ABSTRACT

Context: As the body of literature on rural health has grown, the need to develop a unifying theoretical framework has become more apparent. There are many different ways of seeing the same phenomenon, depending on the assumptions we make and the perspective we choose. A conceptual and theoretical basis for the education of health professionals in rural health has not yet been described.

Approach
This paper examines a number of theoretical frameworks that have been used in the rural health discourse and aims to identify relevant theory that originates from an educational paradigm. The experience of students in rural health is described phenomenologically in terms of two complementary perspectives, using a geographic basis on the one hand, and a developmental viewpoint on the other. The educational features and implications of these perspectives are drawn out.

Discussion
The concept of a “pedagogy of place” recognizes the importance of the context of learning and allows the uniqueness of a local community to integrate learning at all levels. The theory of critical pedagogy is also found relevant to education for rural health, which would ideally produce “transformative” graduates who understand the privilege of their position, and who are capable of and committed to engaging in the struggles for equality and justice, both within their practices as well as in the wider society.

Conclusion
It is proposed that 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.

Keywords: Rural Health, Education, Educational theory, Pedagogy
Doctors like to fix things. We are trained in the paradigm of problem-solving. And our practice is such that we are presented with an endless succession of problems to be solved, by the patients who consult us. But as the saying goes, when all you have is a hammer, it’s surprising how many things start to look like a nail. And so it is not surprising that we assume a problem-solving approach to the bigger issues that won’t go away, that just keep on happening, despite our best plans and strategies – frustrate us so much. Issues like the recruitment and retention of health professionals in areas of need, access to care and the social determinants of health, have been labelled “wicked problems”[1], and are quite resistant to a problem-solving approach. So maybe we need a different approach; we need to put down the hammer, as it were, and see what other tools there are in the toolkit.

The theoretical basis of rural health has not been well described, and Bourke et al. [2] make the call for an overarching theoretical framework that is specific for rural and remote health. There are many different ways of seeing the same phenomenon, depending on the assumptions we make, or the lenses that we use to see the world. For example, using an economic perspective of rural health, it is easy to conclude that the issue of recruitment and retention of professionals in rural areas is purely a matter of market forces in a global economy, and that people ultimately follow the money from rural to urban, from public to private and from developing to developed countries, to be replaced by professionals from less developed areas of the world who view certain grass as greener than theirs.

From a psychological perspective, there are issues such as the fear of the unknown for those who have never spent time in rural areas, and the rural pride and a certain machismo that is associated with those who do live there [3]. A social science set of glasses would have us analyze the health of rural people in terms of class, race and gender [4]. While we are somewhat obsessed by race in South Africa, a class-based analysis of health professionals and students in contrast to the class profile of the communities that they serve is illuminating. And there are a number of other perspectives, such as an historical or a political perspective, or a legal framework on the basis of human rights, that could add to our understanding of the issues, and are not necessarily mutually exclusive of other viewpoints.

One of the most pervasive assumptions when it comes to perceptions of rural areas is contained in what is known as a deficit-based perspective. In other words, it is relatively easy to describe rural areas in terms of what they lack rather than what they have – no paved roads, a lack of basic infrastructure such as water supply, unreliable digital connectivity, etc. In the South African situation, this is exacerbated by the challenges of poverty, unemployment and migrant labour. Educational strategies and programmes that are built on such a paradigm have significance for students’ experiences in terms of their professional socialization and identity formation [5].

By contrast, an asset-based or appreciative inquiry [6] approach looks at the strengths and assets of a community – what is there rather than what is missing. So rural communities in Africa, for example, are relatively strong in terms of social cohesion, family identity and so-called “social capital”, compared to
urban communities at least. This is not to deny that they are materially poor, or that unemployment levels are not unacceptably high. But using an asset-based perspective makes the possibility of creating solutions more feasible than dwelling exclusively on the deficits.

As a point of departure, this paper will focus on approaches and theories that are most appropriate to educators, and academics, and challenge the perspective from which health sciences education is seen, by providing some alternative sets of lenses. As educators, we need to start from educational theory in order to construct the most appropriate framework for teaching and research, and use other frameworks to supplement our toolkit as necessary.

A new perspective

The notion of a pedagogy specific to rural health begins with the author’s own experience and that of rural colleagues, as well as the observation of students returning from rural visits, who appear to be energized by the experience of working in a rural area. There is a certain commitment and passion that appears to be stimulated through being confronted by the real challenges of the rural situation. Most students get the opportunity for significant hands-on clinical and community-based experiences in rural areas for the first time, and this emergent sense of agency seems to be a powerful source of motivation. Even when the situation is dire and disheartening, there is significant learning to be gained from the experience, and this stimulates a number of questions.

What is it about the rural context that makes educators who have worked in a rural setting so determined to get students out to rural areas, and makes students so animated when they return? What are the visible and the hidden assets that rural areas have to offer to the educational process? Why should we spend precious time and money on getting students out of the city, with all the logistical and financial challenges of travel, accommodation and communication? Is it not possible to achieve the same educational results in an urban environment close to the university? What exactly is it about the rural context that is so useful educationally? Conversely, is there something about the urban situation that obstructs learning, or limits it?
APPROACH

Theories for education in rural health

There are a number of conceptual frameworks that have been used to understand education for rural health. The educational discourse has been dominated by the concept of the “Rural Pipeline” [7], which is constructed around the managerial challenge of supplying human resources for health services in rural and underserved areas. It is useful in that it allows us to identify points of leverage along the career path of the rural health professional, that are likely to increase recruitment and retention of staff in rural areas. It is a linear concept, and we know that these career choices are complex and multi-factorial. But more importantly, it is a managerial concept, not an educational one. In other words, it does not help us in thinking specifically about how we should teach, or help students to learn. Worley et al. argue that “the reasons for promoting medical undergraduate education in rural communities are not based solely on medical workforce imperatives” [8]. The evidence that placing students in a rural environment for a significant length of time is likely to increase the chance of them choosing to practice in such an environment once they are qualified is still not well established scientifically [9]. But more importantly, the pedagogical basis of this outcome has not been clarified.

The primary healthcare approach is widely held to be an important theoretical basis for the education of health professionals, and is very relevant to rural health [10]. It is concerned with health for all, including the primacy of equity and social justice, in integrating individual care and population-based care that is accessible, affordable and acceptable. Furthermore, it emphasizes the broader issues of rural health as opposed to the narrower field of rural medicine or curative care. Again, however, it is not primarily an educational philosophy, but a health systems one. The principles have been translated into an educational model and taught, but the origin of the concept is not pedagogical. The theory of community-oriented primary care is similarly useful in an academic framework, but was founded in health practice at the community level and is concerned with how healthcare is organized, not with how to teach. The conceptual framework of health and human rights is also a useful starting point for the discourse of rural health, and comes from a legal basis. The concepts of social and distributive justice can be applied to many aspects of the inequities that are found in the field of rural health.

The aim of this paper is to examine relevant theory that originates from an educational standpoint. In training and education for rural health, the concepts of service-learning and community-based or community-oriented education are frequently cited as the basis of educational programmes. Service-learning is experiential learning that combines curricular instruction with meaningful service, usually in a community setting, with the purpose of encouraging social responsibility as well as strengthening communities [11]. It is a useful approach in rural situations, but is not limited or biased towards marginalized or underserved communities as such. In much of the service-learning discourse, there is an underlying assumption of altruism, which may or may not be helpful in tackling systematic issues in rural health.
Community-based education means teaching and learning that takes place in a community setting, usually outside of a classroom, while community-oriented education refers to learning about the community from within a classroom. Within these definitions, the concepts of “community” in the health sciences education discourse cover a spectrum from household or family-level activities to any situation outside of a hospital, including, for example, general practices. To a varying degree, these approaches are helpful in that they focus on the population at risk, and broader determinants of illness, as well as the individual patient. Problem-based learning is a useful educational approach in any setting as the student takes an active role in the learning process, but it is also not particular to rural health. Beyond situated learning as described by Lave and Wenger [12], in which novices or newcomers to informal groups are socialized into a “community of practice”, the geographical locus of rural health demands a distinct approach.

**DISCUSSION**

**Place-based Pedagogy**

A more specific conceptual framework may be provided by the idea of place-based pedagogy. The practices and principles of place-based education have their origins in environmental and ecological education, and it can be connected to the concepts of experiential learning, community-based education, service-learning, contextual learning and constructivism. As Grunewald [13] explains:

*In place of actual experience with the phenomenal world, educators are handed, and largely accept, the mandates of a standardized, ‘placeless’ curriculum.*

By contrast, place-based pedagogy is:

*...grounded in the resources, issues and values of the local community and focuses on using the local community as an integrating context for learning at all levels......making learning more relevant to the lived experiences of students, teachers and citizens* [14].

Place-based pedagogy basically proposes that the context of learning is one of the most important factors that determines the outcome of learning. By contrast, reductionistic thinking assumes that context is not important – a child’s fractured forearm is a fractured forearm, whether it happens in the traffic in a city or falling out of a tree in a rural area, and the knowledge and skills needed to manage it are the same. But place-based thinking asserts that the place in which it happens is crucial, and health professionals who have practiced in the rural situation know this to be only too true. Every step in the process, including the outcome, is dependent on the context in which the event took place. Why the child sustained the injury in the first place, how it could have been prevented, who in the family was consulted and gave consent, how long it took to get to the hospital for an x-ray, which doctor was on call at that particular time, how the radiographer took the x-ray, what the doctor’s level of knowledge and
skills were as the anaesthetic was given and the fracture was reduced, whether he or she spoke the patient’s language, how he or she negotiated to check the cast the next day, whether the child was brought back for a review of the fracture at the right time and the rehabilitation after the plaster was removed. Each of these processes is critically determined by the context. A rural context gives one set of outcomes, an urban context gives another.

That is a relatively benign example. If we take the case of a terminally ill patient with AIDS, brought to a rural hospital outpatient department in Africa as many do at the eleventh hour, the place in which the events unfold assumes a more poignant position. Particularly if we are told, as so often happens, that the patient lost his or her job in the city some months back and has been consulting a traditional healer since then, and has been brought to the hospital against the wishes of some family members, who are not permitted to talk about the dreaded disease. The South African rural context situates this oft-repeated drama in a particular space of migrant labour, occupational health, labour relations, stigma, traditional beliefs about illness and the history of apartheid that designated so many rural areas as marginalized so-called "homelands". There are enormous issues of marginalization and social justice underlying this story that deserve to be examined by any tertiary level student. But we are often so busy solving the problem – trying to find a bed, excluding tuberculosis, getting treatment started, trying to get the patient onto anti-retrovirals, for example – that we ignore the bigger issues, the contextual issues, and they do not form a systematic part of our teaching as educators. We have compromised our critical faculties and opted for the easier option, the tip of the iceberg, focusing on skills and problem-solving of the individual patient, and neglecting the bulk of the iceberg that we can’t see and feel powerless to fix. The concept of "social medicine" is relevant here. It holds that the health of a given population is influenced to a far greater degree by the social, economic and political context, than by medical care or health systems [15,16].

Critical pedagogy

And, so too, we need the concepts of critical pedagogy to guide us in the educational arena. The pioneer in this field, Paulo Friere, has been followed by more recent proponents such as Henri Giroux, Michael Apple and Peter Maclaren, writing largely about high school education. In the following quotation from Giroux [17], the word “teachers” has been replaced by the word “doctors” in order to make the principles more immediate to health sciences education.

We must get away from training [doctors] to be simply efficient technicians and practitioners. We need a new vision of what constitutes [medical] leadership so that we can educate [doctors] to think critically, locate themselves in their own histories, and exercise moral and public responsibility in their role as engaged critics and transformative intellectuals.

Critical pedagogy takes as a central concern the issue of power and class in the teaching and learning context. As an educational process in the health sciences, it would ideally produce “transformative”
graduates who understand the privilege of their position, and who are capable of and committed to engaging in the struggles for equality and justice both within their practices as well as in the wider society. But as DasGupta et al. [18] point out, “Although social justice is an integral component of medical professionalism, there is little discussion in medical education about how to teach it to future physicians.” Hafferty [19] maintains that the hidden curriculum actually opposes institutional or social critique.

In the field of education for rural health, visits to rural communities for whatever length of time, are no guarantee of a transformative educational process, although students often report significant learning. In addition to the experience of being “out there” geographically, a student-centred process needs to introduce critical thinking, by asking why the obvious inequalities exist, whose interests they serve and how they are perpetuated. Issues of race, class, gender, democracy, justice and oppression assume a central position in the critical paradigm. Duncan-Andrade [20] writes about “critical hope” that “audaciously defies the dominant ideology of defense, entitlement and preservation of privileged bodies”. As educators, he says we need to “connect our indignation over all forms of oppression with an audacious hope that we can act to change them”.

Paulo Friere [21] wrote that the tasks for progressive educators are to teach so that students can learn to learn “the reason-for, the ‘why’ of the object or the content”, and to “challenge students with a regard to their certitudes so that they seek convincing arguments in defense of the ‘why’ and see the global view of reality”. Michael Apple [22] looks at how schools function to reproduce an unequal society and challenges us to recapture a democratic and progressive vision of what could be, by examining new approaches in educational theory, policy and practice. He explains how “it has become increasingly obvious over this same time period that our educational institutions may serve less as the engines of democracy and equality than many of us would like”. Although he writes about primary and secondary level schools in America, this has direct relevance to tertiary level health science education in Africa, and elsewhere. It could be stated that our medical schools are essentially “reproductive”, ensuring that graduates assume the values and perspectives of their teachers, rather than “transformative” in terms of challenging accepted norms and power relations, such as the hegemony of medical power in large urban-based institutions. The term “community-engaged” medical education is increasingly being used, rather than “community-based” or “community-oriented” education, implying a two-way process, an exchange between equal partners that does not assume differential levels of power [23]. In this era of increasing disparity in health status and access to healthcare, it is crucial to shift the medical discourse towards making the power issues explicit and visible, particularly in education.

Critical pedagogy also demands the active participation of the student as well as the teacher, in the process of challenging assumptions, learning and changing. In a rural setting this sense of agency is heightened by the relatively sparse resources, as the student realizes that their contribution is not superfluous but is valued and utilized, away from the context of many other students competing for clinical experience or attention.
The geographic perspective

If we use an asset-based perspective to look at the rural context in more detail, there are some unique characteristics that can be observed with regard to the educational process as a phenomenon. Because of the distances to rural learning sites, there is always a journey involved from a student perspective, a leaving behind of the recently familiar, and an entrance into a different environment. Of itself, this process can contribute to enhancing the learning experience, as the learner’s context is changed. Getting students out into rural areas is necessarily an immersion experience – once there, the student and their teachers are committed for whatever length of time, so the rural context is the default backdrop. And context, as explained above, is a major part of the learning process.

Rural systems are smaller and less complicated than urban systems – there are fewer people, fewer agencies, less overall activity and more space. It is quite possible to see a whole community, either by looking at a landscape, or actually meeting the people at a community gathering, which very seldom happens in a city. Consequently, students get a much more hands-on experience than in the city, both in clinical care as well as involvement in the community. There is enormous social capital in rural communities, and some results seem to indicate that this network and community cohesion mitigate against the economic disadvantages of living in a rural area, particularly in terms of health benefits. Interactions between people tend to be less business-like and more personal, because there are fewer people around, and there is often a little curiosity around a stranger. As a result, there is less competition and overlap of functions, so a more cooperative approach to challenges is feasible. The urban environment, by contrast, is full of strangers and necessarily one of competition. So one contribution of the rural habitus in the educational process is to slow things down, simplify issues so as to allow students to see the system and its principles more clearly and learn in a cooperative environment. Although these are generalizations, and there are countless examples to the contrary, there remains a qualitative difference between rural and urban social interactions.

Another important difference is that rural communities tend to be more easily defined and circumscribed than urban communities, by virtue of the distances between them. If one considers remote communities bounded by snow or deserts, or those on islands bounded by the sea, these borders are clear and tend to force people together. These are characteristics of the rural environment that are related to the topological and geographic realities of rural areas – what could be called the “geographical” meaning of rurality.

The developmental view

But there are other interpretations of rurality, particularly noticeable in developing countries, concerned with equity and justice and evidence that living in a rural area represents a material disadvantage in many ways, compared to urban areas. In both developed countries and developing countries, rural areas
have objectively higher levels of poverty, fewer resources and less access to facilities. In South Africa, the understanding of rurality is coloured by the division of the country under apartheid into white farming areas and black “homelands”, with significantly different levels of resources and indicators of poverty. The social determinants of health play a significant role in this discourse – particularly the relationship between health and poverty. Understanding and dealing with poverty as a health issue leads to a consideration of social justice and responses to inequity.

An appreciative inquiry approach, while acknowledging the strengths and positive features of rural communities, also needs to analyze the bigger picture that results in such enormous inequity. The context is one that can be seen in terms of a polarity between, on the one hand, human rights, equality, justice and fairness, and on the other, global market forces in a capitalist system. It is relatively easy to understand health as an essential part of development rather than as a commodity in a rural area in a developing country. As Kaufman stated, “in rural communities, the social forces impinging on health can be more readily defined, while opportunities for intervention are more accessible to students” [24]. The rural situation provides an educationally helpful standpoint from which to view the polarity and make a more informed choice – about options as well as agency within this tension. It makes more obvious the impact of the global issues on the individual within a circumscribed environment, and lends itself to a critical analysis.

From an educational perspective therefore, the features of rurality include a geographic conception on the one hand, and a developmental understanding on the other. Educational advantages can be classified into either of these.
A Critical Pedagogy of Place

Grunewald proposes a synthesis of place-based education with critical theory, by describing a “critical pedagogy of place” [13]. He states:

Articulating a critical pedagogy of place is a response against educational policies and practices that disregard places and that leave assumptions about the relationship between education and the politics of economic development unexamined.

This is exactly what we do in much health sciences education: we assume that there is one curriculum, one set of clinical skills that can be applied anywhere, regardless of context, and we leave the bigger picture to the politicians.
McLaren [25] points out that Freire’s original work took place amongst rural peasants in Brazil, although much of the subsequent analysis has been applied to urban communities. A critical pedagogy of place identifies places as the contexts in which learners can engage in a situated analysis of the social, political and economic contradictions, and as Friere put it in 1970, “take action against the oppressive elements of reality” [21]. Rural areas, constructed in terms of geographic and developmental themes as outlined above, are ideal situations for this analysis and action, as the struggles of rural citizens are so self-evident. In introducing health sciences students to the issues in rural health, this theoretical framework would appear to be the most appropriate vehicle to ensure a meaningful and transformative educational process.

CONCLUSION

Moving beyond a problem-solving mindset and towards a more theoretical and conceptual approach could help to move the discourse in rural health forward. 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 characterize it, analyze it, and theorize it?”, creating a framework that allows for different interventions in different contexts.

Some initial ideas about the unique habitus of the rural environment have been described, along with a range of theoretical approaches. The educational benefits of a rural engagement could be boiled down to an immersion in an environment that is physically distant from the centre, where things are slower and simpler and more personal than in a city. Where there is a more clearly defined community, students and the practitioners who teach them are more easily able to connect the individual with the collective, and the local with the global situation. It is proposed that 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.

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