Original Article

Use of Virtual Video Call Communications in Family Visits: A Literature Review

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Abstract

Background: Family visits and patient assistance by the family during treatment experience limitations. limitations occur because of the COVID-19 pandemic which eliminated all family visits to patients, patients being treated in isolation rooms, elderly people living in nursing homes, and family limitations in visiting their cared for families.

Objective: Online visitation with a video call between patient and family can reduce the harm of isolation.

Method: The writing method uses a literature review to summarize and conclude several studies using video calls for family visitations in patients both hospitalized and elderly in nursing homes. Journal searches are carried out through both national and international databases. Search for related journals using the EBSCO, Pubmed, Proquest, Elsevier and Google Scholar databases.

Result: From the literature search, it was found that the use of video calls for online visitations of patients in hospitals and the elderly in nursing homes showed a decrease in anxiety, increased morale, reduced feelings of loneliness and isolation.

Keywords
Visitation Online, Video Call, Video Phone, Patient And Family

INTRODUCTION

During the Covid-19 pandemic, restrictions on visits to patients were carried out because of the risk of infection for the family in the patient's environment and limited personal protective equipment for the family (1). During the Covid-19 pandemic, family visits were very limited, even for ICU rooms there were no family visits. An option to replace family visits is virtual communication using video calls. Video calling is an intervention solution to visit limitation and can reduce the effect of isolating patients during a pandemic (2).

Technology has been used in health care systems to improve patient safety in all patient care services worldwide. The importance of information technology was recognized by the Institute of Medicine in 2000, which recommended increasing efforts to include technology in patient care (3). Create virtual care environments with easy-to-use chat and video applications over fast wireless networks. Virtual care uses text and video chat applications like google talk, video and gotomeeting which use super fast wireless networks (4). Communicating via video via the internet is popular worldwide because it reduces telephone costs and the technology is

easy to use. Face-to-face communication between families has decreased, so communication through video calling technology has been developed and has been tested on parents without cognitive impairment (5).

The use of telehealth in health services is widely used, one of which is virtual health, where visitations can be done via video calls without physical meetings. Many health consultations between patients and health workers have been carried out. Virtual communication between patient and family is still being done. Analyzing various perspectives on the use of virtual video call communication to replace family visitations is the author's interest to see several studies on family online visitations to treated patients.

METHODS

This writing method is a literature review with the theme raised is the use of virtual video call communication for family visitations to family members who are in care who experience obstacles in direct meetings due to distance, lack of time or due to restrictions on family visits. Literature reviews are simple summaries of article found related to the theme of using video calls for family visitations to patients. Article summaries of the synthesis results of the journal contents include research questions, research objectives, research methods and research results.

Journal searches are carried out through both national and international databases. Search for related journals using the EBSCO, Pubmed, Proquest, Elsevier and Google Scholar databases. The search is carried out using keywords; Online visitation, video call, video phone, patient and family with a time span from 2010 to 2020. The articles found were selected based on the desired theme using quantitative and qualitative research methods.

RESULTS

From the search results, 5 journals were found that match the themes raised by 2 quantitative journals and 3 qualitative journals. The research site in the hospital with the theme of the impact of online visitation on reducing anxiety and depression, the benefits of online visitation for families and the obstacles to online visitation using video calls. Research from nursing homes assesses the implementation of online visitations by families and the obstacles experienced in carrying out online visitations with video calls.

The use of video calls for online visitation of patients in critical care rooms from the study of (6) evaluated the role of online video visits on anxiety and depression in post-cardiac surgery patients in the ICU. The study used a randomized controlled trial method with a purposive sampling method. It was found that 66 samples of patients who underwent heart surgery were divided into an intervention group of 33 participants and a control group of 33 participants. The study used a hospital anxiety depression scale (HADS) instrument to assess the level of anxiety and depression in patients before surgery after the first visual visit and after the second video visit. The decrease in anxiety 24 hours after intervention was almost the same in the control and intervention groups, This study also reported no reduction in depression rates in either the control group or the intervention group (6).

(7) in a study to evaluate the effects of smartphone-based video conferencing programs on feelings of loneliness, depression and quality of life of residents of nursing homes. This study used a quasi-experimental method where the participants were the elderly on 7 Vietnamese coasts consisting of 32 elderly in the intervention group and 30 in the control group. The

intervention group interacted with their families once a week for 6 months using smartphones and the "line" application. The assessment instruments used were the UCLA loneliness scale, the geriatric depression scale (GDS) and the QoL SF 36 quality of life. This study found a decrease in feelings of loneliness in the elderly, increased physical function, vitality and decreased pain scores in the elderly. However, there are no significant changes for depression data in the elderly (7).

Further research carried out by (8) was carried out during the Covid-19 pandemic due to restrictions on visits, online visits by video calls were an option. This study aims to document the findings of interviews with family members after a video call visit with their cared family members. The interview theme of this qualitative research is the feelings experienced during online visits, obstacles and challenges or concerns about online visiting services, opportunities for online visits and their improvements. The results of the interviews with families are the results of the analysis of 230 comments received about feelings showing more than 86% positive sentiment (88.2% and 86.8% respectively) with some neutral (7.3% and 6.8%) and negative sentiments (4.5%). and 6.4%). The qualitative analysis of data from 57 participants who commented on barriers pointed to four main concerns: inability to communicate due to patient status (44% of respondents); technical difficulties (35%); lack of touch and physical presence (11%); and frequency and clarity of communication with nursing teams (11%). The suggested improvements from 59 participants included: access on demand (51%); better communication with nursing teams (17%); better scheduling process (10%); and improved system feedback and technical capabilities (17%). Conclusion The use of vICU for long-distance family visits evokes happiness, joy, gratitude and relief and a sense of closure for those who have lost loved ones (9).

Nicholas (2013) documented a program carried out by the Thunder Bay Regional Health Science Center (TBRHSC) in Ontario Canada. The program is a provider of video conferencing for patients at their bedside using wifi and technology devices to conduct video conferencing. The aim of this program is to reduce the impact caused by geographic and climatic barriers between patients and their families to be able to meet. This video conference service activity also aims to reduce the negative impact of being treated, such as feelings of isolation and loneliness. One example of the implementation of this program is an elderly person who is married over 50 years and lives with his wife separately, when he has to be treated for heart disease. The patient becomes depressed because he cannot see his wife and child. With the video conferencing facility beside the bed, patients can connect with video calls with their families almost every day until the patient goes home. The general evaluation of the video conference program is that there is an increase in patient satisfaction, an increase of 12% from all dimensions from the previous year and an increase in staff and doctor satisfaction to 82.2% (10).

(5) conducted research with Collaborative Action Research (CAR) and qualitative for the application of the use of video calls to elderly living in homes. Researchers believe the use of video calls in the elderly can reduce feelings of loneliness and social isolation. Researchers intervened by providing video call facilities using Skype on wheel (sow) involving the orphanage officers. The purpose of this study was to identify obstacles in making video calls between the elderly and their families. The participating homes consisted of 4 orphanages, 21 nursing staff, 19 elderly and 15 elderly families who participated in this study. The evaluation of the activity used an ethnographic approach consisting of observation, unstructured interviews, writing memos, feedback forms and reflective diaries were taken for data collection. Of the four nursing homes that use skype on wheel (sow) to communicate with families, it was found that eight elderly people can communicate by video calling, Older seniors can use skype on wheel (sow) with the help of staff and enjoy using video calling so they stay connected with family.

Five obstacles to implementing video calls were staff turnover, risky Sow design, lack of family commitment and staff attitudes about technology use (5).

DISCUSSION

The results of the above research can be concluded that there are three main domains in the results of research conducted by RCT, quasi-experimental and qualitative descriptive, namely:

Decreased level of anxiety

The research of (6) looked at the effectiveness of video calls to reduce anxiety in critical care patients who did not have family visits.. There was a decrease in anxiety after being made video calls twice and 48 hours after being treated in the intensive care room (6). Anxiety, sadness and fear are common feelings in periods of isolation, where anxiety can increase when in a threatening situation (11). According to the study (12) of 108 patients treated in intensive care, the incidence of anxiety in patients who were admitted to the ICU was found to be 84.3% experiencing anxiety and 79.6% experiencing depression.. The high incidence of anxiety and depression in patients in critical care rooms is an important concern because patients can fall into a high level of anxiety which can interfere with recovery and the process of treatment and care. The recommendation to reduce anxiety levels during isolation is to maintain social contact where humans are social beings who live side by side with loved ones, but due to contact restrictions due to isolation, contact can be done by video calling(11). This recommendation can be a reference for using video calls for patients who do not receive family visits while being treated. Research on how video calls which are a substitute for social contact can reduce patient anxiety can be further investigated with different conditions and situations.

Reduces feelings of isolation and loneliness

Long distance communication via video calls between patients and families, between the elderly and their families, can reduce feelings of isolation and loneliness (5,710). From Nicholas's 2013 research, it can be seen how the video calls made by patients and their families while they were hospitalized made them not lonely because they could talk and see their family activities from home. Video call calls make patients feel alone even though they are separated from their families.

Feelings of isolation and loneliness because they are far from the social environment and loved ones can occur in patients who are in isolation rooms and elderly people who are in nursing homes. Patients who are not allowed to be visited and the patient and family are separated because of the distance so that the family cannot easily visit their family members who are being treated because of the distance.Social and demographic trends put an increasing number of adults at risk of experiencing loneliness. The recommendations for a number of interventions to reduce loneliness based on qualitative studies are four main things, namely improving socialization skills, increasing social support, increasing opportunities for social contact and dealing with maladaptive social conditions (13).

Limitations and barriers to making video calls

According to Zamir et.al, identifying five obstacles in making video calls in nursing homes are shift changes when the elderly are doing video calls, lack of family and staff commitment in the use of technology and technology design that is risky for the elderly. Using video calls certainly has limitations such as the research results of Farzan et. El explained the results of the interview

with the family. There were difficulties in communicating because of the patient's status, technical difficulties in using video calls and the family did not feel physical touch. Technical barriers can be facilitated by hospitals or nursing homes by assisting patients when making video calls.Technical barriers in making video calls can be reduced by providing smartphone facilities and video call applications that are already used by patients and their families. There is a need for socialization to officers, especially nurses, who facilitate patients and families to make video calls.

CONCLUSION

The use of technology in health services has been widely used in the form of telehealth, online visitation has been implemented in doctor visit services. The development of online visitations between families needs to be improved because it is beneficial for patients and families. The limitation of the demographic distance between the patient and the family, the limitation of the visiting hours for the patient in the hospital and the patient being admitted to the isolation room are obstacles in the meeting of patients with family and loved ones. Providing online visitation facilities to families from several studies can reduce the level of anxiety and feelings of isolation of patients. Although there are limitations in virtual family and patient gatherings, over time, the provision of video call facilities becomes a necessity.

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