



Health-related to quality of life and its relationships with poor exercise capacity and dyspnea in Thai patients with stable COPD



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**DEVELOPMENT OF COMMUNITY-BASED CARE MODEL
FOR PATIENTS WITH COPD
IN THASALA HOSPITAL
GRANTED BY WALAILAK U.**





INTRODUCTION



- **Chronic obstructive pulmonary disease (COPD) is a major cause of morbidity and mortality across the world, and its prevalence continues to increase (GOLD, 2014).**
- **In Thailand, COPD is also a major cause of death and places a burden on the health-care system. These patients may experience disease exacerbation 3-4 times per year, often requiring hospitalization 1.6 times with a length of stay 5-14 days with costs of 7000-10,000 bahts (200-300 US dollars) for each hospital stay (Noonil, Sindhu, Hanucharurnkul, & Suwonnaroop, 2007).**
- **These patients affected with COPD-related respiratory failure are frequently impaired in their health-related quality of life (Ramsey&Sullivan, 2003).**



INTRODUCTION



- **Health-related quality of life (HRQL) has become an important measurable outcome in patients with COPD and it is also known to predict mortality, hospitalization, health care resource utilization and response to different treatment options.**
- **The finding of Jones (2001) attributed to the fact that HRQL is the result of the interaction of many physical, psychological, and social factors unique to each individual. Knowledge of HRQL impairments in this patients is needed to guide treatment and care.**
- **In Thailand, limited research has been conducted regarding HRQL** (Bunnag, Fuangtong, Pothirat, & Punyaratabandhu, 2007; Burapadaja, Konkaew, Tuntipathananandh, & Sanguansermsri, 2006; Pothirat et al., 2007) **only one study to used SGRQ for measuring the HRQL outcome of community-care program for Thai patients with COPD** (Noonil *et al.*, 2007).
- **Therefore, the objective of this study was to investigate the HRQL of Thai patients with stable COPD.**



OBJECTIVE



- **to investigate the impact of COPD on HRQL in the southern Thai patients with stable COPD**





METHODOLOGY



- A cross-sectional survey was conducted at pulmonary outpatient clinic in Tha Sala Hospital, Nakhon Sri Thammarat Province.
- A convenience sample 126 patients who attended pulmonary outpatient clinic and diagnosed COPD.
 - Inclusion criteria: no exacerbation at least 2 months and ability to communicate and to give informed consent.
- The study design was approved by the Ethical Committee of Walailak University.





METHODOLOGY



- **Instrument:**
- **HRQL: St George s' Respiratory Questionnaire (SGRQ):**
 - Composed of 50 items with 76 weighted, 3 components: Symptom, Activity, Impact
 - Scores 0-100, higher score indicating poorer HRQL
- **exercise capacity: 6 minute walk distance (6MWD)**
- **Depression: was measured by Patient Health Questionnaire (PHQ-9).**
- **Dyspnea: using the Modified British Medical Research Council (MRC) questionnaire**





METHODOLOGY



- **Analysis**
 - **Descriptive statistics:** percent, mean, standard deviation, and range
 - **Pearson correlation**
 - **Multiple regression analysis**

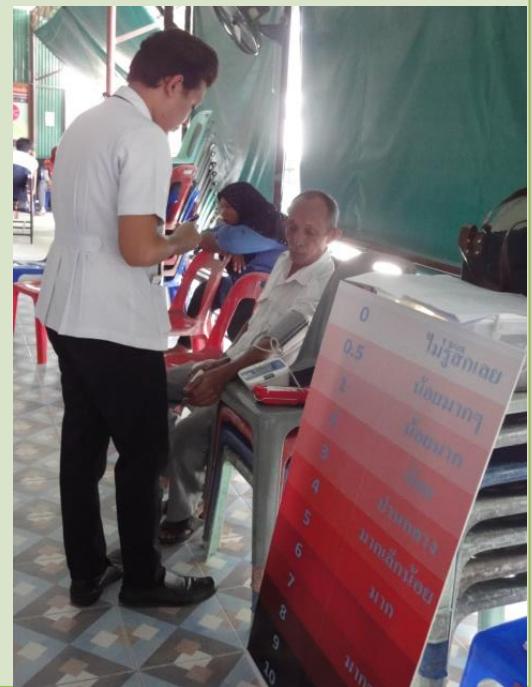




RESULTS



- **Characteristics of the subjects:**
 - **Sex:** the majority (84.3%) were male
 - **Age:** mean age 69.6 ± 9.5 yrs
 - **Level of Education**
 - None 18.9% Primary 74%
 - Secondary 5.5% Bachelor 1.6%
 - **Marital status**
 - Single 3.9% Married 73.2%
 - Widowed/Divorced 22.7%
 - **Smoking**
 - Past 71.7 % Current 18.9%





RESULTS



- **Characteristics of the subjects:**

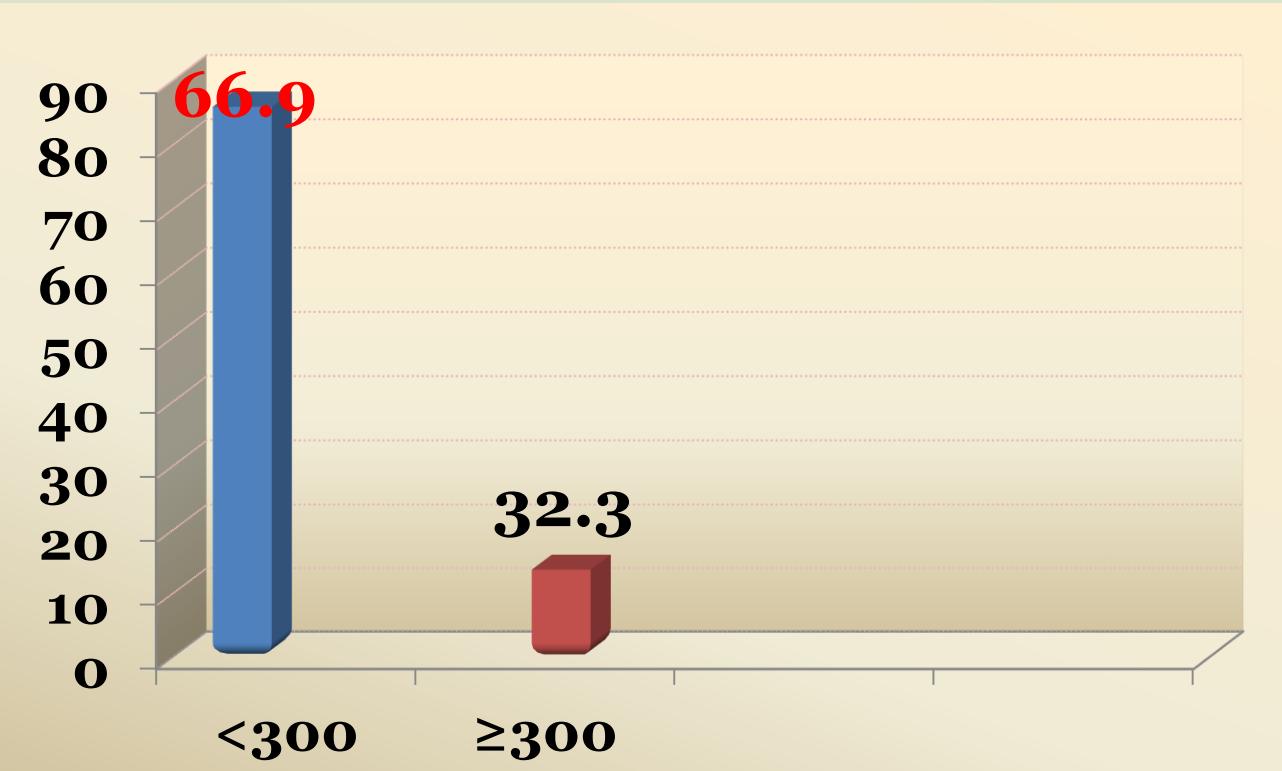
- Duration of illness: **12.7 ± 12.5 yrs**
- MRC dyspnea
 - Mild **48.8%**
 - Moderate **20.5%**
 - Severe **26.3%**
 - Very severe **3.9%**
- Hospital utilization within 1 year,
 - Hospital admission **59.1%**, mean **1.9 ± 3.3 times**, LOS **6.4 ± 10.8 days**
 - ER visit **70.1%**, mean **3 ± 3.9 times**.
- BMI: mean **21.9 ± 4.4** **51.6% had BMI <21**



RESULTS



- Clinical data:
 - Exercise capacity: 6MWD (259.8 ± 97.9 m.)

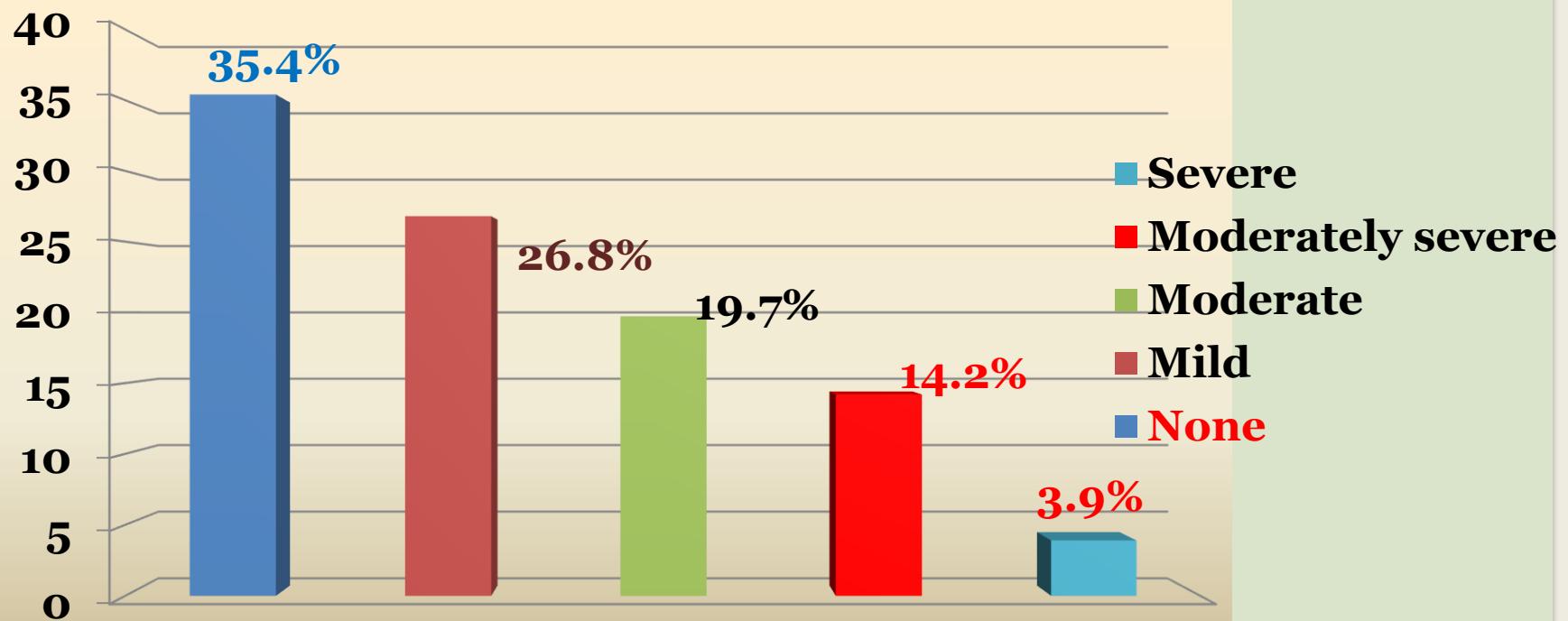




RESULTS



- Clinical data:
 - Depression (8.7 ± 5.8).

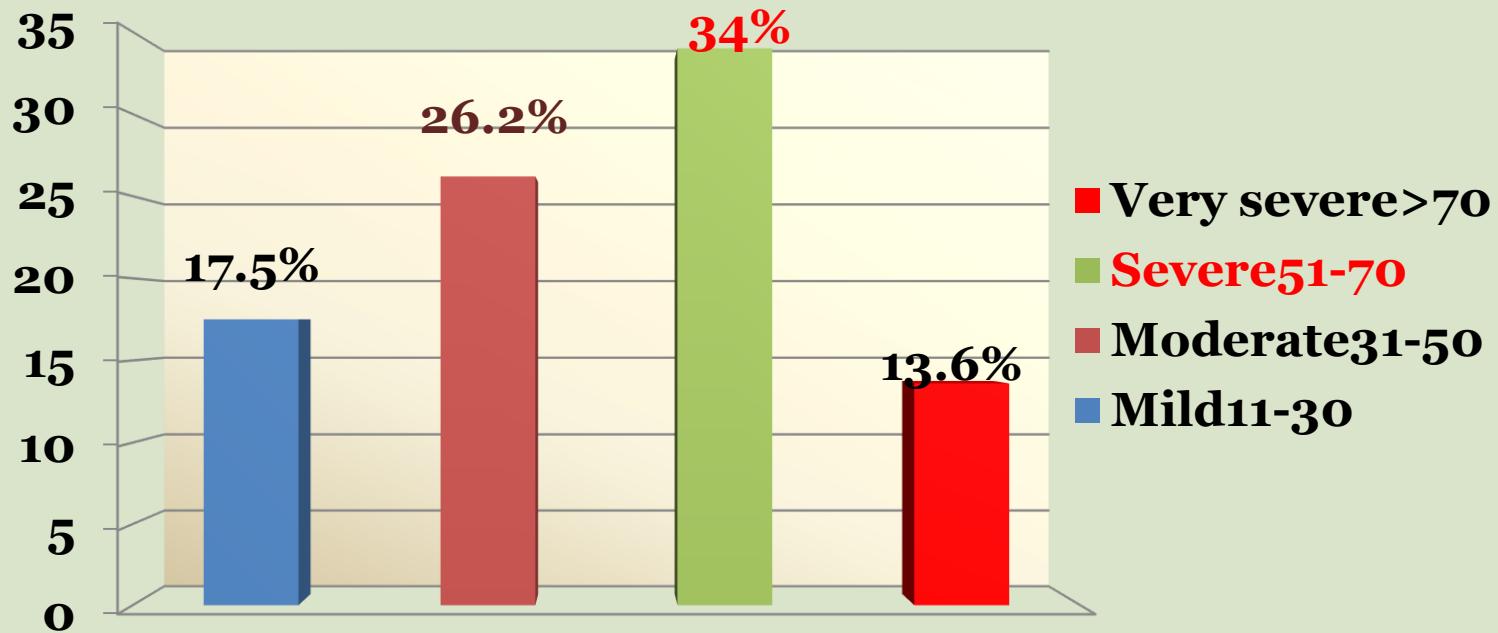




RESULTS



- Clinical data:
 - HRQL: Degree of impairment as



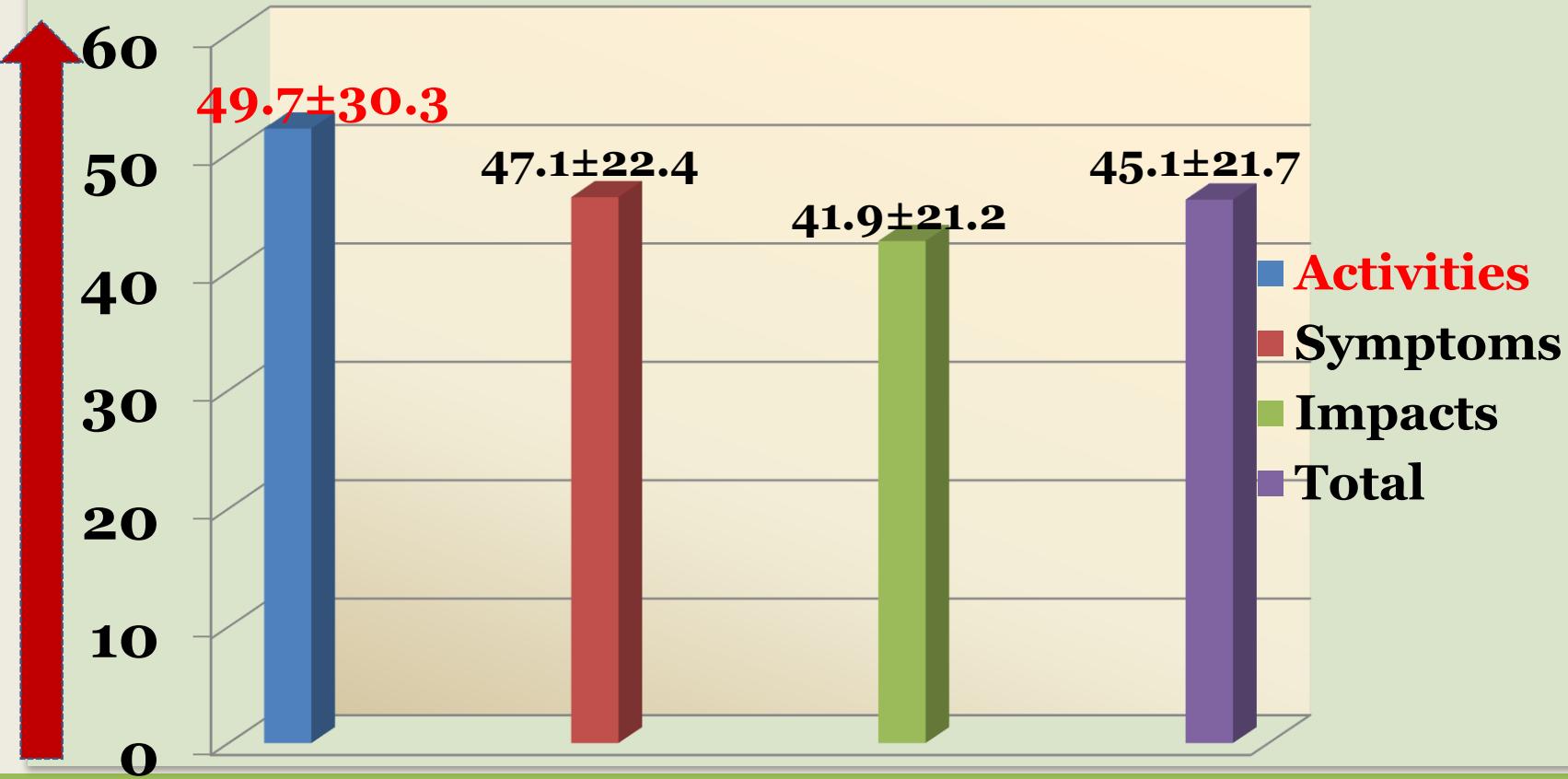


RESULTS



- SGRQ scores: Domain of HRQL

Poorer

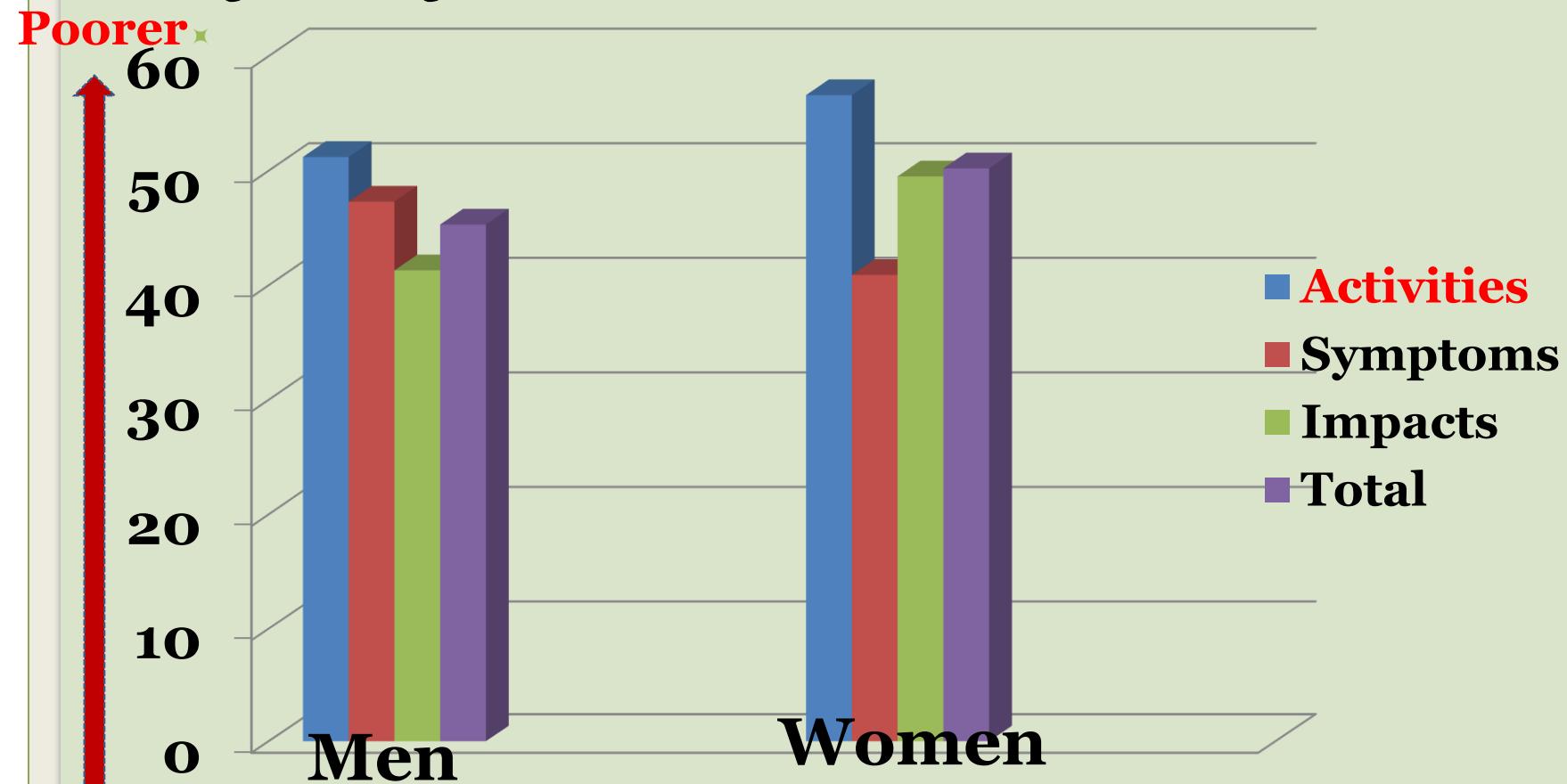




RESULTS



- HRQL: SGRQ scores with Sex





RESULTS



- Factors affected HRQL: affecting of $R^2 = .501$ ($p < .000$)
 - 1. Exercise capacity ($\beta = -.364, p = .000$)
 - 2. Depression ($\beta = .311, p = .000$)
 - 3. Dyspnea ($\beta = .296, p = .001$)
 - 4. Hospital Admission ($\beta = .180, p = .012$)





DISCUSSION



- This study consistently found that COPD most prevalent in men of past smoker.
- Most of patients with COPD had moderate to severe impairment and showed higher scores (poor HRQL) in activity domain than symptom and impact similar to other studies.
- Consistent with previous finding, women had poorer level of HROL than men, both activity and impact but symptom had better than men. Because some men still smoke.





DISCUSSION



- The factors affecting on HRQL included of physical factors as **exercise capacity**, dyspnea and hospital admission and psychological factor as depression.
- Kohhler et al.(2002) suggested that both biomedical and psychosocial influences should be taken into account in order to provide optimum assessment and treatment.





CONCLUSION



This study show that COPD is a main cause of severe deterioration of HRQL in patients with COPD and that the degree of this impairment mainly depends on exercise capacity, depression, dyspnea, and number of hospital admission.

Suggestion, healthcare professional should be alerted and implement interventions to increase activities of daily living such as encourage these elderly patients participate in pulmonary rehabilitation to improve their exercise capacity and to prevent depression and exacerbation for increasing their better health and quality of life.



THANK YOU for Your Attention

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