

ORIGINAL ARTICLE

Knowledge, Attitude, And Practices of Cardiopulmonary Rehabilitation Among Physiotherapists in Lahore

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Abstract

Background: Physical therapy is a rapidly growing discipline in the medical industry that deals with human movements, human functions and maximizing one's own body's physical potential. In the forms of promotion, prevention, intervention, or rehabilitation, it aids in enhancing quality of life. Numerous specialties of physical therapy exist, including cardiac, musculoskeletal, and neuromuscular physical therapy.

Objective: The objective of this study is to assess knowledge, attitude, and practices of cardiopulmonary rehabilitation among experienced physiotherapist and physiotherapy students in Lahore.

Methodology: After approval from the university ethical committee and IRB UOL, this cross-sectional study of 147 individuals was conducted. All population who presented cardiopulmonary disease were included in study. Demographic data of the all population was collected. KAP questionnaire was used. The survey was confidential. The three elements of the WHO's KAP framework served as the basis for the construction of the questionnaire. Two new parts were added: one discussed the difficulties physical therapists confront, and the other concentrated on PT's function in prevention initiatives. Before completing the questionnaires, participants asked for their written agreement and informed of the study's importance. The questions should contain all the questions related to data.

Results: For all the 147 participants were assessed for the knowledge assessment by using the KAP questionnaire. Participants have the score range of 49.66% for the knowledge. Overall scoring of the KAP questionnaire have the mean of 84.3741 and standard deviation 6.27368 for the 147 undergraduate and the post graduate therapists

Conclusion: This study concluded that knowledge is high about 49% (n= 73) participants with age 26-35 years old than a practice and attitude have percentage 12% (n=18) and 18% (n=27). Mostly were male participants. This study also confirmed that knowledge has impact on participants with cardiopulmonary rehabilitation among physiotherapist in Lahore and show the positive attitude towards the reduction of mortality and morbidity

Key words: Knowledge, Attitude, Practice, Cardiopulmonary Rehabilitation

Introduction

Physical therapy is a rapidly growing discipline in the medical industry that deals with human movements, human functions, and maximizing one's own body's physical potential¹.

In the forms of promotion, prevention, intervention, or rehabilitation, it aids in enhancing the quality of life. Numerous specialties of physical therapy exist, including cardiac, musculoskeletal, and neuromuscular physical therapy². In 1978, one of the first clinical specialties in physical therapy to receive recognition was cardiopulmonary physical therapy³.

The biggest cause of death worldwide is cardiovascular and pulmonary illness. This burden is lessened by patient participation in cardiopulmonary rehabilitation (CPR), an extensive outpatient risk reduction program. Even though CPR's positive effects are thoroughly documented, patient compliance and treatment completion rates are still low³.

According to the Knowledge, attitude, and practice (KAP) theory, increasing one's level of Knowledge can alter one's attitude, which can impact one's practice.

17 KAP surveys are often used in health-seeking behaviour research, and they are highly helpful for evaluating changes in Knowledge following education and measuring the distribution of community knowledge on a large scale⁴. It is imperative to look into how well people are managing their own health on a KAP level to improve the course of the disease. This study is the first one we are aware of that focuses on this issue. This study's goal was to determine the patients' level of KAP regarding OI disease management, identify the variables affecting the KAP level, and develop strategies to raise their health self-management⁵.

Exercise training is a crucial component of CR and is typically carried out by physiotherapists (PTs). Regarding individual physical activity constraints and participation restrictions, the intervention aims to improve exercise capacity and optimize daily physical functioning⁶. Measurement of oxygen consumption during cardiopulmonary exercise testing is the gold standard for determining baseline functional capability, training intensity, cardiovascular risk, and evaluating training results in patients undergoing cardiac rehabilitation (CET).

The 6-minute walk test (6MWT) is frequently advised, nevertheless, rather than having patients participate in an exercise stress test to measure the functional exercise capacity during cardiac rehabilitation in individuals. The 6-minute walk distance (6MWD), the major endpoint of the 6MWT, is used to

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recommend the intensity of exercise training and as a cardiac rehabilitation outcome measure⁷.

Worldwide, the number of COPD sufferers is rising. Chronic obstructive pulmonary disease global initiative (GOLD) estimates that 17 percent of people over 45 in Sweden have COPD⁸, equivalent to roughly 0.7 million people. However, the number of individuals with COPD may not be matched by the availability of pulmonary rehabilitation programmers. Less than 1% and 1.2 %, respectively, of the population with COPD had access to pulmonary rehabilitation in the UK and Canada, according to studies on this topic⁹.

With mortality rates of 5724 for men and 4125 for women in 2011 in the Netherlands, coronary heart disease (CHD) is one of the main reasons people die. Cardiac rehabilitation (CR) with a multidisciplinary approach lowers mortality rates by 32 percent. The major objectives of CR (cardiovascular risk management) are to improve physical and psychological recovery following a cardiac event and to lower the risk of future cardiac events¹⁰.

Exercise-based cardiac rehabilitation benefits those with stable angina pectoris, myocardial infarction (MI), and coronary revascularization¹¹. Patients with a heart transplant or valvular surgery are also advised to pursue cardiac rehabilitation in addition to people who have persistent heart failure.

Less than 40% of the world's countries have cardiac rehabilitation treatments, and 68% of the countries the World Bank classifies as high-income have programming accessible. In low- and middle-income nations, where the majority of CVD-related deaths occur, this percentage drops to just 22%¹². In the United States (US), there are 0.1 million cardiac rehabilitation programs for every million people, while in Latin America, there are 2.2 million programmers for every million people.

Treatment for patients with functional limitations brought on by cardiac or lung illnesses involves an interdisciplinary team using CPR¹³. Despite the advantages of CPR, compliance and engagement are not at their highest levels. Starting CPR has challenges and obstacles. The involvement rate in the United States varies from 29.5 cents to 55 cents, according to earlier surveys¹⁴. There are numerous factors contributing to this low participation rate in CPR. Health systems, providers, programmers, and patients are a few of these variables.

Material & methods:

After approval from the university ethical committee and IRB UOL, this cross-sectional study of 147 individuals was conducted. All participants who presented cardiopulmonary disease were included in the study. Demographic data of all participants were collected. The survey questionnaire was used to evaluate chronic obstructive pulmonary disease, obstructive. Our findings reveal the respondents' opinions on the types of

patients who should be qualified to begin a CR concerning the practice of CR. The majority of respondents claimed that people with NCDs (post cardiac) should be "qualified candidates" for CR (e.g., event, heart surgery, COPD patients, or with pulmonary disorders). A physiotherapist, about 41% (n=61) of therapists, did not treat the cardiac patient at their offices, workplace, or hospitals, and 40% (n=59) of physiotherapists did not treat the patient suffering from the disease in their homes.

Sleep apnea and chest pain are common in adults. KAP questionnaire was used. The survey was confidential. The three elements of the WHO's KAP framework were the basis for constructing the questionnaire. Two new parts were added: one discussed physical therapists' difficulty, and the other concentrated on PT's function in prevention initiatives. Before completing the questionnaires, participants were asked for their written agreement and informed of the study's importance.

Results

There were 147 participants in the study in the age range of 25-60, including both physiotherapists and undergraduate physiotherapy students. 53.06% of participants were in the age range of 26-35 years old and 26.53% of participants had the age range of 36-45 years old, and only 20.41% of participants were in the age range of 46-55 years old. Among the 147 participants, 38.1% were female therapists, and only 61.9% participants were male therapists who were then assessed for the KAP survey

TABLE 1: Descriptive Statics of the prevalence of Knowledge

Ranges	Frequency	Percent
24-34	46	31.3%
35-44	73	49.7%
45-54	28	19.0%
Total	147	100.0

All 147 participants were assessed for the knowledge assessment by using the KAP questionnaire. Participants have a score range of 49.66% (n=73) Knowledge showing that they had a high level of Knowledge of cardiopulmonary rehabilitation, 31% (n=46) showed a medium level of Knowledge of the cardiopulmonary rehabilitation, and only 19% (n=28) showed the poor level knowledge about CR

TABLE 2: Descriptive statics of the prevalence of Practice

Ranges	Frequency	Percent
19-23	59	40.1
24-28	61	41.5
29-33	27	18.4
Total	147	100.0

TABLE3: Descriptive Statics of Prevalence of Attitude

Ranges	Frequency	Percent
20-27	73	49.7
28-33	18	12.2
34--40	56	38.1
Total	147	100.0

This study also provides information about the attitude toward cardiopulmonary rehabilitation. About 12% (n=18) of

Discussion

This comparative cross-sectional study research aims to observe Knowledge, attitude, and practice among undergraduate and postgraduate physiotherapists. The sample size of 147 consists of male and female therapists¹⁵. Data were collected by using the KAP questionnaire. It was observed in the study that participants of age 26-35 years have more rate of KAP questionnaire. It is the first study on the prevalence of Knowledge, attitude, and practice among physiotherapists in Lahore¹⁶.

Among the 147 participants, 38.1% were female therapists, and only 61.9% were male therapists assessed for the KAP survey.

Cardiopulmonary rehabilitation and the contributing factors, i.e., knowledge attitude and practice influence in it, was the analysis of the study¹⁷. According to Table 4 Overall scoring of the KAP questionnaire have a mean of 84.3741 and a standard deviation of 6.27368 for the 147 undergraduate and postgraduate therapists aged 26-35 years old. Of the 147 participants, 56% were found in this age category, either a physiotherapist or graduated students¹⁸.

In a previous study (N=322), the response rate was 46.1%. According to the findings, 24.5% of respondents know much about CR. One in two respondents name a lack of skills as the key hurdle to starting a CR program, and more than 60% of respondents mention potential barriers¹⁹. Results emphasize PT's role as a mediator in promoting healthy living among patients and the nation's efforts to prevent pulmonary and cardiovascular diseases²⁰.

A cross-sectional study conducted in seven teaching hospitals in the province of Zhejiang revealed, according to previous research, that the medical staff has a strong command of cardiac rehabilitation knowledge²¹. We also found that the lower the educational attainment, the lower the job title, and the shorter the years of specialized work experience, the more negative the attitude toward rehabilitation²². Every medical staff member who replied to the survey had a thorough understanding of cardiac rehabilitation, according to this study's findings, which may be related to the rise in cardiac rehabilitation training activities conducted in China in recent years²³. The benefits of cardiac rehabilitation have been repeatedly emphasized in material about cardiovascular rehabilitation that has been

participants showed that cardiopulmonary rehabilitation has positive effects on patients, while 49% (n=73) showed that CR rehabilitation changed the person's lifestyle and behavior, and 38% (n=56) showed that cardiopulmonary changed the person's attitude post-surgery or patient suffering from the heart and cardiovascular diseases

TABLE 4: Descriptive statics of prevalence of KAP total

Mean	84.3741
SD	6.27368

The overall scoring of the KAP questionnaire has a mean of 84.3741 and a standard deviation of 6.27368 for the 147 undergraduate and postgraduate therapists.

presented at numerous conferences for cardiovascular communication²⁴.

This study also provides information about the attitude toward cardiopulmonary rehabilitation. About 12% (n=18) of participants showed that cardiopulmonary rehabilitation positively affects patients. In comparison, 49% (n=73) showed that CR rehabilitation changed a person's lifestyle and behavior, and 38% (n=56) showed that cardiopulmonary changed the person's attitude post-surgery or patient suffering from heart and cardiovascular diseases²⁵.

In previous study-to post-PE improvements in CAD knowledge and perceived CR requirement was sustained at 12 weeks across 90 patients (60 10 years old; 88 percent men)²⁶. Attendance was projected to increase when pre-CR intentions to exercise were stronger²⁷. Gains knowledge did not predict changes in CR attitudes or exercise participation. More formative research is required to assess whether patient education can encourage CR attendance, although PE may help enhance Knowledge and attitudes regarding CAD self-management²⁸.

Author Contributions

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Analysis and interpretation of the data: [Hafiz Muhammad Faisal Javed](#)

Drafting of the article: [Hasnain Ahmad](#)

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Statistical expertise: [Hasnain Ahmad](#)

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Conflict of Interest: *None declared*

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