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Effectiveness of interventions on healthcare professionals' understanding and use of conscience: a systematic review protocol

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ABSTRACT

Introduction Conscience is central to moral decision making. In the context of morally pluralistic workplaces today, healthcare professionals' conscience may prompt them to make moral decisions to refrain from providing services they morally disagree with. However, such decisions are largely viewed as contentious, giving rise to polarising arguments for and against healthcare professionals' freedom of conscience. Yet, little work has been done to understand and support healthcare professionals' conscience. Instead, the rising polarity related to healthcare professionals' freedom of conscience stems from a central lack of understanding of what conscience is and the relevance it holds for healthcare professionals' clinical practice. Therefore, the degree and extent to which healthcare professionals are supported to understand and use their conscience is unknown. The objective of this review is to critically analyse the scholarly evidence available to ascertain the effectiveness of interventions that support healthcare professionals to understand and use their conscience in care practice.

Methods and analyses At least two reviewers will systematically review 10 interdisciplinary, scholarly databases to examine qualitative, quantitative and mixed-methods studies including clinical trials pertaining to interventions related to conscience for healthcare professionals. Databases to be searched include: the Cochrane Controlled Register of Trials, Medline, EMBASE, PsycINFO, Cumulative Index for Nursing and Allied Health Literature (CINAHL), Academic Search Complete, ATLA Religion Database, Religion and Philosophy Collection, PhilPapers and Scopus. Databases were searched in May 2021. Study screening, selection, extraction and risk of bias assessments on each study using the Mixed Methods Appraisal Tool will be independently conducted by independent reviewers. Descriptive data synthesis will be carried out. Statistical analysis and meta-analysis will be conducted as relevant, based on homogeneity of findings. The quality of the aggregate evidence will be assessed using the Grading of Recommendations, Assessment, Development and Evaluations criteria.

Ethics and dissemination Ethical approval is not required for this review. This protocol will not involve individual patient information endangering participant rights. The results will be reported in a peer-reviewed journal and disseminated at conferences.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ This study aims to examine interventions used to enhance healthcare professionals' understanding and use of conscience.
⇒ Study selection, data extraction and risk of bias assessments will be done independently by two to four reviewers.
⇒ Studies included in this review will be limited to English language articles, which may lead to a risk for publication bias.
⇒ The strength of evidence in this study will be evaluated according to the Grading of Recommendations, Assessment, Development and Evaluations criteria.
⇒ Inclusion of mixed-methods interventions may not allow for statistical analysis of findings, which might lead to inconsistent reporting of outcomes.

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INTRODUCTION

Conscience is a fundamental human freedom and an essential concept for bioethics and the health sciences.[1–3] Conscience is the ability to make decisions based on information derived from moral knowledge in order to choose to do something that is ethical or refrain from doing something unethical.[4 5] As such, conscience is central to ethical healthcare in which healthcare professionals (HCPs) are regularly required to make moral decisions to engage in practice that is ethical and beneficial for their patients.

However, in bioethics and the health sciences today, little attention has been paid to the meaning of conscience as it pertains to HCPs' moral decision making. Instead, issues around conscience, such as conscientious objection, are becoming increasingly polarised in today's morally pluralistic societies and healthcare communities owing to the lack of agreement that may occur in pluralistic contexts.[6–8] Subsequently, disagreement

on how HCPs express their issues of conscience is also increasing owing to the lack of understanding regarding what conscience is in the first place.[6] This knowledge gap is problematic because the scholarly literature is fraught with academic dispute over how to handle HCP's issues of conscience.[6–8]Amidst this debate, little attention is being given to HCPs with respect to expressing their issues of conscience and what conscience and issues of conscience mean to them. As an initial effort to address this gap, a systematic review (SR) is needed to assess the state of the literature on how HCPs are being supported to both understand and use their conscience. Namely, identifying and assessing what interventions exist to do so and how effective they are.

While many HCP groups exist today, for the purpose of focus of scope and feasibility for this review, HCPs will consist of physicians, nurses and midwives who have all been documented in the scholarly literature as having to make ethical decisions in the course of their practice which involves the use of their conscience.[9–11] Additionally, international organisations such as the World Medical Association, the International Council of Nurses and the International Confederation of Midwives stipulate that conscience and the human right to freedom of conscience are relevant to medicine, nursing and midwifery.[2 3 12] It is anticipated that this initial review will inform subsequent reviews that will involve other HCP groups.

The research that has been done on the meaning of conscience for HCPs indicates that physicians, nurses and midwives alike voice that conscience is important to their ability to make moral meaning of their ethical practice.[9 10 13] Importantly, conscience is well taken up in the philosophical and theological literature. Within this scholarly space, conscience has a long-standing conceptual history.[1 13 14] In this body of literature, conscience has emerged as a necessary component for being a moral person.[15 16] More recently, empirical work in moral psychology is revealing compelling empirical evidence that morality is central to human behaviour.[17–19] Philosophy and theology are also taken up in bioethics, which is an interdisciplinary discipline devoted to asking essential life questions that support healthcare providers and patients alike to make ethical decisions in the context of healthcare.[20 21] Owing to the traction that conscience has in these interdisciplinary disciplines, we will use an interdisciplinary approach to answer our research questions: (1) what interventions exist to support HCPs' use and understanding of conscience in bioethics, clinical education and practice? (2) how effective are these interventions? (3) is there an intervention that draws on an interdisciplinary approach to conscience to inform and support these interventions?; (4) how effective did HCPs find these interventions?

Supporting HCPs to use their conscience and increasing an awareness of the significance that conscience holds for ethical decision making might start to address the gap related to understanding the relevance of conscience in bioethics and healthcare communities today. It may also offer a morally inclusive way to support HCPs' moral decision making in practice. Advancing more understanding in relation to conscience and the role it holds in the human experience across healthcare contexts has the potential for global impact given that freedom of conscience is a universal, human right. This review might generate further empirical ethical research to benefit HCPs' ethical practice and the patient populations they care for.

To start to address this knowledge gap related to HCPs' understanding and use of conscience, we will conduct an SR of the interdisciplinary, scholarly literature about interventions used to support HCPs' understanding and use of conscience. Disciplines that will be considered as previously mentioned are: nursing, medicine, midwifery, bioethics, philosophy, theology, religious studies and moral psychology.

To answer the research questions the primary objectives of this review study are:

1. To review the evidence about the interventions that were used.
2. To determine whether the interventions were effective in providing or improving HCPs' understanding and use of conscience.
3. To explore the effectiveness of these interventions as they pertain to the physician, nursing and midwife subgroups and to assess if there is any difference in the effectiveness of the interventions among them.

METHODS

Research design and methodology

We will conduct an SR of the published, scholarly, interdisciplinary literature to examine and explore the effectiveness of interventions used to support HCP's understanding and use of conscience in healthcare practice. To initiate the SR study, we will follow this review protocol. The review will be reported in adherence to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 statement for standardised reporting guidelines, the PRISMA extension checklist for searches (PRISMA-S) and the PRISMA 2020 statement for writing abstracts.[22–24] The PRISMA-S checklist will be used to report and document the literature search.[23] This protocol was generated following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Protocols checklist[24] (online supplemental file 1).

Eligibility criteria

Inclusion criteria

To isolate eligible studies, we will follow the Population, Intervention, Comparators, Outcomes and Study design (PICOS) framework as stipulated in the PRISMA (2020) statement as follows:

Population: HCPs who engage in clinical practice across any practice setting as identified across the subgroups of physicians, nurses and midwives. *Interventions*: interventions that will be examined are those that aim to improve

HCPs' use and understanding of conscience. Possible interventions are, but not limited to: experiments, education and quality improvement initiatives; interventions by leadership teams to enhance and foster HCPs' use and understanding of conscience; interviews; focus groups; policies, regulations and practices aimed at changing how HCPs use their conscience in practice settings; experiential inquiries and narrative studies as well as studies that include trials and prepost-test datasets to examine how effective the interventions are. *Sample interventions:* studies and papers to be included are those that use primary data and aim to support, enhance, show and address the use and understanding and use of conscience for HCPs. This may occur through terms closely related to conscience such as conscientious objection. For instance, studies involving the Stress of Conscience Questionnaire and the Perception of Conscience Questionnaire as part of an intervention will be included since they directly relate to the research questions of this SR.[25 26]

Comparators: studies that included controls or comparators of interventions. *Outcomes*: the types of outcomes that will be sought from the data are the: (1) findings that identify what interventions exist that aim to support HCPs to understand and use their conscience; (2) reports on how HCPs felt supported to use and/or understand their conscience; (3) effects of HCPs being able to voice their issues of conscience in healthcare practice across the subgroups; (4) what effects that support for conscience has on HCPs across these subgroups in relation to the quality of care they provide to patients, in relation to themselves, working with colleagues and in their professions and (5) how effective these interventions were. *Study designs*: studies involving interventions may include experimental, quasi-experimental and non-experimental studies consisting of clinical trials, qualitative, quantitative and mixed-methods studies.

Exclusion criteria

For this initial protocol review articles predating 2000 are ineligible owing to the limited empirical research about interventions specifically related to HCPs' use and understanding of conscience prior to this date. Unpublished articles including theses and dissertations will not be included. Papers that use secondary datasets such as protocols and reviews are also ineligible.

Search strategy

This review will be reported in adherence to the PRISMA statement with methodological guidance from the Cochrane Handbook of Systematic Reviews of Interventions.[22 27] Furthermore, a systematic search will be developed and conducted by an experienced health sciences librarian (MK), reported in adherence to the PRISMA-S extension.[23]

A preliminary search using the database, Medline, was conducted in April 2021 by MK to determine the feasibility of the review and inform the systematic search strategy (see box 1 for full search strategy). The search strategy

Box 1 Search strategy for Medline(R) ALL via OVID (1946–26 April 2021)

Date of search: 27 April 2021
1 conscience/1574
2 (conscience? or "conscientious* object*").mp. 3707
3 "empirical ethics".mp. 151
4 1 or 2 or 3 3857
5 health personnel/or exp nurses/or exp nurse practitioners/or exp nurse specialists/or exp nurses, pediatric/or exp physicians/ 278 364
6 (doctor* or physician* or "general practitioner*" or GP or surgeon* or anesthesiologist* or cardiologist* or dermatologist* or radiologist* or internist* or geneticist* or neurologist* or obstetrician* or gyn?ecologist* OBGYN or OB-GYN or ophthalmologist* or pathologist* or p?ediatrician* or psychiatrist* or oncologist* or urologist* or allergist* or endocrinologist* or gastroenterologist* or geriatrician* or hospitalist* or nephrologist* or pulmonologist* or rheumatologist* or clinician* or nurse* or midwife* or midwives or ((healthcare or "health care" or health or medical or nursing) adj3 (professional* or personnel or practitioner* or provider*))).mp. 1 905 235
7 5 or 6 1 907 349
8 (intervention* or train* or educat* or workshop* or seminar* or curricul* or coach* or mentor* or experiment* or tool* or interview* or "focus group" or review* or screening or questionnaire* or survey* or perception* or implication* or barrier* or facilitat* or obstacle* or encourag* or impediment* or impede* or challeng* or obstruct* or hurdle or experience* or perceive* or perspective* or perception* or "self-report" or trial* or test* or "quality improvement*" or "quality assurance" or "patient safety").mp. 14 879 880
9 ((QI or "quality improvement*") adj6 (intervention* or initiative* or strateg* or program* or campaign* or implement*)).mp. 18 223
10 ((Practice or behavio* or organizational) adj3 chang*).mp. 88 479
11 education/or curriculum/or education, distance/or exp education, professional/or exp education, continuing/or exp education, graduate/or exp education, medical/or exp education, nursing/or exp inservice training/or mentoring/ 368 239
12 focus groups/or interviews as topic/or "surveys and questionnaires"/or health care surveys/or self report/ 617 218
13 Quality Improvement/ 27 360
14 (((research or knowledge or evidence) adj2 (uptake or "use" or diffus$ or disseminat$ or utiliz$ or utilis$ or transfer$ or translat$ or implement$ or adopt$)) or (innovation$ adj2 adopt$) or (innovation$ adj2 disseminat$) or "research into practice" or "evidence into practice" or "knowledge to action" or "know do gap" or (knowledge adj (mobilization or exchange)) or "translational science" or "implementation science").ti,ab. 70 172
15 exp "Diffusion of Innovation"/or Organizational Innovation/ 43 888
16 (evidence-informed adj (healthcare or health care or decision making)).ti,ab. 241
17 (guideline* adj2 (introduc*or issu* or impact or effect* or distribut* or adher* or compl* or utiliz* or utilis* or "use" or uptake or diffuse* or transfer* or implement* or translat* or disseminat* or adopt*)).ti,ab. 20 497
18 exp *Evidence-Based Practice/or Information dissemination/or Knowledge management/or Health Knowledge, Attitudes, Practice/ 166 249
19 or/8–18 14 952 921
20 4 and 7 and 19 893
21 ("systematic* review" or "scoping review" or "synthesis review" or "realist review" or "integrative review" or "meta-anal*" or "metanal* meta-synths?s" or metasynthes?s or meta-narrative or metanarrative

Continued

Box 1 Continued

or "umbrella review" or hta or "health technology assessment").ti. or systematic review/or meta-analysis.pt. or technology assessment, biomedical/or biomedical technology assessment/or review.pt. 2 950 266
22 20 not 21 762
23 limit 22 to (english language and yr="2000 -Current") 510

was derived from three main concepts: (1) conscience; (2) HCPs, specifically physicians (including specialists), nurses and midwives; (3) interventions, assessment and quality improvement. Systematic, scoping and other types of synthesis reviews and their protocols were removed from the results. Date limitations will be removed, and SRs will be included in the updated search for the full-scale review.

In order to enhance the quality of the systematic search, the preliminary search strategy for Medline was evaluated by an external health sciences librarian using Peer Review of Electronic Search Strategies (PRESS) guidelines.[28] No major revisions were required following the PRESS evaluation but the following recommendations were made: (1) strategy for capturing synthesis reviews was refined to make it more precise for exclusion purposes; (2) additional terminology related to knowledge translation were added to the intervention concept (see online supplemental file 2). The search strategy was revised to include these recommendations and in total, 510 articles were identified from the preliminary search. Out of these results, 30 were deemed relevant for inclusion and confirmed the feasibility of this review.

To identify all relevant published studies, the following databases will be searched:

- Medline via OVID (1946–present).
- EMBASE via OVID (1974–present).
- PsycINFO via OVID (1806–present).
- CINAHL via EBSCOhost (1936–present).
- Academic Search Complete via EBSCOhost (1887–present).
- ATLA Religion Database via EBSCOhost (13th C.–present).
- Religion and Philosophy Collection via EBSCOhost (1911–present).
- PhilPapers via Philosophical Research Online (2001–present).
- Scopus via Elsevier (1976–present).
- Cochrane Controlled Register of Trials (CENTRAL) via Wiley (1993–present).

These databases will be searched using a combination of natural language vocabulary (keywords) and controlled terms (subject headings) wherever they are available, based on the previously identified search concepts. Records identified through database searches will be exported in complete batches and duplicates will automatically be removed on import to the SR management software, Covidence.[29] An update of the searches is planned for 6 months after search results are exported or 1 month prior to manuscript submission for publication, whichever is sooner. There is no patient or public involvement in this study.

Screening

Articles will be screened by at least two, independent reviewers related to the eligibility criteria. Prior to screening, the reviewers will generate screening questions related to both title and abstract and full screening processes which will be done through Covidence software. To facilitate the screening process, a minimum of two reviewers will independently screen all records by title and abstract and retain articles that meet the eligibility and screening question criteria. Included articles for full-text review will again be screened in full by a minimum of two, independent reviewers. Prior to each step in the screening process, reviewers will initially screen approximately 10 records and meet to discuss the process to flesh out any questions or disagreements and before carrying out the full screening process. Reviewers will meet throughout each screening process to discuss progress and any conflicts that arise. Throughout the screening and data extraction processes, the principal investigator (PI) will be responsible for resolving disagreements if consensus is not reached among the researchers. Full articles that meet the eligibility criteria will be extracted for data corresponding to variables predetermined by the research team. The screening and selection process will be shown in a PRISMA flow chart.

Data extraction

Data from included, full-text articles will be extracted by a minimum of two independent reviewers according to preset headings developed by the research team. Data headings will comprise the following variables in relation to the research questions, PICOS criteria as well as primary objectives: full reference of the articles; region and country the study was conducted in; research objectives; study design and methods (sample size, comparison types); population under study including subgroups; description of the intervention and control interventions (where applicable); effects of the intervention (whether the study supported HCPs to understand and use their conscience and how, as well as to what extent) in relation to the study outcomes listed in the PICOS criteria which will be captured as significant findings in terms of outcomes, effects of outcomes and limitations. Extracted data will be entered into Word or Excel documents under the data extraction headings to be tabulated for ease of data synthesis and reporting.

Critical appraisal: assessing risk of bias

Since mixed-methods studies will be included in this SR, extracted data will be critically appraised for methodological quality using the Mixed Methods Appraisal Tool (MMAT).[30] At least two independent researchers will perform this assessment in each individual study. The MMAT is a critical appraisal tool aimed at assessing

the quality of studies included in SRs. All studies are appraised against five categories of criteria for validity and rigour in relation to study designs comprising either qualitative, quantitative (randomised trials, non-randomised and descriptive studies) and mixed-methods papers. Reviewers capture their assessments according to core criteria across study designs by either responding 'yes', 'no' or 'cannot tell'. Two independent reviewers will appraise each study using the MMAT and resolve any discrepancies with a third reviewer or the PI. Assessments for each study will be tabulated and presented for data synthesis.

Data synthesis

It is expected that the studies identified will have high methodological heterogeneity—featuring a mix of qualitative, quantitative and mixed-methods studies. Accordingly, extracted data will be synthesised descriptively according to relevance of interventions by effect (whether they aimed to support HCPs in understanding and/or using their conscience). The data will be discussed in text and tables to summarise and describe the characteristics and relationship of findings across the included studies.[22] Findings will be reported according to fixed categories including: the study year, purpose, design and setting, population, intervention and effect, primary outcome and limitations. Since this SR will include non-quantitative studies, the heterogeneity of the findings will determine whether there is sufficient data to conduct statistical meta-analysis via pooling of outcomes data from sufficiently similar intervention studies. If this is possible, given the wide likely variability across studies, a random effects model will be used for the meta-analysis. If statistical analysis is not applicable, all data will be reported through a narrative descriptive analysis. Quality of the included studies will be assessed using the appropriate checklist tools from the Critical Appraisal Skills Programme, with mixed-methods studies assessed using the MMAT.[30 31]

Confidence in cumulative evidence assessment

The Grading of Recommendations, Assessment, Development and Evaluations tool will be used to evaluate the strength of the evidence of the included studies.[32]

Quality assurance

The proposed SR study will follow the PRISMA (2020) format for reporting SRs.

DISCUSSION

This study will review current, interdisciplinary research studies explicating interventions that were used to understand and/or support HCP's use of conscience. The results of this SR will be useful in identifying what concrete supports exist in relation to moral inclusion of HCP's freedom of conscience. Additional gaps may be identified leading to further empirical ethics research necessary to support HCP populations to navigate today's morally complex healthcare context.

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Contributors CL conceptualised, drafted and revised the protocol. MK and CL created the search strategy. MK conducted the initial Medline search, had the search strategy peer-reviewed and searched the databases. AC provided statistical support. AC, EP and KK contributed to the development of the search criteria and conceptualisation of the protocol. KK contributed to the assessment of ROB tools. YB-M contributed to the assessment of the strengths and limitations of the research methods. All authors read, provided feedback or approved the manuscript for submission.

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Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

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