CN6 | E-health applied to oncology treatment, education and knowledge for cancer care: A systematic review

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Background: E-health, by WHO definition, incorporates a range of standards, tools and activities that use electronic means to deliver information, resources and services about health and social care. At the heart of e-health is a vision of improving the quality of health information, strengthening national health systems and ensuring accessible, high-quality health care for all. The use of e-health interventions is effective in improving patient experiences and outcomes. To increase evidence about supportive e-health interventions that include nursing interventions for education to oncology patients under treatment. Subsequently to improve the quality of oncology care by analysing the data in a potential model for e-health application and how efficient health systems are.

Methods: The review was done according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis Reviews and Meta-Analysis guidelines (PRISMA). terms related to cancer, e-health, telemedicine and nursing interventions were searched in the following databases: CINAHL® Plus, Nursing & Allied Health Collection, Cochrane Plus Collection, MEDLINE®, EBSCOhost, Scopus & Joanna Briggs from the last five years. Languages as: English, Spanish and Portuguese, published in last 5 years (January 2017 till February 2022).

Results: Seventeen (n = 17) studies were identified. Different designs; quantitative and qualitative methods were included. Reviews and Systematic reviews, prospective cohorts, quasi-experimental and pilot studies were included. The results focus on a technology-based intervention that aims to improve cancer care, health and well-being; All the interventions were applied to cancer patients, apply for cancer caregivers (n=1) and young adults with cancer (n=1).

Conclusions: E-Health has an enormous potential to improve healthcare cost, effectiveness, and quality of care. Feasibility of internet-based was demonstrated, E-Health use in clinical oncology has had a significant impact on the delivery of cancer care. Nurses in multidisciplinary teams are considerate well placed to support adherence to treatment among cancer patients, E-health helps to manage better care because it can simplify interprofessional team care.

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CN7 | Women with breast cancer stories about divergent approaches of obtaining information of health, diagnosis, and treatment: A deductive approach based on dimensions of health literacy

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Background: For women diagnosed with breast cancer, radiation therapy (RT) is one of several treatment modalities offered. Most women express a desire for information before the treatment enabling them to prepare and feel safe. This need of information continues throughout the RT. Difficulties to assimilate health information gained from reading, personal meetings, or digital technology may relate to lower health literacy (HL). HL is a dynamic concept that encompasses skills such as reading and interpret information about one's health. Digital technology offers innovative ways to gain information. To facilitate relevance and reach of science it must be evaluated before implementation. The women participating in this study had access to a new digital information tool, Digi-Do. The Digi-Do comprises two separate but coherent applications for mobile devises: One virtual reality (VR) application, with a guided tour of the RT-department and an information application with focus on cancer and RT. The aim of the study was to illuminate the experience of digital versus analog ways of seeking and assimilate information for women diagnosed with breast cancer.

Methods: A qualitative design with a deductive approach with based on the different dimensions of HL was employed. Semi-structured interviews with 15 women after completion of RT was performed and analysed with qualitative and quantitative content analysis.

Results: Following categories emerged; perception of assurance and support; knowledge and control; information through digital technology. Additional aspects that emerge will be categorised and presented to contribute to a greater understanding of information seeking behaviours and needs of women diagnosed with breast cancer as well as to ensure acquisition of quality information.

Conclusions: Digital technology presents innovative ways to support information tailored to person's needs before commencing RT. Majority of women participating in the study preferred a combination of digital technology with analogue patient information to gain knowledge about health and RT. Although, the personal meeting was favoured, Digi-Do was recognised as a valuable complement.

Clinical trial identification: The study received ethical approval from the Swedish Ethical Review Authority (Dnr 2020-00170).

Legal entity responsible for the study: Legal Entity: Jönköping University, Coordination and running of the study: Research lead Maria Brovall & Frida Smith, coordination and running of study Doctoral student Annika Grynne.

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CN8 | Implementation of reporting symptoms from chemotherapy treatment via an app: Patients' perception of reporting digitally

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Background: App features are becoming increasingly common in society and in Health Care as well even though Health Care has more to contribute to this area. Our patients often ask for digital way of communicating with us and as a part of this we discussed implementing a digital way of symptom reporting from chemotherapy treatment.Today, the contact nurses call the patients two days before the booked time for chemotherapy. They then do a symptom check to ensure the patient is ready for treatmentThis way of working is time-consuming for the nurses and it is not always that the patients respond, which leads to us having to call the patients several timesPatients are also not in a place where it is appropriate to discuss their side effects and other problems. We wanted to test whether reporting symptoms via an app could replace the phone calls to patients. We also wanted to investigate whether patients felt that they received answers to their questions and that they were able to adequately report their symptoms.

Methods: In August 2021, a reporting template was prepared with different response options to the respective symptoms. If they report, for example, nausea, follow-up questions will be asked for that symptom.Reporting template contains few free text fields to make it easier to export to the patient record.In November 2021, the first digital symptom checks were sent via the app. The symptom check was sent to patients who were undergoing a cytotoxic treatment at outpatient clinic. All patients who reported digitally had to complete an evaluation questionnaire.

Results: Our preliminary results show that patients are satisfied with reporting digitally. 81% believe it's easy to report symptoms in the app. 81% believe they obtained accurate reporting of their symptoms. 12% wanted a nurse to call them instead. 94% felt they received the counselling they needed for their treatment by communicating digitally with the nurse.

Conclusions: We will introduce digital symptom reporting to more patient groups. The evaluation shows that patients are generally satisfied and believe that they can report their side effects correctly via an app. The evaluation of the project will be completed in June 2022.

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CN9 | Mapping the Functional Assessment of Cancer Therapy (FACT-G) in Greek patients with neoplasm: An interplay of statistical and bioinformatics approach

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Background: Cancer patients frequently experience emotional distress which negatively impact theirs quality of life. Aim of this study is to determine the Functional Assessment of Cancer Therapy in Greek Patients with Neoplasm based on FACT-G questionnaire.

Methods: A cross-sectional study was conducted in an Oncology department of a Greek Hospital. The convenience sample consists of 321 cancer patients undergoing chemotherapy. Demographic data and functional levels assessed using the FACT-G Scale were collected. The FACT-G is a 27-item tool containing 4 subscales: physical (PWB), functional (FWB), social/family (SWB) and emotional (EWB) well-being. Each subscale has a score, and a higher score indicates better HRQOL. Clustering was

performed on the above subscales, to investigate the existence of different subgroups.

Results: A total of 321 patients were invited to participate. Patients had an average age of 60,3 years and 63% were male. Several cancer types were referred, however the majority of patients' diagnosis (72,8%) concerned lung and colorectal cancer. The Pearson correlation analysis indicated that high FACT-G total scores was associated with gender, age and educational level. Particularly, (i) PWB,SWB and EWB were associated with the gender; (ii) PWB and FWB with the age; and (iii) SWB, EWB and FWB with the educational level. Moreover, Mann-Whitney U test revealed that undergoing chemotherapy significantly influenced the FACT-G and SWB. In order to further investigate the role of undergoing chemotherapy, 200 out of 321 patients completed FACT-G questionnaire after 1st and 2nd cycle of chemotherapy. Cluster analysis revealed different patients' subgroup based on the score of four above subscales, indications that further strengthen the results that came up from the statistical analysis.

Conclusions: Demographic factors play a critical role to the functional status of cancer patients. Moreover, the patients' clustering based on the outcomes of FACT-G questionnaires offers a new frontier in patients' management in the context of patients-centered approach.

CN10 | Digital in-home training before breath-adapted radiotherapy

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Background: Deep Inspiration Breath Hold (DIBH) technology is increasingly used with radiation therapy to protect healthy organs from unwanted absorbed dose. Using deep breaths, this technique creates as larger distance between the heart and the chest wall. DIBH has shown good results, but requires a well-prepared, involved patient who has learned the correct breathing technique so that optimal position and breathing patterns can be reproduced during each treatment session. There is no evidence regarding which type of inhalation is optimal or how to best train this. However, a person-centered model for DIBH training has been developed in co-design with relevant stakeholders, and this will be integrated into a digital information and instruction tool enabling training undertaken at home. The purpose of this project is to describe and evaluate a person-centered model to train the most optimal breathing technique for breath-adapted postoperative radiotherapy of women affected by left-sided breast cancer.

Methods: Using qualitative and quantitative methods, the project will examine how the model affects health-related outcome measures such as perceived health literacy (HL), distress (worry, anxiety) and the feeling of being prepared. It will also determine whether this training may be time and cost effective for the health service.

Results: A pre-study has shown optimal breathing technique and developed a coaching method. The digital tool is under development in a co-design process. A three-armed RTC will start during 2023.

Conclusions: This study will gain knowledge about what benefits individuals and the healthcare system may gain by using the model and the digital tool. An evidence-based methodology of breathing techniques and coaching methods can be standardized in the clinic and will contribute to equal, quality-assured, and cost-effective care and reduce the risk of future ischemic heart disease, which can lead to reduced quality of life and premature death.

CN11 | Patient involvement in development of digital pathway eHealth service

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Background: The use of eHealth services has increased significantly in recent years. According to earlier publications the eHealth services support patient's self-management and involvement in their own treatment. The eHealth services are useful in searching for information on cancer disease. They also allow the patients to view a part of their own medical record and to communicate with a healthcare professional regardless of time and place. In eHealth services, patients value simultaneous access to information and healthcare professionals' support. Patients want to use eHealth services to connect with medical staff and to find answers to sensitive and difficult questions. The use of eHealth services increases the patient's sense of safety and disease management. Patient involvement is the key issue in the improvement of the quality and usefulness of eHealth services. This study aimed to explore patients' view at first during development of eHealth service and secondly during development of a digital care pathway. The aim of this study was to improve the quality of eHealth services for cancer patients through their involvement.

Methods: Study data was collected: 1) In group discussions among Client Board of the Cancer Centre. 2) In the help of a digital survey among patients using eHealth services at Cancer Centre outpatient clinic.

Results: Members of Client Board suggested that nursing staff would use the eHealth service more often as a part of patient care. They expected reliable and informative content as well information on cancer patient support services and patient organizations. They felt it was important that the patient's perspective was considered. Patients experienced of the use of digital pathway mainly positive, and they found it be useful contact channel with nursing staff in daily life.

Conclusions: The results of this study can be used to develop eHealth services and improve the quality of cancer patient care.