



Review Article

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Effect of Telehealth Intervention on Quality of Life of Cancer Patients: A Narrative Review

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Abstract

Objective: The objective of this study is to determine the effectiveness of telehealth interventions on patients with cancer and their quality of life.

Methodology: The study aims to achieve the outcome using a narrative review of the existing literature approach.

Approach: literatures in the field of cancer nursing studies were reviewed and adopted when at least one type of Telehealth Intervention method was included.

Conclusions: Telehealth interventions demonstrated effectiveness in quality of life and other mental health problems. Further studies are recommended to identify efficacy of the Telehealth Intervention on other aspects of cancer patients.

Keywords: Cancer patients, Quality of life, telehealth intervention, Cancer, narrative review

Introduction

Cancer is known as one of the predominant health issues in the world. In 2012, 14.1 million new cancer patients, 8.2 million deaths, and 32.6 million cancer survivors were reported. In Australia one-third of the total population develop cancer before they get 75 years old [1]. Also, it is estimated that 30.2 million people will be living with cancer which is 1.5 times higher than in 2020 Thanks to technology, there has been a vast majority of treatments such as chemotherapy, radiation, and surgery for this disease, however, there are some adverse effects following these treatments that can reduce both survival time and quality of life [2-4]. As these treatments become more severe the adverse effects that patients may experience result in harming functional capacity and poor quality of life [5]. Moreover, the nature of cancer diagnosis can cause many physical and psychological health issues like fatigue, physical pain, the strain on interpersonal relationships, anxiety, and depression for patients. Anxiety and Depression account for 10% to 20% of the cancer population and can have a negative

impact on their lives [6,7]. Since cancer is becoming more prevalent worldwide and with increasing morbidity each year, quality of life plays a key role in the long-term impact of cancer and treatment [8]. Studies reported that the quality of life cancer patients during treatment reduced in 3 months which was followed by slow recovery [9]. Also, a study indicated that potential treatment side effects on women who have been diagnosed by breast cancer can significantly decrease their quality of life [10]. To achieve a better quality of life, a clear understanding of long-term survivorship and the effect of quality of life is needed [11]. Therefore, there is a great demand to support cancer patients physiologically and socially over the past decade [7].

As mentioned earlier, cancer populations suffer from various physiological distress which can be interfered by coping strategies. Thus, a proper management can lead to better coping skills, reduced distress and improvement in quality of life [12]. There have been many interventions related to cancer patients' quality of

life, however, telehealth interventions are limited to some certain chronic diseases and there are few interventions related to cancer patients. However, studies show that telehealth in different forms such as images, videos, text messages can effectively reduce the length of hospitalisation, referring to the hospital for emergency care, financial expenses and enhance the management of disease in critical conditions. It is worth noting that the patients report a high level of satisfaction using telehealth [13]. Another study showed that e-health application provided them insight, information related to their disease, and they were able to access to supportive care as well [14]. The impact of telehealth interventions highlighted once Covid-19 appeared and many cancer patients were susceptible to coronavirus infection, particularly those who were under chemotherapy treatment and their treatment would delay if they get infected seriously [15]. Telehealth is mainly used at home. It can be interactive with nurses, doctors and peers or noninteractive [16]. This paper aims to assess the effect of Telehealth Intervention on cancer patients' quality of life.

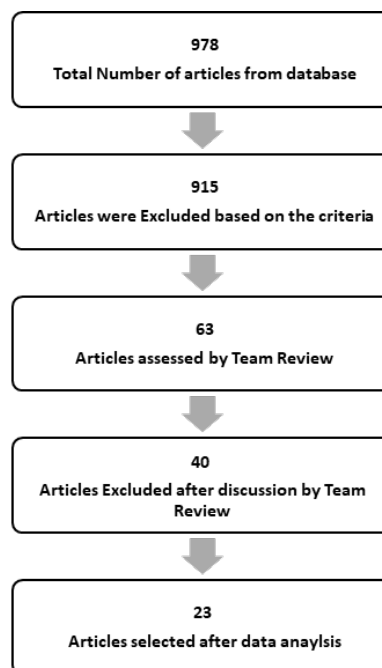
Methodology

Data Resources and Research Strategies

The data has been collected from MEDLINE, Science direct, Embase, CINAHL, SCOPUS, Cochrane Library, Scopus and Web of Science. The research terms were as follows: Cancer patients, Cancer AND Quality of life, Cancer patients AND Quality of life, Cancer patient AND Telehealth, Cancer patients AND Interventions, Cancer AND Telehealth, Quality of life, Quality of life AND Telehealth,

Findings

Table 1: Study process chart.



Quality of life AND Telehealth Interventions, Cancer AND Mobile app, Cancer Patients AND E-Health, Cancer AND Cell phone, Quality of life OR Cancer, Quality of life OR Cancer patients, Quality of life OR Telehealth, Quality of life OR Telehealth Intervention, Cancer OR quality of life, Cancer patients OR Quality of life, Cancer OR Telehealth, Cancer OR Telehealth Intervention. The study was based on adult subjects and randomized clinical trial, systematic review, meta-analysis and narrative review were included. The papers were reviewed from 2010 to 2023.

Inclusion and Exclusion Criteria

A researcher screened and searched for papers according to following eligibility:

- i. Participants should be between 18 and 60,
- ii. Cancer diagnosis,
- iii. Randomized clinical trial should be performed on cancer patients at any stage,
- iv. The intervention should be based on e-health and Telehealth,
- v. Systematic, meta-analysis review should assess randomized clinical trial with comparison (before and after),
- vi. The quality of life should be one of elements which was assessed in the studies,
- vii. The papers' language in English and Farsi.

The total number of 978 articles were searched on databases. According to criteria 915 articles were excluded and 63 article assessed by the Team Review, 40 articles were excluded after discussion and at the end 23 articles were selected for data analysis. Table 1 shows the process followed in this study to perform the review.

Conclusion

The data shows that some cancer patients can benefit from Telehealth programs an alleviate the side effects and improve quality of life. The interventions like internet-based exercise had a positive effect on quality-of-life breast cancer patients [17,18]. Female cancer patients with different diagnosis also reported that they experienced less fatigue and a better sleep quality after participating in the e-health intervention [19]. Another Systematic review reported potential benefits to improve pain, depression and quality of life, however, more resources are needed to assess the impact of Telehealth interventions [20]. However, there are some population who need to be assisted in device operation which should be considered for the future studies [21]. Also, the care can be delivered to the patients equally [22]. Therefore, it can be concluded that cancer patients may benefit from Telehealth programs while there are some barriers which required to be clarified in future studies.

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