INPLASY PROTOCOL

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Digital Health and Telehealth in Cancer Care: A Protocol for a Scoping Review of Reviews

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Review question / Objective: To identify and summarize existing systematic reviews of digital health and telehealth across the cancer care continuum, in order to detail the state of the science and to identify important gaps to guide future reviews.

Background: Standard oncology care rarely utilized digital health and telehealth prior to the COVID-19 pandemic, although there has been increasing interest in leveraging technology to increase accessibility of cancer care over the past two decades. Delivering interventions by the telephone and Internet can reduce barriers relative to in-person care. With the particular acceleration of research into remote cancer care delivery through the pandemic, we sought to characterize the current state of the science available through literature reviews in this field.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 18 July 2022 and was last updated on 18 July 2022 (registration number INPLASY202270089).

INTRODUCTION

Review question / Objective: To identify and summarize existing systematic reviews of digital health and telehealth across the cancer care continuum, in order to detail the state of the science and to identify important gaps to guide future reviews Background: Standard oncology care rarely utilized digital health and telehealth prior to the COVID-19 pandemic, although there has been increasing interest in leveraging technology to increase accessibility of cancer care over the past two decades. Delivering interventions by the telephone and Internet can reduce barriers relative to in-person care. With the particular acceleration of research into remote cancer care delivery through the pandemic, we sought to characterize the current state of the science available through literature reviews in this field.

Rationale: This scoping review of reviews on digital health and telehealth interventions in cancer extends prior reviews in this area by summarizing review literature across the cancer trajectory, by including reviews of digital health, and by including interventions for family cancer caregivers and for cancer healthcare providers. These extensions are necessary to understand the broader science on digital health and telehealth practices across the full spectrum of cancer care.

METHODS

Strategy of data synthesis: Search strategies were created a priori with a medical librarian to identify published systematic reviews on digital health and telehealth and cancer. Databases searched were PubMed. Cumulative Index to Nursing and Allied Health Literature (CINAHL), American Psychological Association PsycINFO, Cochrane Reviews, and Web of Science. Reference lists of related literature were also reviewed for pertinent literature. Complete search strategies and database information will be included with the published review. Unpublished and gray literature were not pursued. All searches were executed by September 1, 2021, with an update executed on May 2, 2022.

Eligibility criteria: Included reviews were required to meet the following a priori eligibility criteria: (1) English-based or English-translated literature; (2) published in a peer-reviewed journal; (3) the exposure of interest was cancer, whether as an individual at risk for cancer, a patient undergoing cancer care, a cancer survivor, a family caregiver, or a healthcare provider involved in cancer care delivery; (4) all studies reported in the review included an evaluation of a digital health or telehealth intervention or healthcare practice; and (5) the literature review used a systematic search method.

Source of evidence screening and selection: Unique records were compared against the eligibility criteria using Rayyan, an online review tool. In the first round, study titles and abstracts were reviewed by 2 of 3 coders (KS, RU, and JG). Discrepancies between coders were reviewed during a consensus meeting attended by all 3 coders. All citations that initially met criteria were included in a second round of full-text article screening. Full-text articles were reviewed by 2 of 8 authors (KS, KT, CS, BG, RU, JG, RF, and CL), with discrepancies between coders resolved by KS or RU.

Data management: Data were extracted from included records using a standardized and predefined form through Qualtrics, an online survey tool, which was pilot tested by all coders. Data were extracted independently by 2 of 8 authors (KS, KT, CS, BG, RU, JG, RF, and CL), with discrepancies between coders resolved by KS or JG. Coders extracted review metadata, as well as data about the reviews' eligible population, intervention characteristics, and study design (details about data extraction items will be published with the review). Extraction and categorization of implementation outcomes according to the terminology used by Proctor and colleagues (2011) was completed post-hoc by consensus of KS, KT, and CS.

Language restriction: Yes: reviews were required to be English-based or Englishtranslated literature.

Country(ies) involved: USA.

Keywords: Cancer; digital health; telehealth; scoping review; meta-review.

Contributions of each author:

Author 1 - Kelly Shaffer led all aspects of the review: conceptualization, data curation (title/abstract screening, full text screening, data extraction), formal analysis, project administration, supervision, validation, writing - original draft, and writing - review and editing.

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Author 8 - Catherine Joshua is the medical librarian responsible for devising (in collaboration with lead author Shaffer) and executing the search strategy for this scoping review. She was also involved in writing - original draft and writing - review and editing.

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Author 9 - Carissa Low was involved in conceptualization, data curation (full text screening, data extraction), validation, writing - original draft, and writing - review and editing.

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