



MGM INSTITUTE OF HEALTH SCIENCES
(Deemed University u/s 3 of UGC Act, 1956)
Grade 'A' Accredited by NAAC
MGM SCHOOL OF PHYSIOTHERAPY
Sector-1, Kamothe, Navi Mumbai - 410209

BPT/Internship Project Report Summary

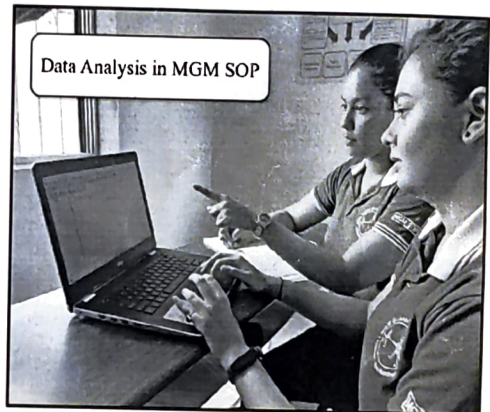
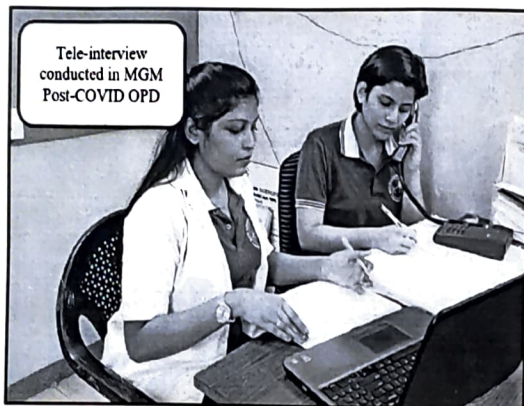
Project title	EXPLORATION OF MUSCULOSKELETAL IMPAIRMENTS IN INDIVIDUALS POST COVID-19 INFECTION IN THE LONG COVID PERIOD OF 9-12 MONTHS: A SURVEY STUDY.
Name and signature of Guide	Dr. Mamta Shetty (PT) Dr. Rucha Pradhan (PT)
Name and signature of Co-Guide	Dr. Rajani Mullerpatan
Name and signature of candidate/s	Anoli Gupta Arangasseri Shalom Cardoza Smerra Chandanshive Aarti
Duration of project	10 months
Approval date	16 th March 2022
Submission date	09 th April 2022

Project Summary

Purpose	To explore the musculoskeletal impairments in patients in the Long COVID phase post-COVID 19 infection.
Objectives	To explore long-term (9-12 months) effects on the musculoskeletal system of patients who have suffered from COVID 19 infection with an interview-based questionnaire through telecommunication. To quantify the severity of affection on Activities of Daily living and Quality of Life based on the following domains: Fatigue, Pain, Strength and Endurance, Work-related Quality of Life and Psychological behavior.
Methods	It is a descriptive study conducted via telephonic interviews after obtaining informed consent from 957 participants along with their demographic data. A Self-designed questionnaire validated through the Delphi method from the respective members of the research committee and experts of the field was used to interview participants in their preferred language (Hindi, Marathi, English). The participants were selected based on inclusion/exclusion criteria. Statistical analysis was done with SPSS version 24 (IBM SPSS 28 Statistics Windows, Armonk, NY: IBM Corp) and Microsoft Excel 2013.


Results	A total of 68.7% participants reported of one or more symptoms of musculoskeletal origin, the most common being myalgia (63.3%), followed by fatigue (55%), arthralgia (48%). Dull aching type of pain was commonly complained by more than half of patients in both knees or either knee (24.6%), followed by the Calves, heels, and feet (23.8%). The psychological domain revealed difficulties in enjoying activities due to pain (78.2%) followed by inadequate rest and sleep (78%), feeling sad, blue or low spirited (69.7%) and anxiety or discomfort (67.4%).
Conclusion	The study described the prevalence of musculoskeletal symptoms 9 to 12 months post discharge. Myalgia and fatigue were most prevalent followed by arthralgia and decreased strength and endurance. The affection to the psychological domain was mild with most individuals adopting healthy coping mechanisms. The study provides a follow-up profile of patients aiding to more efficient care for COVID-19 survivors and provision of comprehensive post-COVID rehabilitation.

Photographs:




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IQAC CO-ORDINATOR


Guide: Dr. Mamta Shetty(PT)


Internship Coordinator


Professor- Director






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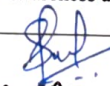

BPT Internship Project Report Summary

Project title	Knowledge of awareness about home programme among caregivers for prevention of chest complications in adults with neurological conditions.
Name and signature of Guide	Dr. Hiranmayee Bagwe (PT)
Name and signature of Co-Guide	Dr. Shrutika Parab (PT)
Name and signature of candidate/s	Simran Kandhari Asifa Khan Kanak Khot Shefali Kotwal Rachelle Lobo
Duration of project	10 Months
Approval date	15 th March 2021
Submission date	5 th July 2021
Project Summary	
Purpose	To understand the level of awareness about home programme among caregivers for prevention of chest complications in adults with neurological conditions.
Objectives	To understand the level of awareness and knowledge among caregivers regarding methods to prevent respiratory complications in adults with neurological conditions.
Methods	A semi-structured questionnaire was created and validated by the expert committee. Survey consisted of 28 questions which included multiple choice questions and 5-point Likert scale. After institutional ethical approval, the questionnaire was translated into Hindi and Marathi and was circulated through google forms. Over a span of 2 months, 257 responses were collected and analyzed.
Results	257 people responded to the survey of which 55% were aware of chest complications. In addition to this, 52% were aware that chest complications result in decreased functional activities. About 82% recognized the significance of exercise for improving their patient's quality of life. 70% of caregivers believe that adopting various body positions can help to reduce breathlessness. 69% people have seen an incentive spirometer but are uncertain of its use. 50% believe that positioning can aid with cough production. 77% agree that breathing exercises are a part of physiotherapy. 40% of the population are 50% confident in administering home exercise programmes and prefer video material.
Conclusion	While caregivers are aware of chest complications, 50% are unaware of home-based physiotherapy preventive measures. Further research is needed to bridge the gap between awareness and prevention.


Guide


Co-Guide


Internship-Cordinator


IQAC CO-ORDINATOR

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BPT/Internship Project Report Summary

Project title	Knowledge of awareness about home programme among caregivers for prevention of chest complications in children and adolescence with neurological conditions.
Name and signature of Guide	Dr Shrutika Parab(PT)
Name and signature of Co-Guide	Dr Hiranmayee Bagwe(PT)
Name and signature of candidates	Ms Sushmita Shirsat and Ms Siddhi More
Duration of project	1 Year
Approval date	15 th March,2021
Submission date	22 nd April,2022
Project Summary	
Purpose	To understand the knowledge of awareness about home programme among caregivers for prevention of chest complications.
Objectives	To understand the level of awareness regarding home programmes for prevention of respiratory complications in children and adolescence with neurological conditions
Methods	A semi structured questionnaire was designed, and face validated by experts from different fields. Study commends Institutional Ethical Committee of Navi Mumbai approval was done. Questionnaire was then translated into two local languages i.e Marathi and Hindi respectively. The questionnaire was then converted into e-form and circulated to the participant based on the inclusive and exclusive criteria via email. Total were 511 responses collected from March 2021 to March 2022. Data was coded and analysis was performed using Microsoft Excel
Results	Out of the 511 caregivers who participated in the survey, about 75% caregivers were aware about secondary chest complications. 68% of the participants were aware that chest complications can result in reduced functional capacity. 66% of the participants accepted that caregivers delivered home program can help reduce respiratory complications. 53% caregivers agreed that exercising daily will help improving quality of life. 43% caregivers were aware about that adopting dyspnea relieving position. 61% of the participants had seen an incentive spirometer, but don't know how to use it. 43% caregivers believed that adopting various position helps in mobilizing secretions. 84% caregivers are aware that breathing exercise is a part of Physiotherapy. 41% of the participants are 50% confident about delivering home exercise program and believed that educational video and informative booklets

	regarding home programme for prevention of respiratory complication will empower them.
Conclusion	Present study provides information regarding the awareness about the home programme amongst the caregivers for prevention of chest complications in children and adolescence with neurological conditions. Although, most caregivers were aware about the benefits of home exercise program but they were not confident in delivering care at home which could result in respiratory complication

Photographs:

Awareness regarding chest complications

Q1) Are you aware that chest complications are common in patients with neurological conditions? *

Yes
 No
 Not sure

Q2) Does the patient face any of the following concerns? *

Cough
 Difficulty in breathing
 Abnormal sounds during breathing
 Heavy breathing
 None of the above

आप को पता है कि श्वसनिक जटिलताएं न्यूरोलॉजिकल रोगों में आम हैं? *

हाँ
 नहीं
 नहीं पता

क्या रोगी को निम्नलिखित में से कोई भी चिंता है? *

खाँस
 साँस लेने में कठिनाई
 साँस लेते समय अजीब आवाज़ें
 भारी साँस लेना
 इनमें से कोई नहीं

आपको पता है कि श्वसनिक जटिलताएं न्यूरोलॉजिकल रोगों में आम हैं? *

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BPT/Internship Project Report Summary

Project title	Effects Of 6 Weeks of Triphasic Training Protocol on Sports Fitness Parameters of Semi-Pro Basketball Players
Name and signature of Guide	Dr. Raturaj Shete (PT)
Name and signature of candidate/s	Disha Surwase
	Sibimol Shivprasad
	Aishwarya Shirude
	Hricha Mane
	Punite Tayade
	Swati Shitole
Duration of project	7 weeks
Approval date	7 th March
Submission date	22 nd April 2022
Project Summary	
Purpose	Basketball requires swift upper extremity movements, improved reaction time and explosive power which can be manifested as a result of concentric contraction. Triphasic training believes in training all aspects of a muscle contraction to maximize power output. Uniting the triphasic model with a periodized protocol is therefore essential to be tested on fitness parameters in basketball players.
Methods	1. To study sports fitness parameters in semi-pro basketball players. 2. To study the effect of triphasic training in sports fitness parameters of semi-pro basketball players.
Results	In this study 20 semi-pro basketball players participated and their fitness parameters were assessed before and after the intervention. There was significant improvement

	seen in tests of Strength, Muscular anaerobic endurance, Power and Speed. Agility and Reaction time test showed no significant changes pre and post intervention.
Conclusion	The findings of this study tell us that triphasic training is effective in improving strength, muscular anaerobic endurance, power and speed in semi-pro basketball players. However, it doesn't show a significant contribution towards improving agility and reaction time.



A



B

- A. Our team at the U-18 state selections to identify the participants.
- B. Participant testing

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BPT/Internship Project Report Summary

Project title	Impact of Physical Activity on Obese Pregnant Women to prevent Gestational Diabetes Mellitus - A Narrative Review
Name and signature of Guide	Dr. Hiloni Badani (PT)
Name and signature of candidate/s	Jalak Upadhyay Kasturi Vairagi Shweta Vayal Sumanvita Batni Rutuja Parte Kainat Khan
Duration of project	6 months
Approval date	21.04.2022
Submission date	22.04.2022
Project Summary	
Purpose	To determine the impact of physical activities in obese pregnant women to prevent Gestational Diabetes mellitus.
Objectives	The purpose of this study is to review the impact of physical activity in obese pregnant women, in order to prevent Gestational Diabetes Mellitus
Methods	Primary source articles published in peer-reviewed journals were included. Narrative review was carried out using PubMed, Cochrane, ScienceDirect, Medline, PMC Journals, BMJ, Elsevier, Sage Journals, and SpringerLink from 2015-2021. Keywords used were 'Gestational Diabetes Mellitus, Obese Pregnant Women, Physical Activity, Overweight, Exercise Intervention'. The methodological quality of studies was assessed and reviewed. The effects and impact of physical activities, and exercise intervention in obese pregnant women to prevent GDM were reviewed.
Results	Eighteen studies were included in the study. Studies included individuals affected with Obesity before pregnancy (BMI>30kg/m ²), inactive lifestyle, physical activities and exercise interventions like brisk walking, cycling, aerobic exercises, resistive exercises. Out of the eighteen studies, seven were

	<p>randomized controlled trials, four were meta-analysis and systematic reviews, two were cohort studies, three were literature searches, one was survey and one clinical trial. Four articles suggested that aerobic exercises and resistive exercises decrease the complications associated with gestational diabetes mellitus. Other articles suggested that the combination of both physical activities (aerobic and resistive exercises, brisk walking, cycling, water aerobics), and dietary changes help to control and prevent gestational diabetes mellitus in pregnant women, and the risks associated with it in pregnant women and fetus.</p>
<p>Conclusion</p>	<p>Gestational diabetes mellitus is a common complication of pregnancy that is caused due to carbohydrate intolerance resulting in hyperglycemia. It influences roughly six percent of pregnant ladies and its commonness is expanding on account of weight and inactive way of life. Actual work might be a modifiable way of life that assists with hindering significant intricacies during and after pregnancy. Practices carried out during pregnancy can help in lessening unreasonable weight gain and gestational DM. It's found that moderate-intensity exercise, cardiopulmonary exercise training, resistance training and a proper diet will help in reducing gestational DM in pregnant women. This narrative review can emerge as a useful study to know various interventions wont to prevent gestational diabetes and help physiotherapists to satisfy the wants of those patients in an exceedingly better and more efficient way.</p>



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BPT/Internship Project Report Summary

Project title	Effect of peer mentorship in comparison to traditional mentorship in physiotherapy students
Name and signature of Guide	Dr. Shrutika Parab (PT)
Name and signature of candidate/s	Saba Kalokhe Kavya Agrawal Ankita Kelkar Keshav Singh Roshni Kukreja
Duration of project	1 Year
Approval date	16 th March 2022
Submission date	22 nd April 2022
Project Summary	
Purpose	To understand the effect of peer mentorship compared to traditional mentorship in physiotherapy students
Objectives	To compare the effect of traditional mentorship and peer mentorship on test anxiety levels in students. To compare the effect of traditional mentorship and peer mentorship on the self-esteem of students. To compare the effects of traditional mentorship and peer mentorship on the self-perception of students on test-taking skills.
Methods	Study commenced after approval of the research Proposal by the Institutional Ethics Review Committee, MGM Institute of Health Sciences, Kamothe, Navi Mumbai. A total of one hundred and twenty participants were selected on the basis of inclusion and exclusion criteria. Written informed consent was obtained from all participants. The demographic data of the participants were documented. Participants were divided into two groups by lottery method (via simplified random sampling-sorting method). Traditional mentorship (Control group) and Peer mentorship (Experimental group). Participants in both groups were pretested using three evaluation scales 'Westside Test Anxiety Scale' 'Rosenberg Self-esteem Scale' and 'Self Perception of test-taking skills. Group of Traditional mentorship students underwent the mentorship program that was set by the college i.e. one teacher guiding a group of students while the group of peer mentorship students were assigned individual mentors who were either physiotherapy interns or postgraduate students. One session was conducted every week for both groups for a total duration of twelve weeks. Upon completion of the duration post-study evaluation of all the students was done using the same evaluation measures.

Results	Finding of the study reported that by the end of twelve weeks the level of anxiety in students under peer mentorship reduced in comparison to traditional mentorship. Self-esteem levels improved more in students under peer mentorship compared to traditional mentorship, whereas self-perception of test-taking skills improved more in traditional mentorship students compared to peer mentorship students ($p < 0.05$).
Conclusion	Peer mentorship has the potential to reduce the anxiety levels in students as well as improve their self-esteem levels. Traditional mentorship helped improve the perception of test-taking skills in students. Therefore, peer mentorship must be complemented with traditional mentorship for better outcomes in higher educational institutes.



Peer Mentorship



Traditional Mentorship

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Internship Project Report Summary

Project title	Perception of BPT graduates regarding offline and online mode of training – A survey
Name and signature of Guide	Dr. Mamta Shetty (PT)
Name and signature of candidate/s	Khilti Furia Urvi Jain Shifa Joad Kalpita Kadam Tanvi Kadve
Duration of project	6 months
Approval date	16 th March 2022
Submission date	22 nd April 2022
Project Summary	
Purpose	COVID-19 has significantly affected medical education imparted to students as well as their clinical training. It is critical in these times of the COVID-19 pandemic to assess the learning and teaching style of students as to which mode gives them more freedom to connect with their teachers, fellow students and engage with their study material at their comfort and flexibility of space and time. The perception of students will assist in better student's outcome as this will aid in knowing which group of students need more attention through the mode of training for their better development in curriculums.
Objectives	The objectives of this study are as follows: 1: To probe into the learner's perception of offline mode of training using Student Engagement Questionnaire. 2: To probe into the learner's perception of online mode of training using Student Engagement Questionnaire.
Methods	An online survey was administered to 500 BPT graduates across Mumbai and Navi Mumbai. An orientation session regarding the research was conducted by the co-investigator for the sampling population over Zoom meeting informing them about the details of study. A google form link containing the Student Engagement questionnaire was formed and shared with the sampling population (graduate students of BPT) via electronic platform of their individual preferences. Statistical analysis was performed on the data collected which was further evaluated for conclusion.

<p>Results</p>	<p>The study was focused on reporting the perception of BPT graduates regarding offline and online mode of training. Out of the total participants 98.2% perceived critical thinking, creative thinking, adaptability, problem solving, assessment and coherence of curriculum domain to be an important aspect of training in offline mode when compared to online mode. Combined perception of participants for the domains self-managed learning, computer literacy, feedback to assist learning and cooperative learning was considered 4.5 % to be salient in offline mode of training when compared to online mode. Assessment of the domains interpersonal skills, relationship with other students and between teachers and students revealed that 96.5% participants perceived these domains to be major aspect of offline mode of training. 97.7% perceived communication skills, active learning and teaching for understanding to an important aspect of domain for offline mode of training when compared to online mode.</p>
<p>Conclusion</p>	<p>Summarizing the entire report analysed on the basis of the supportive findings, students reported offline mode learning to be a more insightful mode of training. Many students perceived that the offline mode of lectures provides more information on subjects and more scope for interaction with peers and teachers. Online learning is a feasible solution for continuing medical education even after the pandemic but needs to be combined with offline skill training on campus that helps in better understanding of subjects.</p>

Photographs:

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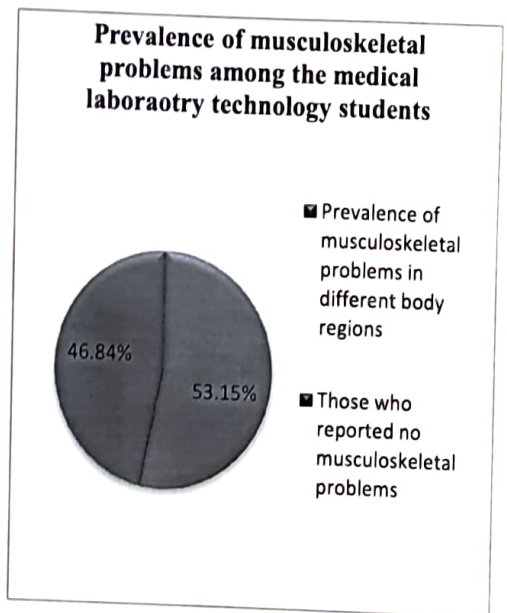
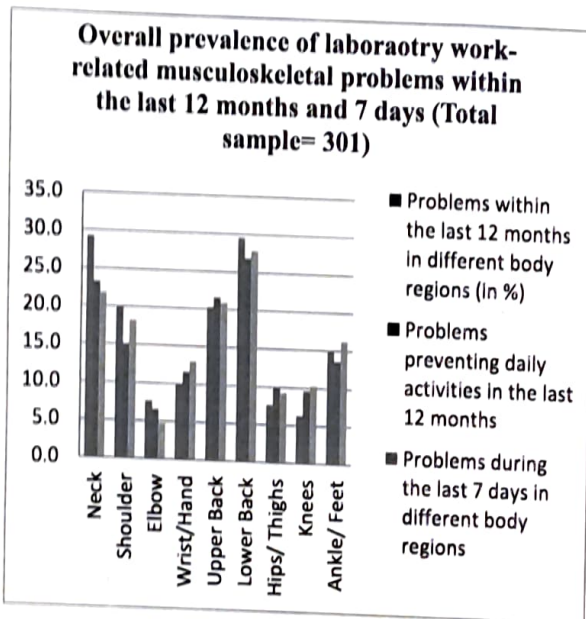
Project title	Prevalence of work-related musculoskeletal problems among students undergoing medical laboratory training: A survey study
Name and signature of Guide	Dr. Omeshree Nagrale (PT)
Name and signature of candidate/s	Zaheen Shaikh Shaili Gogri Shankari Halan Dhwani Sheth Nirmiti Shinde
Duration of project	7 months
Approval date	16 th March 2022
Submission date	18 th April 2022

Project Summary

Purpose	Undergraduate students undergoing medical laboratory training adapt to prolonged static postures for extended periods accompanied with repetitive laboratory activities which lead to higher risk of developing musculoskeletal problems early in their career. There is limited evidence of musculoskeletal problems in relation to the work of students in India. Therefore, this study focuses on the prevalence of musculoskeletal problems and the body sites commonly affected in medical laboratory technology (MLT) students.
Objectives	The following objectives are: 1. To estimate the prevalence of musculoskeletal discomfort among the medical laboratory students. 2. To determine the body regions commonly affected among medical laboratory students.
Methods	A Standardised Nordic Musculoskeletal Questionnaire was circulated to 384 medical laboratory technology students using convenient sampling method out of which 320 responses were received. After excluding participants not fulfilling the selection criteria, 301 responses were analyzed. Survey was conducted via online electronic platforms such as WhatsApp and Emails. Form included demographic details and questions to evaluate prevalence, site and impact of work-related musculoskeletal problems in the students. Questionnaire was administered between March and April 2022. Statistical analysis from the data collected via survey questionnaire was evaluated for conclusion.

Results	The responses of 301 participants were analyzed and overall 53.15% prevalence of laboratory related musculoskeletal problems in the last 12 months was reported. The lower back (29.57%), neck (29.27%) and upper back (20.27%) were the most prevalent regions of the body reported to be having musculoskeletal problems. Also, many students reported discomfort in last 7 days. Students went on to report that these problems had a considerable impact on daily activities in the past 12 months.
Conclusion	Students though were in their laboratory training period, are already experiencing high levels of musculoskeletal problems even at the outset of their career. This is a matter of concern as not only the prevalence is high but also considerable numbers of students are facing difficulties in daily living activities. Hence inclusion of strategies to address ergonomic and postural training in the university curriculum is essential. Also identifying the problems for early intervention is needed which will prevent further discomfort and facilitate healthy and sustainable workforce.

Photographs:



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Guide

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