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PROTOCOL

Volunteer simulated participants in healthcare providers' education: a scoping review protocol

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ABSTRACT

Introduction
Working with simulated participants (SPs) offers many benefits in healthcare providers' simulation-based education. Although many SP programmes compensate SPs for their involvement, there are reports of volunteer simulated participant (VSP) programmes, where SPs contribute their time without financial compensation. Considerable variation exists in how their work is defined, documented and supported. Research is needed to clarify current practices and inform the development of future standards and frameworks for engaging with VSPs. This article describes the protocol for a scoping review addressing this gap.

Research question
This scoping review asks: what is known about VSPs in healthcare providers' education?

Methods
This scoping review protocol follows Arksey and O'Malley's framework as progressed by Levac et al. and guided by the Joanna Briggs Institute guidelines will be followed, including engaging knowledge users in a 'co-creation through consultation' process.

Anticipated findings and implications
Findings will map current VSP practices, identify challenges and benefits and generate evidence-informed recommendations to guide the development of standards and frameworks for engaging with VSPs.

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Introduction

Simulated participants (SPs) are human role players in simulation who are trained to portray other people, such as patients, family members or health professionals. SPs interact with learners in education, assessment and research contexts. They may also provide feedback to and/or assess learners [1,2]. The value of working with SPs in healthcare providers' education is well established: they enhance realism, offer authenticity, reinforce a human perspective, support the development of clinical reasoning and communication skills and provide feedback to learners from their unique perspective experiencing the interaction [3–12]. Although many SP programmes compensate SPs for their involvement, there are reports of volunteer simulated participant (VSP) programmes [13–16]. The literature suggests that these programmes are established for varied reasons across contexts; however, the underlying drivers remain unclear [14,17–19].

We define a VSP as a human role player who freely and willingly contributes their time in supporting simulation-based activities. They are unpaid for their work, but may receive small stipends, tokens of appreciation or reimbursements (e.g. for meals, transportation, parking). Their participation is motivated by personal motivations such as their interests, desire to learn, wish to create social connections and/or sense of service rather than any kind of obligation (e.g. educational, administrative). We derived this definition from the criteria established by the International Conference of Labour Statisticians (ICLS) [20].

VSPs work across diverse educational settings [21–26] and come from varied backgrounds, including faculty, staff, family or social circles of faculty or staff, alumni, clinicians, laypersons, actors, community members and learners [8,13,15,23,27–30].

Reported benefits of working with VSPs include perceptions of cost effectiveness, availability and friendliness [8,21,30–32]. VSPs with content expertise (e.g. healthcare providers) have been rated by learners as being more authentic and engaging in their role portrayal and feedback and perceived by educators as requiring less training or supervision because of their knowledge and experience [13,29]. VSPs themselves describe benefits such as filling a vocational void (e.g. after retirement), developing new skills, engaging in personal learning, finding satisfaction from supporting learners and the healthcare system, experiencing a sense of purpose and well-being and building social connections [16,19,22,33–36]. These benefits align with findings from various general studies related to the benefits of volunteerism – both for organizations and volunteers [37–39].

Noted challenges include role drift (e.g. content expert VSPs slipping into an instructor role), institutional underfunding driven by the assumption that volunteers require minimal support, and fluctuating levels of VSP commitment, reliability, interest and availability [15,21,29,40]. VSPs report concerns about unclear expectations regarding their workload and level of responsibility, insufficient recognition or being asked to do work that does not align with their motivations [16,22,35,36,41].

Despite some literature detailing the work of VSPs, there is inconsistency in how VSP practice is defined, documented and supported in healthcare providers' simulation-based education [8,15,32,42]. While globally recognized frameworks for volunteer engagement address ethics, recruitment, preparation, training, management and evaluation [43,44], their integration with SP methodology is under-documented. The Association of SP Educators (ASPE) Standards of Best Practice (SOBP) [2] provide comprehensive guidance for human role players in simulation, but do not specifically address the engagement of VSPs. These gaps underscore the need for research to clarify current practices and inform the development of future standards and frameworks for engaging with VSPs, including the nature, scope and structure of their involvement.

Rationale for scoping review methodology

A scoping review methodology was selected for this study because the aim is to broadly explore the topic of VSPs in healthcare education. This methodology allows for the inclusion of diverse types of evidence, providing a comprehensive overview of current practices, definitions and supporting strategies [45,46]. By mapping the breadth of available literature, a scoping review will enable our team to identify gaps, summarize existing knowledge and inform future research and policy development in this emerging area.

To ensure that this broad exploration produces relevant and actionable findings, the review process will actively engage knowledge users (KUs). In health professions education, involving KUs enhances the quality, relevance and impact of scoping review findings [47]. Their input helps align the research question, inclusion criteria and dissemination strategies with real-world needs, making the evidence more credible and useful for educators, practitioners and policymakers [48]. Meaningful engagement with KUs also helps identify literature gaps, prioritize topics, foster co-learning, promote transparency and prevent tokenistic participation [49]. Overall, this collaborative approach strengthens the review's ability to produce evidence that is responsive to the evolving challenges and opportunities in simulation-based education.

Research team

Core research team

The core research team will lead the design, administration and reporting of the scoping review. This team comprises individuals with expertise in simulation-based education, including working with VSPs, healthcare education research and scoping review methodology, as well as an information specialist. They work in three countries – Australia, Canada and Ireland. The core research team will liaise closely with KUs throughout the review to ensure that KU insights inform all stages of the process, including developing the search strategy, screening and selecting studies, extracting and charting data and synthesizing the findings. The core

research team will also ensure methodological rigour, resolve conflicts during screening or extraction and oversee the iterative refinement of the data extraction tool.

Knowledge users

KUs are individuals or groups who are positioned to apply research findings in practice, policy or education and whose experiential and contextual expertise can strengthen the relevance, legitimacy and societal impact of a study [50]. In health and applied research contexts, KUs are typically engaged as partners rather than passive recipients of evidence, contributing to shaping research questions, refining concepts and interpreting findings to enhance real-world relevance [49]. In this manuscript, KUs who work with VSPs were identified via our professional networks. We approached them for their interest in participating. KUs will be engaged throughout the review to provide practical insights and ensure the findings are relevant to real-world simulation education contexts. KUs consulted will include simulation educators, programme directors, researchers and VSPs from Australia, France, the UK and the USA. They will contribute to refining the research question, confirming the comprehensiveness of data extraction categories and interpreting preliminary findings. KU engagement will occur via structured synchronous and asynchronous consultation to facilitate co-creation of knowledge and enhance the applicability of review recommendations [49].

Methods

We are following the six-stage scoping review framework described by Arksey and O'Malley [45] and progressed by Levac et al. [46] to include the additional stage of involving KUs in the process. Our review will follow the Joanna Briggs Institute (JBI) guidelines, which build upon this framework and will be reported in accordance with the Preferred Reporting Items for Systematic Review and Meta-Analysis Scoping Review extension (PRISMA-ScR) [51]. This approach was selected because it is designed to guide scoping reviews that map the breadth and nature of existing literature, which aligns with the objectives of this study.

Stage 1: identifying the research question

The aim of this review is to explore and summarize what is known about VSPs in healthcare providers' education. The Population, Context, Concept (PCC) framework, recommended by the JBI [52], was used to guide the formulation of the research question:

- P (population) – volunteer SPs
- C (concept) – simulation-based education for healthcare providers
- C (context) – any – e.g. simulation centre in an academic institution or hospital, in situ

Review question

What is known about VSPs in healthcare providers' education?

Review objectives

1. To explore and summarize what is known about VSPs in healthcare providers' education.
2. To synthesize and present current practices in light of the findings of the review.
3. To provide recommendations for working with VSPs, considering the findings of the review.
4. To highlight gaps in what is known about this topic that would benefit from future research.

Stage 2: identifying the relevant studies

In consultation with an information specialist (KW), using keywords from the previously outlined population, concept and context framework, a search strategy was developed and adapted for each database, including Ovid Medline, Embase, Ebsco Cinahl Ultimate, Scopus, Web of Science, PubMed and Ebsco APA PsycINFO. The strategy is presented in the Supplementary Material. Index terms and keywords from articles that were identified by the core research team informed the comprehensive search strategy. KUs were consulted to ensure search terms are correctly contextualized to their geographical region and area of speciality. After executing the search strategy, reference lists of the included studies will be hand-searched to identify further sources of information.

Stage 3: study selection

Eligibility criteria

The eligibility criteria will be applied to identify relevant literature relating to the focus of the study as well as intervention, study and publication characteristics. We will include studies that engage VSPs, related to interventions for education, assessment or research in healthcare providers' education. All qualitative and quantitative methodologies, primary research and book chapters will be considered. We will include publications from all countries, written in English, where a full text is available. There is no restriction on the publication dates.

We will exclude studies that do not engage VSPs. There are other types of individuals who are described as VSPs or volunteer patients but, based on our criteria, are not included:

1. 'Paid volunteers' refers to SPs who participate in time-limited projects and who are not considered employees of an institution (not even contractual). Their contribution is acknowledged through a stipend reimbursing their time and involvement (on an hourly rate). They are recruited only when needed for a specific session. These SPs are not volunteers by our definition as they are getting paid an hourly rate rather than freely donating their time; they are functioning as contractors [53].
2. Peer simulation refers to learners who are SPs for their own or related cohorts. When this participation is required by the curriculum or institution, it does not constitute voluntary engagement. However, if learners volunteer for other educational contexts not associated

with their course of study or for credit, they would be considered a VSP [54].
3. SPs who are not paid but whose participation is incentivized with access to free or reduced cost healthcare are not VSPs. Access to free or reduced-cost healthcare may compromise the voluntary nature of their participation and introduce ethical or equity concerns.
4. 'Expert' or 'real' or 'volunteer' patients, that is, individuals who directly use/share their actual lived experiences may be referred to as volunteers. If these individuals are described as being trained as SPs, they will be included. Individuals who are participating to share their lived experience without SP training will be excluded [55].

We will also exclude interventions that are not focused on healthcare providers' education. Review articles, opinion pieces, perspective pieces, book reviews, letters, posters, conference abstracts, editorials and grey literature will be excluded from data extraction. Review articles will be used to identify additional articles, and relevant articles from this excluded group will be identified to support the final review manuscript. The eligibility criteria for this review are summarized in Table 1.

Table 1: Eligibility criteria

	Include	Exclude
Focus of the study	Studies that engage VSPs.	Studies that do not engage SPs in a volunteer capacity as we have defined it.
Intervention characteristics	Interventions involving VSPs for education, assessment or research in healthcare providers' education.	Education that does not involve healthcare simulation.
Study characteristics	All qualitative and quantitative methodologies, primary research and book chapters.	Review articles will be used to identify additional articles but will be excluded from data extraction. Opinion pieces, perspective pieces, book reviews, letters, posters, conference abstracts, editorials and grey literature will be excluded from data extraction, but relevant studies will be identified to support the final review manuscript.
Publication characteristics	All countries, English language only, full text available, not restricted by publication date.	Studies written in languages other than English, no full text available.

Study selection

An information specialist (KW) will support the development and execution of the search strategy. All retrieved references will be exported to Covidence for screening. (Covidence systematic review software, Veritas Health Innovation, Melbourne, Australia. Available at www.covidence.org) Covidence will facilitate collaboration among team members and streamline accessibility throughout the review process. Screening will be conducted in two stages: Step 1 – title and abstract screening; Step 2 – full-text review. Each of these steps will be completed independently by at least two reviewers. Reasons for full-text exclusion will be documented and reported in the PRISMA diagram. A pilot screening exercise will be undertaken to ensure the inclusion criteria are applied consistently, and any discrepancies will be resolved through discussion with a third member of the core research team.

Stage 4: data charting

The core research team will refine a data extraction tool outlining key information to be charted, including:
Article metadata

- Ref # or Manuscript TAG
- Authors
- Title of article
- Year of publication
- Name of journal
- Country of first author
- Geographical location (country) where VSPs work
- Ethics approval reported
- DOI

Article description

- Type of article
- Does the article describe a research study?
  - If yes, describe the research paradigm (e.g. qualitative, quantitative, mixed methods)
- Aim of article/research question(s)
- Methods
- Research findings
- Conclusion

Context of VSP simulation scenario

- Are the scenarios for formative or summative purposes?
- Is an aim/learning objectives/desired outcome (e.g. recognizing and managing confusion in an older patient in the ED) stated?
- Role portrayed by VSP? (e.g. patient, family member, health professional)
- Description of the VSP role characterization (e.g. patient is confused)
- Setting (e.g. Emergency Department)
- Learner group (e.g. Nursing Students)
- Mode of delivery (e.g. face-to-face, online)
- Simulation modalities used (e.g. SP methodology only or SP methodology combined with other modalities)
- Characteristics of implementation of scenario (e.g. number of VSPs who participated, number of learners, length of session)

VSP details

- Term(s) used to describe VSP
- Reported age/age range of VSP(s)
- Age/age range of character(s) portrayed by VSP
- Background of VSP (e.g. professional actor, lay person, faculty member, content expert)
- Description of specific characteristics of VSP (e.g. gender, race, ethnicity)

VSP scenario

- Was a role or scenario provided?
  - Comment on role/scenario
- Was information provided about role/scenario development?
  - If yes, describe.

VSP training for role portrayal, feedback and/or assessment

- Was someone responsible for training the VSP?
  - If yes, describe
- Is training for role portrayal provided for the VSP?
  - If yes, describe.
- Did VSPs give feedback to learners?
  - If yes:
    - Is the process for training them described?
    - Are details about their participation in feedback conversations with learners described?
- Did VSPs assess learners?
  - If yes, is the type of assessment described?
  - If yes, is the process for training them described?

VSP programme management

- Was the reason for working with volunteers stated?
  - If yes, describe
- Is there an established volunteer programme in the institution/setting where VSPs are recruited?
- Were there any volunteer engagement frameworks/strategies reported?
  - If yes, describe
- Was the VSP recruitment process described?
  - If yes, describe.
- Was the onboarding process for VSPs described? (e.g. were they given a general orientation and training before training for their first role)
  - If yes, describe
- Is there any information about how VSPs are kept engaged or retained in a programme?
  - If yes, describe
- Were the benefits of working with VSPs mentioned? (e.g. cost effectiveness)
  - If yes, describe
- Were any challenges in working with VSPs outlined?
  - If yes, describe
- Describe any special considerations given to working with volunteer SPs.

Additional notes

- Was there reference made to the ASPE SOBP?
  - If yes, describe.
- Was there anything interesting/additional to add?
- What are the reviewer's key thoughts beyond the outcomes reported?

The draft data extraction form will be tested by the core research team using a sample of the included studies and refined iteratively based on feedback. Once finalized, the same approach will be applied to extract data from the remaining articles. Any disagreements will be discussed among reviewer pairs, with input from a third reviewer when consensus cannot be reached.

Data extracted using the charting tool will be used to address the review objectives. Findings will be summarized in both narrative and tabular form, with figures included where relevant. The study selection process will be illustrated using a PRISMA flow diagram [52], following the PRISMA-ScR guidelines [51].

Stage 5: data synthesis and reporting

A descriptive analytical approach will be used, aligning with the objectives of a scoping review. The included studies will be examined narratively to summarize key findings and trends. A numerical summary will be presented to outline study characteristics, including publication year, study design, population demographics and context. The discussion will highlight the practical implications of the findings, identify gaps in the existing literature and suggest directions for future reviews and primary research. The format and structure of data presentation will be further refined following analysis of the review findings.

Stage 6: KU engagement

KUs will be engaged throughout the review process to ensure the findings are relevant and applicable to simulation-based education practice. Consistent with the extension of the Arksey and O'Malley framework [45] by Levac et al. [46], KU engagement will include educators, researchers, programme directors and VSPs. The engagement process will follow the co-creation through consultation approach outlined by Doyle et al. [49], promoting active and meaningful engagement with KUs at all stages of the review. KUs contributed to refining the research question and eligibility criteria and to advising on search terms in the development of this protocol. It is planned that KUs will continue to support the review and will confirm the clarity and comprehensiveness of data charting categories. They will also be consulted during the interpretation of findings to validate key characteristics of the data and inform practical recommendations. This iterative consultation will take place through online meetings and e-mail correspondence. Engaging the panel of KUs in these stages will help ensure that the review captures the breadth of perspectives on VSPs, supports translation of findings into practice and identifies priorities for future research. We acknowledge the author team and KUs are positioned in the Global North. While we have made efforts to engage with KUs from the Global South, structural barriers have made this difficult. Challenges include that their SP programmes fell outside of the inclusion criteria and/or time frames did not permit

participation. We recognize this is a limitation of the work and will frame our findings as such in the resulting manuscript.

Anticipated findings and implications for practice

This scoping review will explore what is currently known about working with VSPs in healthcare providers' education. The findings are expected to map existing practices, terms and contexts in which VSPs contribute to education, assessment and research, while identifying any gaps and inconsistencies in how they are supported to do their work. This synthesis will provide a clearer understanding of current approaches and offer recommendations to guide those working with VSPs. The results are anticipated to inform the refinement of simulation standards, policies and frameworks and to identify priorities for future research and guideline development for those working with VSPs.

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Supplementary material

Supplementary data are available at *Journal of Healthcare Simulation* online.

Declarations

Authors' contributions

CMS and MSA conceived the initial idea for the study. CMS, MSA, JH, DN, LGS and AJD devised the research protocol. KW oversaw the search strategy. CMS and AJD drafted the initial protocol manuscript. KUs were consulted at the protocol stage and provided feedback on the proposed scoping review, which was integrated into the document. All authors contributed to the revision and editing of the manuscript and have reviewed and approved the final manuscript.

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Availability of data and materials

Not applicable.

Ethics approval and consent to participate

Not applicable.

Competing interests

There are no conflicts of interest in this project. CS, DN and AD declare that they are members of the editorial board of JoHS.

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