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RESEARCH ARTICLE



What knowledge matters in health professions education?

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ABSTRACT

What knowledge matters in health professions education is an issue of debate in the literature, foregrounded by the COVID-19 pandemic and informed by calls for students who are not only clinically competent, but also critically conscious of global health inequity. Building on this work, this paper explores what kinds of knowledge are legitimated in two health science programmes at a South African university. Thirty-four health professions teachers participated in the study. Legitimation Code Theory (LCT) Specialisation was used as an analytical framework, with Epistemic and Social Relations as coding categories. Results revealed the dominance of a knowledge code, with the social dispositions and attributes relating to the development of critical consciousness often not considered knowledge at all. Our contention is that both knowledge and social dispositions are equally important in the development of future healthcare professionals and that collaborative curriculum conversations are needed to enable them being interwoven throughout curricula.

ISISHWANKATHELO

Ulwazi olubalulekileyo kwiMfundo yobuGcisa bezeMpilo ngumba wengxoxo-mpikiswano kokubhalwe ziinkcuba-buchopho kwimfundo, oye wabekwa elubala ngubhubhane we-COVID-19, ebangele ukuba kuhlatywe ikhwelo kubafundi abangaqeqeshelwanga bugcisa bezempilo nje kuphela, koko abanengqwalasela ehlatutya ihlabane amadlala kwiinkalo zonke malunga nokungalungelani kokungalingani kwezeMpilo kwihlabathi liphela. Ukongeza kulo msebenzi, eli phepha liphonononga ukuba hlobo luni lolwazi olwamkeleke ngokusemthethweni kwiinkqubo ezimbini zeenzululwazi kwezeMpilo kwiyunivesithi ethile yaseMzantsi Afrika. Abahlohli bezempilo abangamashumi amathathu anesine bathathe inkxaxheba kolu phando. Kusetyenziswe ubungcali ekuthiwa yi-Legitimation Code Theory (LCT) njengesakhelo sohlatutyo esingumkhomba-dlela, kunye ne-Epistemic noNxibelelwano lweNtlalo, kuhlelwa ngokweempawu ezithile. Iziphumo zophando zibonise ukuba luphawu lolwazi oluthe longamela kolu phando, ngakumbi isimo sentlalo kwakunye neempawu ezithe zagqama, ezinxulumene nophuhliso lokuqwalasela nzulu imiba, luhlalutye luhlabane amadlala nkalo-zonke, amaxesha amaninzi olu lwazi alubonelwa ukuba luphuhlise kwaphela. Apho sigqale khona kukuba olu lwazi kwakunye nezimo zentlalo zibaluleke

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ngokulinganayo ekuphuhliseni abo abaseza kuthatha izifundo zobuGcisa bezeMpilo yaye kudingeka iingxoxo nentsebenziswano kuqulunqo lwekharithulam ukuze kubelula ukuba le miba ithungelane kwiikharithulam.

Introduction

Knowledge matters in education. There are, however, different kinds of knowledge, and these are not necessarily valued equally (Shay 2013). Knowledge, particularly knowledge that is overtly valued, has power (Wheelahan 2007). It determines the canon of any discipline or field, first influencing what is taught to those who seek to further their knowledge in that field, and then, by implication, the thinking and practice of those who graduate from these different fields. The question that needs to be asked is: what does knowledge that is valued look like and how will that valuing influence the way in which graduates think and practice once they enter the ‘world of work’?

In the context of health professions education (HPE) the question as to what knowledge matters has been debated in the literature for quite some time and has been foregrounded more recently by the COVID-19 pandemic. Bekele and Binagwaho (2020) argue that only if healthcare professionals can ‘look beyond medical charts and see the bigger picture’ will the world be better prepared to deal with future pandemics and health challenges. Thomas et al. (2020) call for the legitimacy of various ways of knowing in HPE and propose a shift in focus on biomedical knowledge, towards knowledge from the Social Sciences. Others have been more specific in describing this shift, recommending a move toward a ‘Freire-inspired critical consciousness’ (Ng et al. 2015, 465). Jacobs et al. (2020) echo these sentiments emphasising that educating future healthcare professionals should involve developing a critical consciousness of global health inequality. In a similar vein, Kumagai and Lyson (2009, 782) argue that the education of future healthcare professionals should involve the fostering of critical consciousness ‘of the self, others, and the world and a commitment to addressing issues of societal relevance in health care’. They also state that critical consciousness is a fundamentally different knowledge area to the kind of knowledge that is acquired in the biomedical sciences. Drawing on this seam of work in HPE literature, we consider what kinds of knowledge are legitimated in two health science programmes, in a faculty of health sciences, at a research-intensive university in South Africa. We both identify as educationalists who have been involved in academic development work over many years. This paper draws its data from a broader study (Jacobs et al. 2020) which explored the views of health professions educators regarding the development of future healthcare professionals who were not only clinically competent but also critically conscious.

Conceptual framing

Freire’s (2000, 73) definition of ‘critical consciousness’ as an ‘intervention in the world as transformers of that world’ is fundamental to our study. Specifically, we use the term ‘critically conscious’ to refer to health professionals, including those in training, who question the causes of health inequity and intervene in health care contexts and systems with a

view to transforming them into more socially just spaces. Our basic premise is that disease is managed in the context of a healthcare system and addressing the issues of equity and social justice within local healthcare systems needs to become part of how future healthcare professionals are educated. At a meta level, therefore, we seek to advance a social justice agenda in HPE that is framed by Global Health Equity concerns. Our work was conducted in South Africa where the realities of health inequity dominate and where HPE curricula are challenged to be more responsive to this context.

A curriculum represents ‘what counts as valid knowledge’ (Bernstein 1975, 85). However, curricula in higher education are typically shaped by a range of influences including institutional contexts and purposes, as well as national imperatives. This study locates itself within a view that sees higher education as a public good and understands the role of universities, and therefore curricula, as playing a crucial part in the equity struggles of the publics they serve. The initial impetus for the broader study mentioned above came from curriculum renewal initiatives of certain undergraduate health sciences programmes. These initiatives were underpinned by an explicit intention to develop socially responsive curricula and we were keen to explore how the health professions educators – those responsible for implementing the renewed curricula – understood the inscribed underpinning principles and how they influenced their practice.

Luckett and Shay (2020) argue that curriculum renewal can be one means of challenging and dismantling injustices and inequalities in society. They suggest that an issue that needs to be interrogated relates to the assumptions informing the norms of curricula, and that to do that, all academic staff need to rethink their curricula and pedagogic practices. Such rethinking requires going beyond the ‘affirmation’, ‘assimilation’ and ‘reform’ of curricula to adopting a transformative approach to curriculum which should consciously address questions of difference and power and ‘work with competing and contradictory socio-historical narratives and identities that staff and students bring to the classroom’ (Luckett and Shay 2020, 8). They further suggest that this has implications for the curriculum knowledge that is regarded as legitimate. One of the issues raised by the broader study, however, was whether the HPE curricula were reproducing the inequalities of society or transforming society. This prompted a further investigation into what knowledge was being valued, and thus legitimated, by these health professions educators.

To respond to the question, what knowledge matters in HPE, we draw on Legitimation Code Theory (Maton 2014; Maton, Hood, and Shay 2016) which offers a framework within which our data could be analysed and provides the instruments to understand what is considered legitimate knowledge and why. We specifically applied the LCT dimension of Specialization, one of four sets of organising principles that the theory offers. Specialisation investigates what kinds of knowledge are legitimated and analyses the basis for legitimacy, highlighting *knowledge-knower* structures within a particular social field of practice (Maton 2014). It is premised on the claim that every knowledge practice (such as programme renewal and teaching) is about or oriented towards something (*epistemic relations*) and by someone (*social relations*). *Epistemic relations* emphasises specialised knowledge, skills or procedures as the basis of achievement in a particular field, while *social relations* emphasises the attributes and dispositions of the knowers as the basis of achievement in that same field. By using *epistemic relations* and *social relations* together we were able to reveal the basis on which knowledge was legitimated, for the health professions educators participating in the study.

Methodology

The broader study involved 34 health professions educators from 2 purposively selected programmes in the Faculty of Medicine and Health Sciences at Stellenbosch University, the MBChB (26) and Physiotherapy (8) programmes. These two programmes were selected as both were in the process of curriculum renewal. Ethical approval (8838) and institutional permissions (IRPSD 1163) were granted by the Faculty Health Research Ethics Committee and all participants provided consent by signing an informed consent form prior to any data collection. The participants included clinicians responsible for student learning in the clinical space. The data collection process included 11 focus group sessions with 31 of the participants and 11 individual interviews. All interviews and focus group sessions were recorded and transcribed. We completed an initial ‘soft focus’ analysis (Maton, Martin, and Matruglio 2016) to establish how the participants understood the broad principles underpinning their curricula. Initial findings suggested that all participants recognised the need to develop students who were both clinically competent and critically conscious of the contexts and health systems in which they will serve, however some respondents valued ‘clinical competence’ above ‘critical consciousness’. There was a tension evident in the data, which related to respondents’ differing views about knowledge. Several respondents viewed the knowledge base informing ‘clinical competence’, biomedical knowledge, as the only knowledge base that mattered. There were not only differences of opinion around what knowledge was valued, but also around what was considered to be knowledge. This raised questions about what counts as knowledge in these two programmes, leading to a further analysis of the data to uncover what kinds of knowledge are legitimated by the respondents and what this might mean for curriculum renewal.

During the second iteration of analysis, which is being reported on in this paper, we used LCT. The tension around the differing views about the relative importance of ‘clinical competence’, understood as the development of future healthcare professionals in relation to biomedical knowledge, and ‘critical consciousness’, understood as the development of future health professionals in relation to the social dispositions and attributes, was explored in greater detail using *epistemic relations* (ER) and *social relations* (SR) as coding categories, respectively. By using *epistemic relations* and *social relations* together we were able to reveal the basis on which knowledge was legitimated, for the health professions educators participating in the study.

Our work was characterised by an iterative process of individual engagement with the data interspersed with critical conversations towards refining our thinking and further analysis. Once the translation device (Table 1) had been established, we again worked individually applying the coding categories to the data, followed by discussions to resolve any perceived anomalies. In Table 1, column 1 describes how the coding categories were applied. Column 2 describes in greater detail the range of *epistemic relations*, as well as the range of *social relations*. Column 3 provides examples of data from the focus group discussions and interviews which foregrounded either ER or SR.

The ER analysis differentiated three sets of ideas regarding what knowledge participants valued, namely: biomedical knowledge (ER1), clinical competence (ER2), and various generic skills (ER3). The SR analysis differentiated three sets of ideas regarding the knower social dispositions that participants valued, namely: attributes (SR1), critical

Table 1. Translation device.

Specialization relations	Understandings of what knowledge matters in HPE	How participants understand knowledge in the MBChB and Physio programmes at SU FMHS
Epistemic Relations (ER): Participants understood the development of future healthcare professionals in relation to biomedical knowledge	ER1 = biomedical knowledge, theory, content, information ...	ER1: <i>'We're hard-core knowledge in our module. This is pathology, this is what a sick liver looks like, this is what causes stroke.'</i>
	ER2 = clinical competence, function and proficiency with patients, hands-on practice ...	ER2: <i>'If you take it purely as the doctor who heals, the clinician. Just the clinician part of a doctor is already overwhelming. I know that we must prepare the doctor for the other roles as well, but it should not impede or take away from the clinician.'</i>
	ER3 = various generic skills: clinical reasoning, critical thinking, communication ...	ER3: <i>'... we have always assumed that medical students learn clinical reasoning just by osmosis or something like that, and here we are trying to make a deliberate attempt to focus on it and get them to think through it and pay attention to it.'</i>
Social Relations (SR): Participants understood the development of future healthcare professionals in relation to their social dispositions and attributes.	SR1 = attributes, values, attitudes, characteristics, roles ...	SR1: <i>'It references back to the graduate attributes ... so it's creative thinking, advocacy, leadership ... understand themselves and their own role, and then themselves and other people's roles, and then how they interlink. I think it's a progressive thing.'</i>
	SR2 = critical consciousness, lenses, worldview (big picture), frame of reference ...	SR2: <i>'A lot of it is also to do with your sort of orientation towards the world. Ultimately it's who you are, you know, there is a 'being' element to it.'</i>
	SR3 = behaviours, acting on the world, change agent ...	SR3: <i>'So even if you're not the person who is going to make a change in the health system at a bigger level, I think everybody must be playing the role of being a change agent on behalf of their patients.'</i>

consciousness (SR2) and behaviours (SR3). Drawing on the translation device, we completed the third iteration of data analysis using the three ER and SR categories to further explore which of these categories of knowledge (ER 1, 2 and 3) and knower (SR 1, 2 and 3) were more valued by the participants and which were less valued.


Findings

After the third iteration of data analysis, we were able to identify stronger and weaker forms of ER and SR, as we analysed the range and extent of views that were held by the participants.

Epistemic relations

The stronger and weaker forms of ER, as they appeared in the data, were plotted along a continuum of types of knowledge, as illustrated in Table 2. The type of knowledge that participants valued most was *biomedical knowledge*, also referred to by the participants as theory, content, and information. On the continuum this is referred to as 'knowledge as theory'. Also valued, but less so than biomedical knowledge, was *clinical competence*, referred to by the participants as function and proficiency with patients, or hands-on practice. On the continuum this is referred to as 'knowledge as practice'. The least valued type of knowledge was a range of *generic skills* such as clinical reasoning, critical

Table 2. Range and extent of ER.

ER	Types of knowledge	Examples of supporting data
ER+ (STRONGER) 	ER1: Knowledge as theory	<ul style="list-style-type: none"> • ‘... not necessarily with the patient or something in clinical’ • ‘there must be theory ... you must help them to make sense of what is going on’.
	ER2: Knowledge as practice	<ul style="list-style-type: none"> • ‘... so the theory will always have a practical application with it’. • ‘... I think all of us ... had kind of thought for many years that you kind of can’t learn those until you’ve got the theory behind it. In fact, the reality is that community health workers do many of those (practical) skills without having a whole bunch of theory behind it.’
	ER3: Knowledge as skills	<ul style="list-style-type: none"> • ‘... hidden thing that happens ... is this facilitation of reasoning ... where we take this knowledge that they have learnt ... and to try and make it real.’ • ‘take the theory out there’.
ER– (WEAKER)		

thinking, and communication – specifically as they are used in a clinical context and thus different to the attributes that might sit beneath these skills. On the continuum this is referred to as ‘knowledge as skills’.

Knowledge as theory (ER1)

‘Knowledge as theory’ (ER1), which was more strongly foregrounded by the participants, was seen as abstract – ‘... not necessarily with the patient or something in clinical’. Acquisition comes through exposure to information and content which then ‘becomes knowledge’, something that had to be ‘taught’. There was a sense that ‘there must be theory ... you must help them to make sense of what is going on’. Theoretical knowledge was further described as the ‘basics’, ‘hard-core knowledge’, a ‘science basis’, the ‘building blocks’, and the ‘standard things’ that could not be ‘given up’, even in the context of programme renewal. Others spoke about this knowledge as that which ‘grounded’ the students providing a foundation which needed to be built upon, on the one hand, and then also be transferred into practice on the other. In one instance, reference was made to this core knowledge as comprising a ‘goodie box’ which students would draw on in practice. This core knowledge was described as ‘the real stuff’ as opposed to ‘the other’. It was felt that such knowledge enables students to later practice in an evidence-based way and having this type of knowledge ensures that clinicians can function at ‘the top level’ and sets them ‘apart from the rest’. Thus, emphasis was placed on being a ‘health expert’, ‘very medical content focused people’ who needed ‘... more knowledge’.

Understanding knowledge as theory was also described in more nuanced ways, as something that is ‘interprofessional’, and ‘complex’. The notion of complexity was linked to knowledge not being clear-cut or a ‘loose-standing’ subject. Some participants referred to the ‘enthusiasm and talents’ and creativity that incoming students bring with them, and that these should be nurtured to avoid creating a ‘clinical robot’ or allowing the students to become ‘clouded by disease’. While this pointed to Social Relations (SR) and a valuing of the dispositions and attributes of the knower, participants still felt that having basic, theoretical knowledge was a pre-requisite. Although participants acknowledged that they ‘probably teach ... too much’ and swamp students ‘with so much content’ or ‘theory overload’, they still valued this type of disciplinary knowledge: ‘Because you can’t believe in your discipline if you don’t have the basic underlying, theoretical, call it that, knowledge’.

Knowledge as practice (ER2)

Being clinically competent, or proficient in practice (ER2), was linked to the idea of knowledge as abstract: *'So the theory will always have a practical application with it'*. Knowledge as practice was not as strongly valued as theoretical knowledge, with the dominant view being that theoretical knowledge was a prerequisite for practical knowledge. However, some participants were moving towards a view that proficiency in practice was something that could be acquired before the supporting theoretical knowledge was in place:

What we are doing early on is ... teaching the skills ... which I think all of us ... had kind of thought for many years that you kind of can't learn those until you've got the theory behind it. In fact, the reality is that community health workers do many of those skills without having a whole bunch of theory behind it.

Being clinically competent was seen as the endgame and described as *'the primary function'* or *'primary outcome'* of certain modules. Key ideas were linked to having knowledge of and being able to perform techniques with a level of proficiency and being *'hands-on'*, such that graduates would be able to *'function'* and *'perform'* in the clinical space. Such proficiency in practice was linked to having a set of technical skills and, as was the case with theoretical knowledge, skills were also something that was taught. Performing the skill for a lecturer or tutor was regarded as an opportunity for students to *'demonstrate their knowledge'*.

It was clear that although theory and practice (clinical skills) were linked, they were seen as separate forms of knowledge. This was evident in the way in which more than one respondent referred to students from Stellenbosch University graduating *'good practical doctors'* who were *'better skilled'* than graduates from another institution who were more *'theoretical doctors'*. Notwithstanding the focus on the teaching of *'content'* as described earlier, one respondent spoke about *'the theoretical teaching of clinical conditions'* and the need for this teaching to be linked to a particular approach to healthcare (thus a particular practice).

Knowledge as skills (ER3)

Over and above clinical competence, and the practical techniques directly linked to such competence, there was also a valuing of what could be described as the *generic skills (ER3)* needed to ensure good practice such as: clinical reasoning, critical thinking, decision-making, cognitive skills, approaches to communication, and so forth. Although these generic skills were often referred to as competencies, this form of knowledge was seen as one step removed from the actual practice itself and was least valued among participants. Clinical reasoning, for example, was described as: *'a hidden thing that happens ... is this facilitation of reasoning ... where we take this knowledge that they have learnt ... and to try and make it real'*. These generic skills were also linked to theoretical knowledge and understood as enabling students to *'take the theory out there'*.

Communication skills were, in some instances, framed quite specifically. The intent of such communication was described as being *'patient'* or *'people-centred'*. Generic skills were also linked to *'... leadership, ... clinical governance ... , capacity building ... professionalism'*; to *'time planning'* and the analysis of problems; as well as *'advocacy ... and even some research skills ... focused beyond ... just physiotherapy, hands-on'*; and being


‘evidence-based’, ‘users of evidence’; and to being ethical. Students were expected to be able to ‘engage ... understand the context ... take responsibility ... measure your impact’. These were also described as ‘subtle skills that they need for their patient’.

Although three kinds of knowledge were identified in the data, for many of the respondents there was an awareness that even though they privileged theoretical and factual knowledge, students needed to be something more, a kind of knower who was capable of ‘going deeper’ to be responsive to the context within which they would serve.

Social relations

The stronger and weaker forms of SR, as they appeared in the data, were plotted along a continuum of types of knower, as illustrated in Table 3. The type of knower that participants valued most was in relation to their *social attributes and dispositions*, also referred to by participants as attitudes, values, characteristics, and roles. On the continuum this is referred to as ‘knower as attributes’. Also valued, but less so than social attributes and dispositions, was *critical consciousness*, understood by the participants as lenses, world-view (big picture), frame of reference. On the continuum this is referred to as ‘knower as consciousness’. The least valued type of knower was one who sought to act on the world in order to change it for the better. On the continuum this is referred to as ‘knower as behaviours’.

Table 3. Range and extent of SR.

SR	Types of knower	Examples of supporting data
SR+ (STRONGER) 	SR1: Knower as attributes	<ul style="list-style-type: none"> ‘... graduate attributes, and where we address those attributes as well, that it works towards this professionalism and accountability.’ ‘... you’re going to be compassionate, you’re going to be a listener, you’re going to be a leader. So you can bring all these competencies of the CanMEDs model into it. You are going to be a manager, an advocate, a leader. You are going to be a professional, you’re going to be a scholar ...’
	SR2: Knower as consciousness	<ul style="list-style-type: none"> ‘... trying to understand themselves ... understanding my own biases, my own prejudices and how it might impact on the way that I interact with others and the way that I treat others, so to become conscious’. ‘... two things I would like a student to maybe think about at least, the one is the concept of the greater good of the many.’
	SR3: Knower as behaviours	<ul style="list-style-type: none"> ‘We consciously create an awareness that students can act as change agents for patients ... that they can both at that micro level, but also at higher levels, effect change and bring an improvement to patient care’. ‘The healthcare practitioner, should not assume that burden of having to fix a system. I don’t think that’s fair.’ ... ‘You need the politicians and finance and engineers and other people to actually change the system’.
SR- (WEAKER)		

Knower as attributes (SR1)

For Social Relations, ‘knower as attributes’ (SR1) was most valued by participants. This type of knower was seen as embracing graduate attributes, but also the more specific roles required of healthcare professionals. One respondent felt that ‘every person who becomes a doctor should be aware that there are social attributes’. These attributes were described in various ways across the data set as ‘how to be resilient’, ‘compassion’, ‘empathy’, and also: ‘... getting to know yourself, your own limits, your own emotional responses to

specific situations'. The more healthcare-specific roles, such as *'collaborator, leader, manager, advocate, scholar, etc.'*, were understood as *'multifaceted'* and *'part of the scope of being a doctor'*. Respondents highlighted the importance of *'... teaching them to reflect on their role, and what is going to be their part, either individually or as a healthcare team, in caring for our population in South Africa'*.

Participants had different opinions of *how* and *where* these knower attributes could be taught. Most respondents felt that these attributes were *'part of a journey that we expect students to take, and like any other competencies, developmental'*. Respondents agreed that they needed to be taught progressively – *'I don't think they learn it in one year or in one module, I think it should go through all four years'*; *'... we are pulling the graduate attributes through, which is effectively our golden threads'*. However, on the question of *where* these knower attributes were best taught, there was some disagreement. In one focus group discussion the respondents felt that these knower attributes had a knowledge base that needed to be taught *'deliberately'* within a module, so that students have a *'foundational knowledge skill set, know-how and how to do it, and then have the opportunity to practice it throughout the curriculum'*. However, in another focus group discussion there were concerns: *'I would be worried bringing it into formal lecture time, or activities time, because, in my mind, the best place to teach that type of thing is in the clinical environment'*; *'I have always felt that ... the softer skills, the collaborator and communicator and what have you, that should be part of the practical blocks. It shouldn't be part of the theory blocks'*.

Knower as consciousness (SR2)

Being a *critically conscious* knower (SR2) was also valued, but not as strongly as SR1. Understandings of this type of knower were linked to a critical awareness of self, as well as one's biases and prejudices. Being a healthcare professional was seen to require a particular type of knowledge that was linked to your worldview, or at least an *'awareness of the bigger picture'* and *'the concept of the greater good of the many'*. *'Basic self-awareness'* and awareness of the *'patient's context'* were key to realizing that *'our norm ... [is] not the norm of everyone else'*. Awareness should lead to understanding your beliefs and background and how these influence you, inform your values, become *'your philosophy'*, leading to a form of knowing that was *'something a bit deeper'*. Here the notion of values was also foregrounded and respondents spoke about issues of *'social accountability'*, *'human rights'*, *'respect and dignity'*, which were described as being *'linked to culture'* and *'social justice'*, which was described as being *'the whole slant, because it encompasses caring ...'*. These were seen as the lenses through which the world should be viewed – *'All of these things are equally important ... obviously a lot of it is also to do with your sort of orientation towards the world'*.

A purpose that was identified for such knowing was that there would be accountability on the part of the student to consider how they *'become part of the solution'* and make sense of their role being *'to make a difference in society'*. Having the requisite *'core values'* were felt to be critical to enabling students to *'function out there ...'*, something *'that we should all have ... related to any service, of any kind'* so as to ensure appropriate healthcare:

So you need to be aware of, contextually where you are at, what are the policies, income level, where you are operating in. You need to bring all those pieces together, with your patient and

with the care that you need to provide ... understand what is happening in the community, and think critically about it, and be mindful of people's needs and contexts, and then make informed decisions.

There was a sense that this sort of knowing was better aligned with the thinking of those who saw themselves as 'generalists' recommending a 'broad approach rather than just the disciplinary approach'. It was described as 'broader than the hands-on techniques, but more societal', 'intangible[s]', but something that the institution should focus on, something that was 'ideal'. As mentioned previously, it was described as 'the other ... all that stuff', but that staff had 'gained a sort of respect for this stuff'. For some, however, it was reduced to 'a tool that people need to know', someone else's responsibility, or ideas that are 'fiffy-faffy'.

Knower as behaviours (SR3)

Being the kind of knower who acted on their beliefs and convictions (SR3), in order to make the world a better place, was also valued but less so than SR1 and SR2. While some respondents were consciously developing their students as change agents, 'We consciously create an awareness that students can act as change agents for patients ... that they can both at that micro level, but also at higher levels, effect change and bring an improvement to patient care', others felt that this was an unfair expectation: 'The health-care practitioner, should not assume that burden of having to fix a system. I don't think that's fair', claiming that 'you need the politicians and finance and engineers and other people to actually change the system'.

There was also a sense that balance was needed: 'So again, you can't expect everyone to be change agents, but they must have tools to assess health systems and a community at a larger level, and then be able to also have tools to know how'. However, in another focus group discussion the respondents felt that these knower behaviours had a knowledge base that needed to be taught, and that they were not mere 'tools' – 'I don't know if this is a tool, but first I think one has to provide the student with the knowledge'. Participants acknowledged that there were both underlying 'principles' and 'an approach' to the body of knowledge underpinning the becoming of change agents: '... these are obviously principles, so they are quite lofty in terms of how do we actually help students to know not just an approach, but how to go about changing a system'.

As with SR1, participants had different opinions of *how* these knower behaviours could be taught. In one focus group session the participants saw it as a lecture that draws on a particular knowledge base:

... we teach exactly this, the social determinants of health. It's a specific lecture where we tell them, or where the lecture is focussed around social determinants from work environment to nutrition to economic status, to everything that we think is social determinants in health.

These participants also understood that this way of knowing had a practical component:

'... it's one thing to give the students the theoretical knowledge, which you have to give, but I think, at least my impression is, that they will have the practical exposure well-embedded'; '... so it's practical and a knowledge base'; '... so now you know what it is in theory, now you go to where you are, and you determine what are the social determinants there'.

In another focus group discussion participants understood this way of knowing as strategies that could be learned through self-study and then discussed:

... there can be self-study sessions that they can access potential content on the internet, or web-based content, so that we can discuss with them what potential change agent strategies they can have. That is a way to also try and build in that as part of their portfolio, that they must then identify ways to change systems, or their clinic where they work, identify things, how they can improve.

Notwithstanding the analysis provided above, in which we used ER and SR as coding categories, there were some areas across the data set where these distinctions were not so clear. The categories of ER3 and SR1 was a case in point. Generic skills, such as clinical reasoning and critical skills, are usually regarded as knower attributes than forms of knowledge. However, in our data set the participants regarded such skills as having both a knowledge base and a knower dimension. The quotation below illustrates this duality:

... first of all the concept, what it is to be a health professional in our context, then exactly what are the different skill sets that we have to use, what it is, how do we develop it, and in all of that there's a theory, there's an application, there's a reflection, what does it mean for me, what does it mean for what I want to do in health. So that's why I think it's not just something that's going to happen by chance. We need to be deliberate. I almost want to see it as an extra discipline.

This participant describes what it is to 'be' a health professional as having a theoretical component (an *extra discipline*) that needs to be taught and applied in practice, as well as a social component involving reflection on self. This led to coding generic skills in two ways. Where participants referred to them as competencies, to be taught and applied in a clinical context, we coded them as ER3, and where participants referred to them as the dispositions that might sit beneath those competencies, we coded them as SR1. The coding of *clinical reasoning* as a generic skill, was also linked to how participants understood this. Although *clinical reasoning* is usually regarded as a skill specific to health professions, the participants understood this as a generic skill with a formulaic underpinning, teaching it as 'recipe' with a set of linear steps to be followed.

Across the data set we sought to identify different positions along the ER and SR continua. There were differing views as to the relative importance of ER and SR in the development of future healthcare professionals. Some respondents, particularly the clinicians, felt that more emphasis needed to be placed on the ER, as illustrated by the following quotation from the data:

... it's already such a big feat ... if you take it purely as the doctor who heals, the clinician. Just the clinician part of a doctor is already overwhelming. I know that we must prepare the doctor for the other roles as well, but it should not impede or take away from the clinician. From the primary function. So, the social determinants of health, fixing those social determinants, is not the general practitioner's role.

In contrast, another respondent saw the development of SR as vitally important:

We should understand what are the needs of society, the health system, so then understand what does it need to do, to respond to the needs of society. The way that we train doctors should then be aligned with what is it that they need to do in that health system, in order to respond to the needs of society.

Although all respondents agreed that we needed both the knowledge and the knowers, there was a tension around what was valued more. Below is an extract from a focus

group discussion, where the participants exchanged views on what mattered in their curricula:

- ... we need to address all of these things, there is no question about it, but I still think we should not do it at the expense of scholarship and knowledge, and that's going to be a huge challenge ...
- So, what's valued by their consultant is not context, community, being a change agent. It's about knowledge, and the fear of not having the knowledge, so rather than being, thinking and kind of questioning.
- The feedback that we got back from the faculty was often things like this is a touchy-feely curriculum, and it's very PC.
- And we need health experts.
- And don't even have time for knowledge, we need more knowledge.

The exchange illustrates that knowledge is what matters and foregrounds ER. The knower attributes informing the being and becoming of a healthcare practitioner, are considered 'touchy-feely' and are less valued.

As a final step in our process of analysis and interpretation of the stronger and weaker forms of ER and SR in the data, we drew on the Specialization plane (Maton 2014):

The Specialization codes offered by this analytical framework (see Figure 1) enabled us to locate the stronger and weaker forms of ER and SR on the plane. The Specialization plane has four principal modalities (Maton, Hood, and Shay 2016, 13):

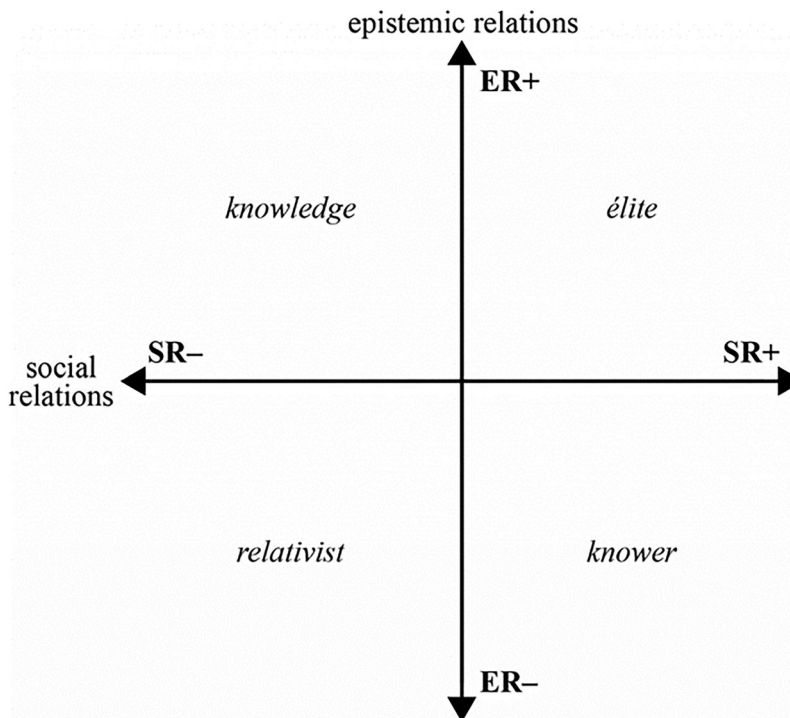


Figure 1. Specialization codes (Maton 2014, 30).

- *knowledge codes* ($ER+$, $SR-$), where possession of specialized knowledge, principles or procedures are emphasised as the basis of achievement, and the attributes of actors are downplayed,
- *knower codes* ($ER-$, $SR+$), where specialist knowledge is less significant and instead the attributes of actors as knowers are emphasised as the measure of achievement,
- *elite codes* ($ER+$, $SR+$), where legitimacy is based on both possessing specialist knowledge and being the right kind of knower. (The term ‘elite’ does not indicate social exclusivity but rather the significance of possessing both legitimate knowledge and legitimate dispositions), and
- *relativist codes* ($ER-$, $SR-$), where legitimacy is determined by neither specialist knowledge nor knower attributes – a form of ‘anything goes’.

Drawing on Maton, Hood, and Shay’s (2016) notions of *knowledge* and *knower codes*, the earlier exchange, and indeed our entire data set, illustrates a stronger *knowledge code* ($ER+$, $SR-$), where the possession of specialised knowledge, procedures and skills are valued; and the attributes and dispositions of future healthcare professionals are downplayed. Although there was evidence in the data which foregrounded SR and illustrated a *knower code* ($ER-$, $SR+$), where specialist knowledge was downplayed and the attributes of knowers were valued, we found a dominant *knowledge code* in the data, indicating that it was the specialised HPE knowledge that mattered more than the attributes and dispositions of the knowers who were to become future healthcare professionals.

Discussion

Our contention is that the development of both knowledge and knowers are equally important for future healthcare professionals. This has implications for curriculum renewal, a process that was an initial catalyst for this study. In an article looking at curriculum reform in South Africa specifically, Shay, Wolff, and Clarence-Fincham (2016) explored the issue of epistemic access that should characterise reformed curricula. Shay and Peseta (2016) argue that such curricula should be socially just. However, in further problematising the issue, Shay, Wolff, and Clarence-Fincham (2016) ask what ‘epistemic access’ is giving access to? This raises questions about what knowledge is being foregrounded, an issue this paper addresses.

Shay (2012) in a keynote address to the SRHE conference states that ‘curriculum debates are often framed through a discourse of polarities, or “false choices” about the purposes of higher education’, including choices between curricula for ‘knowing vs. being’. She argues that underlying such debates and the ‘false choices they construct are contestations about knowledge’. There appear to be contestations about knowledge among the health professions educators in this study. Even in the context of an institutional focus on curriculum renewal, and notwithstanding an awareness (perhaps largely at a cognitive level) of the need for a more all-encompassing knowledge-knower base, the dominance of the knowledge code was clear. This position should not be unexpected. As argued earlier, knowledge has power, and in many ways defines a discipline or field. Insiders within the discipline will inevitably seek to sustain what they believe to be fundamental to that discipline. Moving outside the boundaries of what traditionally counts as knowledge represents a risk for

many, potentially placing health professions educators in a more vulnerable position in which they are less confident.

But what, then, does this mean for curriculum renewal that seeks to respond to global calls and national imperatives for curricula to be responsive to societal needs, to be socially just? In order to shift the previously mentioned polarising debates about what knowledge matters, we argue that the knowledge/knower tension might be best addressed through ‘collaborative curriculum conversations’ (Jacobs 2019, 360), among curriculum designers, health professions educators, students, educationists and health consumers, which make explicit what knowledge matters to whom, among all stakeholders. Ashwin, at the Suellen Shay symposium on 4 May 2022, raised the importance of bringing together different parties to have collaborative conversations about curriculum review and revision, and emphasised that the process of curriculum development was about bringing the different conceptual languages of these parties into conversation with each other. We argue that such conversations require educationalists who are able to ‘create and hold the more theorised spaces and resist narrower instrumental views of the curriculum renewal process’ as well as ‘act as translators of the discourses of curriculum theory’ (Jacobs 2019, 361) that might arise in such conversations. The purpose of such collaborative conversations would be reaching a shared understanding of the legitimacy of both knowledge and knowers in developing future healthcare professionals. Ashwin offers further insights into how higher education might support such collective conversations and suggests that resources need to be put towards working collectively to transform curricula, and that this is a more sustainable way of bringing about change, than focussing on the practices of individual teachers. Our research supports this view.

In addition to collaborative curriculum conversations, we further argue that it is necessary for health professions educators to go beyond simply creating awareness among their students of the realities of health inequity. This may require that they dismantle what Paton et al. (2020, 1109) describe as ‘the master’s house’ – the ‘forms of evidence and ways of knowing’ that dominate current curricula. Work of this nature is not easy. It calls for intentional and explicit practice as they prepare their students to take on the role of change agent by providing them with tools and strategies for taking up the challenges of unequal healthcare in South Africa and indeed across the world. We would therefore argue for a shift towards an *elite code* (ER+, SR+), where legitimacy is based on possessing both specialist knowledge and being the kind of knower in HPE who is critically conscious, and for both knowledge and knower development to be interwoven throughout HPE curricula.

Concluding thoughts

In this article we have made use of the affordance that LCT provides, making both knowledge and knowers the objects of study (Maton and Chen 2019). While we are in no way suggesting that the results of this study can be generalised to HPE, we are calling for revisiting the knowledge base that matters in health professions education and that is currently being foregrounded in the teaching and training of future healthcare professionals. In doing so, our work is aligned with the voices of others in the field who have called for shifts beyond the biomedical model in health professions education

(Kumagai and Lypson 2009; Ng et al. 2015; Paton et al. 2020; Thomas et al. 2020). We believe it is also important, particularly in countries like South Africa where access to healthcare is inequitable, as it can inform the sort of collaborative curriculum conversations that we are advocating. However, we offer these ideas mindful of our own agendas and standing. Neither of us has a clinical background and we are both educationalists. In revisiting the knowledge bases that matter in health professions education, through collaborative curriculum conversations, educationalists need to challenge the existing mindsets of their HPE colleagues, but need to do so with sensitivity (Van Schalkwyk and McMillan 2016), ‘treading lightly’ on their ‘often incompatible paradigms’ (Jacobs 2013). We end this paper with a cautionary note to ourselves and other educationalists who work in curriculum spaces which are not their own – be mindful of slipping into collaborative curriculum conversations where educationalists briefly consider the knowledge that HPE colleagues have acquired over a lifetime (Segal et al. 1998) and then pronounce on what their curricula should look like.

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