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Disrupting the status quo: Critical inquiry approaches in health professions education research

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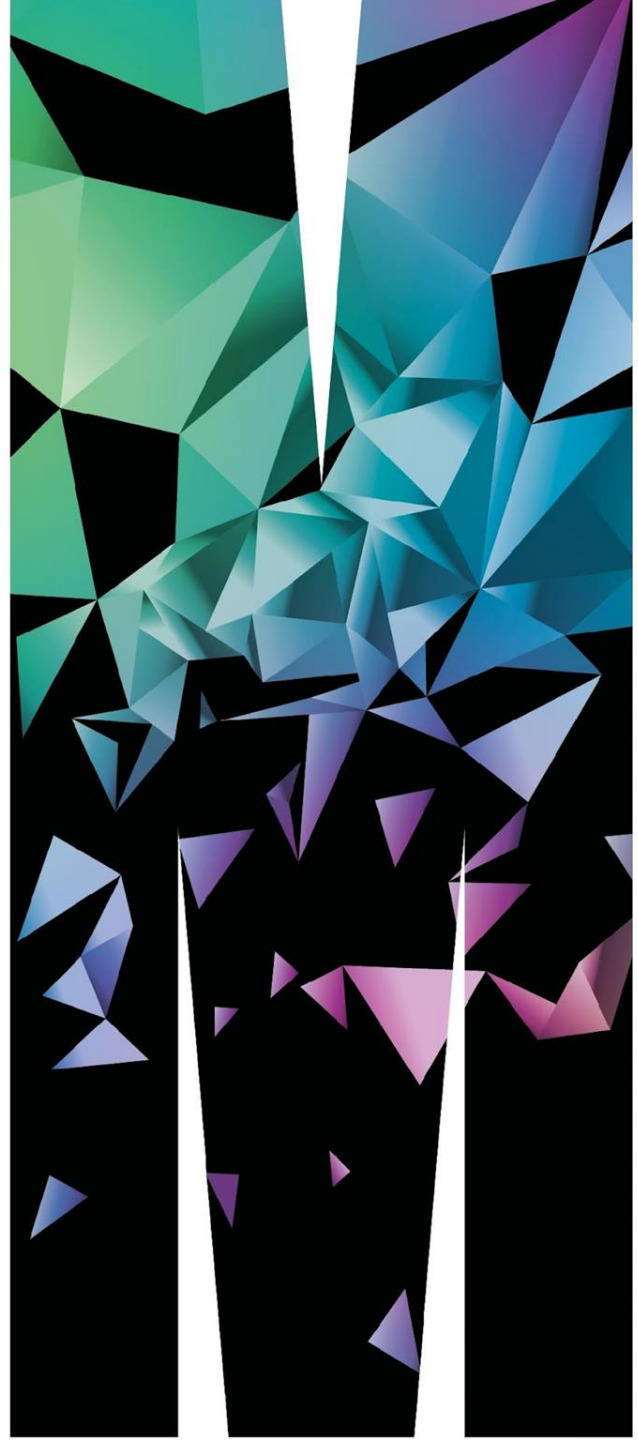

Acknowledgement of Country

I acknowledge the people of the Kulin Nation, on whose land Monash University Australian campuses stand. I pay my respects to their Elders, past & present.

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Session Learning Objectives

After this session, you will be able to:

- Describe common characteristics of **critical inquiry** approaches to education research
- Reflect upon why and when you could select a **critical inquiry** approach to education research
- Practice writing **critical inquiry** research questions

Locating myself as a critical researcher

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What are the key features of critical inquiry approaches?

Hodges says ….

Critical inquiry approaches aim to: *"disrupt notions of truth and the structures of power that come to be taken for granted".*

"Adopting a critical approach in medical education research means exploring the roles played by medical schools and educators in constructing ***power and privilege*** *in our societies. It means asking whether they sustain a status quo or work toward greater equity. Adherents of critical theory make a commitment to* ***participate in change*** *rather than to content themselves with pure academic analysis."*

Hodges B. When I say …. Critical theory. Medical Education. 2014; 48:1043-1044.

Critical inquiry approaches - why and when?

You would use a critical inquiry approach when you want to:

- examine, interrogate and expose **structural inequities** that impact education
- better understand **power imbalances** that benefit some (privilege) but unfairly impact others (oppression)
- commit to **participate in change to the status quo**, rather than conduct pure academic analysis

Hodges B. When I say… Critical theory. Medical Education. 2014; 48(11): 1043-1044. DOI: 10.1111/medu.12474

Why are critical inquiry approaches needed in HPER? (Wyatt et al., 2022)

- Health professions education research has historically excluded marginalised voices (both as researchers and as participants)
- Critical inquiry approaches aim to advance scholarship that disrupts/dismantles systems of oppression and brings marginalised voices to the forefront

Summary

Centering Criticality in Medical Education Research: A Synthesis of the 2022 RIME Papers

In the 2021 RIME forward, the RIME committee's current, past, and future chairs posed the following question to the medical education research community: "What steps have we taken to advance scholarship that dismantles systems of oppression and brings marginalized voices to the forefront?"[1] The chairs raised this question because they were concerned that medical education research is steeped in traditions that have historically excluded marginalized voices at the level of both researcher and participant.

In their effort to direct our community to the importance of this topic, in the 2021 RIME forward, Park et al[1] challenged the medical education research community to "question traditional research practices." They suggested that we embrace new approaches that seek to disrupt the status quo in social science research and begin to reimagine centering the voices and experiences of marginalized individuals and groups. As a result of this call to action, many of the authors of the papers accepted in the 2022 RIME supplement incorporated a critical stance into their research. Unlike traditional social science research, which aims to merely capture the world as it works, critical research views knowledge as having potential to emancipate marginalized individuals by questioning underlying assumptions embedded in the research process. To do this, researchers must inscribe power relations within the problem of research by giving attention to how various forms of power operate within our systems to replicate the status quo.[2] This can be accomplished by "shaking up habits, ways of acting and thinking, [and] dispelling commonplace beliefs."[3(p11,123)] Or, in what may be the most eloquent description written of critical research, researchers using a critical stance seek "to create knowledge with the potential to wreak havoc"[4(p76)] and create transformational change.

2022 RIME Papers: Toward a Critical Approach to Research

Critical research is an approach to research studies that interrogates, exposes, and challenges assumptions about how power and privilege function to obscure structural inequality.[5] A critical approach asserts that research can never be nonpartisan, and therefore researchers must work to expose hidden ideological assumptions. Therefore, critical research, unlike more familiar forms (i.e., positivist and postpositivist research), engages with larger social, historical, and ideological forces that influence and shape individuals, while also providing marginalized communities with the tools they need to resist the systems that shape them. This approach is particularly helpful when ideas on a topic have become fossilized, or do not explain the experiences of marginalized individuals and groups. It can also be useful to reinscribe how larger structures and processes influence and shape the lives of those most vulnerable by disrupting the societal fabric often taken for granted, and then planting seeds of transformation. As critical research becomes more mainstream, there are many tactics to conducting a critical approach to research, and the 2022 RIME papers demonstrate some of these ways. In an effort to continuously educate our medical education research community on how to conduct critical research, what follows is a brief overview of each of the articles, drawing attention to where and how the authors approached their work from a critical perspective.

In examining the accepted 2022 RIME papers, some of the authors incorporated criticality at the level of research questions, others at the level of analysis, and still others in the overall framing of the study. Papers that did not take a critical approach set up topics to create opportunities for untapped critical research. As such, the 2022 RIME papers provide a corpus of literature to argue for how criticality can be used at different levels of the research process. Therefore, as newest members of the RIME committee, we have narrated the papers in terms where authors incorporated a critical stance into their work, or where they could have undertaken a critical study. We hope to not only provide the medical education community with a structured approach to evaluate the accepted 2022 RIME papers but also a resource to move their own work into a more critical perspective.

Critical Approaches to the Literature

Examining the literature and conducting knowledge syntheses can be accomplished either by collating and synthesizing a literature base for what is published on a particular topic or by investigating not only what is present in the literature but also what is not there, yet should be. In this latter form, Paton et al[6] call this kind of research *absence research* because by investigating what is not present on a particular topic, researchers can raise larger questions about why information on a particular topic has not been investigated, who benefits, and the consequences for not having this information available.

Four author groups in the 2022 RIME supplement took a critical view of the literature, interrogating it for the ways it silences and erases certain perspectives in favor of others. These papers included Mount et al's[7] critical review, which highlighted the way professional identity formation (PIF) is taught. The review identified the dominance of individualistic approaches to PIF and called for more interventions emphasizing the social aspects of identity formation. The authors called for focus on intersectional experience of PIF to examine how the interactions between gender, race, and other identities influence individual's professional identity. They recognized how other identities influence the ways in which one conceptualizes being a professional

Acad Med. 2022;97:S11–S14.
First published online August 9, 2022
doi: 10.1097/ACM.0000000000004903

Wyatt TR, Ho MJ, Teherani A. Centering Criticality in Medical Education Research: A Synthesis of the 2022 RIME Papers. Acad Med. 2022 Nov 1;97(11S):S11-S14. doi: 10.1097/ACM.0000000000004903.

Whose voices might be marginalised, and under-represented in health education research?

Privilege, oppression and societal structures/systems of inequality

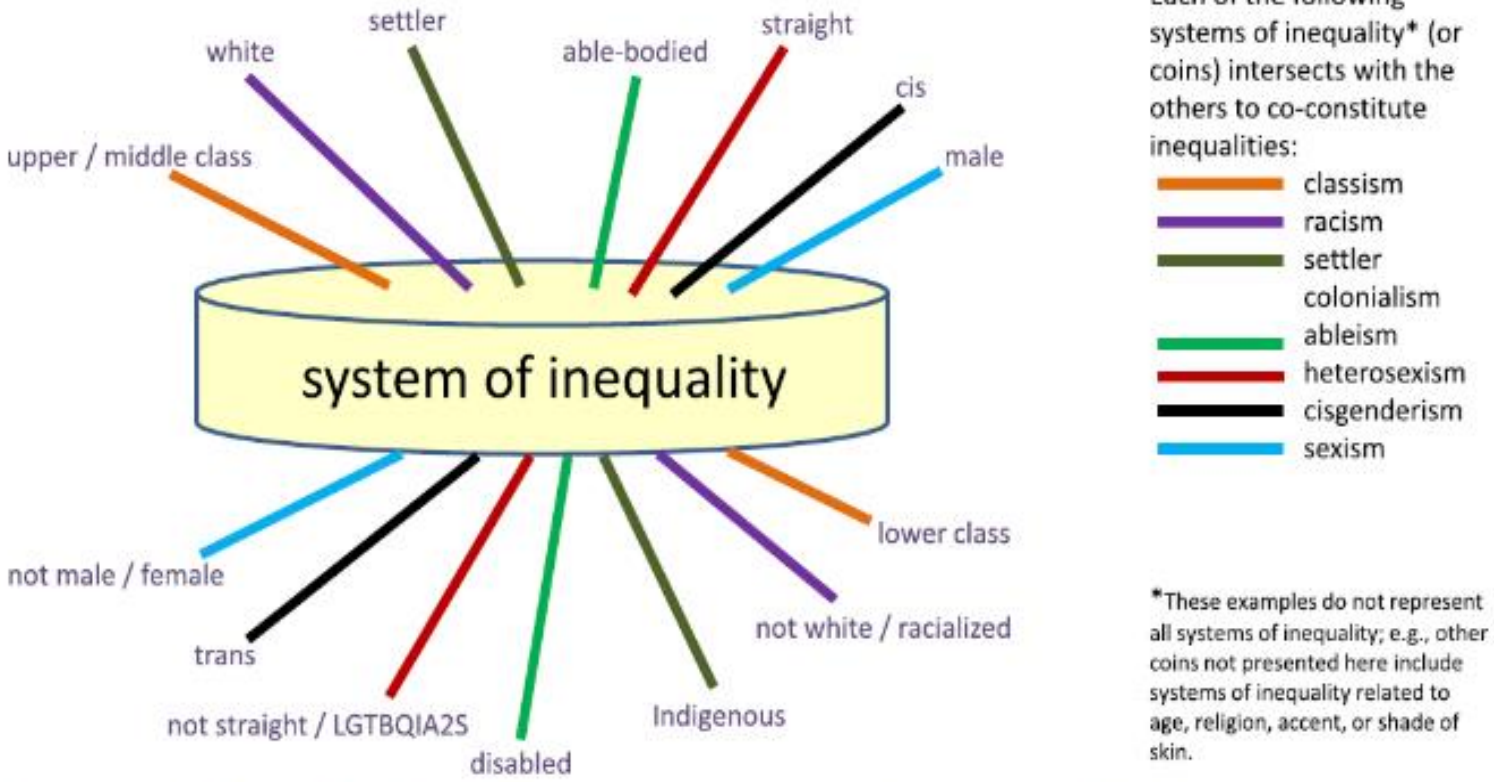


Fig. 2 The intersecting nature of the coins, which produces complex patterns of advantage and disadvantage

Nixon SA. The coin model of privilege and critical allyship: implications for health. BMC Public Health. 2019 Dec;19(1):1-3.

Grand theories underpinning research

Elements of paradigm	Positivism/ post-positivism	Interpretivism	Criticalism/ Transformative
Ontology	Singular reality	Multiple realities	Multifaceted and based on different social and cultural positions
Epistemology	Objectivity – research conducted from the outside	Subjectivity – personal involvement of the researcher	Collectivity – collaborative research with participants as researchers Power relations determine whose knowledge is normative
Axiology	Being unbiased	Recognising bias	Based on human rights and social justice
Methodology	Deductive	Inductive	Participatory

Cohen L et al. (2011) Research Methods in Education (7th ed). London & New York: Routledge

Bunniss S & Kelly DR (2010) Research paradigms in medical education research. Medical Education 44, 358-366

What does critical research look like? (Bunniss & Kelly, 2010)

Methodology:

- Iterative and flexible with continuous redefinition of problems anchored in their social and historical realities – context is key
- Research is used to envision how things could change for the better
- Participatory methodologies are common:

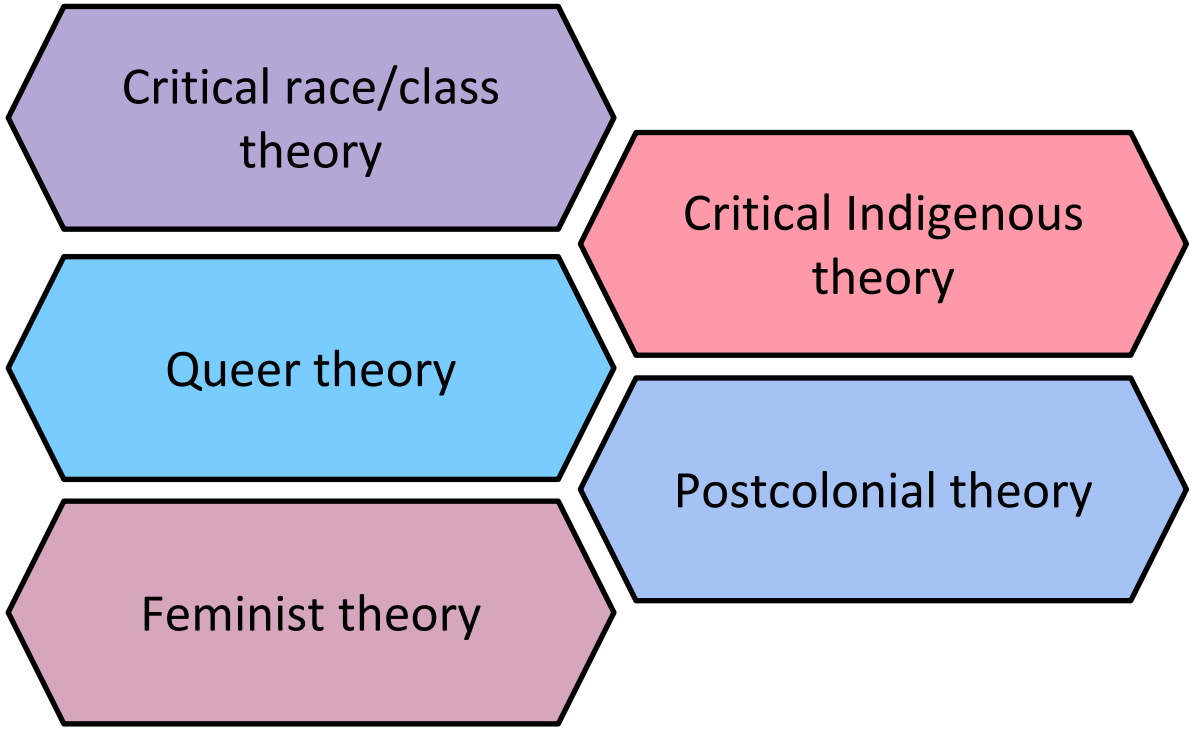
    e.g. Participatory action research, action inquiry, co-creation/co-design

Methods:

- Lends itself closer to qualitative methods, quantitative methods can be used (QuantCrit) – emphasis is on representation and context
- Often uses iterative research design

e.g. focus groups, photovoice/visual methods, critical discourse analysis, arts-based methods

Examples of theory in critical inquiry



Each of the following systems of inequality* (or coins) intersects with the others to co-constitute inequalities:

- classism
- racism
- settler colonialism
- ableism
- heterosexism
- cisgenderism
- sexism

*These examples do not represent all systems of inequality; e.g., other coins not presented here include systems of inequality related to age, religion, accent, or shade of skin.

- Hudon C. et al. (2016) Medical education for equity in health: a participatory action research involving persons living in poverty and healthcare professionals. BMC Medical Education 16: 106. https://doi.org/10.1186/s12909-016-0630-4
- Paradis, E., Nimmon, L., Wondimagegn, D., & Whitehead, C. R. (2020). Critical theory: broadening our thinking to explore the structural factors at play in health professions education. Academic Medicine, 95(6), 842-845.
- Graham J, Dornan T. Power in clinical teachers' discourses of a curriculum-in-action. Critical discourse analysis. Adv Health Sci Educ Theory Pract. 2013 18(5):975-85. doi: 10.1007/s10459-012-9437-1.

A note on critical approaches to quantitative research

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Anatomical Sciences Education | American Association for Anatomy | WILEY

DISCURSIVE ARTICLE

Expanding worldviews on psychometric analysis of measurement tools in health professions education and research

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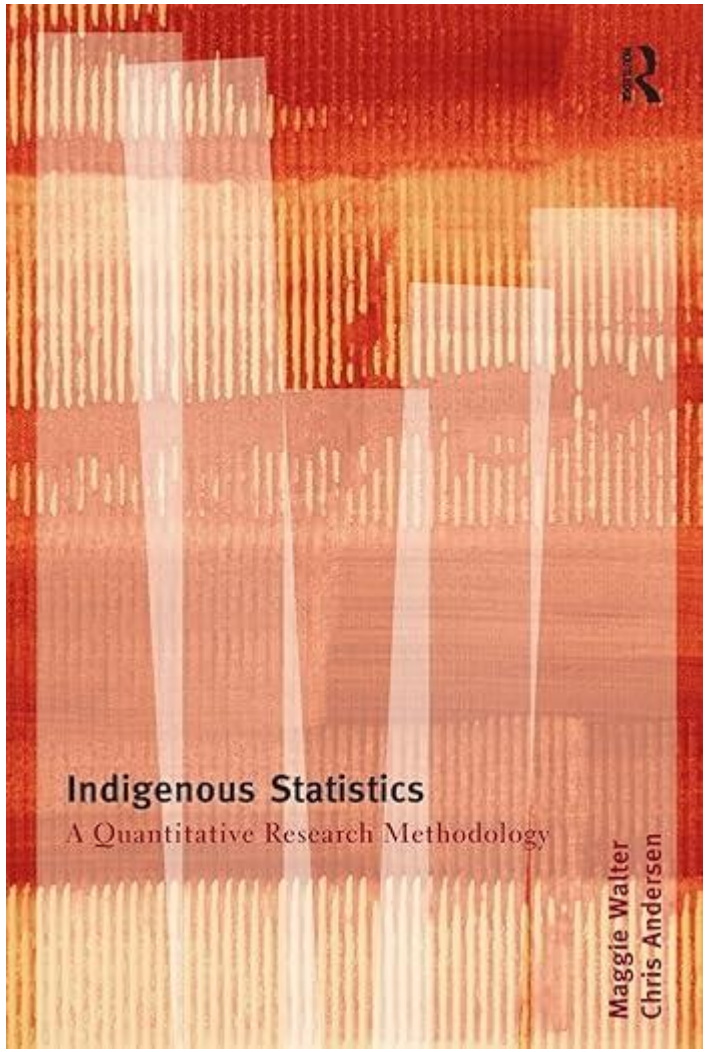
Abstract

Worldviews influence research—from design to interpretation and reporting. Historically, psychometrics has been predominantly situated within a positivist paradigm, while social research has often aligned with interpretivist or critical paradigms. However, emerging perspectives in the philosophy-of-science are challenging this rigid alignment, inviting a more nuanced understanding of the relationship between worldviews and methodologies in the health professions. This article explores both historical and emerging worldviews related to psychometrics—asking readers to reconsider assumptions and preconceived ideas about which worldview applies to this field of research. Furthermore, this article challenges the psychometrics community to consider how the field can occupy seemingly competing worldviews and approaches, including those that have historically been more commonly associated with qualitative research—such as critical theory (under the broader umbrella of critical inquiry) and reflexivity. Using illustrative case examples applicable to the anatomical sciences and health professions, we discuss the evolution of perspectives on psychometrics and its relationship to worldviews through the lenses of classical test theory and item response theory to the contemporary paradigm of "critical psychometrics".

KEYWORDS
anatomy and medical education, assessment, psychometrics, worldviews



Challenges us to consider who is defining a construct, who is involved with the scale development and interpretation, and who is left out or marginalized by this process

- Lazarus, M. D., Sarkar, M., Palermo, C., Soh, S., & Farlie, M. K. (2025). Expanding worldviews on psychometric analysis of measurement tools in health professions education and research. *Anatomical Sciences Education*, *18*(8), 838–851. https://doi.org/10.1002/ase.70053
- Walter, M., & Andersen, C. (2013). Indigenous Statistics: A Quantitative Research Methodology (1st edition). Taylor & Francis. https://doi.org/10.4324/9781315426570

Co-Design / Co-production

TABLE 2 Co-design in HPE

	Core co-design principles	Co-design in HPE
1	Inclusive	Key industry stakeholders (including health care consumers) are involved from initial proposal design, development and framing of learning focus to final educational outcome and delivery.
2	Respectful	Health care consumers are considered 'experts by experience', and all input is equally valued in design, development and delivery of education (including payment and co-authorship).
3	Participative	The research process is open, responsive and empathetic with the main aim of co-creating education: to generate new understandings of health and health care experiences.
4	Iterative	This is a cyclic, collaborative process that takes time and embraces movement towards a shared education vision (includes being adaptive, reflective and trialling new and creative pedagogy at the risk of failure).
5	Outcomes focused	The focus is on achieving a shared educational outcome that is not predetermined but co-created during the co-design process.

Intention is to better align HPE with consumers' actual needs and transform/re-distribute power within hierarchical healthcare relationships

Brand et. al. A research approach for co-designing education with healthcare consumers. Medical Education 2021; 55: 574-581

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DOI: 10.1111/medu.14411

RESEARCH APPROACHES

A research approach for co-designing education with healthcare consumers

Gabrielle Brand[1,2] | Carli Sheers[3] | Steve Wise[4] | Liza Seubert[2] | Rhonda Clifford[2] | Pamela Griffiths[5] | Christopher Etherton-Beer[6]

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Funding information
This research example reported in this paper was supported by the Western Australian Health Promotion Foundation (Healthway) Exploratory Research Funding under Grant number 32737.

Abstract

Context: Community and consumer involvement in health professions education (HPE) is of growing interest among researchers and educators, particularly in preparing health care graduates to effectively learn from, and collaborate with, people with lived experience of health issues. However, to date there has been limited direction on methodological approaches to engage health care consumers in the research and co-design of HPE.

Approach: In this paper, we describe the background to our work with health care consumers including the five core principles for successful co-design (inclusive; respectful; participative; iterative; outcomes focused) and how they can be applied as a research approach in HPE. We introduce the use of arts and humanities-based teaching methodologies including engagement, meaning-making and translational education strategies to illustrate how this research approach has been applied to reframe mental health education and practice in Australia. Furthermore, we share some reflective insights on the opportunities and challenges inherent in using a co-design research approach in HPE.

Conclusions: For the consumer voice to be embedded across HPE, there needs to be a collective commitment to curriculum redesign. This paper advances our understandings of the educational research potential of working with health care consumers to co-design rich and authentic learning experiences in HPE. Co-design research approaches that partner with and legitimise health care consumers as experts by experience may better align education and health professional practice with consumers' actual needs, an important first step in transforming hierarchical health care relationships towards more humanistic models of care.

1 | INTRODUCTION

Where is the patient's voice in health professions education (HPE)? The notion of 'Nothing about us without us' is endorsed by the World Health Organization framework on integrated person-centred health services[1] that emphasises the importance of co-development between health care professionals and the people using health services. This has resulted in a change of relationship between patients and health care professionals from traditional paternalism towards shared decision making that involves active and equal health care partnerships.[2] This trend towards patient and community involvement in health care was further extended in the 2015 Vancouver

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Critical inquiry research questions

Critical inquiry approach: What types of questions do you want to study?

Do you want to explore a phenomenon from perspectives of marginalised groups?

- What are the experiences of students at University of Melbourne coming from a low SES of their studies?

Do you want to promote empowerment, equity, and freedom?

- How effective are current mechanisms to support students from low SES backgrounds to undertake clinical placements?

Do you want to question the status quo and taken for granted power relations?

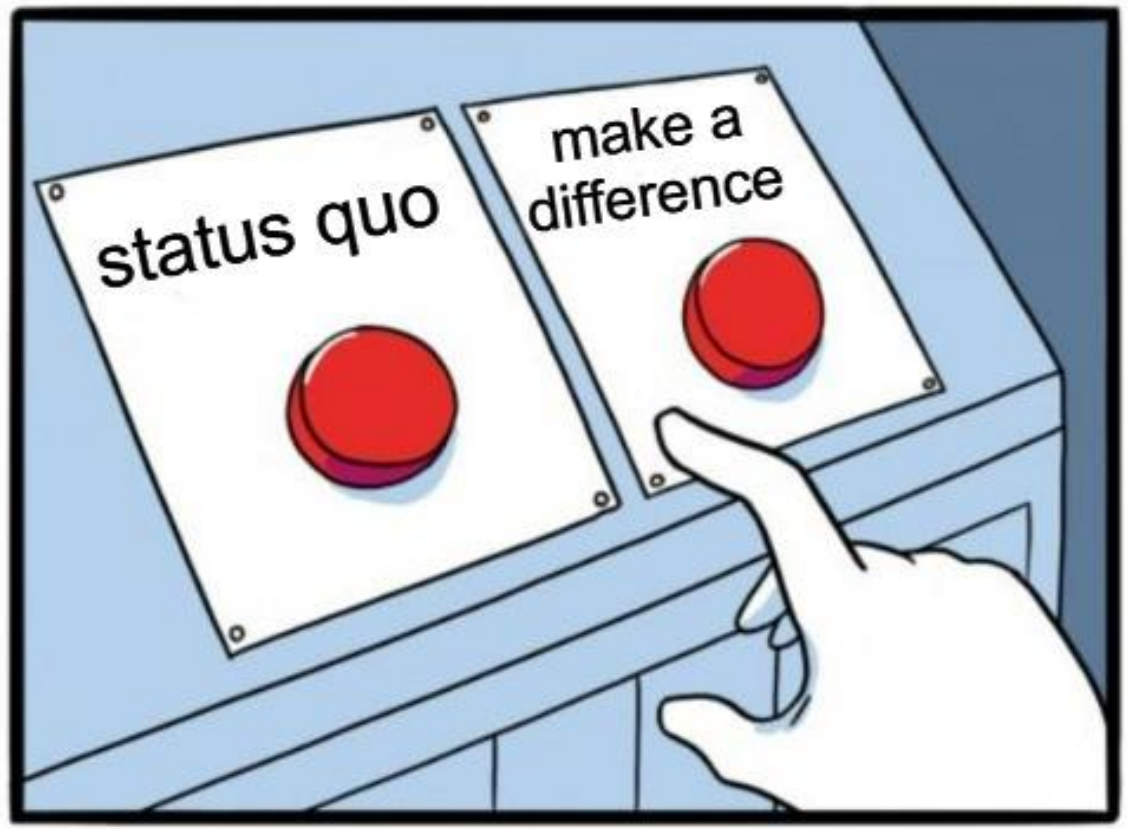
- How is the knowledge learned in medical school reinforcing pre-existing worldviews that deny the importance of the social sciences and humanities?

Do you want to bring about change?

- What do students from low SES backgrounds perceive is required for them to be successful in the higher education environment?

Critical research questions

- Involve issues of injustice and inequity, an attention to power imbalances
- Skeptical stance towards data – ‘facts to be known vs. conditions to be challenged and changed’
- Focus on researching ideas that go against prevailing thought
- Verbs such as interrogate, examine, transform, change are common



Critical HPE Research Question examples

- What structural issues do international students encounter when transitioning to dietetic practice in the Australian health system or back home?
- What opportunities exist to transform dietetics training to better support international graduates to dietetics practice?

“the primary investigator has shaped the research direction through their lived experience as an international and bicultural dietetics graduate and the intention is to employ a research assistant who is also a dietetics graduate of an international background.”

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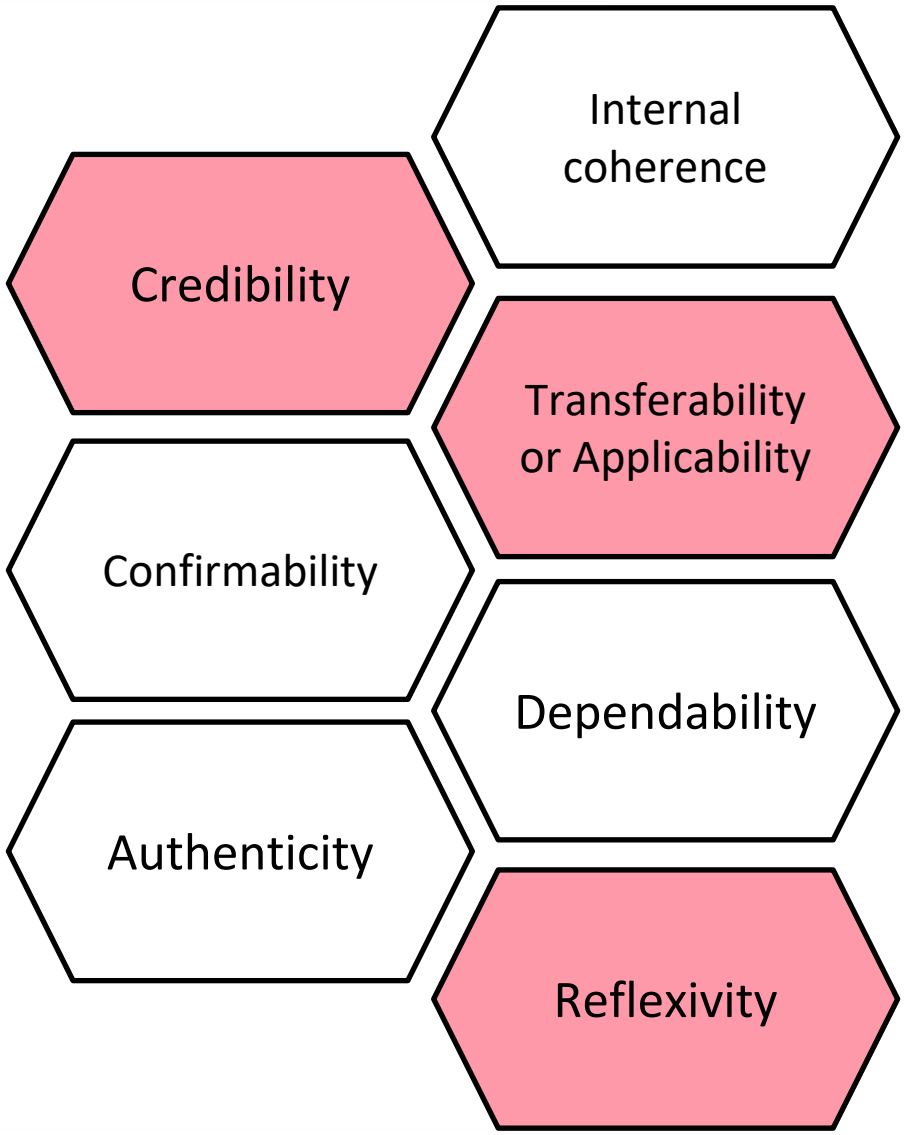
How can we enhance quality of critical inquiry approaches?

Quality in Critical Inquiry Approaches



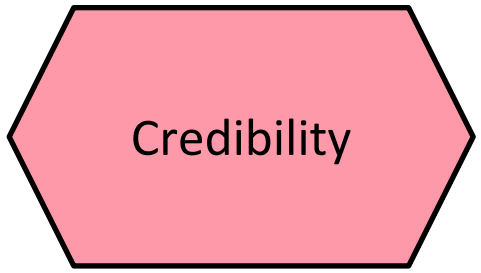
Do common criteria in evaluating trustworthiness in qualitative research fit?

Liamputtong, P. Qualitative research methods. 4th ed. Oxford University Press. 2013

Credibility

Critical inquiry research is credible if it reveals nuanced insights into the multiple realities from participants and researchers.

Because researchers rely on their own perspective and lived experiences to see the world, they may not be able to see issues related to social justice - attending to the research team's composition is crucial



"Diverse teams should not be assembled for mere representativeness, as perfunctory or symbolic effort. Doing so can easily fall into a type of microaggression known as tokenism" (Wyatt, 2022 p. 1199)

Wyatt T. "The sins of our forefathers': reimagining research in health professions education. Advances in Health Sciences Education 2022; 27:1195-1206.

Reflexivity

- Begin the research process by questioning what you have been taught in your own discipline and engage in a de-linking process
- Challenge our own beliefs and assumptions about what is the ‘norm’ and recognise how these are embedded in social and cultural structures in which we were raised, trained and currently work

“Reflexivity is an ongoing process that extends across the entire duration of a research endeavor” (Olmos-Vega, 2022 p. 242)

Olmos-Vega, F. et al. A practical guide to reflexivity in qualitative research: AMEE Guide No. 149. 2022. Medical Teacher, 45(3), 241–251.

Critical reflexivity is key in critical research!

- Need to question from the outset – <u>am I the right person to be leading this research</u>?
- Challenge our own beliefs and assumptions about what is the 'norm' and recognise how these are embedded in social and cultural structures in which we were raised, trained and currently work
- Deeply interrogate our own social positions, cultural origins, our positions in the field and our knowledge claims

Critical reflexivity	
Definition	A process of recognising our position in the world to better understand the limitations of one's own knowing and better appreciate the social realities of others
Object of reflexive activity	Discursive world (talk and text), inequitable and unfair societal norms and structures, power relations
Implications	Long term systems change including re-defining 'norms'

Ng, S. L., Wright, S. R., & Kuper, A. (2019). The divergence and convergence of critical reflection and critical reflexivity: implications for health professions education. Academic Medicine, 94(8), 1122-1128.

Transferability

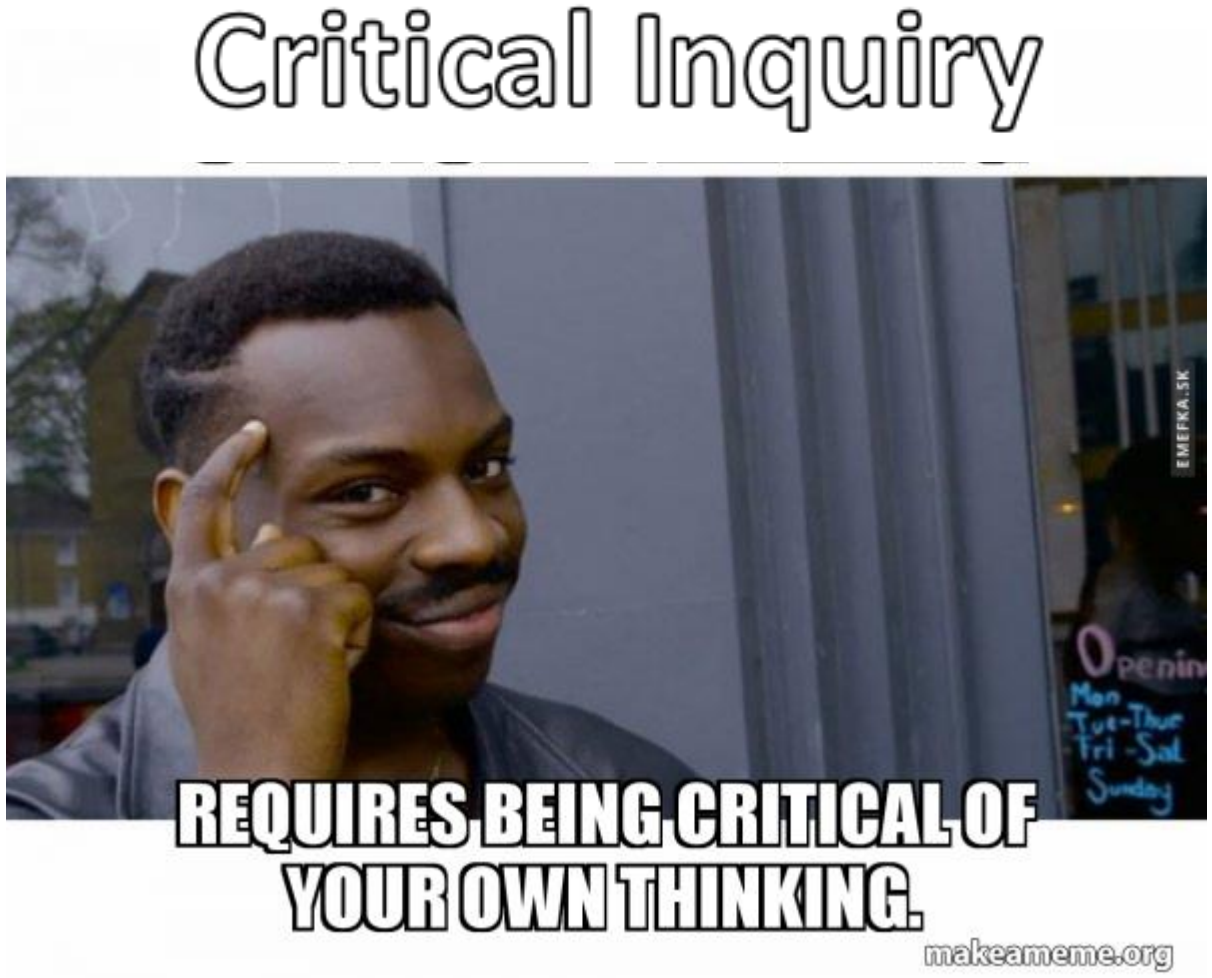
"In assessing quality and rigor, a critical scholar would look for evidence that their research contributes to ***a contextual understanding of a phenomenon*** *that exposes problematic power relations and points to a way to reshape hierarchies" (Paradis et al., 2020)*

- Critical inquiry researchers analyse micro-level experiences within macro-level structures/systems. These political, social, historical, economic & contexts are unique to time and place and people's experiences within them.

- **Caution** if generalising or transferring findings to other individuals, groups, contexts or settings

Paradis, E. et al. Critical theory: broadening our thinking to explore the structural factors at play in health professions education.2020. Academic Medicine, 95(6), 842-845.

Three key features of critical inquiry



1. Critical self-reflection and reflexive relational practice
2. Socio-political education, structural power analysis and interrogating/examining privilege/oppression
3. Seeking to create systemic, transformative change

McCartan, J., Brimblecombe, J., & Adams, K. (2022). Methodological tensions for non-Indigenous people in Indigenous research: A critique of critical discourse analysis in the Australian context. *Social Sciences & Humanities Open*, *6*(1), 100282

Discussion Q&A: Critical inquiry approaches

What is my background in critical inquiry approaches?

What do I like about critical approaches?

What do I find tricky about critical approaches?

How do/could I use critical approaches?

Happy to continue the conversation!
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