

Nurses' Role in Managing Patients with Chronic Obstructive Pulmonary Disease Undergoing Oxygen Therapy

Thesis

Submitted for Partial Fulfillment of the Requirement of Master Degree

In Nursing Sciences

(Medical Surgical Nursing)

Presented By

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دور الممرضات في العناية بمرضى الإنسداد الرئوى المزمن الخاضعين للعلاج بالأكسجين

رسالة

توطئة للحصول على درجة الماجستير فى علوم التمريض
(التمريض الباطنى الجراحى)

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٢٠١٧



وَأَنْزَلَ اللَّهُ عَلَيْكَ
الْكِتَابَ وَالْحِكْمَةَ وَعَلَّمَكَ
مَا لَمْ تَكُن تَعْلَمُ وَكَانَ
فَضْلُ اللَّهِ عَلَيْكَ عَظِيمًا

صِرَاقُ اللَّهِ الْعَظِيمِ

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List of Contents

List of Abbreviations.....	I
List of Tables.....	III
List of Figures.....	V
Abstract.....	VI
Introduction	1
Aim of the Study.....	4
Review of Literature.....	5
Subject and Methods.....	47
Results.....	57
Discussion.....	89
Conclusion.....	97
Recommendations	98
English Summary.....	99
References.....	103
Appendices.....	123
Arabic Summary.....	--

List of Abbreviations

Abb.	Full Term
a1AT	Alpha 1 Antitrypsin
ABG	Arterial Blood Gases
AOT	Ambulatory Oxygen Therapy
CO	Cardiac out com
COPD	Chronic Obstructive Pulmonary Disease
CPAP	Continous Positive Airway Pressure
FET	Forced Expiratory Time
FEV1	Forced Expiratory Volume In First Second
FIO₂	Fraction of Inspired Oxygen
FVC	Forced Vital Capacity
H RCT	High Resolution Computed Temography
HRQOL	Health Related Quality of life
I C U	Intensive Care Unit
IPPV	Intermittent Positive Pressure Ventilation
LTOT	Long Term Oxygen Therapy
MMRC	Modified Medical Research Council
NIPPV	Non invasive Positive Pressure Ventilation
NIV	Non Invasive Ventilation
NOD	Nocturnal Oxygen Desaturation
PaCO₂	Partial Pressure of Carbon Dioxide In Arterial Blood
PaO₂	Partial Pressure of Oxygen in Arterial Blood
PO₂	Partial Pressure of Oxygen

Abb.	Full Term
PTB	Pulmonary Tuberculosis
SaO₂	Oxygen Saturation (of Srterial Blood Measured by Arterial Blood Gas Sampling)
SBOT	Short-burst Oxygen Therapy
SD	Standar Deviation
SpO₂	Oxygen Saturation Measured by Pulse Oximetry
VE	Ventilation

List of Figures

Figure	Title	Page
Figures of Review		
1	Nasal cannula	21
2	Simple face mask	22
3	Partial rebreather mask	23
4	Non-re-breather mask	23
5	Ventury mask	24
6	Nasal catheter	25
7	Transtracheal catheter	26
8	Trachesotomy mask	26
9	Nasal reservoir cannula	27
10	Endotracheal tube	27
11	T- piece	28
12	Nasal continous positive airway pressure	29
13	Self inflating breathing bag and mask	29
Figures of Results		
I	Nurses' knowledge regarding their role before oxygen therapy	63
II	Nurses' knowledge regarding their role during the oxygen therapy (n=30)	64
III	Nurses' knowledge regarding their role after oxygen therapy (n=30)	65
IV	Total nurse's knowledge regarding their role in managing COPD patients (n=30)	67
V	Total nurses' practice for COPD patient undergoing oxygen therapy (n=30).	83

List of Tables

Table	Title	Page
1	Percentage distribution of the nurses' characteristics included in the study (30)	58
2	Percentage distribution of nurses' knowledge regarding chronic obstructive pulmonary disease (n=30)	60
3	Percentage distribution of nurses' knowledge regarding Oxygen therapy (n = 30)	62
4	Percentage distribution for nurses' knowledge regarding oxygen therapy complications (n=30)	66
5	Percentage distribution for nurses' practice regarding assessment pre-administrating oxygen therapy for COPD patients (n=30)	68
6	Means and stander deviation for nurses' practice regarding managing COPD patient undergoing oxygen therapy (n=30)	70
7	Percentage distribution of nurses' practice regarding oxygen therapy for managing COPD patient (n=30)	71
8	Percentage distribution of common errors in nurses' practice during administration oxygen therapy via aerosol mask (n=30)	73
9	Percentage distribution of common errors in nurses' practice during administration oxygen therapy via nasal annual (n=30)	75
10	Percentage distribution of common error in nurses' practice during administration oxygen therapy via simple mask (n=30)	76

Table	Title	Page
11	Percentage distribution of common errors in nurses' practice during administration of oxygen therapy via non rebreathing mask	78
12	Percentage distribution of common errors In nurses' practice during endotracheal suction	79
13	Percent distribution of common error in nurses practice during administration oxygen venture mask	81
14	Relation between nurses' knowledge and demographic characteristics	84
15	The relation between nurses' practice and demographic characteristics	86
16	Relation between total nurses' knowledge and practice of nurses under the study	88

ABSTRACT

Chronic obstructive pulmonary disease (COPD) is the term refers to large group of lung disease characterized by obstruction of air flow making the patient very necessary for oxygen therapy which consider important for management of hypoxia. **The aim of this study** was to assess the nurses' role in managing patients with chronic obstructive pulmonary disease undergoing oxygen therapy. **Design:** A descriptive exploratory study was used to meet the aim of the study. **Setting:** the study was conducted in the chest ICU Ain Shams University at Hospital. Study **subjects:** all available nurses who working in ICU, chest) they were 30 nurse. **Data collection tools** two tools were used self-administrated questionnaire and Observational check list **Result:** results showed that (66.70%) of nurses had unsatisfactory total knowledge, (73.3%) of nurses had unsatisfactory practice and there was highly statistically significant relation between nurses' knowledge and practice regarding managing patients with COPD undergoing oxygen therapy **Conclusion:** the majority of the studied nurses had unsatisfactory level of knowledge and practice. **Recommendation:** The results of this study recommended that; the importance of orientation and periodic in-service training program for nurses concerning management for COPD patients undergoing oxygen therapy for continues updating their knowledge.

Keywords: COPD, Nurses, Role, Practice, Knowledge.

Introduction

Chronic obstructive pulmonary disease is a lung disease characterized by persistently poor airflow consequent to irreparable disintegration of lung tissue and small airways dysfunction. The cardinal symptoms include shortness of breath, cough, and excess sputum production, which typically deteriorate over time. is the third-ranking cause of death worldwide, reported estimates of its prevalence among adults older than 40 years range from 4.0% to 20.0% **(Global Initiative for Chronic Obstructive Lung Disease, 2012).**

Millions of cases are diagnosed annually and a similar number of people with the disease remain undiagnosed. The incidence of COPD is higher in men than in women. In patients with very severe COPD, 26% died after 1 year of follow-up, the incidences of COPD cases in Ain Shams University Hospital (412) in chest ICU in 2016 with considerable variation due to differing methodologies, diagnostic definitions, and demographic characteristics **(Wick, 2012; Afonso, et al., 2011).**

People with COPD can be at risk for some serious complications, may be also fatal. Unfortunately, doctors are usually unable to give a clear prognosis after a person receives a COPD diagnosis. Some patients live six months,

while others live for years (**Global Initiative for Chronic Obstructive Lung Disease (GOLD), 2013**).

People with chronic obstructive pulmonary disease (COPD) often become transiently hypoxaemic (low oxygen levels in blood), necessitating oxygen therapy to improve breathlessness and exercise capacity and to reduce disability. The large numbers of patients receiving supplemental oxygen as treatment and the high costs incurred in providing oxygen therapy necessitate the practitioner to know the indications for oxygen as well its effects on survival, pulmonary hemodynamics, sleep, and exercise capacity (**Lellouche, Lipes, & L'Her, 2013; Ameer, Carson, Usmani, & Smith, 2011**).

As the prevalence of chronic obstructive pulmonary disease (COPD) continues to grow, management of the disease still faces considerable challenges. Nurses play an important role in the management of COPD especially for ICU cases in need for ventilation. They have serious complications co-morbed condition, need for oxygen therapy to improve condition. Nurse play avital role in managing patient. During oxygen therapy there for these study.

Nurse should take a proactive approach to addressing safety and tolerability issues with patients when they are first prescribed O₂ therapy. When a patient expresses a
