ORIGINAL RESEARCH PAPER
Volume - 10 | Issue - 11 | November - 2021 | PRINT ISSN No. 2277 - 8179 | DOI : 10.36106/ijsr
INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH

TO STUDY PREVALENCE OF MEMORY DYSFUNCTION OF COPD PATIENTS IN AHMEDABAD CITY

Physiotherapy

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ABSTRACT

Background- COPD patients are prone to develop various systemic complications and amongst which one of the complication is cognition affection and so Memory dysfunction is common in COPD patients. The aim of the study is to determine the occurance and severity of memory dysfunction in COPD patients of Ahmedabad city. This is an observational study in which 75 COPD [GOLD Classification] patients from Ahmedabad city, were selected. The patients were asked to fill MMQ (multifactorial memory questionnaire: MMQ Satisfaction & MMQ Ability). MMQ-Satisfaction measures satisfaction, concern, and overall appraisal of one's own memory. MMQ-Ability measures self perception of everyday memory ability.In MMQ questionnaire scoring below 20 is consideredto be based very low,20-29 low,30-39 below average,40-60 average,60-70 above average, 71-80 high.Data analysis was done on SPSS version 2016. The average (mean ± SD) for the 75 subjects were 49.58 ±11.43 [MMQ Satisfaction], and 54.05±13.17 [MMQ Ability] respectively.Total score of memory satisfaction 51 % and ability 49 % respectively. In MMQ (satisfaction) : very low 0%, low 3% below average 9%,average 65 %,above average 20 %, high 3%, MMQ (ability) :very low 0 %, low3 % .below average 8 % ,average 48 %, above average 23 %, high 18 %.conclusion-Memory dysfunction may start at the early stage of chronic airway damage and progress with a worsening of the respiratory condition indeed, the greatest memory deterioration was seen in COPD subjects. Memory dysfunction may contribute to explaining the sufficient adherence to therapeutic plans and strategies, and the increasing social cost in respiratory subjects.

KEYWORDS

COPD, MMQ , memory dysfunction

INTRODUCTION

Memory dysfunctions are common in COPD patients. The majority of researchers have documented deficits in verbal short-term and long-term memory [1, 2], in visual memory [3], and in spatial memory [4].

Severe-to-very severe COPD patients have usually been presented with a significant short-term verbal memory decline. COPD patients' performance in visual span tests was found impaired in contrast to their performance in immediate visual memory tests which was found intact [5]. There is also a study [6] which has documented a verbal memory decline in a patient with severe COPD and moderate hypoxia, who was in need for lung volume reduction surgery.

In patients with severe COPD and mild-to-moderate hypoxemia statistically significant differences in verbal and visual learning have been found when compared to healthy controls [7]. A research in severe COPD patients has documented impairments in delayed verbal memory [8]. In addition, poor performance in verbal memory and delayed recall was observed in nonoxygen and oxygen dependent patients with severe COPD [9, 10], although a decline in immediate visual memory was rarely found [11, 12].

Finally, there is a number of studies that failed to document any memory deficits in COPD patients. Moderate COPD patients' performance with mild hypoxia was found within average normal range in memory tests [13], while another study [14] on moderate COPD patients with mild oxygen blood pressure did not demonstrate notably poor scores in verbal learning memory tests.

Moreover, short-term and long-term verbal memories have been found within normal range in nonhypoxemic severe COPD patients [15, 16]. Based on the discrepancy among the results of the aforementioned studies the issue of learning and memory abilities in COPD patients should be further examined in combination with the severity of hypoxia that these patients display because it seems that hypoxia has a negative impact on memory and learning.

Need Of The Study

— The aim of the study is to determine the occurance and severity of memory dysfunction in copd patients,based on Multifactorial memory questionnaire

OBJECTIVES :

— To assess memory dysfunction in COPD patients

METHODOLOGY

— STUDY DESIGN- an observational study
— SAMPLE SIZE – 75
— POPULATION-40-60 years of age male and female patients

Inclusion Criteria

— people diagnosed with COPD – according to gold classification
— Age group – 40 to 60 years
— With and without diabetes
— With and without addiction
— With and without hypertensive
— Subjects wiiling to participate

Exclusion Criteria

— Any other pulmonary disease other then copd
— Any recent thoraco - abdominal surgery
— Illitrate patients
— Any cardio vascular conditions
— The study was conducted using MMQ(multifactorial memory questionnaire) developed and validated for Use in adults from age 39 to 91.

PROCEDURE

— This scale measures satisfaction,concern and overall appraisal of own's memory each of 18 statements is rated based on degree of agreement
— The score range is 0 to 72 with higher score indicating degree of satisfaction.
— The lower the score the worse one feels about his/her Memory.
— The questionnarie probe worries about(memory – contentement); subjective forget fullness(MMQ ability).

- Consent form was filled by the patients

— The participants was selected as per inclusion and exclusion criteria
— And explanation of the procedure was given to the participants orally.

Outcome Measure

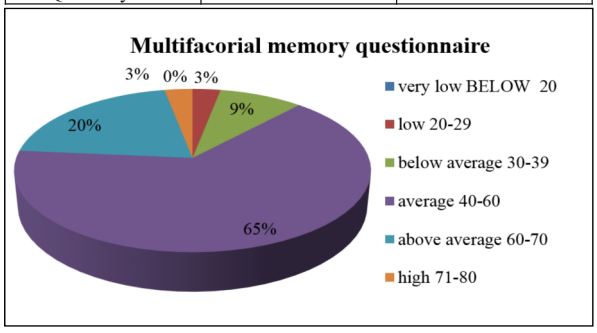
To assess memory dysfunction in copd patients- Using multifactorial memory questionnaire.

RESULT

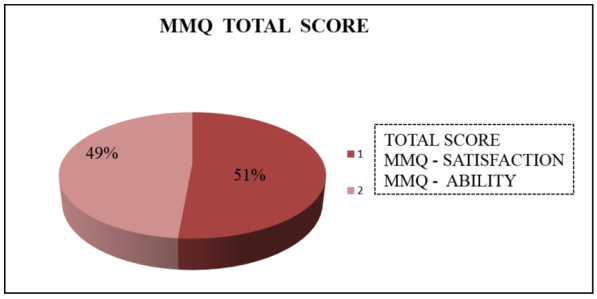
Table - 1

	N	MEAN±SD
MMQ-satisfaction	N = 75	49.58 ±11.43

MMQ-Ability	N = 75	54.05 ±13.17



Graph - 1: Multifactorial Memory Questionnaire Pie Chart Shows That Percentage Between very low to high memory dysfunction in COPD patients.



Graph - 2 : Total Score Between MMQ Satisfaction And MMQ Ability

CONCLUSION

— Memory dysfunction may start at the early stage of chronic airway damage and progress with a worsening of the respiratory condition.indeed ,the greatest memory deterioration was seen in copd subjects.

— Memory dysfunction may contribute to explainning the sufficient adherence to therapeutic plans and strategies, and the increasing social cost in repiratory subjects.

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