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*Authors retain full responsibility for the content of their supplemental digital appendices.*

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## Supplemental Digital Appendix 1

### **MeSH Terms (i.e., Medical Subject Headings) Employed in a Literature Search Seeking Articles on Critical Consciousness in Medical Education, March 2019**

#### **Web of Science**

1. TOPIC: ("critical pedagog\*") OR TOPIC: (conscious\*) OR TOPIC: ("social contract\*") - DocType=All document types; Language=All languages;
2. TS=("medical education\*") OR TS=("medical student\*") OR TS=((residency\* or resident or residents) near/5 education\*) OR TS=((intern or interns or intern's or internship\*) near/5 education\*) OR TS=("teaching round\*") - DocType=All document types; Language=All languages;
3. #2 AND #1 - DocType=All document types; Language=All languages;
4. #2 AND #1 - Refined by: LANGUAGES: (ENGLISH) - DocType=All document types; Language=All languages;

## EMBASE

1. "critical pedagog\*" .mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
2. consciousness/
3. "critical\* conscious\*" .mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
4. "social contract\*" .mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
5. medical education/ or clinical education/ or residency education/ or teaching round/
6. continuing education/
7. ((graduate\* or postgraduate\* or undergraduate\*) adj5 ("medical education\*" or "medical student\*")).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
8. (intern or intern's or interns or internship\*).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword, floating subheading word, candidate term word]
9. medical student/
10. 1 or 2 or 3 or 4
11. 5 or 6 or 7 or 8 or 9
12. 10 and 11
13. limit 12 to english language

## **MEDLINE**

1. "critical pedagog\*".mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
2. "critical\* conscious\*".mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
3. Consciousness/
4. "social contract\*".mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
5. education, medical/ or education, medical, continuing/ or education, medical, graduate/ or "internship and residency"/ or education, medical, undergraduate/ or teaching rounds/
6. Students, Medical/
7. 1 or 2 or 3 or 4
8. 5 or 6
9. 7 and 8
10. limit 9 to english language

## PsycINFO

1. "critical pedagog\*" .mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures]
2. "critical\* conscious\*" .mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures]
3. "social contract\*" .mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures]
4. medical education/ or medical internship/ or medical residency/ or psychiatric training/
5. "continuing medical education\*" .mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures]
6. ((graduate\* or postgraduate\* or undergraduate\*) adj5 ("medical education\*" or "medical student\*")).mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures]
7. "teaching round\*" .mp. [mp=title, abstract, heading word, table of contents, key concepts, original title, tests & measures]
8. medical students/
9. 1 or 2 or 3
10. 4 or 5 or 6 or 7 or 8
11. 9 and 10
12. limit 11 to english language

## Supplemental Digital Appendix 2

### Final Version of Data Extraction Sheet Developed to Display Data Most Relevant to the Conceptualization of Critical Consciousness in Medical Education

Note: Most content in columns 4-9 is a verbatim transcription from the studies included in the sample.

1. First author and year of publication	2. Practice Setting	3. Type of article/Study design/Methodology	4. Purpose of Article/Study	5. Aspects of the Theory used	6. Intervention (if applicable)	7. Outcome (if applicable)	8. Conclusions and/or Directions for Future Research	9. Implications for Practice	10. Main theme(s)
Cavanagh, 2019 <sup>44</sup>	Undergraduate	Perspective paper	- To consider how a problem-posing medical education could redefine physicians' relationships to knowledge, identity, and to their patient. - To offer three examples comparing problem-posing and problem-based approaches to medical learning that illustrate the value of incorporating Freire's pedagogy into medical education: reconceptualizing problems, knowledge and patients.	Critical Pedagogy theory, especially the concept of problem-posing education (PPE).	n/a	n/a	The authors have advanced a vision of a problem-posing medical pedagogy that broadens the scope of PBL, training physicians who are actively engaged in dismantling oppressive social structures that make their patients sick.	To achieve this end, students of PPE would be asked to complicate their relationships to biomedical knowledge, reconsider hierarchical dynamics in the clinic, and re-centre the struggle against social causes of illness at the heart of their future practices of medicine and medical research.	Social
Coria, 2013 <sup>33</sup>	Undergraduate	Case study	To justify and define "social justice curriculum" - To describe the medical school social justice curriculum designed	Critical Consciousness in the context of a medical school social justice curriculum (involves critical self-reflection on assumptions, biases,	A Social Justice Vertical Integration Group (SJVIG) designed a new social justice curriculum employing the vertical	The SJVIG: - defined core competencies specific to social justice that related directly to institutional competencies as	- Multifaceted written and verbal student evaluation will be a critical component of the medical school social justice curriculum, as will adequate infrastructure support and ongoing assessment of the	- Unless well integrated with other core topics, social justice topics could be marginalized and undervalued in students' minds.	Social

			by the multidisciplinary Social Justice Vertical Integration Group (SVIG) at the Geisel School of Medicine at Dartmouth.	and values prior to principled action in a cross-cultural context).	integration approach to curriculum design.	previously ratified by the faculty - identified specific topics that are important to address in any social justice curriculum. The social justice curriculum designed by the SVIG includes a minimum of 55 hours of content divided into 30 hours of classroom work (didactic and small group) and at least 25 hours of experiential learning. - The group felt the real-world work within the local community would serve as a necessary adjunct to the didactic component of the social justice curriculum.	impact of students’ hands-on work on the communities they serve. - Another vital step will be to delineate rigorously the impact of the new curriculum on students’ competency in recognizing and ameliorating social injustice as well as on the likelihood of graduate work with underserved populations.		
Dao, 2017 <sup>31</sup>	Undergraduate	Case study	To present a cultural competence teaching model combining theory, social science and humanities content and pedagogy for sociomedical education.	Critical Consciousness as a state of understanding how power and difference shape social structure and interaction (“reading the world”), coupled with an orientation toward pragmatic action.	Introduction to medicine and Society course. Facilitating students’ engagement with complex questions. Small-group learning spaces designed to foster transformation toward critical consciousness.	- The small-group learning space has transformed discussions, students are more open and vulnerable, actively challenging their own assumptions and demonstrating humility while engaging with other worldviews. - Enhanced productive dialogue across difference. - Faculty facilitators	This model lays the foundation for students to become and remain lifelong, critically conscious sociomedical learners who are able to assimilate new understandings— whether knowledge of specific sociocultural circumstances, attitudes toward previously unencountered situations, or skills in advanced clinical communication—throughout their clinical careers.	Sociomedical learning requires longitudinal approaches to reinforcement and retention.	Social Cultural

						<p>identified the course as transformational for them: e.g. positive effects on awareness of sociomedical issues and own doctoring practice.</p> <p>- Student involvement generated innovations. The course is accessible, compelling, and relevant to each new group of students, yet true to its theoretical framework.</p>			
DasGupta, 2006 <sup>43</sup>	Undergraduate and Postgraduate	Perspective paper	<p>- To discuss social justice in medical education, by revisiting Paolo Freire’s work in three frameworks: educational methodology, clinical care and the broader social context.</p> <p>- How do we as medical educators construct a pedagogy for social justice that is far reaching, consistent and central to our educational endeavors?</p>	Banking-model of education (medical schools and clinical training programs are still generally consistent with what Freire would call the “banking model of education”), problem-posing education and co-intentionality.	n/a	n/a	<p>- Medical educators must bring social responsibility into our medical teaching.</p> <p>- Teaching with a Freirian vision means openly addressing power discrepancies, and also valuing and respecting the input of both teachers and learners.</p> <p>Educators must de-privilege their own authority. This can contribute to a real cultural change in the profession, modelling non-hierarchical and respectful relationships that trainees can then translate into their clinical care.</p>	<p>- Bringing social responsibility in medical education is an issue of content, but also of methodology, which needs addressed.</p> <p>- Teachers need to be critically conscious of their own power, in order to teach students a socially conscious professionalism.</p> <p>By empowering students in their own education, they can become better clinicians who enable patients to be empowered in their own health.</p> <p>- Teachers should encourage students to question and critique knowledge in the classroom. This attitude can fosters these same behaviors in the clinical world, ultimately leading to analysis of the social</p>	Social Political

								environment, as well as advocacy for social change.	
Donetto, 2010 <sup>48</sup>	Undergraduate	Perspective paper (reflections on ethnographic dataset from another study)	<ul style="list-style-type: none"> <li>- To discuss ways in which teacher-learner relationships can help address medical students’ uncritical views of professional practice (medical power and patients’ education) and foster a participative medical professionalism</li> <li>- To provide suggestions about how the interactions between medical students and their educators could better support more collaborative clinical work.</li> </ul>	The author’s concept of “critical awareness” is based on that of Critical Consciousness.	n/a	The author suggests ways in which teacher-learner interactions can foster critical insight into power dynamics within expert–nonexpert interactions and help encourage richer conceptualisations of what constitutes patient education and knowledge.	<ul style="list-style-type: none"> <li>- The interactions between students and educators in undergraduate medical learning offer useful analogies with the dynamics at work in the practitioner–patient exchange of the clinical encounter.</li> <li>- The message of patient-centredness must be counterbalanced by teaching strategies that place much more emphasis on the role of criticality and problematization</li> </ul>	<ul style="list-style-type: none"> <li>- We need to pay close scholarly attention to teacher–learner relationships in the undergraduate education of doctors.</li> <li>- More collaborative pedagogical strategies may help prompt students to critically reflect on authority, power and responsibilities in medical practice – by paying extra attention to the power relations at play within teacher–learner interactions in the context of interactive teaching sessions.</li> <li>- Encourage a pedagogy of discomfort.</li> <li>- Introduce more formalised and structured involvement of patients in undergraduate teaching.</li> </ul>	Educational
Donetto, 2012 <sup>34</sup>	Undergraduate	Case Study	<ul style="list-style-type: none"> <li>- To draw upon ethnographic data to illustrate the recurrence among medical students of narrow and uncritical understandings of patient-centred practices</li> <li>- To reflect on students’ ideas about patient-centredness, in</li> </ul>	<ul style="list-style-type: none"> <li>- ‘Critical awareness’ as an ongoing process of seeking insight into the dynamics and networks of power that underlie professional practices, the responsibility for reflexivity they entail, and the ideological effects they produce.</li> <li>- Conscientisation (i.e. ‘the development of the awakening of</li> </ul>	(Ethnography. The author performed observations, interviews, and informal meetings with gatekeepers, educators and students).	<ul style="list-style-type: none"> <li>- There are three interconnected aspects of students’ views of patient-centredness: the instrumental value of patient-centredness for examinations; the mechanical approach to empathy in the clinical encounter; the emphasis on patient-centredness as conducive to better</li> </ul>	<ul style="list-style-type: none"> <li>- The effects of what/how we are currently teaching need to be looked at more critically</li> <li>- The dimensions of professionalism (information sharing, participation and professional responsibility) could develop more organically and possibly more effectively if they were grounded in critical approaches to medical knowledge and practice.</li> </ul>	<ul style="list-style-type: none"> <li>- The extent to which “internalisation” of behaviours in learning (behavioural pedagogical approach) is effective needs further consideration</li> <li>- Whilst emphasis on pragmatic dimensions of patient-centredness is important, there is a risk that this emphasis will obscure or detract attention from the</li> </ul>	Social Political Educational

			<p>order to reflect on what could be done to support future doctors in developing more critical approaches to the complexities of clinical interactions. These approaches might help disrupting the unquestioning reproduction of hegemonic medical discourses.</p> <ul style="list-style-type: none"> <li>- To reflect on how some teaching practices might be contributing to students' unsophisticated understandings of patient-centredness but might also be a key to beginning to address them.</li> <li>- To examine students' conceptualisations of patient-centredness.</li> </ul>	<p>critical awareness'): critical awareness encompasses, but also moves beyond, individual reflexivity, being fundamentally social in character and calling for responsible action.</p>		<p>health outcomes for patients.</p> <ul style="list-style-type: none"> <li>- In OSCEs, students often showed an inadequate understanding of important aspects of patient-centred practice, such as empathy.</li> </ul>		<p>importance of the authenticity and value of the interaction itself.</p> <ul style="list-style-type: none"> <li>- Instances of poor critical awareness need to be examined more closely by educators, curriculum developers and medical education researchers.</li> <li>- A 'pedagogy of discomfort' would aim to create teaching and learning spaces that encourage educators as well as students to question cherished beliefs and assumptions, inviting them to 'examine their values, and analyze how they came to hold these values'.</li> </ul>	
Frambach, 2017 <sup>46</sup>	Undergraduate and Postgraduate	Perspective paper	<ul style="list-style-type: none"> <li>- To argue that our practice as health professions educators is inextricably linked to a global industry of health professions education, which comes with a potentially discomfoting message.</li> </ul>	Critical Consciousness.	n/a	n/a	<ul style="list-style-type: none"> <li>- Introducing critical approaches to health professions education cannot ignore the power structures of our education systems, specifically the social and political determinants of medical education. Are we critically conscious about our educational approaches? And are we ready to challenge them if our own position, and those of our co-workers, depends on them?</li> <li>- In the face of increasing globalization of health professions</li> </ul>	<ul style="list-style-type: none"> <li>- Calls for critical and social awareness need to address the provision of micro-level guidance for teachers and course designers.</li> <li>- Reconciling existing educational approaches such as PBL with critical pedagogy would require that both teachers and learners are empowered to challenge not only</li> </ul>	Political

			- To consider how medical educators may attach a praxis to critique.				education, so called standardized and validated educational tools provide efficiency in the transport of knowledge across contexts, but in the process can inadvertently reproduce dominant educational power structures and obfuscate important local and context specific approaches to health professions education. - Being critically conscious about our educational approaches moves beyond evaluating an approach's ability to train critically conscious health professionals. It also involves thinking about the historical, social and political determinants that have generated our current training models. Where does this training model come from? How did I come to know it? Who benefits or loses, within and beyond my institution, when I use or promote this model? - We cannot ask our students to engage in critical consciousness alone. They need us to be their role models.	what is being learned, but why this learning is expected of them and how it is being delivered. - We need to challenge the assumptions underpinning our work as educators.	
Hanson, 2011 <sup>40</sup>	Undergraduate	Literature Review	- To explore trends in International Medical Electives, highlighting the potential for disparities in low and middle-income countries to provide a learning environment ripe for exploitive rather than reciprocal and ethical engagements by students from high-income countries.	- Education is never neutral: it can be domesticating and instrumental, or it can be emancipatory - When educators do not encourage students to question and to challenge the exercise of unjust power, they enable the students to accept it, adapt to it, and engage in its reproduction.	n/a	The authors suggest that IMEs as currently conceived are potentially ripe sites for the reproduction of colonialist ideas of North-South relationships.	A critical pedagogical approach could challenge the very premise of medicine by opening up opportunities for students to question the values, assumptions, and epistemologies that underlie and legitimize it as currently practiced.	- Curricula need to facilitate understanding of upstream forces influencing health, to encourage awareness of the impact of social and political inequities on the health status of disadvantaged populations, and to do so while simultaneously fostering the development of skills and strategies for ameliorating them. - Curricula should provide opportunities to	Social Cultural

			- To suggest alternative strategies for teaching and learning, including transformational pedagogy.					participate meaningfully in civil society actions for change, be they local or global. - Teachers need to incorporate and model humility, reflexivity, and reflective practice. - Locate curricular content and pedagogical approaches that enable transformation through personal reflection, critical analysis of contextual issues, and theoretically informed actions or praxis.	
Kumagai, 2007 <sup>35</sup>	Continuing (Faculty training)	Case study (Surveys, focus groups)	To describe the use of a specific technique - interactive theater - to assist faculty instructors in facilitating small-group discussions on potentially contentious issues involving race, gender, sexual orientation, and socioeconomic class (aimed at fostering critical consciousness).	Critical Consciousness conceptualised as: involving reflection, engaged discussion, examination of personal assumptions and biases and of societal inequities, and accepting personal responsibility for finding and enacting solutions.	Two faculty development workshop on Interactive Theater and evaluation.	- The workshop led the facilitators to reflect on how their actions in the classroom affected their students and learned strategies for addressing the classroom dynamics that can negatively impact some students and that it had raised their awareness of the classroom experiences of minorities and women. - The workshop made participants "more sensitive to the cultural aspects of our discussions" and made them aware that they should "pay more attention to nonverbal cues" in their groups.	- This type of activity allows interactive deconstruction and critical reflection on teaching and small-group dynamics among instructors. - This activity models a pedagogic method that incorporates the creation of a 'cognitive disequilibrium'.	Importance of faculty development in acquiring necessary skills to facilitate small-group discussions in multicultural education.	Cultural Educational
Kumagai, 2009 <sup>30</sup>	Continuing (Faculty training)	Case study	- To discuss activities and techniques designed to foster	Critical Consciousness conceptualized as the knowledge and	- Discussions and lectures on topics in multicultural	Assessment of the expressions of critical awareness (thoughtful	- How to evaluate the effectiveness of critical consciousness	- Critical Consciousness is different from, albeit complementary to,	Social Cultural Educational

	(Students AND teachers - the relationships of the faculty and students in this setting is bidirectional)		and enhance critical consciousness in medical students - To critically discuss the notion of cultural competency (Not competency BUT orientation—a critical consciousness— which places medicine in a social, cultural, and historical context).	awareness to carry out the social roles and responsibilities of a physician.	education incorporated into a clinical skills course, and into two small-group-based activities - Faculty training on active learning and facilitation, providing feedback, and stimulating reflective learning.	discussions, essays, interpretive projects, etc.) happens over time.	development in multicultural education? - Reorientation of the traditional teacher– student paradigms and of assessment methods in this crucially important area of medical education.	critical thinking, and both are essential in the training of physicians. - Assessment should focus on expressions of internalized, patient-centered orientations. - A central goal in multicultural education is the development of a critical awareness (commitment to alleviate suffering and address disparities through action) and a critical consciousness of oneself and others in the world. -Educators should not only disclose their narratives but also adopt a bidirectional mode of teaching wherein the lived experiences of students are valued as educational resources when learning about diversity.	
Kumagai, 2017 <sup>47</sup>	Undergraduate	Perspective paper	To examine the concept of discomfort and conflict, as essential to learning because they prompt self-reflection on one’s own identities, values, experiences, and worldviews.	Paulo Freire connected this type of discomfort with teaching for social justice by asserting that “conflict is the handmaiden of critical consciousness”. In other words, conflict is a catalyst for the development of a critical awareness of self, others, and the world that leads to	n/a	n/a	- The emotional trauma that grappling with these subjects may cause is a type of educational iatrogenesis; in raising these subjects or introducing students into learning situations in which exposure to these issues is unavoidable, we are indeed responsible for traumatizing (or, in the case of posttraumatic stress, retraumatizing) individuals during the educational process. - Not only are messy complexity and unpleasantness integral to the	- We need to purposefully introduce cognitive disequilibrium or a situation/ conflict where the learners are forced to critically reflect on their past experiences and current positions on the topic for transformative learning experience to occur -To support students grappling with these issues, we must ask	Political Educational

				action to address injustice and work towards human freedom.			practice of medicine, but conflict and discomfort are also an essential part of learning.	ourselves an important question: What distinguishes the types of incidents, gestures, or words that may give rise to emotional or psychological trauma from the innocuous events of daily life?	
Labonte, 1999 <sup>38</sup>	Continuing (Physician training)	Case study	- To describe the Story/Dialogue – Method (S/D M) – which was prompted by a desire to assist practitioners to make explicit their assumptions (theories) about their work and to subject them to some critically respectful scrutiny with their peers - To describe the method’s use in knowledge development.	Critical Consciousness and power: the first act of power people can take in managing their own lives is ‘speaking the world’, naming their experiences in their own words under conditions where their stories are listened to and respected by others.	S/D M workshops, in which medical practitioners engage with others, including the story-teller, in a dialogue about the story.	The method’s appeal to practitioners lies in the power of sharing stories, grounding the stories in first-person experiences, affirming that practitioners and community members have important knowledge, the story group process that, in one participant’s words, “helped to make everyone work together as equals”, and the logic of the structured dialogue.	The ability to document revealing experiences, to analyze and explain these experiences, to synthesize the analysis, and to search for patterns and abstract from the particular to the general are all skills that can be acquired with practice. The S/D-M has evolved to assist practitioners in acquiring these skills, that return the abstract theory notes to the particulars of practice.	Using the S/D-M, which bases itself on the day to day experiences of certain groups of practitioners, moving from their particulars to a statement of more generalized or abstract knowledge, and applying that knowledge to specific program evaluations, can create a better balance between the knowledge and power of institutions and professionals.	Political
McKenna, 2011 <sup>39</sup>	Undergraduate	Case study	- To suggest answers to why sustained critical dialogue about social problems and the politics of medicine is seldom permitted in medical “education” curricula, and how this issue could be addressed - To argue that “primary care” and “medical education” must be	- Critical Consciousness - This article is a form of critical pedagogical resistance against the hegemony of biomedicine.	- The article is based on a project which took place in 7 States – aimed at creating community-oriented primary care professionals who courageously challenged biomedicine’s orientation towards specialization, curative care, professional rivalry, and hospital-based medical education.	- The project’s monograph supported the idea that the project should facilitate a critical educational consciousness raising. However, after the release of the paper, it was buried and never referred to again. - 1) people were excluded from decision making power; 2) issues were avoided or	- Medicine is too important to be left to biomedicine. A critical pedagogy of medical education must entail the rediscovery of the historical conflicts over the meanings, limits, and possibilities of medical science. - Medical education must be premised on a “critical social medicine” that converts private sufferings into public issues, is cross-cultural in its understandings of disease etiology, and is serious about building a medical infrastructure that challenges the neoliberal culture of capitalism.	- We must ask ourselves: why do we permit the hierarchical culture of biomedicine and neoliberal university administrations, to have hegemony over a form of education that severely and unnecessarily harms us through its restrictive ideologies, piecemeal practices, and close alliances with corporate capital?	Political

			dramatically transformed along the lines established by Rudolf Virchow, critical social science, and Paulo Freire.		Remarkably, local communities were to be empowered to shape and create the medical curriculum.	suppressed; and, 3) the oppressed's interests went largely unrecognized. - The structure of medical education largely precludes critical inquiry, and those who challenge it must be prepared for the consequences - The project was evidently a project of oppression. The medical schools succeeded in preventing any real community participation even while claiming tremendous victory in doing so.		- Doctors refrain from civic engagement against hierarchy, corporate control, and the knowledge factories of higher education, and therefore educators, social scientists, and journalists must rise to the occasion. They need to seek out progressive health professionals and together expose the culture/ resource/power dynamics of their hometowns for the public.	
Nazar, 2015 <sup>37</sup>	Undergraduate	Case study (Semi-structured interviews)	-To explore undergraduate medical students' accounts of diversity education and their experience of the pedagogic processes utilised in its delivery in order to contribute some guidance for best practice in this area. -To highlight benefits and limitations of the cultural competency and cultural humility models of diversity. - To suggest how we might begin to decolonise medical curricula.	Critical Consciousness as a 'reflective awareness' of power, privilege and inequities lodged within social relationships.	(Fifteen semi-structured, in-depth interviews were carried out with medical students).	- When students discuss examples of diversity within the clinical context, they tend to emphasise problems or conflict created for healthcare professionals due to patients' perceived differences from them. - The vast majority of students were unaware that diversity was a theme in the curriculum. - When probed further as to how cultural humility might be best demonstrated in clinic settings,	- Staff training on diversity issues is required to encourage institutional buy-in and establish consistent educational and clinical environments. - Careful thought must be given to the design and delivery of such programmes because this study also found that the educational message students received about diversity was largely one of difference. - Reflective practice and the development of a critical consciousness are crucial in the improvement of cultural diversity training and thus should be facilitated and encouraged. - We could start by asking students to join medical educators in the design and delivery of faculty development programmes on	- Medical curricula should signpost cultural diversity training more clearly. It has to boldly identify and discuss culture and consider its impacts on patient care. - It is important to be aware that diversity education may unintentionally send a message to students that diversity issues and patients' perceived differences are a problem and thus reinforce neo-colonial ideas and practices. - Cultural issues and diversity training can be hung onto the scaffold of patient-centred care,	Cultural Educational

						<p>students suggested that doctors could role model reflective practice.</p> <ul style="list-style-type: none"> <li>- Students reported witnessing a number of questionable practices related to diversity issues that they felt unable to challenge.</li> <li>- On the wards the reported behaviour was that which reflected the power gradient between healthcare professional and patient, and therefore contradicted with the messages delivered through earlier teaching.</li> </ul>	<p>diversity that expose power relations and challenge dominant cultural norms and practices.</p>	<p>and therefore be referred to on an iterative basis throughout medical education. Such practice is aligned with the cultural humility approach.</p> <ul style="list-style-type: none"> <li>- Educators should not only disclose their narratives but also adopt a bidirectional mode of teaching wherein the lived experiences of students are valued as educational resources when learning about diversity.</li> </ul>	
Reid, 2011 <sup>42</sup>	Undergraduate	Perspective paper	To identify relevant theory that originates from an educational paradigm, by examining a number of theoretical frameworks that have been used in the rural health discourse.	Critical Pedagogy theory, especially the aspects of context and transformation ('transformative' graduates who understand the privilege of their position, and who are capable of and committed to engaging in the struggles for equity and justice, both within their practices as well as in the wider society).	n/a	n/a	- A 'critical pedagogy of place,' which gives due acknowledgement to local peculiarities and strengths, while situating this within a wider framework of the political, social and economic disparities that impact on the health of rural people, is an appropriate theoretical basis for a distinct rural pedagogy in the health sciences.	- To move beyond a problem-solving mindset and towards a more theoretical and conceptual approach. The question changes from one of 'how do I solve this problem?' to one of 'how could we understand this system better, how do we characterise it, analyse it, and theorise it?'	Social
Ross, 2015 <sup>17</sup>	Undergraduate	Case study	- To discuss critical pedagogy as an established framework for	Critical Consciousness: encouraging student to examine	The article uses the example of two longitudinal, integrated courses at a	- Learners almost always rate the medical sciences and clinical skill training	- Medical schools should consider how students can be made to want to be involved with change towards social and health equity and,	- A focus of the curriculum must be to expose and	Social

			<p>altering medical curricula in furtherance of social accountability – and that can be used to guide those interested in making medical education a force for social justice.</p> <ul style="list-style-type: none"> <li>- To consider how critical pedagogy can be utilized to transform medicine from a conformist profession to one which promotes social justice.</li> <li>- To attempt to apply such existing know-how to medical education as an existing and well-developed framework which can be used to advance social accountability.</li> </ul>	<p>inequity and their role in it with the aim of having them empowered to end such oppression.</p>	<p>Canadian Institution: “Social and Population Health” and “Northern and Rural Health” - delivered in case-based learning sessions, then built upon in a series of personal reflections and community placements.</p>	<p>much higher than social and population health, or northern and rural health</p> <ul style="list-style-type: none"> <li>- These topics are considered separately from the medical sciences in their own case-based learning which although ensuring students address the course objectives does not necessarily lead to actual integration of the knowledge gained into a holistic view of medicine and health</li> <li>- Students need to understand how inequity and oppression affects health.</li> </ul>	<p>importantly, how they can go about achieving such ends.</p> <ul style="list-style-type: none"> <li>- The socially accountable medical school must strive to instill attitudes in learners which will lead to change via the actions of its graduates.</li> <li>- Admission committees should seek to accept students from a broad range of educational backgrounds including those without undergraduate science degrees.</li> <li>- The socially accountable school can use the methods of critical pedagogy to achieve its goals by embedding this pedagogical ideology in the curriculum, giving students the knowledge, skills and, perhaps most importantly, the attitudes, to avoid becoming part of a static and inequitable system of healthcare.</li> </ul>	<p>critically examine the many types of inequality in society, to show how this impacts health, and then to enable the utilization of such knowledge to enact change towards removing such inequity.</p> <ul style="list-style-type: none"> <li>- PBL, experiential learning and community placements can be used to prepare students to provide healthcare to a diverse practice demographic, and to equip students with awareness of how inequity and oppression affect health and healthcare in the region served by the institution.</li> <li>- Service-learning can be a way to for students to develop a know-how and desire to engage with the wider community to bring about change, and to gain the skills required to become proficient in advancing social justice and healthcare equity causes within their community and to see this as part of the service provided by their profession.</li> </ul>	
Schiff, 2012 <sup>32</sup>	Undergraduate	Case Study (supported by a specific literature review)	To describe how an elective curriculum could foster active ownership and understanding of cultural competence (knowledge,	Critical Consciousness conceptualised as a way “to develop a reflective awareness of one’s own biases, assumptions, and beliefs, and then to	- A pilot four year adjunct elective program. This is the first such program in America or Canada specifically addressing social justice (though	Assessment and evaluation of this pilot program’s efficacy in achieving the program’s goal to produce culturally competent, socially	n/a	Providing students with the opportunity to explore social issues in health care is not only part of the current guidelines for institutional	Social Cultural

			attitudes, and skills that enable health care professionals to communicate with and understand the culturally diverse health beliefs and practices of their patients).	push beyond that understanding in order to take action toward creating justice” (from Kumagai & Lyson 2010).	other programs may share similar principles). - The authors designed the curriculum to link social accountability to health care outcomes by requiring participants to engage in a community and/or scholarly project that addresses social determinants of health. - An important aspect of the curriculum is the integration of classroom education with clinical experience.	responsible physicians dedicated to serving the underserved. (Because of the amount of time it takes to complete undergraduate medical education and residency, the authors estimate it may take more than ten years to establish meaningful data on the efficacy of this program).		accreditation, it is a widely publicized component of improving future doctors and health care delivery in our society.	
Sharma, 2018 <sup>41</sup>	Undergraduate	Perspective paper	To explore how “critical consciousness” and a recentering of the social determinants of health (SDOH) around justice and inequity can be used to deepen collective understanding of power, privilege, and the inequities embedded in social relationships in order to foster an active commitment to social justice among medical trainees.	Critical Consciousness, involving reflecting on power, privilege, and the inequities embedded in social relationships, with an active commitment to social justice.	n/a	n/a	- Medical education can play a role in addressing health inequities by addressing the structural role that medical schools play in maintaining societal inequities, and by providing trainees with the knowledge and skills to work toward social change. - A transformational reorientation of medical education is needed, with critical reflection on its overall purpose and ethos.	- A transformative pedagogy involves a reorientation of our own practice – an acknowledgment that it is part of our job to support skill building for trainees to intervene on the SDOH, which are anything but “natural.” - For the SDOH to be made tangible and actionable, students must be taught not just what they are but also how they came to be; who benefits and who suffers; and what can be done about them, how, and by whom. - Reframing SDOH entirely as social determinants of equity (SDOE), would involve a	Social

								major reorientation to curriculum to be truly meaningful in addressing equity.	
Torre, 2017 <sup>45</sup>	Undergraduate and Postgraduate	Perspective paper	To discuss the implications of Freire’s ideas for medical education	Critical Pedagogy theory.	n/a	n/a	- Curricula should create the premises for students and patients to jointly explore health themes as co-investigators. Learners should engage in a process of confronting challenging health issues in a real-life context, discovering relationships among multiple components, and proposing solutions. - Freire’s ideas have significant potential to improve the design and implementation of service-learning curricula, by allowing students to learn with and in the world, deeply understanding key contextual issues that relate to specific health care problems.	- A Freirean lens can be used to stimulate medical educators to look for places where power disparities and dehumanization might compromise the mission of medical education and can help medical educators find ways to rectify those imbalances.	Social Educational
Zaidi, 2017 <sup>36</sup>	Continuing (Faculty training)	Case study	- To explore how cultural discussions can be skillfully facilitated to help participants understand issues related to power, privilege, and critical consciousness. - Research questions are: 1. How do facilitators encourage cultural discussions? 2. How do facilitators and participants of those discussions co-construct an understanding	- Critical Consciousness. - Role of educators in promoting social justice.	(In-depth interviews with 16 faculty who had extensive experience facilitating cultural discussions).	- Health professions educators working in multicultural settings encourage discussions around sensitive topics by creating a “safe space,” where these topics can be discussed and silence is respected - During multicultural interactions they recognized and explicitly addressed issues related to power differentials, racism, implicit biases, and gender bias. - Need to be better trained to be facile in attending to	- Lack of skills and training to facilitate cultural discussions can have adverse effects. - The focus of the curriculum needs to be on globally agreed learning outcomes with carefully planned learning experiences - How many training sessions are required and in what skills will they need to be proficient are questions that require further research. - Our research paves the way for others looking to explore how to counter educational cultural hegemony and promote transformative learning and emancipatory pedagogy.	- Creating a safe space and being facile to pain are key to encourage cultural discussion and create an understanding about power and privilege in society.	Cultural Political Educational

			about power and privilege in society?			pain, racism, and power issues.			
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