a perception of use of both electrotherapy modalities as well as exercise therapy in reducing their pain; electrotherapy having immediate effect and exercise therapy having sustained effect.

**Keywords:** Electrotherapy, Exercise therapy, Physiotherapy

## INTRODUCTION

Electrotherapy is a way of treating pain naturally with the help of energy. Electrotherapy modalities used to help in reducing the pain and the natural healing response through increased energy (electricity, sound, light, magnetism, temperature). The different modalities used for different conditions while some works best when used in combination with others. The electrotherapy modalities used in physiotherapy setups are Interferential therapy (IFT), Ultrasound, Transcutaneous electrical nerve stimulator (TENS), Electrical muscle stimulator, Heat fermentation, Cryotherapy, infrared radiation (IRR), ultraviolet radiation (UVR), short wave diathermy (SWD). Electro physical specialists used to convey physiological impacts, and it is these progressions that bring the advantages of treatment than the methodology itself. Convention choices utilizing proof gave should empower the most suitable modalities to be utilized for a specific patient. Aimless utilization of electrotherapy is probably not going to produce noteworthy advantages, anyway utilized at the perfect time; it can possibly accomplish useful impact.[1]

Exercise therapy consists of movements and physical activities that are used to increase strength, function, and reduce discomfort. Physiotherapist may include exercise

therapy in your treatment plan if you are having physiotherapy for an accident or a persistent condition. The goal of exercise therapy treatment plan is to strengthen the muscles and muscle groups that are not affected by condition while protecting the damaged muscles. In addition, regular physical activity and exercise can help live longer and healthier lives by reducing risks for certain types of cancer, heart attacks, strokes, high blood pressure, obesity, depression, anxiety disorders, arthritis, back pain, and even dementia.[2] The effect of exercise therapy on disease pathogenesis and whether particular components of exercise programs are associated with the size of the treatment effects.[3]

In the field of physiotherapy there have been two major components to it one being exercise therapy and other is electrotherapy. Fresher physiotherapists and students are still confused which treatments are benefits for patients. Also long term and short term effects of electrotherapy and exercise therapy have been conflict of interest amongst the fresher physiotherapist and student of physiotherapy. Thus this research is carried to find the preference of electrotherapy and exercise therapy in clinical physiotherapists for treatments of the patients.

## METHODS

A descriptive study was conducted from September 2022 to December 2022. 90 physiotherapists were selected by convenience sampling. A cross-sectional

study was conducted using Google self designed Questionnaire. Physiotherapists who have completed BPT and MPT course and practicing in clinics and hospitals were included. BPT Students, MPT Students, Academicians were excluded.

A Google self-designed Questionnaire was generated which was given to five experienced physiotherapists (work in hospital and clinics) who approved of the content of the questionnaire for addition, deletion or modification of questions before circulating. After final approval of the content of questions by authors, the questionnaires were circulated via what's app in different physiotherapy groups. Questionnaires comprised 2 sections; Part A and B. Part A: Subjective information, Part B: Preference of electrotherapy or exercise therapy in physiotherapists. The questionnaires took 5-10 minutes to complete. Analysis was done in Microsoft excel.

## STATISTICAL ANALYSIS

Descriptive analysis was done using Microsoft excel 2007 and was represented in form of graphs.

## RESULT

In present study 76% female physiotherapist and 24% male physiotherapist were participated.

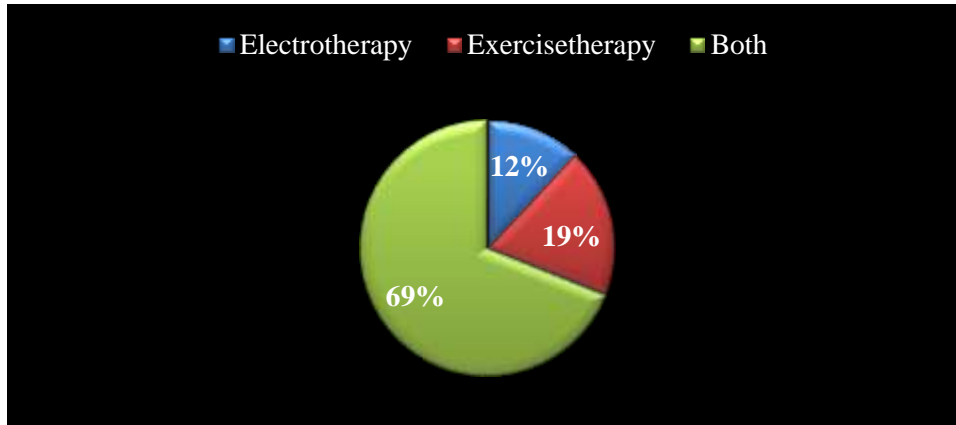
Graph 1 show that work experience as a physiotherapist.



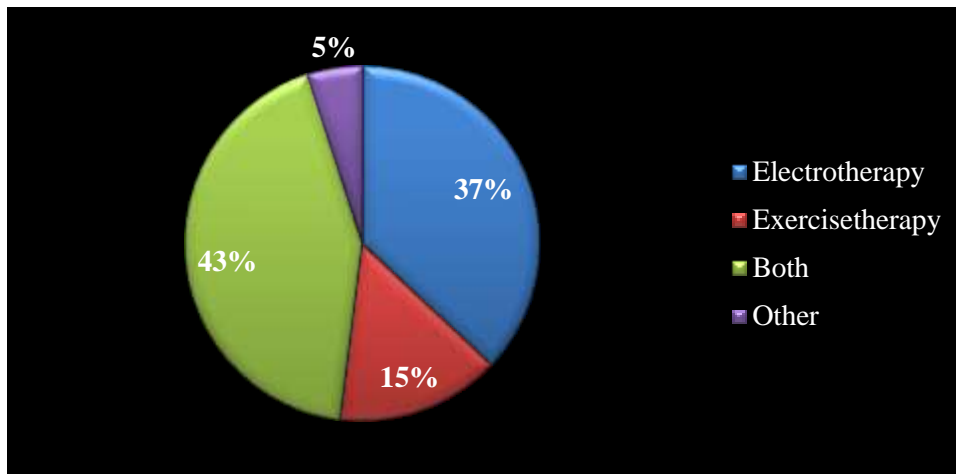
Graph 1: Experience working as a physiotherapist

In present study 61% physiotherapist were practice under other physiotherapist whereas 39% physiotherapist were independent practice. Graph 2 shows that mode of therapy recommends more to patients. Graph 3 shows prefer for the mode of therapy of new case during initial days.

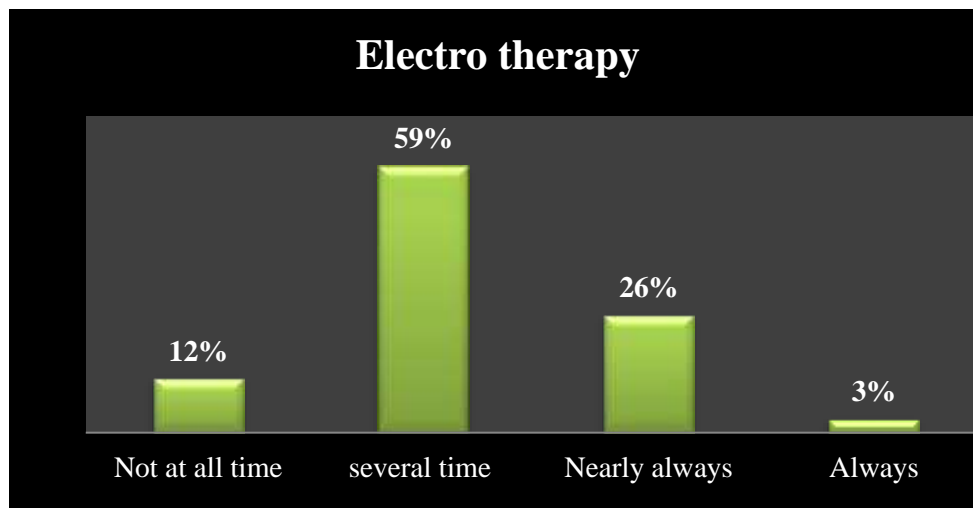
Graph 4 and 5 represents that use of electrotherapy and exercise therapy for patients. In graph 6 which mode of therapy prefer for long term benefit to the patients. Graph 7 shows that recline more towards Electrotherapy or Exercise therapy for physiotherapy treatment.



Graph 2: Mode of therapy recommends more to patients



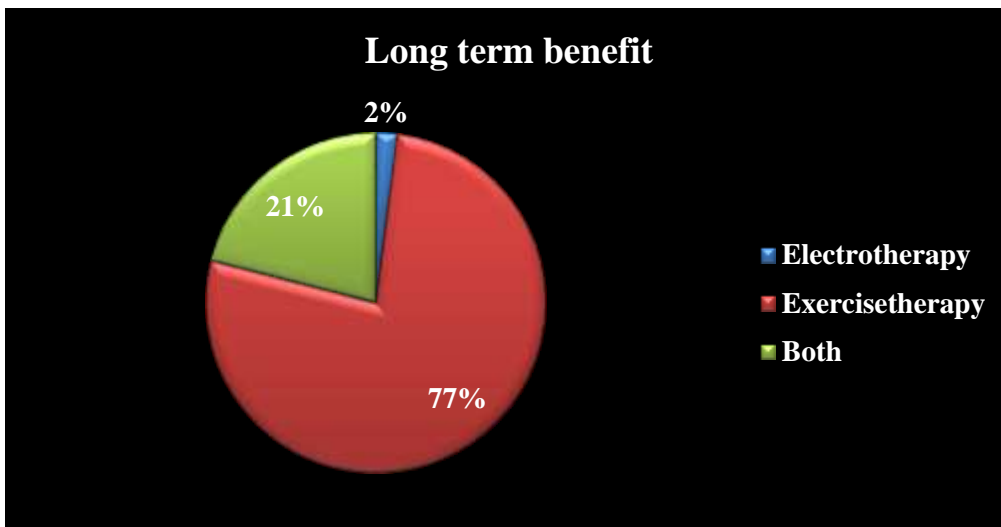
Graph 3: Prefer for the mode of therapy of new case during initial days



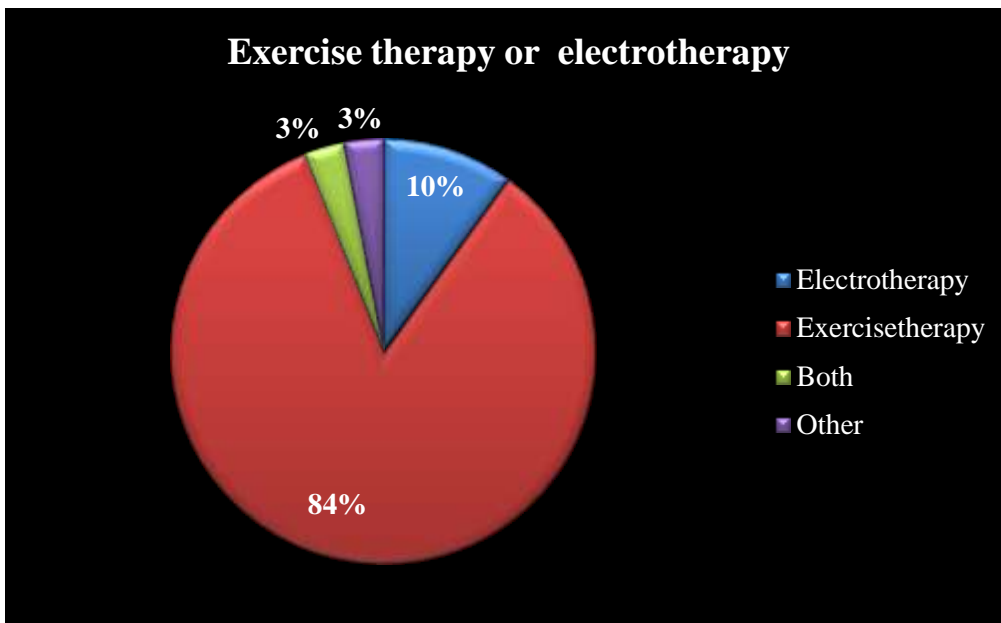
Graph 4: Use of electrotherapy for patients



Graph 5: Use of exercise therapy for patients



Graph 6: Mode of therapy prefer for long term benefit



Graph 7: Recline more towards Electrotherapy v/s Exercise therapy for physiotherapy treatment

## DISCUSSION

In present study 69% of physiotherapists have given to a combination of electrotherapy + exercise therapy, 19% of physiotherapists use alone exercise therapy and 12% physiotherapists use alone electrotherapy for treatments of patients. Watson T et al found that the patient management programmed which combines exercise therapy and electro therapy, based on evidence, should enable the most efficacious management of a patients' dysfunction.[4]

In present study 37% of physiotherapists use electrotherapy in new case during initial days, 15% uses exercise therapy and 43% uses electro therapy + exercise therapy in new case during initial days for patients treatment. Vedang NV et al found that patients have a perception of use of both electrotherapy modalities as well as exercise in reducing their pain; electrotherapy having immediate effect and exercise having a sustained effect.[5]

59% physiotherapists use of electrotherapy for several times, 26% nearly always, 3% always and 12% not at all time use electrotherapy in patients. Watson T et al found that the selection of the most appropriate modality depends therefore on the knowledge of the relationship between the energy, the physiology and the therapeutic. Selecting the most appropriate modality is not a matter of learning a series of recipes, but of clinical decision making based on physics, physiology, pathology, assessment and patient treatment skills. [4]

In present study 39% physiotherapists use of exercise therapy for several times and nearly always whereas 22% physiotherapists use always as physiotherapy treatments. Dhaniwala NS et al found that benefits of physical exercises it is evident that it is highly important for growth and maintenance of healthy and strong muscles and bones, besides keeping us happy. It prevents osteoporosis and associated fragility fractures. Role of exercise is more in the present era of sedentary life style associated with high prevalence of obesity, osteoporosis, diabetes and hypertension.[6]

77% of Physiotherapists uses exercise therapy for long-term effects. 66% prefer that electrotherapy have short-term effects. Almalty AM et al found that electrical stimulation caused temporary decrease pain with no effects on other skin properties. [7] 84% of Physiotherapists recline more towards Electrotherapy v/s Exercise therapy for physiotherapy treatment. Watson T et al found that they also consider some of the current concepts in electrotherapy and exercise therapy to relate this to both general and specific treatments for specific conditions. [4] Fox J et al found that evidence-based information on what each of the modalities and exercise has to offer, its advantages and disadvantages and what each one is best to treat.[8]

Limitation of present study is less sample size with also lack of multivariate analysis.

## CONCLUSION

Physiotherapists have a perception of use of both electrotherapy modalities as well as exercise therapy in reducing their pain; electrotherapy having immediate effect and exercise therapy having sustained effect.

### Declaration by Authors

**Ethical Approval:** Approved

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**Conflict of Interest:** The authors declare no conflict of interest.

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