A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARDING PULMONARY REHABILITATION AMONG CHRONIC RESPIRATORY ILLNESS PATIENTS ADMITTED AT GIMSR HOSPITAL, VISAKHAPATNAM, ANDHRA PRADESH.

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Abstract: Back ground of the Study: Chronic lung disease have developed to become major health issues since the fourth major cause of annual deaths, while most of these disease are preventable, they account for a huge portion of the number of hospitalization and visits to emergency rooms in a hospital, some of the major chronic lung disease include chronic obstructive pulmonary disease, chronic asthma, chest wall disease , interstitial lung disease and obstructive airway disease. The present study was to assess their knowledge in regarding pulmonary rehabilitation. Statement of the Problem: A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge Regarding Pulmonary Rehabilitation Among Chronic Respiratory Illness Patients Admitted At GIMSR Hospital, Visakhapatnam, Andhra Pradesh.
Objectives: To assess the level of knowledge on pulmonary rehabilitation among clients with chronic respiratory illness
To determine the effectiveness structured teaching programme on pulmonary rehabilitation among client with chronic respiratory illness.
To find out the association between level of knowledge score with selected demographic variables. Methods: A Qusi experimental study was undertaken to assess the knowledge of pulmonary rehabilitation among chronic respiratory ill clients at GIMSR Hospital, Visakhapatnam, Andhra Pradesh. The population for the present study consisted of all chest and tb clients , icu various departments. Convenient sampling technique was used to select 30 chronic respiratory ill clients who were present at the time of data collection. The data was collected in the month of November from 30 samples. Results: The data analysis and interpretation of was done with the help of descriptive and inferential statistics. A majority were in the age group of 30-60 years; (100 percent) of chronic respiratory ill clients; 50% males and females 50% were participated in the study; In the area of knowledge 55% of chronic respiratory ill clients had adequate knowledge and 30% of chronic respiratory ill clients had moderate knowledge and 15% of chronic respiratory ill clients had inadequate knowledge. Since calculated P value is < 0.01 Interpretation and Conclusion: The study findings shows that chronic respiratory ill clients creating awareness and increases the knowledge, regarding pulmonary rehabilitation.

Keywords: Knowledge and , pulmonary rehabilitation, chronic respiratory ill clients.

INTRODUCTION

" When you can't breathe ,nothing else matters"
American lung association

Pulmonary rehabilitation is an integral part of the clinical management and health maintenance of those patients with chronic respiratory disease who remain symptomatic or continue to have decreased function despite standard medical treatment.

Pulmonary rehabilitation is a rehabilitation treatment structured for ill patients with chronic respiratory problems whose pulmonary functions decreased, even after other medical treatment. An example of somebody who could quality for pulmonary rehabilitation might have COPD. Pulmonary rehabilitation is a program of exercise, disease management and counselling coordinated to benefit the individual. Pulmonary rehabilitation has been shown to improve shortness of breath and exercise capacity. It has also been shown to improve the sense of control a patient has over their disease as well as their emotions.

Chronic lung disease have developed to become major health issues since the fourth major cause of annual deaths, while most of these disease are preventable, they account for a huge portion of the number of hospitalization and visits to emergency rooms in a hospital, some of the major chronic lung disease include chronic obstructive pulmonary disease, chronic asthma, chest wall disease , interstitial lung disease and obstructive airway disease.

Pulmonary rehabilitation (PR) is a validated and widely used method to improve exercise tolerance in patients with chronic respiratory diseases, including interstitial lung diseases (ILDs). In this patient population, improvements have been demonstrated in the distance covered during the 6-min walk test, peak oxygen uptake during exercise and associated dyspnoea and quality of life scores

Chronic lung disease have developed to become major health issues since the fourth major cause of annual deaths, while most of these disease are preventable, they account for a huge portion of the number of hospitalization and visits to emergency rooms in a

hospital, some of the major chronic lung disease include chronic obstructive pulmonary disease, chronic asthma, chest wall disease , interstitial lung disease and obstructive airway disease.

COPD is one of the leading causes of death in the world. Over 13 million population is suffering from this disease. According to the World Health Organization, 80 million people suffer from moderate to severe COPD and 3 million died due to it in 2005.Worldwide COPD ranked sixth as the cause of death in 1990. It is projected to be the third leading cause of death worldwide by 2020 due to an increase in smoking rates and demographic changes in many countries. COPD is the fourth leading cause of death in the United States and the economic burden of COPD in 2007 was $42.6 billion in health care costs and lost productivity. In the United Kingdom, COPD accounts for about 7% of all days of sickness related absence from work·

Chronic obstructive pulmonary disease (COPD) is a common disorder causing significant disability and impairment of quality of life. Patients with COPD have been shown to have significantly raised levels of anxiety and depression. Pulmonary rehabilitation (PR) is increasingly used to treat patients with severe COPD, bringing benefits in the form of improved exercise capacity and measures of quality of life. Some evidence indicates that PR can improve psychological morbidity in patients with COPD, but little is known about the
possible effects of baseline levels of anxiety and depression on an individuals response to a PR program

Pneumonia is a common lung infection characterised by collection of pus and other fluids in the lung air sacs (alveoli). Lung air sacs are structures that help in the exchange of oxygen and carbon dioxide. Collection of pus in them makes breathing difficult. Pneumonia can be caused by many kinds of micro organisms (germs) including bacteria, viruses, fungi or parasites. When an infected individual coughs or sneezes, these organisms get into the air and breathing in of this air leads to contraction of the illness. It is thus a contagious disease. It is of various types occurring in individuals of all ages, affecting millions of people worldwide. The condition varies from mild to severe depending on the type of organism involved, age and the underlying health of the individual. Pneumonia can be categorized as: community-acquired, hospital-acquired and pneumonia occuring in Immuno compromised individuals (individuals with weakened immune system).

Bronchitis is inflammation and irritation of the bronchial tubes, which are the airways in your lungs. If you have bronchitis, thick mucus may form in your airways, possibly making it difficult to breathe. Acute bronchitis is caused by a viral respiratory infection, and it may be contagious. However, it usually resolves on its own within days or weeks. Chronic bronchitis, on the other hand, is a lung disease, not an infection, and is not contagious.

Need for study:

Conventional pulmonary rehabilitation aims to improve the pulmonary functions & quality of life through endurance exercise & strength training as peripheral muscle weakness is commonly associated with COPD patients. Even though studies have shown that exercises at higher intensities produce greater effects, patients with COPD cannot tolerate high intensity exercises due to symptom limitations. Ability to exercise is restricted to very low intensity levels. Implementation of interval training has shown to allow lower limb exercise to be sustained at a high intensity which otherwise would not be tolerable. High intensity interval training not only effect of endurance training not only effect of endurance training but also will strength the lower limb muscles are greater demands are placed on lower extremities during high intensity interval training. This high intensity interval training will increase compliances even in the most severely impaired patients with greater dyspnoea sensatations, dynamic hyperinflation, arterial hypoxemia, and lower baseline exercise capacity as they can better tolerate an interval exercise protocol than a continuous exercise.

Although COPD affects people of all ages and over all, the incidence of COPD in women than in men and higher industrialized sectors and nations. From 1980 to 2000, the death rate from COPD for women from 20.1 deaths per 100,000 women to 56.7 deaths per 100,000 women , while for men ,the rate grew from 73.0 deaths per 100,000 men to 82.6 deaths per 100,000 men.

In 2010, almost 24 million adults over the age of 40 in india had COPD, data monitor expects this number to increase 34% to approximately 32 million by 2020. COPD is predominately a disease of men and only 40% of cases in india occur in women.

The world health organization estimates that COPD as a single cause of death shares 4th and 5th places with HIV/AIDS (after coronary heart disease , cerebrovascular disease and acute respiratory infection). The who estimates that in 2000, 2.74 million people died of COPD worldwide. According to the who, passive smoking carries serious risks, especially for children and those chronically exposed. the who estimates that passive smoking is associated with a 10 to 43 percent increase in risk of COPD in adults.

COPD is the fourth leading cause of death in the united states and is projected to be third leading cause of death for both males and females by the year 2020. It is estimated that there may be currently be 16 million people in the united states currently diagnosed with COPD.

COPD was previously more common in men but the disease now affects men and women equally. In the united states women are still 37% more likely to have COPD then men.

2016 there were 251 million cases of COPD in the world and it is estimated that COPD causes 3.15 million deaths per year, more than 90% COPD related deaths happen in low and middle income countries.

India, the burden of all non-communicable diseases has increased since 1990 [4]. As on 2016, three out of five leading causes of mortalities constitute non-communicable diseases whereas COPD is the second biggest cause of death in India today.

Men are 7 times more likely to be diagnosed with emphysema than women, though the prevalence in women is on a steady increased and this number is lowering with each year.

Environment is one of the leading causes of asthma and acute asthma attacks. Studies are underway to determine whether environmental modification could possible reduce or increase the number of asthma cases worldwide. The number of asthma cases globally continuously rises each year with approximately 300 million people worldwide experiencing some amount of symptoms from the illness and 250,000 annual deaths attributed to the disease. Workplace conditions, such as exposure to fumes, gases or dust, are responsible for 11% of asthma cases worldwide and approximately 500,000 hospitalizations each year. Mortality however

is most common in low to middle income countries, while symptoms were most prevalent (as much as 20%) in the United State, United Kingdom, England, New Zealand, Finland, India, Eastern Europe, Indonesia, Greece, Uzbekistan.

As of 2010, 300 million people worldwide were affected by asthma leading to approximately 250,000 deaths per year. 287,000 (0.5% of total global deaths) deaths, 151,000 men and 136,000 women (WHO, 2009) 16.7 million deaths in age 15–59 years, 15 million disability-adjusted life years per year , 19.4 million disability. According to WHO statically survey in 2009 it was estimated that 57.5 million estimated deaths per 100000 population in 2009, 277 disability adjusted life-year per 100,000 in New Delhi.

According to the National Family Health Survey-2 in 1995-97 India, it was estimated that 2468 death per 100,000 persons. The prevalence was higher in rural than in urban areas. The prevalence among males was slightly high (2561) than among females (2369) among those below15 years of age, asthma was seen in 950 per 100,000 persons. The prevalence rate was 2309 among those in the age group of 15–59 years, while it was 10,375 in those above 60 years of age. The prevalence of asthma in adult males (18 years and above) during 1995–97 was 3.94% in urban and 3.99% rural areas of Karnataka. In females of the same age group, the prevalence was 1.27% in urban as well as rural areas. As of 1998 it is estimated that asthma has a 7-10% prevalence worldwide there was a great disparity in the prevalence of asthma across the world with a trend toward more developed and westernized countries having higher rates of asthma with as high as a 20 to 60-fold difference[12].

In earlier studies in the 1960s on adults (above 18 years of age) the prevalence of asthma in Delhi was 1.8% and 1.76% in Patna among adults in the age group of 20–45 years no specific age-related pattern in the prevalence was seen in Mumbai. A strong correlation of asthma with the family history was also seen. Asthma statistics in India (WHO-1960*)* 57.5 million estimated deaths per 100000 populations. 277 disability adjusted life-year per 100,000 in New Delhi.

On the basis of reviews, observation in clinical experience and with the personal interest the researcher strongly feels that there is a need to structured teaching programme on pulmonary rehabilitation.

STATEMENT OF THE PROBLEM

A STUDY TO ASSESS THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAMME ON KNOWLEDGE REGARADING PULMONARY REHABILITATION AMONG CHRONIC RESPIRATORY ILLNESS CLIENTS ADMITTED AT GIMSR HOSPITAL,VISAKHAPATNAM, ANDHRAPRADESH.

Objectives:

- To assess the level of knowledge on pulmonary rehabilitation among clients with chronic respiratory illness
- To determine the effectiveness structured teaching programme on pulmonary rehabilitation among client with chronic respiratory illness.
- To find out the association between level of knowledge score with selected demographic variables.

Operational definitions:

Effectiveness:

It refers to the extent to which, this structure teaching programme on pulmonary rehabilitation, improve the knowledge of chronic respiratory illness patients.

Knowledge:

It refers to the information and understand on responses obtained from the patients to the pulmonary rehabilitation on chronic respiratory illness patients.

Structured teaching programme:

It refers to systematically organised and designed instructions and teaching aids on pulmonary rehabilitation

Pulmonary Rehabilitation:

In this study it indicates exercises like spirometry, physiotherapy, breathing exercises and health education on pulmonary rehabilitation.

Chronic Respiratory Ill patients:

In this study it includes asthma, chronic bronchitis, COPD, Pneumonia.

Assumptions:

- Patient will gain adequate knowledge on pulmonary rehabilitation measures.
- Pulmonary rehabilitation is to improvement in exercise capacity and health related quality of life.
- Patients will decreased anxiety and depression

Hypothesis:

There will be significant difference between the post test mean and pre test mean knowledge score regarding pulmonary rehabilitation.

REVIEW OF LITERATURE

The review of literature in defined as a broad, comprehensive in depth systemic and critical review of scholarly publications, unpublished scholarly print materials, audiovisual, video visual material and personal communications.

The purpose of a literature review is to establish a theoretical framework for topic or subject area, define key terms, definitions and terminology, identify studies , models, case studies supporting topic, define or establish area of study i.e, research topic.

Treatments for anxiety and depression in patients with chronic obstructive pulmonary disease

According to paul a, cafarella, tanja w. effing, w.carlin ,et. al

The literature is unclear on the prevalence rates of anxiety in patients with COPD, with reports ranging between 10% and 19% in patients with stable disease and between 9.3% and 58% in patients who have recently recovered from an acute COPD exacerbation.9 These rates are high compared with the general population16 and patients with other chronic medical conditions.9, 16, 17 With regard to anxiety-related disorders, these are often characterized by chronicity,18 relapses19 and periods of disability.20 In COPD,

anxiety has been linked to greater disability,21 an increased frequency of hospital admissions for acute exacerbations22 and dyspnoea.23 Anxiety symptoms in patients with COPD may include hyperventilation,24 and this has been associated with dynamic hyperinflation,25 which further increases dyspnoea and exercise intolerance.26

A high co-morbidity (>50%) exists between depression and anxiety.27 Furthermore, depression and anxiety are often co-morbid with other medical conditions, compounding disability and imposing even greater burden on the daily lives on both patients and health-care services.28

Therapeutic modalities that have not been proven effective in decreasing anxiety and depression in COPD, but which have theoretical potential among patients, include interpersonal psychotherapy, self-management programmes, more extensive disease management programmes, supportive therapy and self-help groups. Besides pulmonary rehabilitation that is only available for a small percentage of patients, management guidelines make scant reference to other options for the treatment of mental health problems.

Interventions to improve symptoms and quality of life of patients with fibrotic interstitial lung disease

According to abrina bajwah, joy r ross, janet l peacock, irene j higginson, athol u wells, et .al

Patients with fibrotic interstitial lung disease have symptom control and quality of life (QoL) needs. This review aims to evaluate the evidence for the use of interventions in improving dyspnoea, other symptoms and QoL., Pulmonary rehabilitation and pirfenidone had a positive effect on 6MWD (mean difference (95% CI) 27.4 (4.1 to 50.7)) and 24.0 (4.3 to 43.7), respectively), and pulmonary rehabilitation had a mixed effect on dyspnoea. Both pulmonary rehabilitation and showed a trend towards significance in improving QoL.

Among the 126 studies included, prevalence of pulmonary hypertension (PH) was 3–86%, 6–91% for obstructive sleep apnoea, 3–48% for lung cancer and 6–67% for chronic obstructive pulmonary disease (COPD). PH, COPD, lung cancer, GER and IHD are significant comorbiditie.

Effects of resistance training on exercise capacity in elderly patients with chronic obstructive pulmonary disease: a meta-analysis and systematic review.

According to Li N , Li P, Lu Y, Wang Z, Li J, Liu X, Wu W.et al

The literature review is effectiveness of resistance training on exercise capacity in patients with chronic obstructive pulmonary disease (COPD). Physiotherapy Evidence Database Scale. Data from these studies were pooled to calculate weighted mean difference (WMD) or standardized mean difference (SMD) with 95% confidence intervals (CI).

Eleven studies with a total of 405 participants met the inclusion criteria. Compared with the non-exercise control group, resistance training significantly improved 6-min walking distance (WMD, 54.52; 95% CI 25.47-83.56; $I^2 = 43\%$; $P = 0.14$), transfer numbers for the 6-min pegboard and ring test (WMD, 25.17; 95% CI 10.17-40.16; $I^2 = 0\%$; $P = 0.55$), and tolerance time for the unsupported upper-limb exercise test (SMD, 0.41; 95% CI 0.03-0.79; $I^2 = 0\%$; $P = 0.83$). There were no significant differences in constant work rate endurance test results or in peak oxygen uptake between the two groups.

Resistance training was an effective approach to improve functional exercise capacity, endurance exercise capacity, and peak exercise capacity in COPD patients.

Effect of Pulmonary Rehabilitation on Symptoms of Anxiety and Depression in COPD: A Systematic Review and Meta-Analysis.

According to Gordon CS, Waller JW, Cook RM Cavalera SL Lim WT, Osadnik CR et al

A systematic review and meta-analysis was conducted according to Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidelines on randomized controlled trials comparing PR (≥ 4 weeks' duration) with usual care. Four electronic databases were searched to February 2018 using terms related to COPD, PR, anxiety, and depression. Data were extracted by two assessors using standardized templates. Study quality was appraised via the PEDro scale, and evidence was rated according to the Grading of Recommendations Assessment, Development and Evaluation. Data were analyzed in RevMan 5.3, with pooled effect estimates reported as standardized mean differences (SMDs). The effect of the program duration (≤ 8 vs > 8 weeks) was explored via subgroup analysis.

Eleven studies comprising 734 participants (median PEDro score, 4/10) were included. Compared with usual care, PR conferred significant benefits of a moderate magnitude for anxiety symptoms (SMD, -0.53; 95% CI, -0.82 to -0.23) and large magnitude for depression symptoms (SMD, -0.70; 95% CI, -0.87 to -0.53). The certainty of evidence for each outcome was moderate. Effects were not moderated by program duration.

PR confers significant, clinically relevant benefits on anxiety and depression symptoms. Because further studies involving no treatment control groups are not indicated, these robust estimates of treatment effects are likely to endure.

Exercise Training in Patients with Chronic Respiratory Diseases: Are Cardiovascular Comorbidities and Outcomes Taken into Account?-A Systematic Review.

According to Machado A, Quadflieg K, Oliveira A Keytsman C, Marques A, Hansen D, Burtin C et al

This systematic review aimed to identify the eligibility criteria used to select patients with COPD, asthma or ILD and CVC to exercise programmes; assess the impact of exercise on cardiovascular outcomes; and identify how exercise programmes , Web of Science and Cochrane were searched. Three reviewers extracted the data and two reviewers independently assessed the quality of studies with the Quality Assessment Tool for Quantitative Studies. MetaXL 5.3 was used to calculate the individual and pooled effect sizes (ES). Most studies (58.9%) excluded patients with both stable and unstable CVC. In total, 26/42 studies reported cardiovascular outcomes. Resting heart rate was the most reported outcome measure (n = 13) and a small statistically significant effect (ES = -0.23) of exercise training on resting heart rate of patients with COPD was found. No specific adjustments to exercise prescription were described. Few studies have included patients with CVC. There was a lack of tailoring of exercise programmes and limited effects were found. Future studies should explore the effect of tailored exercise programmes on relevant outcome measures in respiratory patients with CVC.

Effectiveness of physiotherapy on quality of life in children with asthma: Study protocol for a systematic review and meta-analysis.

According to Zhang W Liu L, Yang W, Liu H.et al

The review is effectiveness of physiotherapy on quality of life (QoL) in children with asthma is not clear. We are aiming to perform this study to provide some evidence to doctors on asthma treatment. the relevant systematic reviews.Two authors will select the studies, extract the data, and assess the risk of bias independently. Data synthesis and statistical analysis will be performed in Review manager 5.3. Stata 14.0 will be used to assess the reporting bias. Quality of evidence will be evaluated based on the Grading of Recommendations Assessment, Development, and Evaluation (GRADE) system.

The results will provide information on the effectiveness of physiotherapy on QoL in children with asthma and further demonstrate which physiotherapy is more effective and which domain of QoL could be improved significantly.

Effects of pulmonary rehabilitation in patients with idiopathic pulmonary fibrosis

According to osamu nishiyama**,** yasuhiro kondoh**,** tomoki kimura keisuke kato**,** kensuke kataoka **et.al**

The pulmonary rehabilitation mainly consisted of a 10-week programme of exercise training. Pulmonary function, blood gas analysis, 6MWD, dyspnoea rating with the baseline dyspnoea index and health-related quality of life score on the St George's Respiratory Questionnaire were evaluated at baseline and after the programme.

Assessment of efficacy was carried out on 13 patients who completed the programme and 15 patients in the control group. There were no significant effects of the programme on measures of pulmonary function, values of arterial blood gas analysis or dyspnoea rating. Although there were some differences in the baseline 6MWD and total health-related quality of life score which were not statistically significant, marked improvements were observed in the 6MWD (mean difference 46.3 m (95% CI: 8.3–84.4), $P < 0.05$) and the total health-related quality of life score (−6.1 (95% CI: −11.7 to −0.5), $P < 0.05$).

Pulmonary rehabilitation improves both exercise capacity and health-related quality of life in patients with IPF.

RESEARCH METHODOLOGY

The research design refers to the way in which the researcher plans and structures the research process. This chapter deals with the methodology selected for the study. It includes research approach, setting of study, population, criteria for sample selection, sampling technique,

selection of sample, development and description of instrument, validity and reliability of the tool, pilot study data collection procedure and plan of data analysis. Research Methodology aims at helping the researcher to answer the research question efficiently, accurately and economically studying how research it done scientifically.

Research Approach:

The selection of research approach is the basic procedure for conducting research enquiry. Research approach tells the researcher about what data to collect and how to analyze it. In the view of nature of the problem selected and objectives to be accomplished, a evaluate approach was considered appropriate for the present study.

Research Design:

Research design provides the back bone structure of the study. It is the overall plan for addressing a research question, including specification for enhancing the integrity of the study.

A evaluate survey design was planned to assess the knowledge and regarding pulmonary rehabilitation among chronic respiratory ill clients In this study all the chronic respiratory ill clients from different departments were surveyed and responses were elicited. The schematic representation of the study design.

Varibles:

Independent Varibles:

Structure teaching programme

Dependent Varibles:

Knowledge on pulmonary rehabilitation

Sources of data collection:

Data will be collected from the chronic respiratory illness patients in GIMSR hospital.

Research Design:

- Quasi experimental design
- One group pre test, post test design

Data collection Method:

Formal permission will be obtained from due concerned authorities and participate after explaining the purpose of the study by the investigator; to taken consent participator, prior to data collection the pre test will be conducting by administering demographic.

Sampling technique: Simple convenient sampling technique used for the solution of sample.

Sample Size: The selected sample size was 50, in respiratory distress patients at GIMSR Hospital.

Setting of the study: The study will be conducted in GIMSR hospital at Visakhapatnam

Population: The population of the study includes who are admitted in chronic respiratory illness to GIMSR hospital.

Inclusion Criteria:

- Patients who are between the age group 30 – 60 years
- Both Male and Female
- Respiratory conditions including
    - Bronchial Asthma

- Chronic Bronchitis
- COPD
- Pneumonia
- Cystic fibroids
- Cough
- Intestinal lung disease

- Willing to participate in study
- Patients who knows reading and writing
- Those who are present at the time of study.

Exclusion Criteria:

- Patients who are above 60 years of age
- Not willing to participate in the study
- Unconscious patients
- Rib fractures patients
- Ischemic and cardiac disease of previous history

BLUE PRINT:-

The investigator developed a blue print based on the obtained information from the review of literature and after discussion with the guide and experts of the other main domains; knowledge 100% questions were constructed;

VALIDITY:-

Validity is a criteria on for evaluating the quality of a measure or an instrument content validity refers to the extent to which an instrument adequately encompasses the pertinent range of subject matter; the prepared instrument along with the statement of the problem objectives, criteria and tool was submitted to the 5 experts in the field of nursing and medicine; among them two were the chest physician and one were general physician; and two nursing specialist in medical surgical nursing and necessary changes where adapted as per advice;

Data collection Instrument:-

Instrument is the written device that a researcher used to collect data; in the study demographic data self administered structured questionnaire was used as tool for data collection.

Development of the tool :-

An exclusive search of literature was made for the purpose of developing appropriate tool for knowledge, regarding pulmonary rehabilitation among chronic respiratory ill clients. An structured questionnaire was developed with the help of related literature from various text books, journals and discussion with experts in the field of Medical surgical nursing; Child health nursing and guide to the knowledge of chronic respiratory ill clients regarding the pulmonary rehabilitation

Reliability:-

The reliability of research instrument is defined as the extent to which the instrument fields the same result on repeated measure; it is then concerned with consistency, accuraly, recession, stability, equivalency and homogeneity. In order to establish reliability, tool was administered to 10 chronic respiratory ill clients of Surya Sri Hospital; The reliability of the tool showed the follow results the “P” value obtained was <0.01 hence the tool was highly reliable for the study conducted

Description of the tool:-

The data collection tool consists of selections as follows

Section – I:- Demographic variables of chronic respiratory ill clients such as age, sex, education, marital status, religion, occupation, Monthly income, Type of house, source of information, living place.

Section – II:- Level of knowledge of chronic respiratory ill clients and demographic variable.

Section – III:- to determine the knowledge regarding pulmonary rehabilitation among chronic respiratory ill clients.

Scoring intervention:-

The knowledge has been arbitrarily divided into three categories, based on structured questionnaire; total items are 30 with a structural questionnaire of multiple choice questions; one mark for each correct response and total score is 30 marks

Inadequate knowledge	Less than 29%
Moderate knowledge	30-55%
Adequate knowledge	55%

Pilot study:-

A pilot study is a preliminary ran out of the actual study; the purpose of the pilot study was to find out the feasibility of the study, clarity of the tool and finalize the plan for analysis; the pilot study was conducted on 09/11/2019 to assess the knowledge regarding pulmonary rehabilitation among chronic respiratory ill clients; and also to see the practically, feasibility and appropriateness of the study and to plan for statistical analysis of the data; formal permission was obtained from the medical superintendent of Surya Sri Hospital; pilot study was conducted in the chest and TB wards Surya Sri Hospital; the tool was administered to 10 chronic respiratory ill clients; the subject took 20 minutes to complete the proforma ; Data analysis was done using descriptive and inferential statistics; the result revealed that the objectives of the study could be fulfilled; Based on tais information the investigator was permitted by the guide to proceed with the actual data collection for the main study

Process of data collection:-

Formal permission was obtained from the Medical Superintendent of the GIMSR Hospital to collect the data; Data collection was done at month of November 2019; Departments of Chest and TB wards and intensive care units of GIMSR Hospital; Visakhapatnam; The data was collected from 18th November to 26th November 2019: Based on the Inclusion criteria 30 samples

were selected for the study; the purpose of the study was explained to the chronic respiratory ill clients; the tool was administered to the chronic respiratory ill clients; the average time taken to answer the questionnaire ranged from 15 – 20 minutes;

Plan of data analysis:-

Data analysis is the systematic organization and synthesis of research data testing of research hypothesis using those data; it involves translation of information collected during the course of a research project into interpretable and manageable form; The data obtained are analyzed in terms of the objectives of the study using descriptive and inferential statistics base on the objectives as follows

Descriptive analysis:-

- Frequency and percentage to describe the demographic data of the chronic respiratory ill clients
- Frequency and percentage representing the level of knowledge of the chronic respiratory ill clients
- Frequency, mean percentage to analyze the knowledge in pulmonary rehabilitation among chronic respiratory ill clients

Summary:-

This chapter has deal with the methodology adopted in the present study; which includes descriptive survey design; the setting of the study was GIMSR Hospital; Visakhapatnam; Andhra Pradesh; The Population included were chronic respiratory ill clients with the sample site of 30 selected by convenient sampling technique, the development and validity of the tool, pilot study, reliability, data collection, methods and plan for data analysis;

Analysis and Interpretation

This chapter deals with analysis and interpretation of the data collected for the present study. Data was collected from the 30 Respiratory ill clients; Analysis and interpretation was done with the help of descriptive and inferential statistics to meet the objective of the study.

The objectives of the study were:-

- Assess the level of knowledge on pulmonary rehabilitation among clients with chronic respiratory illness.
- Determine the effectiveness structured teaching programme on pulmonary rehabilitation among client with chronic respiratory illness.
- Find out the association between pre test knowledge with selected demographic variables.

The data was entered in the master sheet for the analysis and interpretation; Descriptive and inferential statistical procedures such as frequencies percentages mean, standard deviation were used

. The data collection tool consists of three sections as follows:-

Section – I: Demographic variables of chronic respiratory ill clients.

Section – II: Level of knowledge of chronic respiratory ill clients.

Section – III: To analyze the level of knowledge with reference to demographic variables

SECTION – II

Level of knowledge of Chronic respiratory ill clients and demographic variable.

TABLE – I

TABLE REPRESENTING KNOWLEDGE LEVELS OF CHRONIC RESPIRAOTRY CLIENTS

Sl No	Level of Knowledge	Frequency (F)	Percentage (P)
01.	Adequate	2	55%
02.	Moderate	24	30.6%
03.	Inadequate	4	14.4%

From the above table 55% of chronic respiratory ill clients have adequate knowledge , 30.6% are having moderate knowledge and 14.4% are having inadequate knowledge on pulmonary rehabilitation.

Section – III

Distribution of knowledge level of subject according Age, Gender, Religion, Marital Status, Education, Occupation, Income, Type of house, Source of information, place of living.

	LEVEL OF KNOWLEDGE		
	Inadequate (%)	Moderate (%)	Adequate (%)
Age in years			
10-29 yrs	-	-	-
30-60 yrs	-	-	100%
61-79 yrs	-	-	-
Gender			
Male	-	50%	-
Female	-	50%	-

Marital Status			
Married	-	-	86.7%
Unmarried	13.3%	-	-
Education			
Primary	-	-	60%
Secondary	13%	-	-
Higher Education	26%	-	-
Illiteracy	-	-	-
Religion			
Hindu	-	-	90%
Christian	10%	-	-
Muslim	-	-	-
Others	-	-	-
Occupation			
Labour	6.7%	-	-
Private Job	-	46.7%	-
Government Job	-	-	-
Business	-	46.7%	-
Income			
<10000	-	33.3%	-
10001 – 20000	-	40%	-
20001 – 30000	26.7%	-	-
Type of house			
Hat house	10%	-	-
Pakka house	-	30%	-
Slab house	-	-	60%
Source of information			
Health team members	-	-	56.7%
Television	-	33%	-
Books	3.3%	-	-
Family members	6.7%	-	-
Place of living			
Rural area	-	-	60%
Slum area	-	-	-
Urban area	-	40%	-
Industrial area	-	-	-

The above table shows that 30-60 years age group are having 100% adequate knowledge; In gender 50% Male are having moderate knowledge, and female also having 50% moderate knowledge and in Marital status 86.7% married having Adequate knowledge and unmarried having 13.3% Inadequate knowledge chronic respiratory ill clients having knowledge in education, 60% primary having Adequate education, and secondary 13% Inadequate education, Higher education 26%; in religion 90% Hindu are having Adequate knowledge and only 10% Christian had Inadequate knowledge occupation in labour are having 6.7% Inadequate knowledge, private job 46.7% having moderate knowledge, Business 46.7% moderate knowledge; Income <10,000 are having moderate knowledge, 10001 – 20000 in 40% moderate knowledge 20001 – 30000 are having 26.7% Inadequate knowledge; In type of house; Hat house are having 10% Inadequate knowledge, Pakka house 30% moderate knowledge; slab house are having 60% Adequate knowledge; source of information in Health team members are having 56.7% adequate knowledge Television 33% moderate knowledge; books 3.3 % Inadequate knowledge; chronic respiratory ill clients are place of living in rural area 60% adequate knowledge and Urban area 40% moderate knowledge

DISCUSSION

This chapter deals with the discussion of findings in accordance with the objectives of the study; the research findings are discussed in relation to similar studies conducted by other researcher; The present study has been conducted to assess the level of knowledge on pulmonary rehabilitation among clients with chronic respiratory illness; the data was collected from 30 respondents analyzed by using descriptive and inferential statistics and presented in the form of tables and graphs;

The findings of the study has been organized and discussed under the following sections:-

Section – 1:- Demographic variables of chronic respiratory ill clients

Section – 2:- Level of knowledge of chronic respiratory ill clients

Section – 3:- Association between the level of knowledge and demographic variables;

Section – 1:- Demographic variables of chronic respiratory ill clients:-

It was found that majority (100%) of the chronic respiratory ill clients were in the age group of 30-60 yrs percentage distribution of chronic respiratory ill clients according to their gender revealed that majority (50%) were female and 50% were male;

It is evident from the study findings that majority 86.7% of the chronic respiratory ill clients had married and 13.3% unmarried are participated in the study.

Percentage distribution of chronic respiratory ill clients base on the year of education showed that majority 60% are primary education and 13.3% secondary education; 26.7% higher education;

Section – 2:- Level of knowledge of chronic respiratory ill clients:-

In this section 2 the level of knowledge of chronic respiratory ill clients are analyzed; It revealed that majority 55% of chronic respiratory ill clients had adequate knowledge and 30% of chronic respiratory ill clients had moderate knowledge and 15% of chronic respiratory ill clients had inadequate knowledge.

Section – 3:- Association between the level of knowledge and demographic variables:-

Percentage distribution of knowledge of chronic respiratory ill clients according to age in 30 -60yrs age group had majority of 100% adequate knowledge;

Percentage distribution of knowledge of chronic respiratory ill clients; source of information as 56.7% with adequate knowledge of health team members and television 33.3%, moderate knowledge, books 3.3 % Inadequate knowledge, 6.7% family members Inadequate knowledge

Percentage distribution of knowledge of chronic respiratory ill clients; according to the place of living; majority 60% of rural area of respiratory ill clients had adequate knowledge and 40% urban area of moderate knowledge;

Percentage distribution of knowledge of chronic respiratory ill clients, according the occupation, majority 46.7% of private job moderate knowledge and 46.7% of business had moderate knowledge, only 6.7% of labour had inadequate knowledge; in it revealed income majority 10001 – 20000 in 40% had moderate knowledge and <10000 of 33.3% had moderate knowledge, 20001 – 30000 of 26.7% had inadequate knowledge;

Percentage distribution of knowledge of chronic respiratory ill clients to type of house; majority 60% of slab house in respiratory clients had adequate knowledge; and 30% of pakka house had moderate knowledge, 10% of Hat house had Inadequate knowledge.

CONCLUSION

The objective of the study was to assess the level of knowledge on pulmonary rehabilitation among clients with chronic respiratory illness; the study was conducted in "GIMSR HOSPITAL", Visakhapatnam; The investigator obtained the permission from the medical superintendent of GIMSR HOSPITAL, VISAKHAPATNAM.

The structured self administer knowledge questionnaire method was carried out for the data collection in order to assess the knowledge of chronic respiratory ill clients regarding pulmonary rehabilitation; the data obtained were analyzed and interrupted in terms of the objective and assumption based on the descriptive statistics

Major finding of the study:-

Findings regarding demographic variable; the data was collected in the month of November from 30 samples; the data analysis and interpretation of data was done with the help of descriptive and inferential statistics; A majority were in the age group of 30-60 years; (100 percent) of chronic respiratory ill clients; 50% males and females 50% were participated in the study; In the area of knowledge 55% of chronic respiratory ill clients had adequate knowledge and 30% of chronic respiratory ill clients had moderate knowledge and 15% of chronic respiratory ill clients had inadequate knowledge. Since calculated P value is < 0.01

Limitations:-

- This study was limited on a selected sample of chronic respiratory clients; in chest & TB wards and ICU also
- This study was restricted to be performed only in selected hospital;
-

SUMMARY

The present study was conducted to "Assess the effectiveness of structured teaching programme on knowledge regarding pulmonary rehabilitation among chronic respiratory illness clients; Admitted at GIMSR HOSPITAL, VISAKHAPATNAM, ANDHRA PRADESH." The present study is descriptive study; the samples selected for the study were 30 and a self administered questionnaire was used to collect data and to evaluate the knowledge; the questionnaire consists of Section – A and Section – B the study was conducted from 15th to 28th November 2019; In selected hospital Visakhapatnam, using convenient sampling technique to drew the samples;

The objectives of study were

- To assess the level of knowledge on pulmonary rehabilitation among clients with chronic respiratory illness
- To determine the effectiveness structured teaching programme on pulmonary rehabilitation among client with chronic respiratory illness;
- To find out the association between pre test knowledge with selected demographic variables;

The conceptual frame work of the present study was based on general system model; the study adapted a descriptive survey approach; The study sample consists of 30 chronic respiratory ill clients of GIMSR Hospital, Visakhapatnam; convenient sampling technique was used to select the samples for the study;

The tool consist of base line data to collect demographic variable. A structure questionnaire to assess the knowledge regarding pulmonary rehabilitation was used; The prepared instrument along with the statement of the problem, objectives criteria and tool was submitted to the 4 experts in the field of nursing and medicine; Among them one were the nursing specialist in medical surgical nursing; Two were chest physician an one were general physician; necessary changes where adapted as per advice

The pilot study was conducted on 09.11.2019 to assess the knowledge regarding pulmonary rehabilitation among chronic respiratory ill clients; and also to see the practicably; feasibility and appropriateness of the study and plan for statistical analysis of the data; formal permission was obtained from the medical superintendent of Surya Sri Hospital; pilot study was conducted in the chest and TB wards; intensive care unit; Surya Sri Hospital; the tool was administered to 10 chronic respiratory ill clients. The subject took 20 minutes to complete the proforma; Data analysis was done using descriptive and inferential statistics; The result

revealed that the objectives of the study could be fulfilled; Based on this information the investigator was permitted by the guide to proceed with the actual data collection for the main study.

Major findings of the study:-

The data analysis and interpretation of was done with the help of descriptive and inferential statistics; the result of the revealed that majority were in the age group of 30-60 yrs (100%) of chronic respiratory ill clients; most of the females 50% and males 50% were participated in the study In the area of knowledge assessment on pulmonary rehabilitation showed that majority had 55% of adequate knowledge , 30% are having moderate and only 15% are having inadequate knowledge .

The study revealed that there is a significant between the knowledge level and demographic variables among chronic respiratory ill clients;

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