

Perspective of Final Year Physiotherapy Students and Interns on Cardio - Respiratory Physiotherapy as a Career Choice in Maharashtra

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Abstract: Background: Various studies done by the researchers which shows that there are many influencing factors on final year physiotherapy students and Interns on choosing cardio respiratory physiotherapy as a career choice. Materials and Method: The Questionnaire was sent to Final year Physiotherapy students and Interns in Maharashtra using simple random sampling. The consent form was included in the questionnaire sent by Google forms by connecting to them through social media. 306 students took part in the survey. They agreed to the informed consent and were included based on inclusion and exclusion criteria. The questionnaire was sent through social platform. The data was collected from the Google forms it was documented and interpreted. Statistical analysis was done by tally method and graph presentation. Result: The questionnaire included various questions related to interest of students in cardio respiratory, impact of COVID - 19, factors influencing students to choose cardio respiratory physiotherapy as a career choice. The results showed that majority of students were not interested in perceiving cardio respiratory physiotherapy as a career, due to various reasons as highlighted in the study. Conclusion: Final year Students and interns of physiotherapy are getting affected by the influence of mentors, Practice setting, future of a good financial career and many more, for the choice of career. Cardio respiratory physiotherapy as a budding field for helping individuals in difficult times.

Keywords: Physiotherapy, Cardio respiratory physiotherapy, career

1. Introduction

“Physiotherapist assess plan and implement rehabilitative programs that improve or restore human motor functions, maximize movement ability, relieve pain syndrome, and treat or prevent physical challenges associated with injuries, disease and other health impairments.¹ Physiotherapist spend much more time with patients their families and the community to prevent injuries and to help people live healthy lifestyle with disability.²

There are many different branches in physiotherapy like musculoskeletal physiotherapy, cardio - thoracic physiotherapy, neurological physiotherapy, sports physiotherapy, pediatric physiotherapy, community physiotherapy, geriatric physiotherapy etc.³

A special branch of physiotherapy is cardio respiratory physiotherapy. Cardio respiratory physiotherapy is concerned with the assessment and management of physical and functional impairment, activity limitations and participation restrictions resulting from impairment of body functions, and structures of the cardiovascular and the pulmonary system as a result of a disease, injury, or other conditions. The role of physiotherapy interventions in the management of acute and chronic cardiac and respiratory diseases has been reported in a number of evidence based guidelines and statements.⁴ Cardio respiratory physiotherapy is an evident based practice that has evolved alongside changes in medical and surgical management.⁵ Cardio respiratory physiotherapy also contributes towards assessing and treating various aspects of respiratory disorder such as airflow obstruction, mucus retention, alteration in ventilatory pump function, dyspnea, impaired exercise

performance and quality of life.⁶ Physiotherapists are critical members of the inter - professional ICU team who have expertise in multi - system assessment and management of intubated and spontaneously breathing patients. Cardio respiratory physiotherapy is a critical component in management of chronic respiratory disease. This includes chronic obstruction pulmonary disease (COPD), bronchiectasis, cystic fibrosis, interstitial lung disease, asthma, pulmonary arterial hypertension and lung cancer. With the improved understanding of patho physiology of the disease, systemic manifestation beyond respiratory system, impact multi - morbidities and associated clinical burden including poor exercise tolerance limb muscle dysfunction and low physical activity level. Physiotherapy has shifted away from traditional focus on airway clearance techniques and breathing exercise, toward a strong emphasis on exercise.⁷ The present pandemic of Covid - 19 has brought the whole world to a standstill causing morbidity death and changes in personal roles. Covid - 19 commonly known as SARS - CO - V 2.⁸

SARS - CO - V - 2 highly contagious. the virus is transmitted from person to person through respiratory secretions. Large droplets from coughing, sneezing or rhinorrhea land on surfaces with in 2m of infected person. SARS - CO - V - 2 remains viable for at least 24 hours on hard surfaces and upto 8 hours on soft surfaces. The virus is transmitted or transferred to another person through hand contact (touch) on a contaminated surface by touching mouth nose or eyes.⁹ SARS - CO - V - 2 is an enveloped positive sense and single stranded 29.9 kb RNA beta - coronavirus. The first common symptom recognized are fever dry cough, tachypnea, shortness of breath. Other symptom included were sore throat, sneezing, nasal congestion, sputum production, anosmia and dyspepsia, rash

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on the skin or discoloration of fingers or toes and viral conjunctivitis. The most common radiological findings in patients with Covid - 19 were a ground glass opacity appearance in the lungs. SARS - CO - V - 2 can also affect cardio vascular system, gastrointestinal system and can cause acute kidney failure.¹⁰ In COVID 19 pandemic chest physiotherapy has proven to be effective for improving pulmonary function and preventing post COVID complications like pulmonary fibrosis and atelectasis. Cardio respiratory physiotherapy techniques consist of chest physiotherapy, airway clearance techniques postural drainage breathing exercise like inspiratory exercises with incentive spirometer and therapeutic body positioning have shown significant improvement in the patients especially with post COVID lung fibrosis.

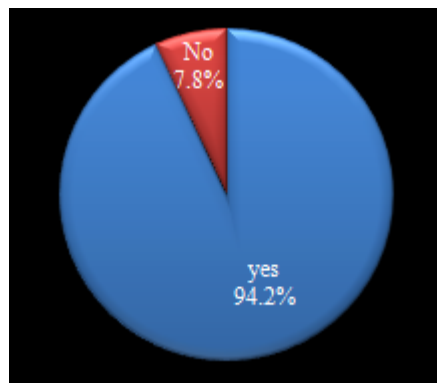
2. Materials and Method

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Statistical analysis was done by tally method and graph presentation.

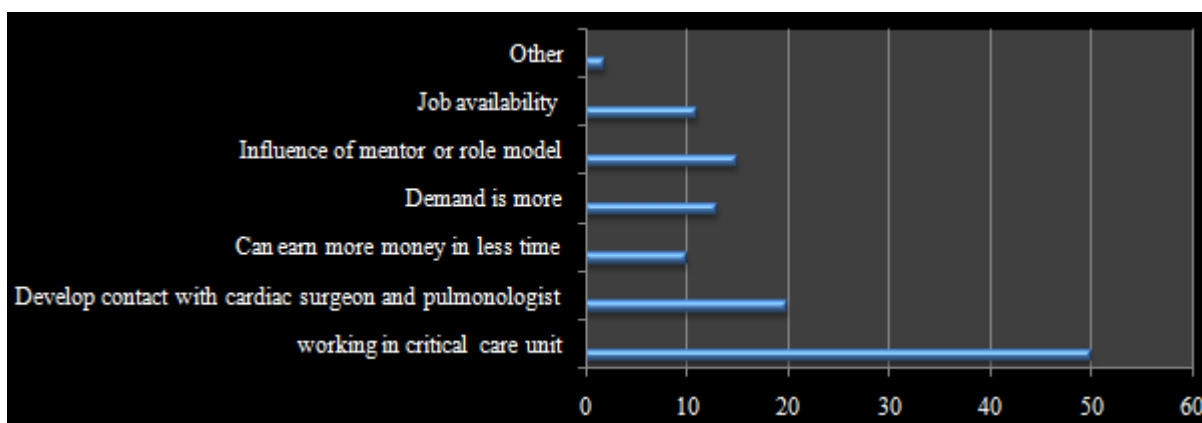
3. Data Analysis and Result

Questionnaire Analysis



Graph 1: Students interest in perceiving masters

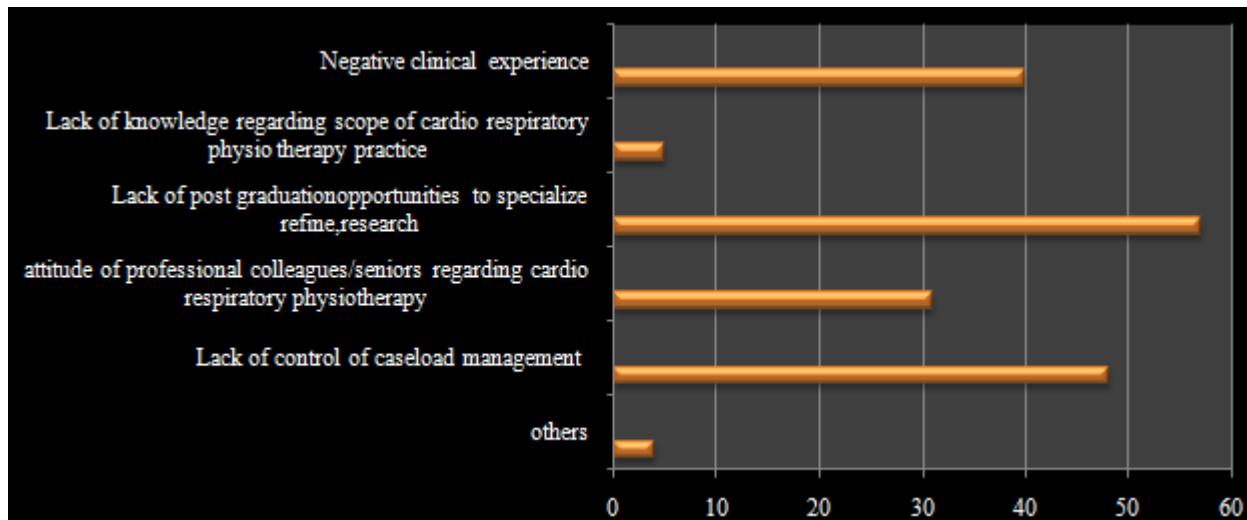
Graph no 1 Data suggests that the 121 students are interested in possessing career in master of physiotherapy in cardio respiratory physiotherapy where as 185 students are not interested.



Graph 2: Factors made you choose cardio respiratory as a career choice

The majority of 50 students were interested due to their ability to work in the critical care unit. 20 reflect its an opportunity to develop contact with a cardiac surgeon and pulmonologist. 15 were under the influence of their role model or mentor. 13 student reflect increasing demand. This

data is represented by the graph obtained from the response of 121 students.



Graph 3: Factors affecting not to choose cardio respiratory as a career choice

The majority of 57 students were not interested in cardio respiratory physiotherapy as a career. Due to the lack of post - graduation opportunities to specialize in refine research.48 students felt has a lack of control of caseload management.40 students said it is because of their negative clinical experience.32 were influenced by the attitude of professional colleagues/ seniors regarding the same. This data is represented by the graph depending on the responses of 185 students.

4. Discussion

The present study “PERSPECTIVE OF FINAL YEAR PHYSIOTHERAPY STUDENTS AND INTERNS ON CARDIO - RESPIRATORY PHYSIOTHERAPY AS A CAREER CHOICE IN MAHARSHTRA” was conducted in different Physiotherapy colleges in Maharashtra. In total 300 samples were taken for the study. Questionnaire was formed and verified by the Senior Professors and Physiotherapists. The same questionnaire was converted into a Google form and was sent to students of final year and interns of physiotherapy in Maharashtra. Participants were selected on the basis of simple random sampling method and inclusion and exclusion criteria. Total 306 responses were recorded.

Out of 306 responses the percentage of final year students was more than interns. Here 58% final year students responded to the questionnaire and 42% interns. Among these responses 93.10% are interested in perceiving masters in physiotherapy. Also 39.50% students are interested specifically in cardio respiratory physiotherapy for their masters and 60.50% in some other field.

Students who are interested in doing masters in cardio respiratory physiotherapy, from them 94.2% perceive on the basis of interest in the subject, where the remaining 7.8% are doing on some other basis. The results also show that 98% of interested students for doing masters would like to work in cardio respiratory setup and 2% students did not. The thinking about the ongoing pandemic of COVID - 19 reflected in the result as about 69.4% students thought of it as a positive impact for helping patients in need. Leading to choose cardio respiratory as a career choice and 30.6% did

not. There are some more influencing factors for doing masters in Cardio respiratory physiotherapy and accepting it as a choice of career. Some of them which are included in the study show that. The majority of 50 students were interested due to their ability to work in the critical care unit.20 students reflect it as an opportunity to develop contact with a cardiac surgeon and pulmonologist.15 students were under the influence of their role model or mentor.13 students an increasing demand.

Among the students who don't want to do masters in cardio respiratory physiotherapy 102 Students responded they were not interested in the field of cardio respiratory physiotherapy and 83 students responded that they are interested but were not willing to go for masters in same. Here also there was a role of difficulty seen according to the responses of students, 112 find the field challenging and difficult but 70 did not. Here too COVID - 19 left an impact, as 86 students thought it harmed choosing cardio respiratory physiotherapy as a career choice and 99 did not. Here the study also focused on factors for not choosing cardio respiratory as a career choice. Were the majority of 57 students were not interested in cardio respiratory physiotherapy as a career. Due to the lack of post - graduation opportunities to specialize in refine research.48 felt it has a lack of control of caseload management.40 felt it because of their negative clinical experience.32 were influenced by the attitude of professional colleagues/seniors regarding the same.5 had a lack of knowledge regarding the scope of cardio respiratory physiotherapy practice.4 had their other reasons.

This study shows that Majority of students were less interested in perceiving cardio respiratory physiotherapy as a career, due to various reasons as highlighted in the study. Also some earlier study show that major factors that influenced pursuing cardio respiratory physiotherapy as a career were interest in mentorship, access to physical resources and IPP. Another study also showed that positive role model or mentor make cardio respiratory physiotherapy subject more interesting by their positive experiences.

The study has suggested that developing advance practice in cardio respiratory physiotherapy may be one way to enhance the attractiveness of cardio respiratory physiotherapy for

graduates. Developing recognized continuing education programmes in cardio respiratory physiotherapy could also attract students to do masters in cardio respiratory physiotherapy, making them to pursue a more structured career path and have access to influential mentors and collaborate with peers for learning.

5. Conclusion

As based on the current scenario career choices are affected by various factors. This study observed the same among the students and interns of physiotherapy. Getting affected by the influence of mentors, Practice setting, Future of a good financial career and many more, for the choice of career. Cardio respiratory physiotherapy as a budding field for helping individuals in difficult times. Same as in the ongoing pandemic of COVID - 19 showed the positive and negative approach towards career choice, Based on the interests and other factors affecting it.

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