

Telemonitoring is Acceptable Amongst Community Dwelling Older Australians with Chronic Conditions: A Literature Review

Yuana Dwi Agustin¹

*¹Nursing Diploma III Program, Universitas Bondowoso, Bondowoso, Indonesia
Corresponding author: yuanaadwi1975@gmail.com*

ABSTRACT

Introduction: Chronic disease is a serious health problem and the leading cause of death in the world. In 2008, chronic disease caused the death of 36 million people worldwide, or the equivalent of 36% of the world's deaths. Chronic conditions accounted for about 9 out of every 10 deaths in Australia in 2015.

Method: This study used pretest and posttest methods for telemonitoring intervention in the elderly with chronic conditions. The method of using telemonitoring was explained by the researcher before the research was carried out, this is evident by 20 respondents out of 21 respondents who stated that the explanation of computer use was easy to understand, and more than half of the respondents stated that the computerized system in telemonitoring was easy to use.

Result: The results of the research in this journal article explain that more than half of the research respondents would recommend using telemonitoring every day to their family and friends. This proves that the use of telemonitoring can be accepted by the elderly in Australia.

Conclusion: chronic disease conditions experienced by the elderly can be prevented by using telemonitoring which can help evaluate the health conditions of the elderly without having home visits, because nurses will know the condition of the elderly/patients who are at home every day.

Keywords: *Telemonitoring; Community; Chronic Conditions*

Introduction

Chronic disease is a serious health problem and the leading cause of death in the world. In 2008, chronic disease caused the death of 36 million people worldwide, or the equivalent of 36% of the world's deaths (WHO, 2013). Chronic disease is a chronic disease that can last a long time and is fatal, this disease is associated with damage or decreased physical and mental function (Depkes, 2013).

The use of the term 'chronic condition' refers to a wide range of chronic and complex health conditions across a spectrum of diseases, including mental illness, trauma, disabilities and genetic disorders. Chronic conditions have multiple and complex causes; generally are long-term and persistent, and often lead to deterioration of health and gradual loss of independence. Although not usually life-threatening right away, chronic conditions are the most common cause of premature death.

Chronic conditions accounted for about 9 out of every 10 deaths in Australia in 2015. More than 1 disease is often associated with death and 3 illnesses are on average. About 20% of deaths have 5 or more related diseases. Cardiovascular disease (coronary heart disease and stroke), dementia and Alzheimer's disease, lung cancer and chronic respiratory diseases including chronic obstructive pulmonary disease (COPD) are the most common leading causes in Australia.

According to a recent report published by the Australian Institute of Health and Welfare, about 50% of Australians are living with chronic disease. This report reveals the disruptive number of chronic disease sufferers caused by lifestyle choices, and urges a large injection of funds for prevention programs (Australia Plus, 2016). Chronic disease is the leading cause of death worldwide, estimated to account for 91% of total deaths (WHO, 2013).

Prevention efforts that can be carried out by health workers will greatly help minimize the side effects and impacts of chronic conditions that will arise on the elderly, especially those who are experiencing illness. Prevention efforts carried out will also minimize the swelling of family financial expenses for caring for the elderly with chronic diseases. One of the actions that can be taken in detecting chronic diseases in Australia is by evaluating the condition of the everyday elderly in Australia by using telemonitoring. The effort to use telemonitoring is to help evaluate the condition of the

elderly in Australia so that it is easily detected and is an early intervention carried out to determine the stability of their daily conditions.

Method

The critical appraisal tool used in the discussion of this journal article is JBI (Joanna Briggs Institute) for Case Report research. This tool was chosen because it was in accordance with the design of this study, namely the pretest and posttest intervention studies without a control group doing certain interventions and reporting the results of these interventions.

This research is a report on the intervention that has been implemented (case study). This study used pretest and posttest methods for telemonitoring intervention in the elderly with chronic conditions. The research summary in this article is clearly stated in the abstract from the background, research samples, research methods, and research results as well as conclusions. In this abstract, it is explained that the purpose of the research in this journal article is to determine the effectiveness of using telemonitoring in elderly with chronic conditions.

In this study, the health condition of the respondents before the intervention was carried out, where it was found that more than half of the participants, namely 14 out of 21 respondents, had a history of being hospitalized in the previous 12 months, 7 of the 14 study participants stated that their health conditions were worse this year. from the previous year.

Result

The method of using telemonitoring was explained by the researcher before the research was carried out, this is evident by 20 respondents out of 21 respondents who stated that the explanation of computer use was easy to understand, and more than half of the respondents stated that the computerized system in telemonitoring was easy to use. Recording of conditions in the telemonitoring system is by using the Tunstall Mytelemedic Telehealth Monitor (Tunstal Australasia Pty Ltd), this monitor consists of a central monitor and activates Bluetooth, the monitor will assess the client's condition, for example cardiovascular disease, hypertension conditions, respiratory disease algorithms and non-communicable disease conditions other. This monitor performs

monitoring once every day, specific things obtained from the examination which are important are blood pressure, pulse, oxygen saturation, blood glucose, temperature and body weight. After the measurement is carried out, the telemonitoring device will ask for answers to a series of questions about the symptoms experienced by the individual which are then transmitted to the general practice of the nurse, and this examination is carried out and continued for a certain period of about six weeks for each participant by taking into account a number of factors, including participant clinical condition and time of collection.

Discussion

The results of the research in this journal article explain that more than half of the research respondents would recommend using telemonitoring every day to their family and friends. This proves that the use of telemonitoring can be accepted by the elderly in Australia. In addition, research on telemonitoring can also assist local health workers in monitoring the patient's health condition without making home visits, this can increase the efficiency of funds and time for families, health workers, and the State. In addition, because this telemonitoring research uses computerized systems and computer use, families living with parents who experience chronic and complex conditions and they have not been exposed to computer systems, the results of the study show that experience and exposure to telemonitoring technology results in increased ability to use computers.

Patient demographic characteristics were described in detail, including age, gender, country of birth, education level, household residence, computer use, current level of satisfaction with health. The condition of the client when the intervention was carried out was explained, during the monitoring period, there were three conditions experienced by the research respondents, namely the respondent visited their doctor less than three times during the intervention, namely 15 respondents, 4 respondents visited their doctor four times or more, and 2 respondents were treated at hospital. In addition, in this study it was also explained that the chronic conditions of their disease were explained by these respondents, the condition of the respondents in this study was the elderly who were experiencing illness.

Before the research was carried out, the researcher explained how to use telemonitoring to the respondents, and evaluated whether the explanation could be easily understood or not, in addition to evaluating how to use telemonitoring, whether it was easy to use or not. Recording of conditions in the telemonitoring system is by using the Tunstall Mytelemedic Telehealth Monitor (Tunstal Australasia Pty Ltd), this monitor consists of a central monitor and activates Bluetooth, the monitor will assess the client's condition, for example cardiovascular disease, hypertension conditions, respiratory disease algorithms and non-communicable disease conditions other. This monitor performs monitoring once every day, specific things obtained from the examination which are important are blood pressure, pulse, oxygen saturation, blood glucose, temperature and body weight.

The clinical conditions in this study were explained about the respondent's condition after the use of telemonitoring, more than half of the participants (12 respondents) agreed that telemonitoring gave them a sense of security and peace of mind, helping them to manage their health (11 respondents), in addition to increasing ability and self-confidence. them in managing their care (11 respondents). Nearly two thirds of the participants felt more involved in their health care (14 respondents) stated that daily monitoring helped them to understand changes in their condition (14 respondents). More than half of the participants (12 respondents) agreed that they would recommend a daily telemonitoring system in the future and that they would recommend the use of daily monitoring for family & friends (13 respondents). Respondents felt this because they felt they knew the progress of their health conditions and were not worried about conditions that came suddenly.

This journal article does not explain the dangers that can arise from the interventions carried out in this study, it refers to the use of a computer system that is not harmful, because the computer system only records the health condition of the client at home which is then sent via a computerized system to the research center or to general practice of nurses. The chronic condition of the elderly who are experiencing illness creates an increase in the cost of treatment and care in the family and the State. Therefore it is important to make efforts to prevent the condition from becoming chronic. This is done in order to reduce the burden and responsibility of the family in

terms of financial and time. Because if chronic pain conditions can be prevented, it will help the elderly to remain productive and in good health.

Conclusion

The results of the research in this journal article show that chronic disease conditions experienced by the elderly can be prevented by using telemonitoring which can help evaluate the health conditions of the elderly without having home visits, because nurses will know the condition of the elderly / patients who are at home every day. This can occur because the condition of the elderly will be recorded and sent to the nurse's practice through computerized transmissions that have been placed in each patient's home.

Reference

- Check list Critical Joanna Briggs Institute [Online] Available at:
<http://joannabriggs.org/research/critical-appraisal-tools.html> [Accessed 30
September 2017]
- Chronic Conditions [online] Available at:
<http://www.health.gov.au/internet/main/publishing.nsf/content/chronic-disease>
[Accessed 30 September 2017]
- Halcomb, Purcell, Hickman, & Smyth, E (2016). Telemonitoring is acceptable amongst community dwelling older Australians with chronic conditions. *Collegian*, 23(4), 383-390. <https://doi.org/10.1016/j.colegn.2015.09.007>.