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قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

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FUNCTIONAL LIMITATIONS, IMPAIRMENT AND DISABILITY IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Thesis

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of the master Degree in Physical Therapy

by

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بسم الله الرحمن الرحيم
قَالُوا سُبْحَانَكَ لَا عِلْمَ
لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ
أَنْتَ الْعَلِيمُ الْحَكِيمُ.
صدق الله العظيم
سورة البقرة آية (٣٢)

Dedication

This work is dedicated

to

My parents

and

My husband

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Abstract

Background and purpose: the purpose of this study were (1) to describe the disabilities of patients with COPD and (2) to examine the relationships among impairment, functional limitation and disability, as described by the disablement process model.

Methods : fifty patients with COPD their age ranged from 40 –60 Years we recruited from Al- Hussain Hospital to participate in this study. Assessment included the physical performance test which include five items and functional reach test (measuring functional limitation), spirometric tests as FVC, FEV_1, FEV_1/FVC (measuring impairment) medical research council dyspnea scale (measuring disability).

Results : of patients studied, one were classified as having MRC grade 1 dyspnea, eight MRC grade 2 dyspnea, twenty one MRC grade 3 dyspnea, eighteen MRC grade 4 dyspnea and two grade 5 dyspnea. The result of these study indicated that, there was a significant correlation between functional limitation and impairment where there are no correlation between disability and both functional limitation and impairment .

Conclusion : this study has support the use of the disablement process model and suggest that different and important information is abstained from measurement of functional limitation , impairment and disability.

Key words: functional limitation , Impairment, disability. Spirmetric measures P.P.T, FRT, MRC dyspnea scale, COPD.

List of Abriviation

ADL	Activity of Daily Living
ATS	The American Thoracic Society
COPD	Chronic Obstructive Pulmonary Disease
CRQ	Chronic Respiratory Questionnaire
FEV1	Forced Expiratory Volume in the First Second
FEV1/FVC	Ratio Between Forced Expiratory Volume in the First Second to Forced Vital Capacity
FRT	Functional Reach Test
FSQ scale	Functional States Questioner Scales
FVC	Forced Vital Capacity
HADS	Hospital Anxiety and Depression scale
HRQOL	Health Related Quality of Life
IC	Inspiratory Capacity
ICD-9-cm	International Classification of Disease , Ninth Revision , Clinical Modification
MRC Dysprea scale	Medical Research Counciol Dyspnea Scale
6MWD	Six Minute Walking Distance
12 MWD	Twelve Minute Walking Distance
OLD	Obstructive Lung Disease
PPT	Physical Performance Test
QOF	Quality of Life
RLD	Restrictive Lung Disease
SF-36	Short Form –36
SIP	Sickness impact profile
SGRQ	St Goeorge's Respiratory Questionnaire
VO2 max	Maximal Oxygen Uptake
W max	Maximal Power Output

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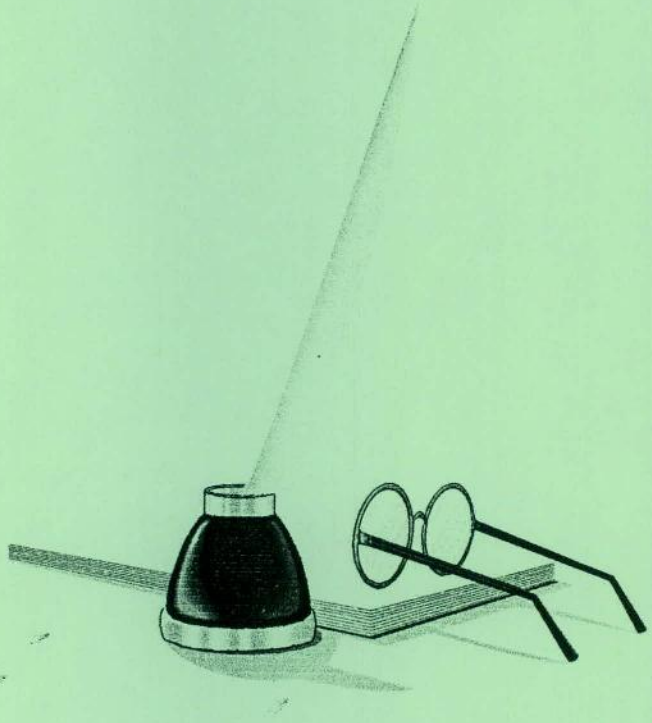
Chapter I



Introduction

Introduction

Health has been defined by the world health organization as a state of compelete physical, mental and social well being and not merely the absent of disease. This definition suggests a model for conceptualizing health that is multidimensional and goes beyond a definition that focuses strictly on disease. Some authors have proposed a multidimensional framework focusing on the pathway from disease to its broad out comes at the individual and social levels, conceptually, the pathway progresses from pathology (biomechanical or physiological dysfunction at the cellular level), to impairments (dysfunction in body system), to functional limitation (restriction in mental or physical action at the level of the individual), to disability (problem doing daily activities within the contest of society). These models distinguish action, such as walking or standing. From activities that require multiple action, such as bathing or working[53]. An expanded model for conceptualizing the progression from disease to disability has been introduced by verbruge and Jette[113] (as shown in appendix 2).

The disablement process that encompasses the functional consequences of pathology and the factors that affects the pattern, rate and direction of those consequences. Their model characterized factors affecting disability as risk factors, extraindividual factors,

and intraindividual factors. Risk factors are attributes of the individual that exist prior to initiation of the disablement process. Extraindividual factors are social and environmental factors imposed on the patient that can decrease, limit or increase the level of disability. Medication, physical therapy and job or home modifications are all considered extraindividual factors. Intraindividuas factors are the individual's behavior, coping skills and other accommodation made in response to the disablement process. The pathway is not unidirectional. For example additional impairments can result from any functional limitation or they can be the consequences of disability, This process can result in a cycle of additional dysfunction in other areas not initially associated with the original pathology. Because of the variety of influencing factors, this model suggests that similar pathologies will not result in similar functional limitation or level of disability in all individuals[86].

Chronic obstructive pulmonary disease COPD represent one of the major causes of morbidity because it is the fifth most common cause of death in Western world the execs death due to chronic obstructive pulmonary disease may explain some part of increase mortality rates but not all of it[30].

The quality of life (especially physical mobility, energy and social isolation) and exercise endurance of patients with chronic obstructive pulmonary disease are impaired. So quality of life

should, therefore be more systematically evaluated to determine the psychosocial benefits, which are important for encouraging patient compliance with rehabilitation program[36].

Impairment in patient with COPD represent a base but in now way equals the final percentage of disability pension or compensation which are always assessed by the competent administrative authority. However, it is the physician who specifies the amount and type of work of an individual patient. With his or her particular degree of disability, can not be expected to do[112].

Method of classifying chronic obstructive pulmonary disease (COPD) depends upon spirometric measurements but disability is only weakly related to measurements of lung function. With the increased use of pulmonary rehabilitation, a need has been identified for a simple and standardized method of categorizing disability in COPD[10].

It is well known that malnutrition result in reduced diaphragmatic muscle weight and reduced respiratory muscle strength. Patients with COPD are often malnourished. It has been suspected that such patients might have reduced respiratory muscle strength[78].

Many studies explain that, the increase in resistance to expiratory airflow was due to widespread of inflammatory