Impact of Emotion Regulation in Patients Suffering from Chronic Obstructive Pulmonary Disease

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ABSTRACT

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Objective: To investigate the impact of self-management intervention on the effectiveness of emotional regulation in patients suffering from chronic obstructive pulmonary disease (COPD).

Materials and Methods: This study was conducted in the Pulmonology Department of Jinnah hospital Lahore in Collaboration with community medicine department for Six months duration from March 2018 to August 2018. 86 consecutive chronic COPD patients were diagnosed in the stable phase. 43 patients in each group were divided into a control group and a randomized observation group. In the control group, the continuous feeding mode outside of a conventional hospital and an enhanced guide to self-care programs in the observation group (information about the disease, breathing exercises, emotions, home oxygen therapy, medication technique, healthy life behaviors and deteriorating action plans) were used to compare differences in results.

Results: For six-month follow-up visits, personal hygiene behavior, physical education, cognitive symptoms and management of medical care results, and observation groups in both groups were more visible and the differences were statistically significant (p <0.05); Self-regulation of emotions regulation in two groups was increased, including positive effect, deterrence / anguish, anger / irritation and total results. In addition, the extent of growth in the observation group was clearer and the differences were statistically significant (p <0.05).

Conclusion: intervention of the self-monitoring program can improve the self-control behavior of patients with COPD and is important for improving the effectiveness of regulation and prediction of emotions.

Keywords: Self-management program, Chronic obstructive pulmonary disease (COPD), Effectiveness of emotional regulation.

Introduction

Chronic obstructive pulmonary disease (COPD) is a clinically widespread respiratory disease with a high rate of disability and mortality (1-3). COPD causes severe psychosocial harm to patients because it cannot be treated for years. Self-efficiency of emotional regulation is an important indicator that assesses the level of self-confidence and social competence to regulate individual emotions, and COPD patients must control the acute exacerbation of the disease while maintaining good ability, emotional regulation and positivity, and insurance is very important (4,5).

The chronic disease self-monitoring program has provided successful practice in managing education for diseases such as stroke, asthma, chronic bronchitis and hypertension, but there are few reports of COPD intervention studies (6). This study investigated the intervention of a self-management program for COPD patients to provide scientific evidence for the health and treatment of COPD patients (7,8).

Materials and Methods

This study was held in the Pulmonology Department of Jinnah hospital Lahore in Collaboration with community medicine department. Eighty six COPD patients who were diagnosed with a stable phase in our hospital between March 2018 to August 2018, the following cases were selected and excluded: lung cancer, lung abscess, severe pneumonia, respiratory failure, heart, brain, liver, kidney and other organ...
dysfunction, stable COPD symptoms in less than 1 week, patients who were unable to take medicines, re-examined and completed questionnaires after consulting their physician.

This study obtained the informed consent of patients and their families with the consent of the hospital's Ethics Committee. Patients were divided into a control group and an observation group with 43 groups based on the odd status of the last digital number of admissions. There were 26 men and 17 women in the control group; Their age ranged from 44 to 78 years, on average 62.6 ± 13.5 years; the course of the disease was 1 ~ 8 years and the average were 3.2 ± 1.3 years; The training period was 13 ~ 24 years, with an average of 18.6 ± 4.4 years. There were 24 men and 19 women in the observation group; Their age ranged from 45 to 76 years, and the average age was 61.8 ± 14.5 years; the course of the disease was 1.5-10 years and the average 3.5 ± 1.4 years; The average duration of education was 12 ~ 25 years and 17.6 ± 4.8 years. The reference documents of both groups were comparable.

In the Pulmonology Department of Jinnah hospital Lahore in Collaboration with community medicine department for Six months duration from March 2018 to August 2018. 86 consecutive chronic COPD patients were diagnosed in the stable phase. 43 patients in each group were divided into a control group and a randomized observation group. In the control group, the continuous feeding mode outside of a conventional hospital and an enhanced guide to self-care programs in the observation group (information about the disease, breathing exercises, emotions, home oxygen therapy, medication technique, healthy life behaviors and deteriorating action plans) were used to compare differences in results. Continuous care, creating an individual profile, regular subsequent phone calls; monitoring regular intake of medication outside the hospital, such as oral bronchodilators, glucocorticoids, antibiotics and medicines for cough and asthma; keeping a healthy lifestyle, doing regular exercise, boosting physical strength, preventing colds, curbing active and passive smoking. Long-term home oxygen therapy or community rehabilitation therapy can be used in patients with these conditions who regularly assess the symptoms and degree of COPD, and offer preventive recommendations and appropriate solutions for acute onset.

The observation group used a reinforced guide (containing seven modules and information on diseases, breathing exercises, emotion management, oxygen therapy at home, drug taking techniques and healthy behaviors) and action plans during the degradation phase. First, the San Jorge Respiration Questionnaire and COPD Health Questionnaire were used. Drug treatment was based on test results and the severity of the disease. Meanwhile, respiratory medicine specialists and specialist nurses prepared an intervention plan for a personalized self-management program and related course guides. Specialist nurses and nurses of the environmental health center established a mechanism of long-term communication with patients and visited them regularly, conducted their own proceedings and corrected errors in a timely manner. They used books and films to illustrate and explain patients, and allowed patients to practice them repeatedly they had acquired prior knowledge and skills. The follow-up visit last 1.5 hours once a week and each time, and then 8 weeks later, the follow-up visit would be changed to phone calls and the response time would be 6 months.

Observation indexes

Evaluation of behavioral differences related to self-efficacy prior to intervention and over the past 6 months using the emotional performance scale of emotional regulation. The assessment of self-management behavior was carried out in accordance with the self-management behavior questionnaire and scoring standards as well as the measurement table of the study on chronic self-management (6); The questionnaire included three quantitative indicators and covered physical education, cognitive symptom management practice and medical care for a total of 15 items; The five-degree system (0-4 points) was used for the exercise training measurement table, and the six-degree system (0-5 points) was used for the other two.

The higher the total score of the measurement table compared to the average position score, the more effective self-management was. In the self-assessment of the evaluation of emotion regulation, the SRESS measurement table was used, which contained three dimensions, and perceived effectiveness was perceived in the expression of positive effect (POS); perceived self-esteem (ANG) in deterrence / stress (DES) and anger / irritation management. The questionnaire consisted of 12 questions and a 5-point scoring system (1-5 points) was used. The total score was the sum of the results of all dimensions. The higher the score, the better the effectiveness of emotional regulation.

SPSS 19.0 software (SPSS Inc., Chicago, IL, USA) was used for data analysis: The measurement data was presented as mean ± standard deviation, and the comparison between the groups was tested with the independent sample t, and the comparison in the group was tested with the overlapping t; Data from the census are presented either in the number of cases or as a percentage (%), and the comparison between the groups was tested with χ2. P <0.05 indicates that the differences were statistically significant.
Results

Self-management behaviors before intervention were compared in terms of physical education, cognitive symptom management practices and medical outcomes, and the differences were not statistically significant (P > 0.05); During the follow-up visit six months later, the results of all patient rates in both groups increased; In addition, the increase range in the observation group was more significant and the differences were statistically significant (P < 0.05) (Table 1).

Comparison of the effectiveness of self-regulation of emotions before intervention was compared in terms of POS, DES, ANG, and the overall results and differences were not statistically significant (P > 0.05); During the follow-up visit six months later, the results of all patient rates in both groups increased; In addition, the increase in the observation group was more significant and the differences were statistically significant (p <0.05) (Table 2).

Discussion

The effectiveness of emotional regulation covers many aspects of a healthy lifestyle and has a significant impact on patients' mental health, including tolerance to harmful trends such as positive and supported attitudes, and fear of treating the disease and depression. Therefore, the effectiveness of emotional regulation in the treatment of COPD is important (9).

Self-control refers to behaviors that prevent the development of the disease, control the symptoms of the disease and improve the quality of life; good long-term self-control behaviors improve a healthy lifestyle, improve adaptive behavior, relieve symptoms of discomfort, and even improve the body's immune function (10). Intervention in the self-management program can help COPD patients learn disease management knowledge and skills, as well as help patients improve their positive attitude towards the disease, which is widely accepted by the national health community (11).

COPD is difficult to treat and patients are anxious, depressed, negative and disappointed. Some COPD patients cannot face their illness and "give in". This certainly prevents them from developing effective behaviors related to disease management, as well as affects self-assessment of emotional regulation and improvement of the quality of life. The study showed that the incidence of acute exacerbations increased during follow-up visits of COPD patients discharged from the hospital for six months, which was significantly associated with the low effectiveness of emotional regulation. In this study, the results of the effectiveness of emotional regulation were low in patients in two groups, indicating that COPD patients had significant problems regulating depression / pain / anger.

Due to a significant improvement in self-control behavior in the observation group, self-assessment of emotion regulation also increased significantly, and all indicators improved after patients left the hospital compared to the control group (12,13). This shows that intervention of the self-care program can help patients positively cope with the disease, motivate their potential and improve the quality of life and the ability to regulate emotions to improve the ability to cope with the disease in order to improve their own effectiveness (14). In addition, it is good to organize self-control of chronic diseases in groups to encourage enthusiasm and interactions that can significantly increase the clinical prognosis of patients. Due to the specificity of COPD, patients are exposed to prolonged torture, and many of them have severe asthma after activity (15).

Therefore, in this study, personalized education and face-to-face orientation were combined with a family visit to the observation group; better to solve psychosocial problems.

Table 1: Self-management behavior scores in two groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Physical fitness training</th>
<th>Cognitive symptom management practice</th>
<th>Medical care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>Before intervention</td>
<td>7.3 ± 5.0</td>
<td>1.4 ± 0.5</td>
</tr>
<tr>
<td>6 months later</td>
<td>10.3 ± 7.5</td>
<td>1.7 ± 0.6</td>
<td>1.9 ± 0.7</td>
</tr>
<tr>
<td>Observation group</td>
<td>Before intervention</td>
<td>7.2 ± 4.7</td>
<td>1.4 ± 0.8</td>
</tr>
<tr>
<td>6 months later</td>
<td>19.0 ± 5.3</td>
<td>2.9 ± 0.5</td>
<td>2.3 ± 0.6</td>
</tr>
</tbody>
</table>

Table 2: Self-efficacy of emotion regulation in two groups

<table>
<thead>
<tr>
<th>Group</th>
<th>POS</th>
<th>DES</th>
<th>ANG</th>
<th>Total scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before intervention</td>
<td>9.3 ± 1.6</td>
<td>7.7 ± 4.0</td>
<td>8.3 ± 3.4</td>
<td>25.1 ± 4.8</td>
</tr>
<tr>
<td>6 months later</td>
<td>11.8 ± 4.2</td>
<td>10.8 ± 2.9</td>
<td>10.3 ± 4.9</td>
<td>33.2 ± 5.6</td>
</tr>
<tr>
<td>Intervention group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Before intervention</td>
<td>9.0 ± 2.0</td>
<td>7.8 ± 3.5</td>
<td>8.2 ± 2.5</td>
<td>25.2 ± 3.0</td>
</tr>
<tr>
<td>6 months later</td>
<td>17.0 ± 3.8</td>
<td>15.8 ± 2.1</td>
<td>15.0 ± 4.1</td>
<td>45.5 ± 5.5</td>
</tr>
</tbody>
</table>

Conflict of Interest: This study has no conflict of interest to declare by any author.

Disclosure: None

Human and Animal Rights: No rights violated.
References


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