INPLASY

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Protocol for a scoping review to understand what is known about concepts and practices of responsibility of health in the use of digital health tools

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INTRODUCTION

*R*eview question / Objective The question set out for the review will be kept broad to accommodate both empirical and theoretical literature pertinent to the topic. Following the aim of the review, the identified main question for the scoping review is:
"What is known and understood about the concepts and practices of health responsibility in relation to the use of digital health tools?"
Subordinate questions for the review are the following:
1) Which theories/frameworks are employed by the authors in the discussion of responsibility for health when using digital health tools?
2) Which types of digital health tools are argued to have the most significant impact in the way in which health responsibility is conceptualised, understood and practised?
3) What conceptual and empirical evidence in the literature, if any, supports the argument that digital health tools shift health responsibility to users?.

Background Digital and AI-based health technologies are ubiquitous and becoming more and more accessible nowadays. Along with discussions regarding their benefits, concerns around the ethical aspects of these tools have arisen, including issues such as privacy, trust, and accessibility (Martinez-Martin & Kreitmair, 2018; Vayena et al., 2018; Wies et al., 2021). Another important topic of discussion pertains to the potential shift in the locus of health responsibility, moving from healthcare providers to the users themselves (Davies, 2021; Martinez-Martin, 2020). However, a systematic mapping of existing conceptual and empirical evidence around digital health and moral responsibility has yet to be conducted. To address this gap, a scoping review

will be undertaken to better comprehend the literature around this issue.

Rationale To better understand what has been discussed about the topic of responsibility in health in relation to the use of digital health tools, we plan to conduct a scoping review and generate a narrative analysis of the content of the literature. A scoping review was chosen as a method due to the exploratory nature of the question we plan to investigate. It allows us to assess the extent of the literature and identify knowledge gaps concerning health responsibility concepts and practices in light of the proliferating application of digital health tools. We will follow the steps recommended by Arksey & O'Malley (2005), which comprise: 1) identification of the research question, 2) identification of relevant studies, 3) selection of studies, 4) charting the data, and 5) collating, summarising, and reporting the results.

METHODS

Strategy of data synthesis The search strategy will aim to locate published papers and grey literature. An initial preliminary search of MEDLINE will be undertaken to identify articles on the topic. The text words contained in the titles and abstracts of relevant articles, and the index terms used to describe the articles were used to develop a full search strategy for searched databases: MEDLINE, PsycINFO, Scopus, PhilPapers, and ProQuest (for grey literature). The search strategy, including all identified keywords and index terms, will be adapted for each included database and/or information source. We will also adapt our search terms to validated strategies developed by prior reviews (e.g. Ayiku et al., 2021). The reference list of all included sources of evidence will be screened and snowballed for possible inclusion of additional studies.

Eligibility criteria To ensure a wide breadth of literature, this review will try to cover papers from multidisciplinary fields such as medicine and healthcare, psychology, engineering and philosophy; and include diverse types of papers, from observational studies to philosophical and ethical analyses, reviews, editorials, and commentaries pertaining to the discourse of health responsibility regarding the usage of digital health tools. We will not include study protocols, papers with abstracts only, and papers with no full text available. This review will include papers addressing any digital technology designed for health purposes and exclude technologies created for non-human populations, such as animals or agriculture; and technologies for non-health

purposes (e.g. trading or business, general education, tourism). Content-wise, we will include papers with prominent discussion on health responsibility, or papers where health responsibility may not be the core topic of the article, but is still a prevalent theme. Articles where health responsibility is only tangentially mentioned without further elaboration will be excluded.
Considering the time and resource constraints, for this scoping review, we will only include papers written and published in English. There will be no limitations on the geographic location of where the literature is published or where the studies originate. The scoping review will only include literature published in 1980 and later, as the year was marked as the start of the digital revolution (Sigulem et al., 2017).

Source of evidence screening and selection
Following the search, all identified citations will be compiled and uploaded into Covidence. Any duplicates will be removed. Titles and abstracts will subsequently be evaluated according to the review's inclusion. Potentially relevant sources will be fully retrieved. Reviewers will then scrutinise the full text of selected citations following the inclusion criteria. Contents of the papers will be rated according to their levels of relevance as done by Wies et al. (2021); prominent/prevalent or tangential, in which case they will be excluded. Rationales for excluding full-text sources that do not fit the inclusion criteria will be documented and reported in the scoping review. Disagreements amongst reviewers will be handled through dialogue at each stage of the selection process. The outcomes of the search and the study inclusion process will be presented in a Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping review (PRISMA-ScR) (Tricco et al., 2018) flow diagram in the final scoping review.

Data management In this step of the scoping review, data will be extracted from papers included by using a data extraction tool developed and integrated into Covidence. The data extracted will feature the following information based on the predetermined questions:
a) Articles' details
b) Types of articles
c) Country of origin/focus geographical area
d) Article's objectives
e) Population addressed
f) Key findings/main arguments
g) Types of digital health tools.

Reporting results / Analysis of the evidence
Synthesis of results will be presented in a narrative form in the scoping review.

Presentation of the results Alongside the narrative text, the results will be supplemented with tables, graphs, and figures when needed to visualise information that is relevant to the objective and review questions.

Language restriction We will only include papers written and published in English.

Country(ies) involved United Kingdom.

Keywords Digital health; Health responsibility.

Dissemination plans The scoping review results will be distributed via numerous academic channels, such as academic journal publications and conferences.

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