

# Physical Therapy Facilities in Public and Private Health Care Centers in Lahore

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## ABSTRACT

Physical therapists are experts who assesses and treat issues of human body basically by physical methods. They address the complaints or disorders that restrict the person's ability to move and complete various functional activities in their daily routine.

**Objective:** The goal of the investigation is to check physical therapy facilities in public and private health care centers in Lahore.

**Methodology:** Cross-sectional survey was conducted across different private and public health care centers of Lahore. A self – designed questionnaire was made. The sample size of this study was 150. Convenient sampling technique has been used in this study for collection of data. Inspection of data was done by utilizing SPSS version 20, tables and charts were made.

**Results:** Results suggested that equipment which were frequently available in most setups were ice packs, mobilization belt, and Thera bands (having the availability in more than 70% setups). The Electrotherapy modalities which were frequently available in most setups were heating pad, TENS, EMS, and massager (having the availability in more than 70% setups) 80.7% (n=88) setups having 1-5 Physical Therapists, 12.8 % (n=14) setups having 6-10 Physical Therapists and 6.4% (n=7) setups having 11 or above Physical Therapists. 64.2% (n=70) setups having the average of 1-10 Patients, 19.3 % (n=21) setups having the average of 11-20 Patients and 16.5% (n=18) setups having the average of 21 or above Patients. 13.76% (n=5) were Public/private teaching hospitals, 83.49 % (n=91) were hospital/polyclinics and 2.752% (n=3) were university physiotherapy centers.

**Conclusion:** This study showed most frequently available equipment in most setups were ice packs, mobilization belt, and Thera bands and least available equipment were spirometer, CP chair, standing frame, parallel bars or wall bars and goniometer. Most frequently available Electrotherapy modalities in most setups were heating pad, TENS, EMS, and massager and least available electrotherapy modalities were shockwave, paraffin wax bath and Microwave diathermy. Mostly there were 1- 5 physical therapists in a health care center, daily average of patients were in between 1-10 and type of health care center from where data is collected was hospital/polyclinics.

**Key words:** Physical therapy, facilities, electrotherapy, exercise equipment, health care centers, physiotherapist–patient ratio.

## INTRODUCTION

Physical therapists are experts who assesses and treat issues of human body basically by physical methods.(1) They address the complaints or disorders that restrict the person's ability to move and complete various functional activities in their daily routine.(2) In various nations, Physical therapists have various titles. In different nations they are called physiotherapists. A few nations have their own rendition of the word physical therapist, for example, kinesiologist. They are all part of the same occupation.(3)

A documented history of actual physical therapy as an expert gathering was set by Per Henrik Ling. He established the Royal Central Institute of Gymnastics (RCIG) for exercise, and manipulation in 1813. Sanctioned Society of Physiotherapy was set up in 1894 by four attendants in Great Britain., Edward Playter used the word Physiotherapy in an English article dispersed in Montreal Medical Journal in the year 1894.(4) Toward the end of the nineteenth century, contemporary physical therapy was established due to circumstances that affected worldwide, so that is why rapid advances in physical therapy occurred.

In 1921, Mary McMillan composed the American Women's Physical Therapeutic Association (presently called the American Physical Therapy Association (APTA)).(5)

In Pakistan, The school of Physiotherapy was built up in 1956 by the Federal Government, in Jinnah Postgraduate Medical Center premises. From the start, the school offered a 2 years Diploma course with the base section ability of enlistment. In 1961, the 2 years program was climbed to a 3 years Diploma. Later on, the program was raised to BSc Physiotherapy Degree (3 years) in 1963. In 1999, the BSc Physiotherapy course was climbed to 4 years BS Physiotherapy Degree Course. At that point, following the "Vision 2020 of APTA", the 4 years BSPT Program was moved up to 5 years DPT (Doctor of Physiotherapy) Program in 2008 to fulfill the International guideline.(6)

There are so many advantages for people nowadays as physical therapy is making life comfortable by providing relief from so many diseases and disorders. The physical therapist treats problems in infants, children, and adults and in old as well. As it is a very wide field so there is a lot

of areas of specialization i.e. in neurology, cardiopulmonary, geriatrics, pediatrics, women health, palliative care, musculoskeletal, integumentary, clinical electrophysiology and sports. Some of the diseases which are treated and managed by the physiotherapists are: Stroke, Multiple Sclerosis, adhesive capsulitis, Cerebral Palsy, Bell's Palsy, cervical pain, low back pain, joint pains, postural problems, sports injuries, post-operative rehab and many more(7,8).

Yaqub M, et al., conducted a study about physical therapy services, their staffing, electro modalities and exercise modalities at physiotherapy health care centers of Faisalabad It was observed that private hospitals showed positive results regarding the common services offered and availability of physiotherapists for 5-7 hours but they were lacking with the advance treatments including the Mechanical tracker and Compression therapy. Daily patient average was 10 – 20 patients, Exercise equipment and other tools were not usually available. (9)

Odebiyi Do, et al., conducted a study that showed the comparison between the physiotherapy facilities and services provided in the public and private hospitals which was analyzed based on the satisfaction level of the patients being treated. Results revealed that the facilities provided in private hospitals were far better where patients were more satisfied with the availability of physiotherapists, time given by them and the equipment used as compared to the services provided in the public hospitals. Therefore, there is a need to modify the physiotherapy departments in public hospitals for providing better treatment to the maximum number of patients.(10)

Shah SGS, et al., directed an investigation whose point was to give logical proof on electrotherapy utilization over the most recent 20 years by distinguishing patterns in accessibility, use, and non-utilization of nine electrotherapeutic modalities in physiotherapy works on during 1990s and 2000s, strategy utilized was reviewing of concentrates through various looking through online bibliographic databases. Results indicated ultrasound use expanded in numerous nations. Use of laser and SWD continues as before as in the past. Utilization of TENS, biofeedback accessibility and interferential show stamped slant in UK and decrease in Australia and Ireland. Utilization and accessibility of H-wave and microwave diathermy demonstrated declining, while there is a speedy slope in their non-accessibility in the course of the last few years.(11)

**MATERIALS AND METHODS**

It was a descriptive Cross sectional survey by using convenient sampling 109 physiotherapy center were visited and data was gathered from government , private hospitals or poly clinics and University teaching centers through self-designed questionnaire which was validated through pilot study. After taking consent from the Physical Therapist date was recorded. We have considered 150 physiotherapy centers in Lahore as a population. Their information was available on online websites like Marham, and what clinic.com and information received from personal resources as well (12, 13). Through Rao software sample size was calculated which was 109(14). Only PMDC and PHC approved hospitals and poly clinics and Universities

developed Physiotherapy Teaching Centers that were providing physiotherapy services to the society were included to gather the data. Data was recorded through SPSS (15). Appropriate statistical data analysis was done, frequencies and percentages were find out to analyze the physiotherapy facilities available in the hospitals of Lahore.

**Result:**

There were 13.76% (n=5) are Public/private teaching hospitals, 83.49 %( n=91) are hospital/polyclinics and 2.752% (n=3) University physiotherapy centers. Out of 109 physiotherapy centers 80.7% (n=88) have1-5 Physical Therapists, 12.8 %( n=14) have 6-10 Physical Therapists and 6.4% (n=7) have 11 or above Physical Therapists

While 64.2% (n=70) Physiotherapy Centers have of 1-10 Patients average, 19.3 %( n=21) have average of 11-20 Patients and 16.5% (n=18) have the average of 21 or above Patients.

Frequencies and percentages of Instruments/Equipment in Clinic/Hospitals in Lahore

Physiotherapy Equipment	Frequency	Percentage
Mobilization belt	83	76.1
Reflex Hammer	46	42.2
CPM	25	22.9
Quadriceps Bench	33	30.3
Traction unit	44	40.4
Kinesiology Tape	45	41.3
Ice packs	90	82.6
CP Stand	40	36.7
Positional Wedges	54	49.5
Parallel bars or wall bars	29	26.6
Incline Ramp	34	31.2
Spirometer	14	12.8
Peanut Ball	12	11
Shoulder Wheel	63	57.8
Standing Frame	18	16.5
CP Chair	18	16.5
Finger Ladder	67	61.5
Jumping Board	9	8.3
Gym Ball	71	65.1
Balance Boards	47	43.1
Foam rolls	62	56.9
Pulleys	34	31.2
Treadmill	21	19.3
Stationary bike	38	34.9
Thera bands	90	82.6
Weight cuffs	76	69.7
Goniometer	11	10.1
Hand gripper	43	39.45
Needles	38	34.9
Physio ball	69	63.3
Dumbbell	40	36.7

Which of the following Electrotherapy Modalities do you have?

Electrical Modalities	Frequency	Percentage
Ultrasound	65	59.6
Laser	10	9.2
Shockwave	9	8.3
Infrared lamp	71	65.1
Heating Pad	107	98.2
Short Wave Diathermy	41	37.6
TENS	96	88.07
EMS	83	76.15
Interferential Current Unit	32	29.36
Paraffin Wax Bath	26	23.9
Hydrocollator	45	41.3
Massager	79	72.5
Microwave Therapy	7	6.42

According to the results, there were 76.1 % (n=83) setups have Mobilization belt, 22.9% (n=25) setups have CPM, 42.2% (n=46) setups have Reflex Hammer, 30.3% (n=33) setups have Quadriceps Bench, 41.3% (n=45) setups have Kinesiology Tape, 40.4% (n=44) setups have Traction unit, 36.7% (n=40) setups have CP, 82.6% (n=90) setups have Ice Packs, 49.5% (n=54) setups have Positional Wedges, 26.6% (n=29) setups have Parallel bars or wall bars, 31.2% (n=34) setups have Incline Ramp, 12.8% (n=14) setups have **Spirometer**, 11.0% (n=12) setups have Peanut Ball, 57.8% (n=63) setups have Shoulder Wheel, 16.5% (n=18) setups have Standing Frame, 16.5% (n=18) setups have CP Chair, 61.5% (n=67) setups have Finger Ladder, 8.3% (n=9) setups have Jumping Board, 65.1% (n=71) setups have Gym Ball, 43.1% (n=47) setups have Balance Boards, 56.9% (n=62) setups have Foam Rolls, 31.2% (n=34) setups have Pulleys, 19.3% (n=21) setups have Treadmill, 34.9% (n=38) setups have Stationary Bike, 82.6% (n=90) setups have Thera Band, 69.7% (n=76) setups have Weight Cuff, 10.1% (n=11) setups have Goniometer, 39.4% (n=43) setups have Hand Gripper, 34.9% (n=38) setups have Needles, 63.3% (n=69) setups have Physio Ball, 36.7% (n=40) setups have Dumbbell, 59.6% (n=65) setups have Ultrasound, 9.2% (n=10) setups have Laser, 8.3% (n=9) setups have Shockwave, 65.1% (n=71) setups have Infrared Lamp, 98.2% (n=107) setups have Heating Pad, 37.6% (n=41) setups have Short Wave Diathermy, 88.1% (n=96) setups have TENS, 76.1% (n=83) setups have EMS, 29.4% (n=32) setups have Interferential Current Unit, 23.9% (n=26) setups have Paraffin Wax Bath, 41.3% (n=45) setups have Hydrocollator, 72.5% (n=79) setups have Massager, 6.422% (n=7) setups have Microwave diathermy

## DISCUSSION

The present cross-sectional investigation was directed over a time of a half year by applying purposive sampling techniques. Data of 109 cases was collected by a self-designed questionnaire from various Hospitals, clinics and poly clinics of Lahore. Primary focal point of the examination was to get the information about the physical therapy facilities (equipment and electrotherapy modalities, total number of physical therapist and total number of patients coming daily in a setup), in public and private centers of Lahore.

According to my research, the equipment which were frequently available in most setups were ice packs, mobilization belt, and Thera bands (having the availability in more than 70% setups) but some of the equipment were least available in these setups (having the availability in less than 30% setups) i.e. jumping board, spirometer, CPM, treadmill, peanut ball, CP chair, standing frame, parallel bars or wall bars and goniometer. The Electrotherapy modalities which were frequently available in most setups were heating pad, TENS, EMS, and massager (having the availability in more than 70% setups) but electrotherapy modalities which were least available in these setups were shockwave, paraffin wax bath, Microwave diathermy, interferential current unit and Laser (having the availability in less than 30% setups). Mostly there were 1- 5 physical therapists in a health care center, daily average of patients were in between 1-10 and type of

health care center from where data is collected was hospital/polyclinics.

A systematic review of Shah SGS, revealed that microwave diathermy availability was less from 1990 – 2010 but availability of TENS was more in this period. Frequency and percentages of Electrotherapy modalities in Lahore were also studied. Microwave diathermy was present in only 6.422% setups that were very low but TENS was present in 88.07% setups that were high. (22)

In my result, there were 64.2% (n=70) setups having the average of 1-10 Patients, 19.3% (n=21) setups having the average of 11-20 Patients and 16.5% (n=18) setups having the average of 21 or above Patients while a study conducted by Yaqub, his data showed Daily patient load as 10 – 20 patients at 50% centers. It also suggested that commonly available electro modalities in Faisalabad were: Transcutaneous electrical stimulation, ultrasound, Infrared radiation and short wave diathermy. (14) And my results showed these modalities availability percentage as

88.07% (TENS), 59.63% (ultrasound), 65.14% (Infrared) and 37.61% (short wave diathermy) respectively.

There is no study conducted before which is showing physiotherapy facilities in Pakistan; except one study which is conducted in Faisalabad and showing some resemblance. That's why there are not many options available to compare my results.

## CONCLUSION

This study explored the physiotherapy facilities available in public and private health care centers of Lahore. Most frequently available equipment in most setups were ice packs, mobilization belt, and Thera bands and least available equipment were spirometer, CP chair, standing frame, parallel bars or wall bars and goniometer. Most frequently available Electrotherapy modalities in most setups were heating pad, TENS, EMS, and massager and least available electrotherapy modalities were shockwave, paraffin wax bath and Microwave diathermy. Mostly there were 1- 5 physical therapists in a health care center, daily average of patients were in between 1-10 and type of health care center from where data is collected was hospital/polyclinics.

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