FOCUS ON METHODOLOGY

A primer on participatory research for health professional education

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Abstract

Participatory research methodologies are gaining traction in health professional education research (HPER) due to their ability to foster collaboration and inclusivity with communities involved in or affected by the issues being studied. This paper provides an introduction for researchers new to participatory research in HPER. It aims to guide researchers in the thoughtful integration of participatory methods into their research practices. We define participatory research as a diverse approach that engages health professionals, students, patients and other community members as co-researchers actively involved in shaping the research process. Drawing on examples from the field, we explore the potential benefits of participatory research, including the co-production of knowledge, improved relevance of findings and enhanced impact on practice. However, we also acknowledge the complexities and challenges, including the need for researcher flexibility, ethical considerations and appropriate levels of participation, depending on project goals and funding constraints. To support researchers, we outline key questions that prompt critical deliberation when considering participatory approaches. Ultimately, this paper encourages researchers to reflect on the epistemic shifts required to adopt participatory methodologies and to consider how these approaches can foster more inclusive, collaborative and meaningful contributions to health professional education and research.

Keywords: participatory research; research design; co-researchers; methodology; collaborative research

Introduction

Health professional education (HPE) occurs within complex systems that both influence and can be influenced by many different communities and knowledge users. These include students, clinicians, patients, educators, regulators and others. Traditional health professional education research (HPER) methodologies consider members of these communities as *participants* of research, those to be studied with respect to the

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phenomenon of interest. Conducting research "on" these groups has characterised HPER for many years, and as such, these habitual or "traditional" methodologies have shaped the nature of knowledge in HPE (Han et al., 2022). As HPER methodologies continue to evolve, we must examine and reflect on how knowledge is shaped by methodological choices (Han et al., 2022). One such shift that warrants examination is the expanding use of participatory research methodologies in HPER.

Vaughn and Jacquez (2020) define participatory research as an umbrella term for an overlapping range of research designs, methods and frameworks that facilitate direct collaboration with the individuals or groups affected by or with the ability to influence the issues being studied. In participatory methodologies, health professional students, clinicians, patients and their families, communities, educators, regulators and other university or health service staff are considered eligible co-researchers, playing active roles in shaping the research process and outcomes.

Co-researchers in participatory research *tend* to be individuals outside academic settings who become actively involved in various stages of the research, including design, data collection, analysis and dissemination (Islam, 2022; Vaughn & Jacquez, 2020). The role of co-researchers is distinctly different to research participants, who contribute data in relation to specific research questions and are involved primarily during data collection rather than throughout the research process (Islam, 2022). In this paper, we offer an overview of participatory research for HPE researchers and discuss how potential co-researchers may engage in participatory HPE research. Our "participatory research primer" is crafted for those who are new to this research area. We describe participatory research, provide practical suggestions and highlight areas of potential controversy. This primer is intended to help readers assess the increasing number of HPER publications using participatory approaches and may also inform deliberations about embarking on participatory research design.

Participatory research

Participatory approaches abound in policy (Blomkamp, 2022), design (Sanders & Stappers, 2008), healthcare delivery (Karlsson et al., 2023; Slattery et al., 2020), community engagement (London et al., 2020) and increasingly in HPER (see Table 1 for examples) (Hudon et al., 2016; Lyons et al., 2021; Morris et al., 2021; Skipper et al., 2021; Wolcott et al., 2019). Heterogenous terminologies, conceptualisations and methodological approaches to participatory research exist across these disciplines (Iniesto et al., 2022; Slattery et al., 2020; Vaughn & Jacquez, 2020). Please refer to Vaughn and Jacquez (2020) for a range of terms used to describe participatory research.

Participatory approaches offer promising benefits for research. The involvement of community co-researchers as part of the knowledge co-production process helps researchers move beyond one dominant viewpoint and may promote a more comprehensive understanding of research problems from the perspective of knowledge

users (Cornwall & Jewkes, 1995; Islam, 2022). Co-researchers from relevant communities can also provide contextual insights that help tailor research design and methods, enhancing relevance of findings. This can support the translation of research findings into tangible improvements and changes in practice (Cornwall & Jewkes, 1995; Islam, 2022; Vaughn & Jacquez, 2020).

Engaging in participatory research requires both conceptual and practical considerations to ensure meaningful engagement. For some, it may require a reconceptualisation of the underlying principles of inquiry, adjusting the researcher mindset to acknowledge and draw upon participant expertise throughout the research process, while ensuring its integrity and impact.

Table 1

Examples of Participatory Research in Health Professional Education Research

Study	Co-researchers Involved	Summary
Hudon et al. (2016). *Medical education for equity in health: A participatory action research involving persons living in poverty and healthcare professionals*	Healthcare professionals, volunteers from an international community organisation against poverty, people living in poverty	This participatory action research study involved collaboration between researchers and co-researchers to identify perceived barriers between persons living in poverty and healthcare teams. Action plans were developed to improve skills and competencies of healthcare professionals and students for healthcare provision to people living in poverty.
Lyons et al. (2021). *Using a design-based research approach to develop and study a web-based tool to support collaborative learning*	Pharmacy students	This study used a design-based research approach that involved two compete cycles of an iterative 6-phase process. Co-researchers were engaged during specific phases of research, which aimed to develop, study and refine a web-based educational tool to foster awareness and regulation in collaborative learning.
Morris et al. (2021). *Expansive learning in medical education: Putting Change Laboratory to work*	Clinicians (interprofessional)	This paper explores the use of Change Laboratory as a methodological tool underpinned by cultural historical activity theory. Two case studies are presented to demonstrate how the iterative Change Laboratory was used to transform learning cultures and practice within clinical learning environments.

Getting started

Engaging in participatory research requires significant flexibility, effort, time and financial resources to effectively collaborate with co-researchers. There is a great deal of experiential advice and empirical evidence on how to make collaborations successful (Aboelela et al., 2007; Amabile et al., 2001; Derrick et al., 2011; Murtagh et al., 2017; O'Sullivan et al., 2010; Slattery et al., 2020; Stokols et al., 2008). However, the diverse approaches described in the literature can complicate choices about which participatory research approach suits a specific project. To support decision making, researchers should

consider the specific context, the readiness of potential co-researchers for contribution as well as researcher capability (Murtagh et al., 2017). We present below some key questions for researchers as they consider a participatory research approach for their project.

How do decision-making dynamics impact participatory research approaches?

HPE research is an evolving discipline. It was historically grounded in empiricism and quantitative methodologies, whereas over the last 20 years, HPER has embraced interpretivism and qualitative methodologies (Han et al., 2022). Contemporary conceptualisation of HPER can, therefore, be described as one of "methodological pluralism" (Han et al., 2022). Travelling along this evolving research methodological landscape may bring into question where knowledge holders (and consequently decision makers) sit within HPER.

In many approaches, epistemic privilege is generally attributed to the chief investigator or the most senior academic member of the team. This identity as expert "knower" affords them an advantage and usually grants them greater influence when it comes to making decisions about the research design and process (Luong et al., 2024). Participatory approaches, however, disrupt this paradigm. Fundamentally, these research approaches encourage sharing of decision making with other community co-researchers (Bergold & Thomas, 2012). This does not discount the expertise brought to research by academic researchers (i.e., research expertise, in-depth subject knowledge, etc.) nor the responsibility that academic researchers hold (i.e., to conduct ethically and financially responsible research), rather it legitimises alternate forms of expertise (i.e., lived experience and contextual expertise) and the contribution this makes to knowledge building and decision making. Through this acknowledgement of both the knowledge held by the researchers and that of the community co-researchers, a stronger "relational accountability" can be built into research design, which can provide an ethical frame to support shifts in decision-making control and reinforce the complementary nature of these knowledges (Bolton et al., 2023).

What is the appropriate level of participation for the project?

The extent to which communities are engaged in research varies across different participatory approaches and, sometimes, across the lifespan of individual projects. Often conceptualised as a continuum, this engagement can range from models of "user/ consumer" led projects to primarily academic driven research that inform communities along the way (Vaughn & Jacquez, 2020). Some projects empower researchers who are not based in academic settings with decision making and responsibility throughout the entire research endeavour (Slattery et al., 2020; Vaughn & Jacquez, 2020). Engaging in this type of project requires a significant commitment from all involved and promotes shared ownership of the research process (Sanders & Stappers, 2008). Less intensive forms of engagement exist, such as consulting for feedback on research questions during the

research design phase (Slattery et al., 2020; Vaughn & Jacquez, 2020). This relatively limited collaboration still acknowledges the value of community input but may not fully integrate their perspectives throughout the process.

The degree of community participation that occurs during a project rarely remains static. The project's position along the continuum will shift throughout the course of the research. Vaughan and Jacquez (2020) call these "participation choice points". At each phase of research, there is a decision to be made about the degree of participation that will meet the needs of community and the goals/required outputs of the research. Considering both when and how it is most relevant for communities and researchers to engage in a participatory project is important.

What conditions foster diverse team contributions?

Bergold and Thomas (2012) purport that participatory research "requires a great willingness on behalf of participants to disclose their personal views of the situation, and their own opinions and experiences" (p. 196). This willingness to "speak up" reflects Edmondson's work on psychological safety, which represents permission for candour and a willingness to engage in interpersonal risk taking (Edmondson, 1999; Edmondson & Besieux, 2021). In an example on academic teaching teams, Meeuwissen and colleagues (2020) highlight psychological safety as a skill of collaborative teams in both clinical and academic settings that ensures shared decision making.

Participatory research teams actively invite contributions from members; it is a strength of the approach. However, corralling these multiple perspectives may require the negotiation of widely varying perspectives and even conflict (Bergold & Thomas, 2012). Therefore, effective conflict negotiation is also essential—particularly in teams seeking to draw on disparate knowledges. Engaging with conflicts constructively is necessary for positive team outcomes (Meeuwissen et al., 2020).

As such, collaborative and communicative capabilities are required to create safety for voice behaviour and constructive conflict when engaging in participatory research approaches. One approach to building this collaboration is team reflexivity. This concept is present in psychology (Yang et al., 2020), healthcare (Schmutz & Eppich, 2017) and qualitative research (Barry et al., 1999). In research settings, these reflexive conversations can identify diversity of beliefs, reveal presuppositions and differences, build shared understanding, highlight unique contributions and give opportunity to challenge, clarify and communicate research and team goals (Barry et al., 1999). Barry et al. (1999) provide orienting questions for research teams to engage in this team-reflexive process, including examples such as: "In what way might my experience colour my participation in the project? What experience have I had with qualitative research? What is my stake in the research?" (p. 35).

These conversations may also identify other needs of the team members and where existing capabilities lie. Identifying and responding to team training needs and addressing

accessibility concerns, for example, can further enhance teams, ensuring that the diversity of perspectives contributes to, rather than detracts from, team cohesion and research outcomes (Dusenberry & Robinson, 2020).

What ethical issues may need to be addressed?

Engaging in participatory research poses unique ethical challenges due to the collaborative relationships between researchers and co-researchers (Bergold & Thomas, 2012). Researchers must remain mindful that collaborating with community co-researchers may deepen exploration into a phenomenon but may also amplify ethical risks of a project (Bergold & Thomas, 2012; Wilson et al., 2018). For example:

Privacy and confidentiality: The close collaboration between researchers and co-researchers can blur the lines of privacy. Co-researchers might share personal or sensitive information more freely, potentially leading to breaches of confidentiality (Wilson et al., 2018).

Impact on communities: Participatory research aims to directly benefit the communities involved, but the outcomes may not always be positive. Risks of unintended negative consequences persist, such as conflict, stigmatisation or disruption of social structures (Bergold & Thomas, 2012; Wilson et al., 2018).

Ownership and control: Participatory research amplifies issues around data ownership and control. Expectations around ownership of data, presentation of findings and authorship may differ, leading to potential conflicts over how the data is used and shared (Bradbury, 2015; McIntyre, 2008).

Ongoing attention is required to ensure the protection and respect of all participants throughout the research process. However, ethical implications will depend on the research context, phenomena of interest and co-researchers involved. For example, engaging persons with lived experience of poverty as co-researchers to examine the role of HPE in health equity (Hudon et al., 2016) has significantly different ethical implications than pharmacy students being involved as co-researchers to advance pharmacy education (Wolcott et al., 2019). The ethical complexities introduced by the collaborative and inclusive nature of participatory research (Bergold & Thomas, 2012) demand the development of clear, context-specific guidelines for how ethical challenges will be addressed and is crucial to mitigate risk and to build trust during participatory research projects.

What is achievable and sustainable within the constraints of available funding?

Increasingly, funding organisations expect input from individuals or organisations outside academia to be obtained and detailed in grant applications. However, the logistics of conducting participatory research are not always well supported by current funding models. For example, short tender periods to access funding grants do not allow for the iterative and time-consuming process of developing a research proposal in collaboration

with co-researchers (Bergold & Thomas, 2012). When planning participatory research, we must consider how funding will be allocated to remunerate co-researchers for their participation (Bergold & Thomas, 2012). While the knowledge that co-researchers contribute may be invaluable to the development of a research proposal, remunerating them for their contribution to the proposal before any funding has been allocated to the project may prove difficult. Researchers must also plan for other forms of potential material support and allocate sufficient funding to engage co-researchers throughout the project. Further, funding may be needed to provide specific training and support depending on the needs of co-researchers and the nature of the project (Aiyegbusi et al., 2023).

Research projects involving extensive participation is resource intensive, which may not always be feasible or desirable. Timeframes associated with participatory research frequently exceed the expected timeframe for funded projects (Aiyegbusi et al., 2023; Bergold & Thomas, 2012). Researchers may find it quite challenging to estimate the duration of a participatory research project and the exact resources required to facilitate co-researcher involvement. Funding constraints may influence the scope of the project and degree of collaboration that can realistically be achieved in a participatory research project (Bergold & Thomas, 2012).

What aspects of the research will require researcher flexibility?

Engaging in participatory research requires a high degree of flexibility. There may be a need to adjust expectations in terms of how the project progresses and to adopt a flexible approach to co-researcher participation. To engage in authentic collaboration with co-researchers, there need to be conversations about how co-researchers will and are able to contribute to the research. Practical considerations may involve being flexible in terms of communication strategies, role distribution and task allocation (Aiyegbusi et al., 2023).

Researchers must also adapt to how co-researcher involvement may change over the course of the project, such as the "participation choice points" mentioned earlier (Vaughn & Jacquez, 2020). For example, the training required to support co-researcher involvement may have to evolve to respond to their needs at different stages of the research (Aiyegbusi et al., 2023).

What assumptions and experiences might influence the research approach?

In participatory research, flexibility and reflexivity go hand in hand. That is, for researchers to engage in practices that encourage them to look beyond a singular focus, they must consider their own and others' subjectivities, approaches and contexts with respect to their research (Denniston, 2023). Being adaptive throughout the research process requires researchers to reflect continually on their own practices and their influences on research context and process. Engaging in such methodological reflexivity will prompt researchers to critically consider the impact of these changes and

methodological decisions. Being reflexive will support researchers to ensure that decisions being made in response to unforeseen circumstances are ethical, rigorous and aligned to the research aims (Olmos-Vega et al., 2023; Wilson et al., 2018).

Researchers and co-researchers each bring their own unique perspectives to any research, but particularly participatory research (Bergold & Thomas, 2012). The potential closeness between researchers and co-researchers and conflicting roles (i.e., insider and outsider duality) may elicit personal reactions that may impact the knowledge created throughout the research process (Bergold & Thomas, 2012). Engaging in personal reflexivity to address the impact of the research on the researchers and co-researchers can be a powerful learning experience (Olmos-Vega et al., 2023).

It is also relevant for researchers who are new to participatory research to be reflexive about how existing research experiences may shape their approach to participatory research. Engaging in participatory research requires a different way of conceptualising inquiry. Reflecting on how this may challenge long-held beliefs and assumptions may help the researchers unpack why some aspects of this approach feel achievable, whereas others feel uncomfortable. This rethinking of how research is habitually done and critically engaging with reflexivity may strengthen research and translation (Denniston, 2023). Additionally, this intentional reflection on one's research practices may help to identify areas in which support or guidance are needed.

Authors' reflexivity

We write this piece as early (JP), early-mid (CD, JB) and senior (WE, RWK) career researchers and health professional educators with a range of experience using participatory research methodologies. Our HPE and research areas include communication, linguistics, debriefing, teamwork, collaborative practice and feedback, which all focus on interpersonal interactions within HPE. This reflects our shared interest in understanding the underlying dynamics of how different voices and perspectives are heard. Additionally, JP, CD, JB and WE have clinical backgrounds. Our experiences as HPE learners and clinicians affords us further insight into the impact that engaging with co-researchers can have in HPE. Our experiences of participatory research approaches include both overwhelmingly positive and productive experiences as well as those less positive. These experiences have prompted us to critically reflect on the benefits, challenges and enablers associated with participatory research endeavours. While we have experience in participatory research, we do not position ourselves as experts. Rather, we offer this primer on participatory research in HPE to spark curiosity about what is possible, motivated by our shared commitment to strengthen the real-world impact of HPER.

As an authorship team, we have also had lively reflexive dialogue about some controversies, which highlight the difficulty in making overly simplistic choices about participatory approaches. In part, this dialogue has focused on issues of relative power

in regard to decision making, and what this means for researchers and co-researchers at different phases of the research. This dialogue has highlighted the complexity of this work. We encourage readers who entertain participatory approaches to seek open discussions about these issues. Our key questions below can serve as a platform for these discussions.

Key questions to guide critical deliberations about participatory research

The questions posed in each of this paper's subheadings (also listed in Box 1) have been written to guide researchers through critical deliberations and discussions about starting or reflecting on participatory research in HPE. The intention is to help develop participatory research that is thoughtfully constructed and responsive to both the research goals and the needs of the community.

Box 1

Key Questions for Researchers to Consider When Starting Out in Participatory Research

- How do decision-making dynamics impact participatory research approaches?
- What is the appropriate level of participation for the project?
- What conditions foster diverse team contributions?
- What ethical issues may need to be addressed?
- What is achievable and sustainable within the constraints of available funding?
- What aspects of the research will require researcher flexibility?
- What assumptions and experiences might influence the research approach?

Conclusion

Participatory research methodologies offer a transformative approach to health professional education research that require researchers to not only follow procedural steps but also to engage with deeper epistemic challenges. This research approach embraces new ways of co-constructing knowledge, in which the expertise of "participants" is not an adjunct to but a core component of the inquiry process. By challenging habitual research practices, participatory methodologies hold the potential to shift power dynamics, fostering more collaborative, inclusive and impactful outcomes that resonate with the communities we serve. Researchers making this transition must critically evaluate how participatory approaches align with the aims of their projects. Further, they must recognise that the reframing of how knowledge is built may require both intellectual and practical shifts. Such an approach not only broadens the scope of research but also enriches it, creating opportunities for more meaningful contributions to both knowledge and practice in health professional education and research.

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