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An exploratory study conducted in Hong Kong looked at how a nursing education program and counselling service affected patients with chronic obstructive pulmonary disease's quality of life and adherence to their medications.

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Abstract

People with chronic obstructive pulmonary disease often struggle with not using their inhalers as needed. As a result, this lowers one's health and overall quality of life (QoL). A number of studies have shown that patients who strictly follow their medication schedules had fewer hospitalizations and a better quality of life. The quality of life and adherence to treatment for chronic obstructive pulmonary disease (COPD) have been shown to improve with nurse education and counselling. An effective new method to enhance medicine adherence and patient quality of life in COPD patients is a nursing education and counselling programme. This dissertation seeks to do three things: (1) study and construct a strategy for implementing an educational programme in a clinical setting; (2) establish a protocol for evidence-based practise; and (3) analyse the possibility for implementing the approach. From two different online databases, six studies meeting the criteria were selected. Studies were critically evaluated to ensure they were of sufficient quality and validity. SIGN (Scottish Intercollegiate Guidelines Network) checklists were utilised for the evaluation (SIGN). The collected data was subsequently analysed.

The implementation's viability and adaptability were evaluated. The practical viability of the evidence-based recommendations was also taken into account. The next stage was to find out if clinical ideas supported by evidence were feasible for healthcare practitioners to execute. After this, we'll talk about the potential downsides and upsides of emerging technologies and tinker with the cost-benefit analysis. Additionally, the EBP procedure was developed with real-world clinical use in mind.

Keyword: Nursing Education, Pulmonary Disease, Emerging Technologies

INTRODUCTION

A worldwide health concern, Chronic Obstructive Pulmonary Disease (COPD) affects millions of individuals throughout the world. World Health Organization (WHO) forecasts that by 2030,

COPD would be the third largest cause of mortality in the world (WHO, 2012). COPD also has a detrimental influence on Hong Kong's healthcare system. The number of older people in Hong Kong suffering from COPD is on the rise due to the ageing population. As a result, the community is burdened with significant social and economic costs. Contrary to popular belief, one of the most prevalent difficulties faced by COPD patients is insufficient breathing compliance. This has a negative impact on your health.

Life Quality (QoL). A few studies have demonstrated that excellent medication compliance can minimise hospital admissions and enhance quality of life. Researchers have found that nursing education and counselling can enhance medication compliance and quality of life for COPD patients. COPD patients are expected to benefit from a nursing education and counselling programme, which is a promising new approach to improve drug compliance and patient quality of life. There are three main objectives of this dissertation: to examine and design a strategy for the implementation of an educational programme in a clinical environment, to establish an evidence-based practice (EBP) protocol, and to analyse the implementation potential.

LITERATURE REVIEW

This chronic lung disease, according to the Global Initiative for Chronic Obstructive Lung Disease (GOLD), causes airflow restriction that is generally progressive, as well as chronic inflammation in the airways and lung due to exposure to harmful particles or gases. However, even though COPD is an incurable illness, its symptoms and indications may be managed and prevented. An individual patient's total severity is affected by exacerbations and comorbidities (GOLD, 2013). Symptoms of COPD include dyspnea, persistent coughing or sputum production, shortness of breath, and a variety of other respiratory illnesses. COPD can also be caused by a history of exposure to risk factors, such as cigarette smoke and occupational dust, as well as a family history of the disease. The existence of a post-bronchodilator FEV1/FVC 0.70 can also be used to diagnose COPD. COPD airflow restriction can also be classified into four severity levels, according to the GOLD.

Drug and non-drug therapies are the most common types of COPD therapy in the real world. There are several ways to reduce symptoms and severity of exacerbations pharmacologically. There are several types of medicines used to treat COPD, such as bronchodilators and corticosteroids.

This includes smoking cessation, physical exercise training and immunisation as non-pharmacological treatments. The results of a study show that smoking cessation programmes can have a significant impact on mortality (Anthonisen NR et al., 2005). A better prognosis and a better health status can be achieved by quitting smoking early.

Unsurprisingly, over a quarter of individuals aged 40 and older had moderate airflow restriction, according to research (Buist AS et al., 2007). It has also been shown in a research that COPD is the world's fourth largest cause of mortality, accounting for roughly 2.75 million

deaths annually (Decramer M et al., 2012). Many individuals all around the world are affected by this. In 2030, the World Health Organization (WHO) forecasts that COPD will overtake heart disease and stroke as the third largest cause of death (Jemal A et al., 2005). There are significant social and economic costs to the society as a result of this, such as high medical costs.

COPD hospital admissions in the UK quadrupled between 1991 and 2000, and it represented for 1% of total hospital admissions in 2000. (Lung and Asthma Information Agency, 2003). To make matters worse for healthcare systems across the world, COPD is extremely expensive. On average, respiratory illness expenses in the European Union account for 6% of the overall health care budget, with COPD accounting for 56% (38.6 billion Euros) of the total cost (European Respiratory Society, 2003). As a result, COPD has a detrimental influence on individuals in many ways across the world, resulting in poor QoL, a higher mortality and admission rate, and increased social and economic costs for those who suffer from it.

STATEMENT OF THE PROBLEM

Insufficient inhalation compliance is a frequent issue for COPD patients. In turn, this has a negative impact on one's health and quality of life (QoL). A few studies have demonstrated that excellent medication compliance can minimise hospital admissions and enhance quality of life. Researchers have found that nursing education and counselling can enhance medication compliance and quality of life for COPD patients. COPD patients are expected to benefit from a nursing education and counselling programme, which is a promising new approach to improve drug compliance and patient quality of life. There are three main objectives of this dissertation: to examine and design a strategy for the implementation of an educational programme in a clinical environment, to establish an evidence-based practise (EBP) protocol, and to analyse the implementation potential.

The nursing education and counselling programme should be implemented in clinical settings to protect patients, healthcare practitioners, and the Hong Kong healthcare system.

Objective of the Study

- To assess the significant studies and analyses of education program in improving COPD patients' medication compliance and QoL.

Research Questions

Based on the PICO method, this research question is formulated as follows: When applied in evidence-based practise, the PICO approach helps define and answer a clinical question (Huang X, Lin J, Demner-Fushman D, 2006). When P (population) and I (intervention) are identified, as well as the comparison and the result, one may create a study question. COPD patients are referred to as P in this dissertation, nurse education and counselling are referred to as I, and regular care is defined as C, and medication compliance and quality of life are defined as O. So, the study question is: How does nurse education and counselling compare to routine care

in patients with chronic obstructive pulmonary disease in terms of medication compliance and quality of life?

Research Methodology

According to SIGN's 2014 grading approach, all qualifying research will be rated on their level of evidence and reported in TOE. In accordance with the system hierarchy, it goes from 1++ to 4 based on the research designs and bias risk. ITT analysis and blinding technique were used in E.O, Efraimsson et al's (2008) study and Wei, L. et al's (2014) study, which were both rated as 1+ for their well-conducted RCTs. Next, the rest of the four journals were given a score of 1 due to significant bias concerns, such as small sample sizes and limited generalizability. As a whole, the level of evidence was high, and the outcomes of the research provided us with a helpful foundation for creating the evidence-based procedure.

Research Design

ARCT is a randomised controlled trial (RCT), which means that its advantages may be used in developing evidence-based protocols. As a matter of fact, RCTs are an excellent research design for evaluating the effectiveness of medicinal interventions in clinical trials. Due to its high reliability in terms of scientific data, RCT's advantages may be readily shown. The random allocation, blinding, and allocation concealment further reduce research bias and improve objectivity and study quality by reducing study bias and increasing study quality. Using Wei et al research's design, we may think of study procedure in terms of an RCT, since it meets most of the criteria in SIGN checklists.

Data Analysis

Almost universal consensus was found among academic publications about the beneficial correlation between medication adherence education and quality of life. When comparing the SGRQ scores of those receiving treatment and those receiving a placebo, only Leiva-Fernández et al. (2014) found no significant changes. SGRQ, NHP, Morisky scale, and dosage counter values were also statistically significant across the majority of investigations. For instance, Wei, L. Statistically significant improvements in SGRQ subscale scores and dose-response curves were seen after 6 and 12 months of follow-up for the study by et al. (2014).

CONCLUSION

Both medication compliance and quality of life were hypothesised to be affected by the study's investigation. Quality of life was evaluated using the SF-36 and the Nottingham Health Profile, and medication adherence was tracked with the Morisky scale and a dose counter (NHP). Quality of life and medication adherence research has verified its accuracy. An unhealthy state of health was reflected in increased SGRO and NHP scores. Fewer dose counters indicated better compliance, whereas a higher score on the Morisky scale indicated worse compliance.

LIMITATIONS OF THE STUDY

People and systems treatments need to be evaluated, however when applied to their complexity, the randomised controlled trial (RCT) research methodology suffers from major constraints Public health and allied disciplines such as population and social services have been debating RCT alternatives for a while now, attempting to discover the trade-offs in their usage when randomization is impracticable or unethical. Review of current discussions and consideration of pragmatic and economic concerns involved with evaluating whole-population interventions while retaining scientific validity and credibility are the major limitations of the study.

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