

## 150 - EDUCATION FOR SELF-MANAGEMENT OF COPD IN A PULMONARY REHABILITATION PROGRAM

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### INTRODUCTION

Education for self-management is a crucial component in the treatment of chronic diseases and patients' ability to cope with the disease.1 Patients should be considered active partners in their health care, responsible for managing their own situations, to continue live as satisfactory as possible, despite his health problems. Good communication, including mutual understanding and collaboration has proven highly effective in educating the patient and leads to a positive influence on emotional health, resolution of symptoms, functional status and control pain.

Because the trajectory of the disease among patients with Chronic Obstructive Pulmonary Disease (COPD), which often includes the gradual deterioration of functional status interrupted by sudden and potential risk of exacerbations, advances in care planning through education and self-management can be particularly important for these patients.2 As with all chronic diseases, has been shown to be effective treatments for patients with COPD education and self-management requires the formulation of a plan of care understood, careful and continuous communication with a manager case. Patients and families must learn to engage in self-management activities that promote health and prevent complications, ensuring patient involvement in management decisions diárias.3

As the disease progresses to different stages and complications, education based on the principles of self-management in the continuum of care, helps COPD patients and their families to adapt to change and maintain healthy behaviors.3 Adherence to treatment, inability to recognize the triggers individual risk factors and the negative impact of the disease, are associated with the inability to control the disease and potentially avoidable deaths.4

Education sessions that allow patients to recognize the crucial role they have in controlling their illness lead to improved rates of adherence and consequently the control of disease.4 Should be planned action strategies that include adoption of healthy behaviors, with proper diet, maintaining good sleep habits, and engage in performing home exercise regular.3 Prevention and treatment of exacerbations are the main goals of self-management COPD.5

Based on the above, this study aims to assess the impact of education for self-management of patients with COPD participating in a program of pulmonary rehabilitation (PR) by applying specific questionnaire assessment of knowledge about COPD.

### METHODOLOGY

This study sets up cross-sectional, case study type, characterized by a comprehensive description of each particular case seeking to find points of contact between different individuals pesquisados.7 duly approved by the Ethics in Research with human beings under protocol number 3016/11, the data collection took place through authorization and signing an informed consent by patients and / or caregivers. The study included COPD patients with a confirmed diagnosis of the disease by pulmonary function tests - spirometry, of both gender, with no age limit and participants Pulmonary Rehabilitation Program-PRP by Santa Cruz Hospital in Santa Cruz do Sul / RS. Were excluded from the study COPD patients with deficits in cognitive, mental confusion, seizures in exacerbation of dyspnoea or exacerbation of comorbidities.

Clinical and sociodemographic group PRP was collected from database existing and additional information was obtained in the clinical evaluation. From these data were evaluated to preconditions of the subjects a questionnaire specifically, to test the patient's knowledge of COPD, as well as delivery and reading Manual of COPD. The Handbook of COPD was developed by the Research Group on Rehabilitation CNPq titled Health Issues and their interfaces. The questionnaire (Q) addressed the content of the manual and COPD was applied in 03 steps: (Q1) the questionnaire and the manual delivery of COPD (Q2) the questionnaire and read the manual for the patient; (Q3) application the questionnaire. The search reached 06 weeks and steps were performed individually in a closed room and examining sitting beside the patient, the time interval of 02 weeks. Data were entered and analyzed using the statistical analysis program SPSS® version 18.0.

### RESULTS

The sociodemographic and clinical characteristics of the sample are described in table I.

**Table I.** Clinical characteristic in the COPD patients

Characteristic	COPD (n=16)
Sex	
Male, n(%)	8(50)
Females, n(%)	8(50)
White Ethnicity, n(%)	16(100)
Age (years) <sup>a</sup>	65.69 ± 7.93
BMI (kg/m <sup>2</sup> ) <sup>a</sup>	25.29 ± 6.76
Smoking Habit	
Cigarettes-year <sup>b</sup>	7300(2190-25550)
Smoking Status	
Never/ Former/ Current	1/14/1
Smoking Duration	
>30 years, n(%)	12(75)
Medications	
Corticosteroid, n(%)	11(69)
Antihypertensive, n(%)	7(44)
Oxygen therapy, n(%)	4(25)

Comorbidities	10(62)
SAH, n(%)	8
Gastritis, n(%)	1
Labyrinthitis, n(%)	1
COPD Status	
Mild, n(%)	1(6)
Moderate, n(%)	6(37)
Severe, n(%)	4(25)
Very Severe, n(%)	5(31)

<sup>a</sup>Data are presented as mean ± SD; <sup>b</sup>Median (minimum-maximum); BMI- Body Mass Index; SAH- Systemic Arterial Hypertension.

It is observed in relation to gender, both male and females are represented by an equivalent amount (50%), predominantly the white race and advanced adulthood. The smoking status demonstrates that smoking is an important risk factor for COPD, and likely because of comorbidities. The result of pulmonary function test classified the COPD staging predominantly with moderate to very severe. All the subjects are retired, have low education (elementary school) and low income (less than 02 minimum wages).

Figures 1, 2 and 3 are the results of the questionnaire in 03 steps (Q1, Q2 and Q3) addressing content on definition, symptoms and exacerbations of COPD respectively.

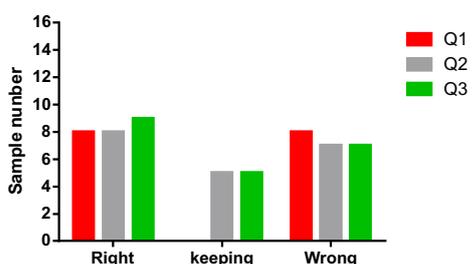


Fig. 1 What are the diseases that characterize COPD? Answer: Pulmonary Emphysema and Chronic Bronchitis.

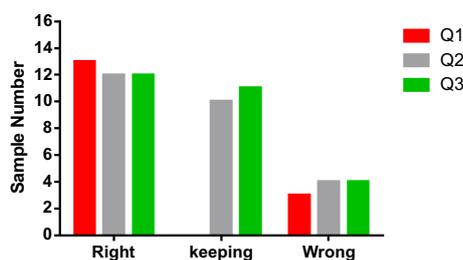


Fig. 2 What is the first symptom that you identify when the disease worsens? Response: Increase in the absence of air.

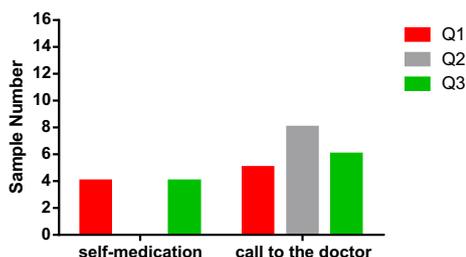


Fig. 3 What is the first step to taking identifier worsening of the disease? Answer: "self-medication" and "call in to the doctor."

There is confusion in concepts regarding the definition of COPD and its aggravation. Relevant to the action taken against the worsening of the disease, the measures used are correct. Referring to the nutritional value after application of three questionnaires, we obtained the following results: in Q1, 12.88% of the responses were negative, among them stand out drinking fluids with meals, getting more than 2 hours without eating and not eliminate secretion before meals, in Q2 it was observed that 56% (n: 9) changed some of their eating habits as was indicated in the manual, 2 (13%) continued with the same behavior and there was no progress in 31% of cases, in Q3 11 questions (69%) tested positive and 5 (31%) continued with negative results do not change their practices and nutritional food. A positive and unanimous (100%) in 3 applications of the questionnaire was found for the intake of vegetables. However, regarding the recommendations in relation to salt intake, foods with high calories and water, the results were negative in three research investigations.

**DISCUSSION**

The management of chronic diseases is concentrated increasingly on prevention strategies and comprehensive care and multidisciplinary. Studies have shown that self-management is the most important item of educational programs for patients, revealing an improved quality of life, reduce morbidity and significant cost reduction health.6, 8.9 Worth, Dhein & Lederer10 were first to describe the self-management as a treatment in a small sample of patients, making it difficult to demonstrate a significant effect, but there were reductions in the frequency of exacerbations.

Case management promotes continuity, communication, collaboration between the patient, family, physicians and health care providers. The idea of self-management is to teach patients the skills to carry out medical regimens specific to COPD, guide health behavior change, and provide emotional support to patients to control their diseases.11, 12

A self-management program specifically developed for COPD patients, "Living Well with COPD" (Living Well With COPD: Chronic Bronchitis and Emphysema) developed by service members of the American College of Chest Physicians, involved communication with a trained health professional for more than 1 year.13 the intention was to collaborate with the reduction of hospitalizations and improve health status in the short term.11.13 The management of most chronic diseases is also characterized by extensive responsibility that patients should have.14 In the context of chronic diseases, it is essential that the patient participate in decision-making levels or activity because thus care health will become more effective and efficient. The patient must have the understanding and adoption of new practices and responsibilities.

The range of information to be worked to achieve the goal of self-management behavior change in the patient requires skilled professional in educational methodology capable of managing an effective action plan for self-management.15 However,

education for self-management is limited by the implications of the transfer passive knowledge. Still, there is evidence that the action plan for COPD patients with limited education, failure to recognize and answers to the exacerbation of the disease.<sup>15</sup> Given this context it is essential to recall that, in addition to changes arising from the pulmonary disease, COPD is associated with comorbidities and among them are changes involving cognitive deficits in attention, perception, learning and memory. In cognitive dysfunction has a specific pattern in COPD and is considered mild in non-hypoxemic COPD patients and high in hypoxemic.<sup>16</sup> To complete the cognitive domains most affected, found in patients with COPD are: memory, attention, speech, coordination and skills learning.<sup>17</sup>

### CONCLUSIONS

From the results of this research, it was concluded that the delivery of the Manual of COPD patients, to carry out the same reading this at home, is insufficient to education for self-management of COPD. Have a read of the manual and delivery to patients was a partially effective method. Individuals with COPD need more information to the real understanding of the disease, what to expect over the years, what they should do, and what support they need social care and may have access. The use of audiovisual material in education programs can provide extra motivation, but it is essential the previous explanation of the same along with the patient for further clarification of doubts.

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### EDUCATION FOR SELF-MANAGEMENT OF COPD IN A PULMONARY REHABILITATION PROGRAM

#### ABSTRACT

Chronic Obstructive Pulmonary Disease (COPD) is a disease of high mortality, characterized by airflow obstruction. The deterioration is typical of the disease interspersed with periods of exacerbation of symptoms (dyspnoea, cough and sputum), known as exacerbations. The care of COPD is not limited to pharmacologic therapy and self-management is an important item of educational programs for patients. Self-management is the term applied to any form of educational program aimed at teaching skills needed to make behavior change. Objective: To assess the impact of education for self-management of COPD participating in a pulmonary rehabilitation program-PRP. Methodology: Case Study with COPD PRP-Hospital Santa Cruz. All answered a questionnaire to obtain demographic and clinical data and other content specific questionnaire addressing Manual of COPD, in 03 steps: (Q1) questionnaire application and delivery of the Manual; (Q2) the questionnaire and read the manual to the patient; (Q3) the questionnaire. Results: We evaluated 16 patients with COPD, of both gender, low education, 65.69 ± 7.93 years, BMI 25.29 ± 6.76. About the aspects analyzed in the questionnaires: definition of COPD (8 right Q1, Q2 and Q3 8:09 right); symptom exacerbation of the crisis-"shortness of breath" (13 patients Q1, Q2 and Q3 12 patients); measure taken in relapsing "call in to the doctor" (5 patients Q1, Q2 and Q3 8 6 patients), physical exercises (15 right Q1, Q2 and Q3 16 right); intake of vegetables (16 right in 03 questionnaires); consumption of salt and foods with high calorie and water remained negative result. Conclusion: The data show that delivery of the Manual of COPD isolated and reading this, there was added to the COPD knowledge about the existing contents there in.

**KEYWORDS:** COPD, Education, Manual of COPD.

## L'ÉDUCATION À L'AUTOGESTION DE LA MPOC DANS UN PROGRAMME DE RÉADAPTATION PULMONAIRE RÉSUMÉ

Maladie pulmonaire obstructive chronique (MPOC) est une maladie de la mortalité élevée, caractérisée par une obstruction. La détérioration des symptômes (dyspnée, toux et expectorations), connus sous le nom des exacerbations. La prise en charge de la MPOC ne sont pas limités à la thérapie pharmacologique et l'autogestion est un élément important des programmes éducatifs pour les patients. L'autogestion est le terme appliqué à toute forme de programme de formation visant à enseigner les compétences nécessaires pour faire le changement de comportement. Objectif: évaluer l'impact de l'éducation et l'autogestion de la MPOC les participants à un programme de réadaptation pulmonaire – PRP. Méthodologie: Des études de cas sur des patients atteints de MPOC – PRP – Hôpital Santa Cruz. Tous ont répondu à un questionnaire visant à obtenir des données démographiques et cliniques et d'autres manuels questionnaire (Q1) et la livraison du manuel, (Q2) le questionnaire et lire le manuel pour le patient; (Q3) du questionnaire. Résultats: Nous avons évalué 16 patients atteints de MPOC, des deux sexes, faible niveau de scolarité, 65,69±7,93 ans. IMC 25,29±6,76. Sur les aspects analysés dans les questionnaires: définition de la MPOC (8 visites Q1, Q2 et Q3 résultats de 8 et 9 visites), exacerbation des symptômes de la "essoufflement" de crise (13 patients Q1, Q2 et Q3 12 patients), de la mesure prise en récurrent "appeler le médecin" (5 patients Q1, Q2 et Q3 8 et 6 patients), des exercices physiques (15 visites Q1, Q2 et Q3 16 visites); admission de légumes (16 visites à 03 questionnaires); consommation de sel et les aliments à haute teneur en calories et de résultat négatif. Conclusion: Les données montrent que la livraison du manuel de la MPOC isolé et lisez ceci, on a ajouté à la connaissance sur le contenu qui s'y trouve.

**MOTS-CLÉS** MPOC, l'éducation, manuel de la MPOC.

## LA EDUCACIÓN PARA EL AUTO-MANEJO DE LA EPOC EN UN PROGRAMA DE REHABILITACIÓN PULMONAR

### RESUMEN

La Enfermedad Pulmonar Obstructiva Crónica (EPOC) es una enfermedad de alta mortalidad, que se caracteriza por la obstrucción del flujo aéreo. El deterioro típico de la enfermedad presenta periodos de agudización de los síntomas (disnea, tos y expectoración), conocidos como exacerbaciones. Los cuidados de la EPOC no se limitan a la terapia farmacológica y el automanejo es un elemento importante de los programas educativos para los pacientes. La automanejo es el término aplicado a cualquier tipo de programa educativo dirigido a la enseñanza de las habilidades necesarias para hacer el cambio de comportamiento. Objetivo: Evaluar el impacto de la educación para el automanejo de la EPOC en los participantes de un Programa de Rehabilitación Pulmonar-PRP. Metodología: Estudio de casos de portadores de EPOC del PRP- Hospital Santa Cruz. Todos respondieron un cuestionario para obtener datos demográficos y clínicos y otro cuestionario específico sobre el Manual de la EPOC, en 03 pasos: (Q1) aplicación del cuestionario y la entrega del Manual; (Q2) aplicación del cuestionario y lectura del manual para el paciente; (Q3) aplicación del cuestionario. Resultados: Se evaluaron 16 pacientes con EPOC, de ambos sexos, la educación baja, 65,69 ± 7,93 años, IMC 25,29 ± 6,76. Acerca de los aspectos analizados en los cuestionarios: definición de la EPOC (Q1 8 éxitos e Q2 y Q3 8 y 9 éxitos); síntomas de la crisis de exacerbación- "falta de aire" (Q1 13 pacientes Q1, Q2 y Q3 12 pacientes), decisión adoptada en la crisis - "llamar al médico" (Q1 5 pacientes, Q2 y Q3 8 y 6 pacientes), realización de ejercicios físicos (Q1 15 éxitos, Q2 y Q3 16 éxitos), la ingesta de verduras (16 éxitos en los 03 cuestionarios); consumo de sal y alimentos con alto contenido calórico y el agua permanecieron con resultado negativo. Conclusión: Los datos muestran que la entrega del Manual de la EPOC aislado y la lectura de este, no se añadió a la EPOC conocimiento acerca de los contenidos existentes en el mismo.

**PALABRAS CLAVE:** EPOC, Educación, Manual de la EPOC.

## EDUCAÇÃO PARA AUTOMANEJO DA DPOC EM UM PROGRAMA DE REABILITAÇÃO PULMONAR RESUMO

A Doença Pulmonar Obstrutiva Crônica (DPOC) é uma enfermidade de alta morbimortalidade, caracterizada pela obstrução ao fluxo aéreo. A deterioração típica da doença é entremeada por períodos de agudização dos sintomas (dispneia, tosse e expectoração), conhecidos como exacerbaciones. Os cuidados com a DPOC não se limitam a terapia farmacológica e o automanejo é um importante item dos programas de educação para o paciente. Automanejo é o termo aplicado a qualquer forma de programa educativo visando o ensino de habilidades necessárias para realizar mudança de comportamento. Objetivo: avaliar o impacto da educação para automanejo da DPOC em participantes de um programa de Reabilitação Pulmonar-PRP. Metodologia: Estudo de casos com portadores de DPOC do PRP- Hospital Santa Cruz. Todos responderam um questionário para levantamento de dados sociodemográficos e clínicos e outro questionário específico abordando conteúdo do Manual da DPOC, em 03 etapas: (Q1) aplicação do questionário e entrega do Manual; (Q2) aplicação do questionário e leitura do Manual ao paciente; (Q3) aplicação do questionário. Resultados: Foram avaliados 16 portadores de DPOC, de ambos os sexos, baixa escolaridade, 65,69±7,93 anos, índice de massa corporal 25,29±6,76. Acerca dos aspectos analisados nos questionários: definição da DPOC (Q1 8 acertos, Q2 e Q3 8 e 9 acertos); sintoma da crise de exacerbación- "falta de ar" (Q1 13 pacientes, Q2 e Q3 12 pacientes); medida tomada na exacerbación- "telefonam para o médico" (Q1 5 pacientes, Q2 8 e Q3 6 pacientes); realização de exercícios físicos (Q1 15 acertos, Q2 e Q3 16 acertos); ingestão de verduras e legumes (16 acertos nos 03 questionários); consumo de sal e alimentos com alto valor calórico e água permaneceram com resultado negativo. Conclusão: Os dados revelam que a entrega do Manual da DPOC isolada, bem como a leitura deste, não agregou conhecimento ao DPOC acerca dos conteúdos existentes no mesmo.

**PALAVRAS-CHAVE** DPOC, Educação, Manual da DPOC.