CRITICAL PEDAGOGY AS A MEANS TO ACHIEVING SOCIAL ACCOUNTABILITY IN MEDICAL EDUCATION.

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Abstract

Varied social, economic, environmental, and geographic factors lead to often avoidable differences in health between various groups and populations. The reform of health care systems is key to reducing such 'health inequity' including the fair provision of timely high-quality healthcare to all members of society. The education of health providers themselves has a crucial role to play in the transformative change required to achieve this but, in the case of physicians, has been ineffective in doing so. An ideological movement is emerging, however, in medical education, that of social accountability which requires that medical schools further the enhancement of the health of the entire society it is part of rather than being interested in furthering the narrow aims of the medical establishment. The question is how to go about altering medical curricula in furtherance of social accountability. In this paper I argue that critical pedagogy provides an established framework for doing so which can be used to guide those interested in making medical education a force for social justice.

Keywords: Social accountability, critical pedagogy, health equity

INTRODUCTION

Arguably the most important human right is the right to life with the aim of living as much as possible of that life free of infirmity and disease and with a sense of well-being—that is, in good health. A perusal of health statistics stratified by factors such as income, gender, ethnicity, and geographic location reveals large differences in health for varied social, economic, lifestyle, environmental, and biological reasons, the so-called determinants of health (World Health Or-

ganization, 2011).   This variance led to the emergence of the concept of health inequity, defined as differences in health that are unnecessary, avoidable, unfair, or unjust (Whitehead, 1992) with the reduction in such differences being a major focus of bodies such as the World Health Organization (1978) which stated "the need for urgent action by all governments, all health and development workers, and the world community to protect and promote the health of all the people of the world." Having timely access to effective healthcare is essential to attaining such a goal—this being viewed as a key component of a just society (Whitehead, 1992). Healthcare access is, however, not evenly distributed even in societies with publicly funded "universal" healthcare systems, varying between those who differ, for example, in terms of ethnicity, place of residence, age, and socioeconomic status (Strasser & Neusy, 2010). These systemic differences contribute to the differences in health status between identifiable groups and removing them becomes a matter of social justice. Although such inequity is a consequence of varied and complex factors (Whitehead, 1992), an important component is the healthcare system itself which comprises a collection of health-related governmental bodies and healthcare institutions, along with the healthcare providers themselves, all of which must be part and be agents of change.   As such, making healthcare providers aware of inequity and giving them the tools to go about reforming the systems they work in becomes essential and should therefore be a key role of their formative education.   It has been recently argued, however, that medical education teaches students to conform, thereby maintaining the status quo of societal inequity in health and healthcare (McKenna, 2012). In this paper I argue firstly that medical education may be in the process of transformational change by means of embracing a concept known as social accountability as a guiding ideological principle and secondly, that the aims of social accountability can be achieved using some of the methods associated with critical pedagogy. This will include the foundations of medical school curricula, the mechanism to make inequity visible, and the means to educating medical learners to be future agents of change.

SOCIALLY ACCOUNTABILITY AS A PRINCIPLE IN MEDICAL EDUCATION

The concept of socially accountable education is one which has gained ground in various disciplines. Loosely defined, social accountability means that educational programs are implemented in such a way to meet the needs of the community which the program serves (Boelen & Heck, 1995). In other words, the success of the program is measured against standards set not only by internal or external educational bodies, but by the needs of the wider community. This is a deceptively simple, yet potentially radical, principle which transfers control away from the institution, the teachers, the paymasters, and so on, to a broader,

often local, community of interest. The terms accountability and responsibility tend to be used interchangeably in the literature although they have been usefully defined and differentiated between in the context of medical education by Boelen and Woollard (2011). Social accountability is at one end of a continuum of social action, with social responsibility being at the other, and social responsiveness being a half-way point (Boelen & Woollard, 2011). Specifically, social responsibility has been defined as social needs being described implicitly, institutional objectives being determined internally by faculty, programs being community-oriented but not necessarily based outside the school, medical graduates being good practitioners, and the program being evaluated in terms of processes with the ultimate assessors of success being internal. Social responsiveness goes further, with social needs being explicitly described, curriculum being inspired by data and not just by the views of those inside the school, programs being community-based, and success being measured externally by means of achieved outcomes. Finally, social accountability anticipates social needs, has programs which are not just community-based but fully contextualized, has graduates who are agents of change, and is evaluated on actual impact on health care as determined by the broader community (Boelen & Woollard, 2011).

Some of the most progressive social accountability mandates are to be found in medical education, with Health Canada proposing that social accountability be a guiding principal for all Canadian medical schools (Health Canada, 2001), the field being lead in Canada by the Northern Ontario School of Medicine (NOSM). NOSM is the Faculty of Medicine of Lakehead and Laurentian Universities, Canada's newest medical school and the institution in which I work (Strasser & Lanphear, 2008). The forces driving socially accountable medical education are varied, including a desire by government to improve health care delivery without increasing costs, a move from detached 'scientific' medical practice to a more collaborative patient-centered model, the wishes of community members themselves that they receive effective healthcare within their own community, and the edicts of the medical education governing bodies who have seen merit in the linking of healthcare education to healthcare needs (Boelen & Woolard, 2009). The incorporation of the principle of social accountability into an educational institution therefore augments or replaces the traditional inward-looking focus upon faculty and student needs with a more outward-looking community focus, changing in doing so the distribution of authority within the educational program. It is therefore a powerful democratizing concept which is helping remake both medical and other forms of education. Having said this, it is rather unclear how an institution, teacher, or student should act in order to fully implement the goal of being socially accountable, whether this occurs as part of the institutional or collective framework or as an individual working in their own classroom. For example, how would a researcher be socially accountable, or a pharmacist, or a

medical school department? This is a question I have pondered both as an academic lead and within my own teaching practice. In this paper I explore whether critical pedagogy may be the means to the socially accountable end. Although I focus on that particular flavor of education, the ideas communicated may be applicable elsewhere. I consider how critical pedagogy can be utilized to transform medicine from a conformist profession to one which promotes social justice.

MAKING HEALTH INEQUITIES VISIBLE

The fact that inequities exist in society will not come as a surprise to medical learners, but how much of an impact these have on health needs to be explicitly described. In particular medical learners should be trained to recognize the inequities in health and healthcare not as mere statistics to be recalled, or as the inevitable and immutable consequence of the differences found in our genome, but also as directly deriving from wider social, cultural, political, economic, and environmental forces. That is they need to be understand how inequity and oppression affects health. This can take many forms depending on the context in which the medical school finds itself. Using NOSM as an example, the program must seek to identify and explain the variance in health outcomes in the region such as between ethnic groups or between rural and urban settings, and, crucially, also work to reduce or remove these differences (Hutton-Czapski, 2001). But more than that, learners must be prepared and encouraged to go about changing the societal drivers of their work as physicians. As has been argued previously by scholars, doctors much incorporate social change into the way they work if health is to be improved (Waitzkin, 1991). Social accountability viewed this way therefore has an equity-seeking agenda, meaning that it is, at heart, a driver of change. Learners much therefore become agents of change using their understanding of oppression and inequity to act politically. As such social accountability can be argued to have similar aims to that of the education theory and framework provided by critical pedagogy.

Critical pedagogy, pioneered by the educational theorist Paulo Freire among others (for example, see Freire, 1970), involves encouraging student to examine inequity and their role in it with the aim of having them empowered to end such oppression. In a medical school context learners often come from a position of relative privilege and therefore helping them understand how their future patients suffer oppression is essential differing from Friere's original pedagogy which involved working with the oppressed groups themselves. Like the aims of social accountability, critical pedagogy is also fundamentally about change. Indeed it has been described as an educational approach which "considers how education can provide individuals with the tools to better themselves and strengthen democracy, to create a more egalitarian and just society, and thus to deploy education in a

process of progressive social change" (Kellner, 2000). Given that critical pedagogy has already been extensively developed and implemented in other fields, it is attractive 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. I would propose that critical pedagogy can usefully inform medical education in four ways, namely by ensuring that the wider social context of health is embedded in the curriculum, that students are prepared for the complexities of the populations they will serve, that the effect of place is considered, and lastly that students are enabled to actually enact change which will help achieve equity.

CURRICULUM FOUNDATIONS

Having social accountability at the heart of a medical school is the key foundational element from which everything else I will discuss derives. Indeed, the one most significant change a medical school can make is to adopt such a mandate. Such a core philosophy, used to direct and govern all operational and strategic functions within the institution, may lead to improvements in health equity. From a curricular standpoint, a focus of the curriculum must be to expose and 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. As McKenna (2012) points out however, the traditional ideology employed in medical education since the times of the reformer Flexner (1910) in the early part of the 20th century has rather ignored such aspects due to it embracing the biomedical model. This way of thinking employs a reductionist approach and posits that health and disease can be understood largely by understanding our physiology and biochemistry and how this goes awry. It is in internalizing force which sees disease as a mainly individualistic phenomenon caused by faulty genes or random misfortune. As a result this mode of thinking has certainly brought great advances in the management of disease, but in a way which focuses on treating illness and understanding the impact of biological agents such as viruses and bacteria (Engle, 1977). However disease is more complex than that with a spectrum of cultural, economic and social factors that affect both the causation and treatment of illness (Borrel-Carrió et al., 2004). Alternative models do exist such as the biopsychosocial model (Engel, 1977) and the related medical humanism of Osler (1932). These conceptual frameworks do not discount the biological but utilize a holistic approach which recognizes how the political, environmental, economic, and sociocultural act to enhance or diminish health (Borrel-Carrió et al., 2004). The medical student needs to familiarize themselves with these disciplines in order to move beyond a limited biological understanding towards a fuller appreciation of the complexities of health and healthcare, an idea put forward by the World Health Organisation and others in

the 1970s but which has taken some time to gain traction (World Health Organisation, 1978). However the biomedical model still holds much sway in medical education which, it has been argued, hinders the goals of social accountability and healthcare equality (for example see Baum et al, 2009). Advances have certainly been made, such as the addition of the determinants of health to medical school curricula which highlight the barriers faced in accessing timely health care (Taylor & Moore, 2009). At NOSM this has taken form in the inclusion of an integrated course, Social and Population Health, which runs throughout the MD program rather than being consigned to a discrete "module," quickly taught and easily forgotten. Social and Population health is complemented by the similarly integrated course in Northern and Rural Health which examines the impact of geography and culture. This curricular design attempts to alert learners to the wider social factors at play within the context of healthcare.   This part of the curriculum is initially delivered in case-based learning sessions and is then built upon in a series of personal reflections based on their own experiences in the classroom, the clinic and the community. The use of community placements in which the student has an opportunity to learn from both their teachers but also community members complements such an approach and mirrors the ideas of Freire (1970) who viewed more didactic methods of teaching as mimicking and reinforcing existing power structures.

It has been noticeable, however, that when asked their opinion as to whether certain topics are valuable to their future practice of medicine, learners almost always rate the medical sciences and clinical skill training much higher than social and population health, or northern and rural health. As such, even though both social and population health and northern and rural health are present in the curriculum, students see these topics as of lesser importance, and not presumably the primary business of the medical learner.   This is not unique to NOSM, others have noted a barriers to teaching the social sciences to medical learners (for example see Litva & Peters, 2008). Not unexpectedly, since medicine is a product of culture Western, medical education naturally prioritizes the dominant paradigm of that culture, science, within curricula (Hahn & Gaines, 1985). This was evident when at NOSM we incorporated non-biomedical topics into problem-based learning sessions. Reports from facilitators strongly suggested that students would frequently fail to consider these topics, seeing them as less important than the sciences. Instead 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. Indeed the teaching of the sciences at NOSM remains largely free of any consideration of sociocultural or other factors as they are being taught in our lectures and labs. As such, while the non-medical sciences aspects of medicine are taught alongside the sciences,

true integration between the two is lacking. What can be done to resolve this that does not involve dismantling science as a foundation of medicine entirely? One good indication comes from a situation at NOSM in which instead of a bio-medical model of disease, the biopsychosocial model is used. A biopsychosocial understanding incorporates the psychological (such as behavior, cognition and emotions) and the social in understanding disease, with the latter generally being understood broadly to include external non-biological factors (Engel, 1977). While the model has received its share of criticism, including whether a true distinction exits between biology and psychology (Tavakoli, 2009), it does allow the integrated teaching of a broad range of factors associated with health, compared to the biomedical model which attempts to explain disease in terms of deviation from normal body function. At NOSM the biopsychosocial model explicitly appears late in second year during a module about mental illness although aspect of it (namely the social) occur in the non-medical science courses prior to that. The appearance of the model in the mental health module is not surprising given the popularity of the biopsychosocial model in psychiatry (Englel, 1977), due to both the historical need to incorporate different forms of psychiatry into one scheme, but also due to the practical problem of a purely biological understanding of mental illness having limited clinical utility (Kendler, 2005). This "weak point" in the armour of biomedicine allowed the biopsychosocial model to take hold in this part of the curriculum, a development which I recall was not universally supported by my fellow scientists on faculty. The result of this different curricular foundation compared to the remainder of the pre-clerkship curriculum is a free flow of connections between neuroscience and sociology, between drugs and economics; that is, the social and the scientific come together in the medical science heartlands of the laboratory and the lecture hall. This allow the biomedically accustomed student to incorporate disparate causative elements into their existing mental schemas, seeing all aspects as having equal importance and understanding why sociology matters after all.   For the other body systems, the biopsychosocial model is not used even though, as any student of microbiology, cancer, or cardiac disease knows, the cause, prevalence, prognosis, and treatment of these illnesses cannot be fully understood from abnormal biological processes alone. McKenna proposes (2012) that the resistance to the biopsychosocial model is due to the fact that it highlights the wider causes of ill health and shows the way towards prevention, whereas medicine as it is currently practiced in the West markets treatments for which, of course, the patient must be already sick. Such self-interest may well be at play although consideration must be given to the possibility that the medical learner emerges from medical school with, at best, a superficial comprehension of how the social interacts with the biological, and almost no understanding at all regarding what to do to address this. As such I would argue that basing the medical curriculum explicitly and consistently on an alternative to

the biomedical model, such as the biopsychosocial or other related schemas, has much merit. Specifically it widens the learner's understanding of health and is an important means by which the critical pedagogist can shine light on how socio-cultural factors influence disease and health, not as a subject parallel and separate to the medical sciences, but as part of a continuum which includes the sciences themselves. Without such a curricular foundation, biology will dominate and the social, political, economic, etc. will be seen as of lesser importance, with likelihood of change occurring being reduced. It should be noted however that much of medical education still relies on lecturing in some form that assumes a superior/inferior relationship between teacher and learner which is the antithesis of the equitable relationship between is the antithesis of critical pedagogical approaches to education which advocates for an equitable relationship between faculty and students, with the teacher learning from the student (. As such alternatives to lectures should be sought such as problem and case-based learning, service learning, and community interactions as outlined below.

SEEING THE PRACTICE DEMOGRAPHIC IN THE CURRICULUM

The need to prepare students to provide healthcare to a diverse practice demographic (the second goal described above) is essential to the goals of social accountability since students need to appreciate who their patients will be and what their needs are. It is here that the methods found within, for example, feminist, Aboriginal, and queer pedagogies to inform medical school curriculum may be useful (Bernard, 1994; Hampton, 1995; Schacht, 2000). The early years of medical training take place predominantly outside the clinic, the so-called preclerkship period, during which time most schools use a combination of lectures, problem-based learning, and experiential learning. Problem-based learning in medical school utilizes a clinical case as the problem (Abela, 2009). The student explores issues of science, clinical skills, professionalism, population health, etc. in a self-directed way aimed at identifying and then rectifying their own deficits in understanding. The case is essentially a narrative account of a clinical situation in which the main "characters" are physicians, other health professionals, patients, family members, and friends. Such cases present an opportunity to address issues of equity and the inclusion of traditionally oppressed groups. For example, lesbian, gay, bisexual, and transsexual characters can be introduced as a means to address specific learning objectives about sexual minorities, but mostly for reasons of making such groups visible within the healthcare context (Bernard, 1994). The latter is an effective way of bringing minority groups into the conscious awareness of the student, thereby alerting them to the fact that they cannot assume that their future patients are heterosexual, for example. Moreover, by us-

ing such methods, cultural differences in traditions and understanding of health and healthcare can be explored. Such learning falls under the general category of effective physician-patients communication given that making assumption regarding a patient's sexual orientation or epistemology can lead to the formation of a negative relationship between patient and practitioner. An awareness of the future practice's patient demographic is particularly effectively dealt with in this manner given that medical curricula usually include many tens of cases during the pre-clerkship phase allowing for repetition and reinforcement of awareness and, it is hoped, the development of a positive attitude formation towards such groups. This is in contrast to a curricular model which isolates minorities in specific lectures or other learning sessions which, while certainly better than nothing at all, does not lend itself to the promotion of inclusion of such groups within the mainstream (Bernard, 1994).

The problem of already formed stereotypes towards various oppressed groups may also be addressed using experiential learning techniques. For example, community learning allows the student to hear stories of oppression from community advocacy groups and from individuals themselves with the aim of gaining a greater and realistic understanding of the lives of oppressed groups with the express aim of teaching students how to meet the healthcare needs of such persons (Strasser & Neusy, 2010). Such experiences can be of short duration such as an afternoon, or comprise longer community immersion teaching blocks. A good example of this is the 4-week long Aboriginal community immersion which takes place in the first year of the NOSM curriculum (Strasser & Lanphear, 2008). During this immersion experiences students are encouraged, indeed required, through self-reflection to discern their own assumptions regarding Aboriginal peoples. In doing so students learn how the healthcare system may better function to improve the poor health (at the population level) of Aboriginal peoples compared to that of non-Aboriginal Canadians (Frohlich et al., 2006), as well as learning how to effectively communicate with a group that possesses differing (in the case of non-Aboriginal medical students) beliefs and ideologies to their own. Such multi-week placements can be augmented by shorter community interactions which illustrate through students visiting various community-based agencies which deliver service to oppressed groups. At NOSM this takes place during our Community and Interprofessional Learning which occurs weekly during the first two years of the program. Again, it is hoped that the student's own experiences and reflection leads them to gain an understanding of the healthcare needs of various minority groups, what changes should be made to increase their health and well-being, and to overcome their own prejudices and existing negatively stereotyped views of such peoples. Finally, as the student moves into the clinical "clerkship" years of their medical degree, such principals can be extended into the gaining of specific skills. Traditionally there may be a requirement to stipulate that the

learner should observe a case involving, for example, blood in the urine. Such requirements could, however, include the need to interact with ethnic minority groups for example, allowing the student to gain experience in such interactions. Indeed, the development of such skills can be assessed throughout the training program in practical exams, known as Objective Structured Clinical Examinations (OSCE) in medical education (Green et al., 2007).

PLACE AND HEALTH INEQUITY

The other strand of social accountability, decreasing geographic inequities in health care provision and outcomes, is inherently an issue of place. In other words, as well as considering how social and demographic differences result in health inequity, we must also consider the influence of where and how people live. For example, access to much health care technology is not available locally in remote areas necessitating travel to (and often resident in) larger centers if such services are to be accessed (Strasser, 2003). Such matters can also be addressed within problem-based learning sessions by altering the practice context, that is, where the case to be discussed is located. With careful consideration of the practices and resources found within various locations which span the geographic breadth of the region which the medical school serves, learners can be made aware of the differences between contexts and how this affects health and healthcare within them. At NOSM we have used a graduated approach to changing contexts, with each of our first year modules being set in a typical, though imaginary, community which brings out the key impacts of geography upon medicine, while second year modules are set in actual communities. One session in each year two module specifically acts as a community exploration with learners required to investigate the characteristics of various places within Northern Ontario using available data, sessions which build both knowledge of the region and develops the skills needed to investigate different communities—an important starting point to understanding the effects geographically delineated inequities. Once gained, such skills can be practiced during the various community placements which at NOSM comprise, as mentioned above, an Aboriginal community placement, as well as two four-week remote and rural placements which take place in small communities across the region. An important mediator of health care inequity, however, is that larger urban centers are serviced by more health care professionals, including physicians, on a per capita basis (Hutten-Czapski, 2001). Indeed, placements are viewed as key to medical students developing deep connections with the places they are working in (Strasser & Neusy, 2010). As such, locating students in traditionally underserved areas, such as rural communities, is one means by which recruitment and retention of physicians into these places can be improved, a key means by which geographically underpinned healthcare

inequities can be directly addressed since it translates knowledge of inequity into demonstrable change (Strasser & Neusy, 2010).

MAKING SOCIAL ACTIVISM PART
OF MEDICAL EDUCATION AND PRACTICE

In this final section, I consider the culture of medicine itself and its impact on what critical pedagogy seeks to achieve. The above description of how medical curricula can be implemented using the ideas of critical pedagogy, and related pedagogies such as social justice education, is likely equip students with awareness of how inequity and oppression effect's health and healthcare in the region served by the institution. It may also stimulate them to consider how healthcare systems can be more responsive to the needs of all members of their community. However this does not mean they will either wish to or be able to do so (McKenna, 2012). Despite an expectation to be a strong "advocate" for patients and communities as described in the widely utilized CanMEDs competencies (Frank et al., 2005), knowing what is wrong and what to do about does not in itself mean that any change which will result in especially if the culture of medicine encourages conformity as is argued in detail by McKenna (2012) and Waitzkin (1991). Medical schools should therefore consider how students can be made to want to be involved with change towards social and health equity and, importantly, how they can go about achieving such ends. The latter must surely involve, at least in part, knowing how and desiring to engage with the wider community to bring about change. Indeed, the physician activist acting alone is likely to be ineffective and dismissed as either misguided, unprofessional, or intimidating to patients (Danis & Fleck, 2004; Tomlinson & DeCoster, 2004). A possible vehicle for this is the use of service-learning during which students engage in community service while achieving various personal learning goals. Service-learning has been criticized as being mainly about service and little about learning (Giles & Eyler, 1994), however much research has shown the benefits of this teaching paradigm (Butin, 2003). For example, in other fields of training, including teacher education, service-learning has been noted to increase community engagement, empathy for others, and understanding of the foundations of inequity in addition to, crucially, helping student see ethical service as being a fundamental component of the future practice of their profession (Baldwin et al., 2007). Although service-learning projects in clinical education could comprise anything from clinical service to laboratory investigations, the requirement that it takes place in collaboration with community groups gives students in clinical disciplines the opportunity 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 (Redman & Clark, 2002; Sternas et al., 1999). While

generally elective experiences (for example see Elam et al., 2003), service-learning has been made compulsory in some medical programs (Burrows et al., 1999).The goals of a service-learning experience do, of course, include that specific to the project such the learning of various clinical skills or the gaining of knowledge of the workings of the community group in relation to the wider healthcare system (Hunt et al., 2011). However, the gaining of community collaboration skills may be a general outcome of service-learning irrespective of the specifics of the actual project with reciprocal transfer of learning and service between medical schools, learners, and the community (Hunt et al., 2011; Stanton et al., 2000). These skills can include the making of initial contacts, how common goals can be established and how relationships can be maintained and strengthened throughout the execution of collaboration. Although activism by medical students has tended to be confined to the features of the problems inherent in their own training (Hexom, 2004), a community partner naturally draws the focus away from the school towards community need (Furco, 1996). Such attractors act to expand the vision of what the role of a physician is, specifically expanding adding community service to their existing clinical service, and being advocates and leaders for health equity by making acting politically as well as medically.

Aside from the general skill of partnering with community groups, service-learning can give learners direct experience with how social justice is strived for and achieved by means of deliberately partnering with organizations and agencies with explicit social justice mandates. Not only will students then learn about the field that the agency is involved in but also become knowledgeable in the how inequity is addressed while at the same time assisting such agencies in their mission. Such partnerships made at the institutional level also make a strong statement about the importance the school places on such activities. Moreover, the use of service-learning in this manner provides an alternative to embedding explicit 'training' in activism and reform within the medical curriculum. Although such specific course elements involving social activism as part of medical education have been described in the literature this approach has not found favor in medical schools (Cha et al., 2006). Service-learning, on the other hand, is an accepted educational method which is increasingly being used in medical schools and which offers the governors of medical curricula a means to move forward a social equity agenda.

McKenna (2012) and Waitzkin (1991) argue that the wider profession of medicine discourages activism of any sort and that the "hidden curriculum" will soon remove the idealistic motivations of young medical learners. However changing the entrenched status quo is the very purpose of critical pedagogy and the goal of social accountability. As such the socially accountable medical school must strive to instill attitudes in learners which will lead to change via the actions of its graduates. To do so, a school must "lead by example" and show learners

that it is prepared to be an agent of change. The forming of visible partnerships with social justice organizations working in fields that have explicit or implicit health-related goals, whether for service-learning or other purposes, and recognising faculty, learners and those in the wider community who have worked towards health are but two examples of how this may be achieved.

WHO ARE BECOMING DOCTORS?

In addition, the school must also consider who is admitted into its programs. Medical schools are not wanting for applicants; at NOSM there are approximately 30 applicants for every place. The school therefore has much ability to choose who it lets in, using factors such as academic ability, community engagement, and extracurricular interests as factors in making its decision.   The nature of these interests should be carefully considered with the aim of increasing the odds that graduates will engage in the type of activist work desired. It goes without saying that the class should be representative of the demographic and socioeconomic makeup of the served population, however hard that can sometimes be to achieve, whether by awarding scholarships, having intake streams for minority groups, or conducting 'outreach' to underrepresented groups.   However, the socially accountable school should go beyond this laudable aim. For example, for those countries which require the completion of a degree prior to admission to medical school, admission generally favours those with an undergraduate degree in the sciences. With pre-med programs especially leaning towards a biomedical training (for example see Blackman & Darmawan, 2004), such an educational background is less likely to be associated with social activism compared to that of the humanities or social sciences (Altbach, 1994). As such, admission committees should seek to accept students from a broad range of educational backgrounds including those without undergraduate science degrees. Furthermore, although most medical schools look for a history of volunteerism as criteria for admission, additional credit for those with a history of social justice activism may be advantageous. This could take the form of an essay answer but also be part of the interview process. Many schools have abandoned the traditional interview conducted by faculty in favor of the multiple mini interview in which applicants must answer questions about ethical or societal issues in a series of short interviews with different persons (Eva et al., 2003). While this does increase the reliability of the process, the actual answers given are not of interest, rather the interviewer's rate skills such as communication ability and reasoning. While the multiple mini interview has undoubted appeal, a parallel content-rated interview in which the student is asked to describe their commitment to social activism within the context of their own life experiences would be a welcome addition to the admissions process. The selecting of those with demonstrated aptitudes and desire for the advancement of

social justice is an obvious step to creating the environment in the medical school which will lead to physicians having the same goals. Such students can also be attracted to the program and encouraged during their studies to maintain their commitment to change by highlighting, awarding, and recognizing such activities at school events such as graduation, academic weeks, etc, In other words, the school must welcome those, learners and faculty alike, who share their mission by making activities which further the aims of social accountability prestigious, thereby intimating through action that this is an expectation and a duty of all members of the schools' community. Moreover, the school should openly and deliberately discourage the use of establishment power and resources to maintain the status quo via such simple implements as conflict of interest policies which penalize being involved in those practices that place personal gain above the social good and by rejecting corporate donations which seek to influence school policy and promote corporate gain. Schools must walk the walk even when there is a financial penalty for doing so.

In summary, the socially accountable school can use to 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. They must be freed, informed, and enabled to use this approach in the classroom, the clinic, and in the wider community.   By doing so a socially accountable program can be imbued with the ideological foundations and the practical implementation strategies needed to achieve its goals encouraged by the use of the methodology of an educational philosophy well understood, well used and demonstratively effective.

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