ORIGINAL ARTICLE

Assessment of Quality of Life of Patients Using St. George's Respiratory Questionnaire (SGRQ)

Saba Ajaz Baloch[1], Farya Zafar[2,]*, Huma Ali[3], Ali Akbar Sial[1]

[1]Faculty of Pharmacy, Ziauddin University Karachi, Karachi, Pakistan
[2]Deaprtment of Pharmaceutics, Faculty of Pharmacy, University of Karachi, Karachi, Pakistan
[3] Faculty of Pharmacy, Jinnah Sind Medical University, Karachi, Pakistan

ABSTRACT

Objective: St. George's Respiratory Questionnaire (SGRQ) is a typical, self-completed questionnaire for assessing the health condition in patients suffering from COPD.

Methodology: In the present study we evaluated the quality of life of patients using SGRQ on 126 patients, who were admitted in the medical intensive care unit of Ziauddin Medical University Hospital, Karachi.

Result: The minimum and maximum values for symptoms scores ranges from 14.37-65.71, activity scores ranges from 18.35-79.03, impact scores ranges from 10.6-74.54 and the total scores ranges from 16.99-70.01.

Conclusion: High values of scores indicated that COPD exacerbation produces a negative effect on quality of life of patients.

INTRODUCTION

Chronic Obstructive Pulmonary Disease (COPD) is a respiratory disease that is characterized by increased cough, shortness of breath (dyspnea), increased sputum and increased purulence in sputum. Patients suffering from COPD are at a risk of respiratory exacerbations that leads to enhanced worsening of its symptoms [1]. These heightened symptoms affect the patient's health related quality of life (HRQOL). This becomes a significant outcome in patients with respiratory disease and the development of HRQOL questionnaires are gaining popularity in assessing the patient's condition [2]. Responsiveness is the crucial element if the outcome of interest is HRQOL, which is imperative in the assessment of treatments [3]. When we talk about responsiveness then it indicates the questionnaire's ability to perceive HRQOL variation, even if the extent of variation is minor [4]. When responsiveness is the main element then SGRQ is the most frequently used respiratory questionnaires for assessing HRQOL, which, due to its popularity has also been converted into various languages [5-7]. It was developed in 1991 by P.W Jones and coworkers [8]. St. George's respiratory questionnaire consists of 50 questions that are to be answered by the study participant. The questions are divided into two parts with Part 1 evaluating the frequency and severity of

symptoms experienced by the patients that they can recall for a period of 3 months and Part 2 again divided into two sections with the first section assessing activities which lead to or are restricted by breathlessness; and the second section assessing the elements of Impact which include social performance and psychological disturbances that result due to COPD.

The purpose of the current study was to assess St. George's Respiratory Questionnaire and to calculate its parameters i.e. Activity score, symptoms score, Impacts score and total score, and also estimated the mean ± SD and range of scores.

METHODOLOGY

SGRQ was applied on 126 patients who were admitted as a result of COPD exacerbations in the medical intensive care unit of Ziauddin Medical University Hospital, Karachi. Scores were determined for each part with zero showing no harm and 100 indicating worse status of health. An calculator based on excel was utilized to estimate the results.

Table 1. Assessment of parameters.

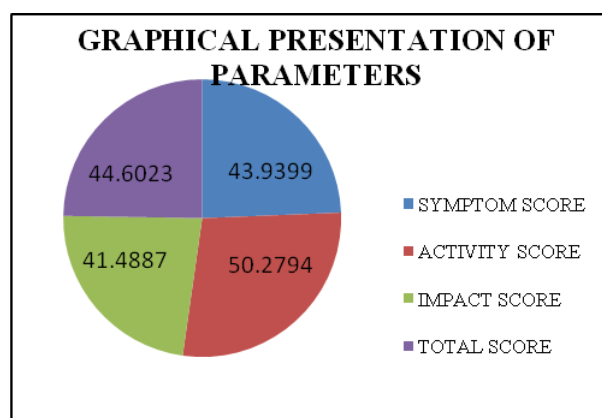| Parameters	Mean ± SD	Min-Max Values
Symptoms score	43.93 ± 12.46	14.37-65.71
Activity score	50.27 ± 15.43	18.35-79.03
Impacts score	41.48 ± 16.66	10.6-74.54
Total score	44.60 ± 13.02	16.99-70.01

Figure 1. Graphical presentation of parameter.

RESULTS AND DISCUSSION

HRQL multidimensional assessment tool that demonstrates the effect of disease and treatment on patients physically and emotionally [9]. By analyzing FEV1, we can estimate the functioning of lung to interpret the therapeutic effectiveness [10]. But these tools could not completely reflect the impact of COPD exacerbation [11]. For this reason in order to assess the quality of life of patients SGRQ is used remarkably [12]. The assessments for Activity score, symptoms score, Impacts score and total score were calculated and are shown in Table **1** and Figure **1**. By conducting descriptive analysis, the mean of scores were calculated, average symptoms scores were 43.93 ± 12.46, the miniumum and maximum values were ranges from 14.37-65.71, average activity scores were 50.27 ± 15.43, the miniumum and maximum values were ranges from 18.35-79.03, average Impact scores were 41.48 ± 16.66, the miniumum and maximum values were ranges from 10.6-74.54 and the mean total scores were 44.60 ± 13.02, the miniumum and maximum values were ranges from 16.99-70.01.

CONCLUSION

The results indicated that risk related with COPD exacerbation is very high throughout the world, it reduces the quality feature of life of the patients so in third world developing countries there is

much extensive requirement to take efficient steps in decreasing the consequences of COPD exacerbation.

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