

The hidden curriculum of work-based learning for pharmacy students in public sector pharmacies in South Africa

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Abstract

Background: The work-based learning environment encompasses a dynamic space where the implementation of theoretical knowledge and skills may prove to be at odds with routine service delivery practices, known as the hidden curriculum.

Objective: To describe incidents reflective of the hidden curriculum of fourth year pharmacy students from work-based learning experiences at public healthcare facilities.

Method: A qualitative, descriptive study was conducted. Data from written student reflection reports were thematically analysed.

Results: From 35 reports, three primary themes including time, binaries, and students' personal histories, influenced interactions in the workplace. These themes illustrated how the students' professional and personal traits interlocked with historical, structural and cultural influences in the workplace as well as larger society.

Conclusion: Uncovering of the hidden curriculum revealed that the students' ability to navigate workload pressure, polarisation between groups and their own biases are crucial to firstly survive, and secondly to learn in the workplace.

Keywords: *Hidden Curriculum, Pharmacy Education, Structural Competency, Work-Based Learning*

Introduction

The formal undergraduate pharmacy curriculum traditionally places emphasis on mastering scientific concepts centred on medicines (Taylor & Harding, 2007; Elvey *et al.*, 2013; Noble *et al.*, 2014). In recent years pharmacy practice has gradually shifted focus from medicine to patient-centred services (Kritikos *et al.*, 2003), as a result pharmacy training is realigning with value-based approaches of professional practice which incorporates aspects such as behaviours, beliefs and perceptions about the profession (Kritikos *et al.*, 2003). This requires students to have more contact and immersion in the practice environment. Indeed, pharmacy curriculums are allocating more time to experiential learning in the workplace and evaluating the impact of this learning is necessary to inform teaching practices (McLaughlin *et al.*, 2013). The work place is a dynamic space where students' application of theoretical knowledge and skills on campus may prove to be at odds with practices adapted by practicing pharmacists. This contradiction is termed the hidden curriculum and has been identified as a significant issue in medical training, because it stands in contrast to what is taught in the formal curriculum and enlists uncertainty as to what students may actually be learning (Hafferty, 1998; Ginsberg *et al.*, 2003; Phillips & Clarke, 2012). Lemp

and Seale (2004) identified six learning processes associated with the hidden curriculum which included "loss of idealism", adoption of a "ritualised" professional identity, emotional neutralisation, change of ethical integrity, acceptance of hierarchy, and the learning of less formal aspects of "good doctoring".

Hafferty (1998) defined the hidden curriculum of medical education as a "set of influences that function at the level of organisational structure and culture". Organisational culture can be described as an intrinsic factor of organisational behaviour, which "directs behaviour by determining assumptions, values, norms and attitudes according to which organisational members guide themselves in everyday interactions in the organisation" (Janicijevic, 2013). In contrast, organisational structure is determined by "extrinsic factors which influences people's behaviour from the outside, through formal limitations set by division of labour, authority distribution, grouping of units and coordination" (Janicijevic, 2013). However, structural influences as such are not limited to those of the organisation, but are caused, mirrored and compounded by structures and cultures prevalent in larger society (Metzl & Hansen, 2014). Hafferty's (1998) reference to 'organisation' is primarily the academic training institution, which in the case of medical training also

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includes the facilities such as training hospitals where students obtain clinical experiences. In the case of pharmacy training, which has been primarily laboratory-based the linkages with clinical training facilities, that are representative of the workplace has been historically poor (McLaughlin *et al.*, 2013; Schafheutle *et al.*, 2013). This might contribute to limited research on the hidden curriculum within pharmacy training (Noble *et al.*, 2014). As with the case in medical education, it is important to unveil and understand the influence of the hidden curriculum in pharmacy training, because it has the potential to have a counter-productive effect on learning and future practice (Noble *et al.*, 2014). We set out to explore the question: What are students' experiences during work-based learning where the hidden curriculum is revealed?

This paper specifically describes and analyses incidents where the formal curriculum taught on campus was at odds with practices in the work environment uncovering the hidden curriculum through a pedagogy of discomfort (Aultman, 2005). The aim of this paper is to describe uncomfortable incidents that fourth year pharmacy students encountered during their work-based learning at public healthcare facilities. We firstly explain the methods and data collection process, which incorporates a description of the work-based learning environment in terms of the on-campus formal curriculum as well as the context of work place sites and activities. Results are presented by introducing the broad categories of incidents which students had identified, followed by descriptions of major themes that were identified, which include time, binaries and personal histories. Finally, we discuss how these themes are embedded in larger society and explore the development of skills that might prove to be beneficial in addressing this theory-practice gap in pharmacy training.

Methods

A qualitative, descriptive study was conducted. Data were collected from written reflection reports which were thematically analysed through the lens of structural and cultural influences on the work place context. In the rest of this section, we introduce the background and setting of the study and then describe the process of inquiry.

The work-based experiences of the students form part of the service-learning in pharmacy (SLiP) programme that has been part of the undergraduate pharmacy curriculum since 2003, at the School of Pharmacy, University of the Western Cape, South Africa (Bheekie *et al.*, 2011). Although the service experience is central to service-learning, it comprises a cycle of events, starting with (1) on-campus orientation, which introduced students to service and community partnerships, learning objectives, assessments and facility requirements, (2) the service experience at the assigned facility, (3) on campus guided group reflection, and (4) a reflection report. Fourth year SLiP requires students to work a minimum of 54 hours over a period of two weeks under the supervision of a

designated in-house pharmacist facilitator at a public sector health facility. Facilities are approved by the Department of Health as learning sites and pharmacists are invited to an annual on-campus orientation workshop about programme objectives and expectations relating to student facilitation on site. Facilitators are required to assess students' competence in dispensing medication to a patient, which include assessing the prescription, selecting and labelling the medication, and counselling the patient.

Public sector health facilities in South Africa provide services to 84% of the population who cannot afford medical insurance and are served by 29% of pharmacists who work in this sector (South African Pharmacy Council, 2011). Working conditions are characterised by a high patient load and facilities are for the most part understaffed and under resourced (Mayosi & Benatar, 2014). Communities served at facilities are largely poverty stricken with high levels of unemployment, violence, gangsterism and substance abuse, and, have poor access to basic services such as water supply and sanitation - all of these conditions predispose these communities to a high disease burden (Mayosi & Benatar, 2014). These communities were prone to (often violent) service delivery protests and sporadic xenophobic attacks during the time (2015) that students were at the facilities.

A total of 20 public sector health facilities participated in the 2015 service learning programme, which included 13 community health centres (CHCs) and seven hospitals. Each student was assigned to two different facilities, spending one week per facility. Only students who were assigned to CHCs were invited to participate in this study. CHCs have a consistently high pressure workload environment, which is not always applicable to the hospital settings.

Table I: Comparison of demographics of the fourth year pharmacy class (n = 132) and study participants (n = 35)

	Participants (n = 35)		Entire class (n = 132)	
	Number	Percentage (%)	Number	Percentage (%)
Gender				
Female	24	68.6	84	63.6
Male	11	31.4	48	36.4
Race				
African	12	34.3	66	50.0
Coloured	16	45.7	35	26.5
Indian/Asian	4	11.4	19	14.4
White	3	8.6	12	9.1
Age (in years)	Average 25.86 Median: 24 Range: 22-42		Average: 25.00 Median: 24 Range: 20-46	
20-24	22	62.9	95	72.0
25-29	7	20.0	23	17.4
30-34	3	8.6	6	4.6
35-39	1	2.9	2	1.5
40-44	2	5.7	5	3.8
45-49	0	0.0	1	0.8

Students were informed about the study at the on campus SLiP orientation conducted before their service experience and an information sheet outlining the research procedure was posted on the University's electronic learning management platform. After the service experience, students were invited to complete the consent form if they chose to voluntarily participate in the study. Although all students had to complete a reflection report, only reports from those students who gave written informed consent were used in the study's data collection and analysis (Table I). Ethical approval for the study was obtained from the University of the Western Cape Senate Ethics Committee (15/6/101).

The individual reflection reports contained students identifying a critical incident which made them feel uncomfortable either through a personal experience or as a result of an observed discrimination in the workplace. Written reports were qualitatively analysed through different coding approaches. One of the researchers (MvH) initiated broad coding by dividing the report into two parts: (1) description of the incident, and (2) perceived learning as interpreted by the student. Two experts in qualitative methods not involved in the pharmacy profession free coded the transcripts. Codes were discussed among the authors and the two independent experts and themes identified. This paper only focussed on the description of incidents, in particular through the lens of underlying structural and cultural aspects embedded in the working environment.

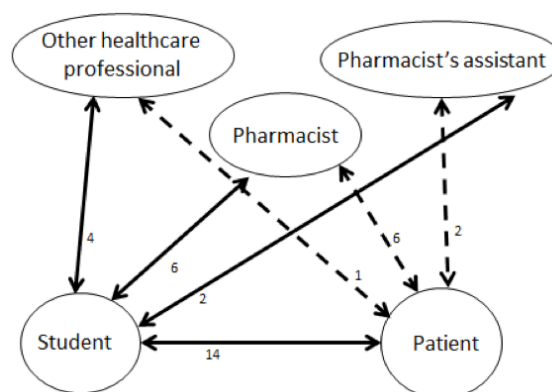
Results

Permission to analyse 35 student reflective reports was obtained (response rate of 26.5%). Thirty-five incidents were described taking the form of two people interacting with one another, which included role-players such as students, patients, pharmacists, pharmacist's assistants and other healthcare professionals (including doctors or nurses). Students described 24 interactions in which they were directly involved, the rest of the interactions were descriptions of their observations that occurred between other role-players in the facility. The most frequent interaction described was between students and patients. Figure 1 illustrates the role-players involved and number of critical incidents which students had described.

The predominant physical space in which the incidents took place was the pharmacy in which 26 interactions were described, 14 of these played out at the pharmacy window (dispensing area). The rest of the incidents took place in various areas located within the facility. The themes that characterised the structural and cultural aspects of incidents were grouped into three main categories namely, time, binaries and student personal histories. The theme of time was underpinned by the workload pressure of the service learning environment and emerged as a most important resource in this pharmacy practice setting. The 'binaries' theme was informed by the group identities imposed on students through both the physical infrastructure and social

interactions in the work environment. It was often characterised by in-group/out-group dynamics which resulted in an 'us and them', polarised situation. Personal histories were mostly related to the students' connecting incidents with their own cultural frames of reference as influenced by their values and morals instilled through their schooling, family, community and/or religion.

Figure 1: Diagram illustrating 35 critical incidents which students identified that occurred through interactions between different role-players in the workplace.



Key: Solid lines indicate incidents in which students were directly involved and broken lines indicate incidents which they had observed.

Time

A lack of time, which led to a pressurised working environment, was most noted by students. In terms of work flow, the pharmacy was described as the ultimate bottleneck in the facility: "Later that day it felt like all the people from the reception area were sitting in front of the pharmacy keeping an eye on us, while we were all working hard to collect the medicines for each folder. The folders just kept piling up..." ID29.

Students also perceived that other healthcare professionals at facilities had a high workload and felt the pressure. A student described an incident between a doctor and pharmacist in the pharmacy, where the pharmacist was enquiring about the possibility of pharmacy students sitting in on consultations: "The doctor rolled his eyes and threw up his hands displaying great exasperation. The doctor mentioned that he had no time to "look after" any additional people." ID 44.

In the pharmacy this shortness of time played out in the way pharmacists delivered services to patients, with students noticing: "Pharmacists spend a few seconds counselling patients on the use of their medication..." ID 39. Most notable was that pharmacists were lacking in offering adequate patient counselling and maintaining patient confidentiality; a contrast to students' campus teaching.

Despite provision of poor quality care, the patients seemed to value brisk service. One student described an incident in which s/he attended to a query of a patient who could not wait any longer in the queue and needed to leave the facility due to work responsibilities. This attempt to offer individualised care failed due to protests from other patients: *"I was thinking of displaying empathy, ...So I took her [the patient's] card and went to look for her file. The next minute there was chaos: 20 cards came flying through the window of patients that had also been waiting since who knows when."* ID 11.

Not surprisingly at some sites, because pharmacists had such an intense workload, they neglected their teaching time with students, as a result students were perpetually assigned menial tasks, which they perceived as providing *"cheap labour in terms of moving their [the pharmacy's] line at CDU [chronic dispensing unit]"* ID5. On the other hand, for students who actually practised dispensing skills, they felt that patients placed emphasis on (or valued) time, which put students under added pressure *"...my supervisor constantly excused the slow pace that our helping point is working at since he had a student that needed guidance and needed to learn (student being me)"* ID 22. Some students seemed to be completely overwhelmed by time restrictions to their activities: *"All the things that I have learned about dispensing were stored in my mind but at that point in time I could not dispense properly. I went completely blank"* ID47.

Binaries

Almost all interactions between those working in the pharmacy and those outside occurs through *"a thick glass barrier"* ID 27, better known as 'the window'. In terms of being on the inside, a student described the window as both a place to be feared *"It was inevitable to avoid going near the dispensing window..."* and one that offered protection: *"I was repeatedly told to just walk away [from the window] (while the patient was still talking)..."* ID31. This contradiction was articulated by another student who noticed the inequality that was created by this physical barrier: *"...I felt like anyone at the receiving side of that window should be feeling belittled in some way. [...]. That window separates professionals from people when we're actually all the same"* ID47.

The binary concept further developed into an 'us and them' theme that was noted in patient sentiments, often expressed in *"vulgar and aggressive language..."* including comments such as: *"They don't care about us", 'they have conversations with each other, while we must wait in long queues', 'they see themselves as superior', 'they talk to us like we're children', ..."* ID43. This polarised environment was not confined to the pharmacy and often resulted in reactionary exchanges between other healthcare professionals and patients at facility level, illustrating the frustration these groups felt towards each other. One student described an incident between a patient and a nurse: *"... he [the patient] is threatening to bring a gun and shoot her [the nurse]"* ID4.

The poor relationships between healthcare workers and patients also had socio-economic undertones. As one student mentioned the attitude of pharmacy personnel towards patients: *"...they [the patients] had no right to ask questions as they were receiving a free service..."* ID31. Another student extrapolated this division into the structure of South Africa's fragmented healthcare system, where a minority of population can pay out of pocket for services offered in privately-owned community pharmacies, while the majority is obliged to use the free public system: *"It was frustrating knowing how much time is spent in community pharmacies towards patients compared to a CHC"* ID39.

In addition to the polarisation between different groups of people (patients, healthcare personnel and students) at the facility, students also reported divisions based on individual characteristics which primarily included age, language and race, but also sexual orientation, religion and nationality less frequently. A student shared an experience in which s/he suspected the pharmacist of racism, because the pharmacist had assigned menial tasks instead of facilitating their learning. *"Before we left for SLiP, some of the students told us that some of the pharmacists are not willing to help black students. I was confused whether to entertain the story or not. Part of me believed it was true then the other part of me said maybe it is because the clinic was busy that week"* ID 5. Another student was caught totally off guard with the following utterance from a pharmacist on their first day *"...oh you born-frees [the post 1994 generation] don't like to work hard, you don't know what hard work is, you just want everything just so"* ID41.

Ageism was the most common theme in students' descriptions of their interactions with patients. One student described the following response from an elderly patient while the student was in the process of counselling: *"It got to an extent she [the elderly patient] started conversing with other patients saying 'abantwana bafundela kuthi' which in direct translation means these kids want to learn on us. To some extent I really lost my confidence and felt awful that my competence was questioned based on my age. Yes I agree we are inexperienced, but what I don't understand is that how are [we] going to get that experience if they themselves don't allow us to be empowered and learn"* ID37.

Differences in language were also a very common problem, with one student who mentioned *"...we have vivid stereotypes perceptions of people [speaking a different language]"* ID34. What made the interpretation of language barriers so tricky was the uncertainty as to interpret this as merely a barrier or if it was actively utilised to exclude people from a conversation. Students who were placed in areas where they could not speak the patient's predominant language came to the conclusion that they were perceived to be providing inferior service, because they could not interact in the counselling process further than giving the instructions on the medication label. Another student who could speak the patient's predominant language perceived that staff poorly

understood the concept of a language barrier. The student interpreted attempts by staff to address this leading to (unintentional) humiliation of people, as one student reiterated: *“Pharmacists and supporting staff members also need to understand that speaking louder will not make the patient understand you, if they do not speak your language”* ID71.

In certain instances the issue of language overlapped with race. *“After the patient had left the window the pharmacist told me that the he [patient] did not want to be helped by me because I was black and because of that I could not speak Afrikaans”* ID23. Similarly, language overlapped with nationality, described in an incident of a black pharmacist assistant who mispronounced a Xhosa name, which is synonymous with being non-South African. The patient responded by using a derogatory term to tell the assistant to *“go back from where [you] came from”* ID 36, underpinning a xenophobic response.

Personal histories

Some students described incidents in which their personal histories led them to either feel or behave in an unprofessional manner towards patients. These incidents were informed by prejudice beliefs and attitudes embedded through past experiences relating to their schooling, family and community values, which can be reflective of larger societal influences. Personal histories tended to overrule what the student knew cognitively. One student was shocked when she realised that all her book knowledge was undermined by values instilled from the small rural village where she grew up: *“Sickness is still viewed as a sign of weakness at home, that is why adherence to medication is such a problem and most conditions are detected at a very late stage, especially in men. I assumed that since I have travelled a lot and am in the health industry, my frame of reference would be different but I realise I am still thinking that way. I really need to be more aware of myself and try to change, I am sure that would help me to be more approachable when it comes to health related issues”* ID25.

In part, students associated their inappropriate feelings or behaviour in terms of professional inexperience relating to professional competency and dealing with patients. One student who saw tattoos on a patient immediately came to the conclusion that *“...he was a gangster”* ID42. Another student articulated the prejudices imposed on him through religion and community influences that led to stereotyping of patients: *“When he [patient] had entered the room, I realised he was homosexual and this confirmed my misperception about the prevalence of HIV amongst homosexuals”* ID30.

Students realised how their own communities influenced their response towards diseases like TB and HIV and that even their three years of pharmacy training could not bridge the fear induced by stigma as lived in their communities. One student described how walking into the TB area of the clinic brought back vivid memories of his childhood, where his childhood friends used to mock other children at school about relatives who had TB.

These memories and feelings caused the student to struggle with the internal tension that arose *“...about TB as a disease which I learned about in class and not the plague I grew up thinking it was”* ID19.

Students also experienced the stigma attached to HIV in the communities where they were working as described in the following extract: *“One patient was put onto ARV’s for the first time and he did not know how and when to take them. I explained the directions to him but I could tell from the look on his face that he could not understand. I asked him if he does and he just nodded his head and snatched the tablet container out of my hand right straight into his bag pack. He kept on looking sideways if there was any other person listening”* ID26.

Discussion

This paper was specifically focused on uncovering the hidden curriculum of work-based learning as experienced by fourth year pharmacy students in public sector pharmacies in South Africa. The theme of time featured commonly in student reports and was described through images of long lines of frustrated patients waiting for hours which increased the stress levels on healthcare professionals trying to keep abreast of the workload. These tensions culminated in various incidents illustrating poor service delivery and frustrated patients. In terms of student facilitation, some students felt that their facilitators used them as cheap labour to conduct menial tasks, which they felt impeded their learning. On the other hand, students who were actually involved in the full spectrum of learning activities felt overwhelmed by the time pressure and many felt patients had discriminated against them based on their age difference and inexperience. These experiences illustrate some of the differences that have been documented between learning in the workplace and learning in the classroom (Walsh, 2009). Learning in the workplace requires a certain measure of self-direction from students and some situations more than others requires students to negotiate learning time and activities with their facilitators. Work-based learning also tends to emphasise process rather than content, which involves the translation of knowledge learnt in the classroom to applying it appropriately in different circumstances (Walsh, 2009).

The workload pressure in this work environment is primarily due to resource constraints, which are inherent in public sector healthcare facilities. According to the National Core Standards published by the National Department of Health, decreasing patient waiting time is a major priority, in an attempt to improve patient satisfaction with public sector services (National Department of Health, 2011). Consequently this service delivery goal seemed to have been translated into practice by curtailing patient care activities such as adequate counselling. By focusing on improving one aspect of service delivery thus seems to compromise the quality of pharmaceutical services being offered at these facilities. This creates a quantity-quality dichotomy in the

services, which is difficult for students to translate between the patient-centred approach taught on-campus which defines the quality of service rendered between two individuals versus the population-based care needed in this workplace environment. When looking at this situation in terms of needs-based education as advocated by the WHO UNESCO FIP pharmacy education task force, students need to develop skills that will address these needs at the population level (Anderson *et al.*, 2009). It also highlights the importance for students to analyse this need through a structural approach, which directs efforts away from person-centred learning to one that is informed more by systemic realities (Metzl & Hansen, 2014). Indeed, pharmacists have been identified as essential role-players in the implementation of population health initiatives (Benjamin, 2016).

Furthermore, the theme of time is not only underpinned by institutional structural constraints, but also by larger societal factors, such as the expectation of patients from pharmaceutical services. Patients in the public sector institutions seem to condone the culture of poor pharmaceutical service delivery. Even when students tried to redirect their own service to quality by trying to spend time with a patient to offer what is learnt as ‘best practice’, they received opposition from the patients. One reason could be that patients from disenfranchised communities perceive the role of the pharmacist being primarily limited to that of a medicine supplier. This under-utilised role for pharmacists are not only limited to the South African public health system, but it is articulated in literature from developed countries where resource constraints are not such an issue (Rosental *et al.*, 2010). This endorses one of the more classical theory-practice debates in pharmacy, where student training is focused on patient-centred approaches to care in comparison to the largely medicine focus that still pervades practice.

The second theme of binaries differentiates between groups of role-players at the pharmacy such as pharmacy personnel, other healthcare workers, students and patients, and, personal characteristics of individuals such as age, language and/or race. In terms of interactions between groups, the institutional binaries are further informed by structurally imposed power relationships from the student’s perspective. At the top of the power pyramid is the pharmacist and pharmacy personnel, because the pharmacist is responsible for assessing students. The next group is other healthcare professionals; while third on the power hierarchy are the patients, because students are required to render quality service to them during their assessment. At the bottom of the power pyramid are the students, who are impeded by their limited presence in the pharmacy, thereby not in a position to garner support through active team participation and contribution. This structural power hierarchy invariably places the students in a ‘vulnerable’/visibly exposed position especially when placed in a workplace learning environment. Aspects of hierarchy, especially as it relates to poor role-modelling of the clinical facilitator and its influence on disempowering

students in the workplace have been well described in investigations into the hidden curriculum of medical education (Phillips & Clarke, 2012; Holmes *et al.*, 2015).

In addition to barriers imposed by the power hierarchy within the work environment, pharmacy education also faces the issues that the pharmacy itself is also a restricted space that prevents other healthcare professionals from entering into it as well as other physical barriers that impede on the provision of patient care. This is epitomised in our findings by the pharmacy window which physically separates the pharmacy personnel and students from other healthcare professionals and patients. The primary difficulty with the window is that it impedes communication and confidentiality, requiring students to speak louder to ensure that they are audible to the patient, with the added risk of being overheard by other patients. In a facility that is pressed for time and with reduced opportunity for counselling, the window further limits the auditory space required for student-patient engagement, thereby hindering any attempt to improve counselling practices. Although students felt the window impeded their connection to patients to deliver patient-centred care, it also protected them from those patients that did not value their attempts at service delivery.

In addition to the binary that resulted from the structural aspects related to institutional constraints at facility level, structural aspects imposed from larger society also reflected in interactions based on individual characteristics, especially race. As a result of South Africa’s historical context of segregated living areas between racial groups, the mixing of cultures, languages and religions was prohibited. Twenty years into democracy these divisions in large part still exist due to persistent socio-economic divisions, with the exception of some movement of the new black middle class from the predominantly black areas into predominantly white areas (Rampele, 2012). The student is therefore not in a position to adopt a neutral stance because racial profiling is still deeply ingrained in South African society. As such behaviour would translate into the workplace pre-conceived identity profiling (stereotyping) invariably places the student on one side of the inequality tier. Such experiences create an implicit form of moral distress, which has been referred to in health education as the “political context of care”, which attests that student identities have already been shaped by polarised public debates long before they enter into a training environment (Reid, 2014). One student clearly articulated this concept, s/he was wondering why the white pharmacist facilitator left the three black students to do menial tasks: was it because they were black or as a result of workload pressure?

Language is another highly politicised issue in South Africa, especially because it was used as a measure of oppression in the past and is currently perceived as an exclusionary tool to keep black students out of Afrikaans (historically white) universities. One student described the issue of language as having stereotypical perceptions of people based on the language they speak. Another

student noted how alignment and misalignment of language between the patient and pharmacist affected the quality of counselling given and received. Reciprocally, a patient did not want to receive their medicine from a black student, because the patient thought that the student would not be able to counsel him in Afrikaans. It seems ironic that the language issue that is still dividing South Africans has even been extended into a culture of exclusion towards non-South Africans in terms of the xenophobia issue. The inability to speak an indigenous South African language is used to humiliate and discriminate against immigrants from other African countries as one student had described.

The most unexpected issue of discrimination that culminated from student experiences was that of patients dismissing students due to their age differences. The concept of “respecting your elders” is an aspect found in most South African cultural groups, but for black students in this study it was most notable. Students described incidents of patients either ignoring them or blatantly refusing their services. Further, students noted that speaking about certain sensitive topics (such as sexual practice) to elders is taboo in their culture and they accepted this dismissal with a respectful silence as they know that it would be futile to engage meaningfully. This raises a serious issue not only in practice, but for training institutions like the School of Pharmacy, where the age gap between faculty and students might be overlooked on campus, while such discriminatory practices occur in silence at the workplace. The violent student-led protests that manifested on university campuses across South Africa at the end of 2015 and 2016 might be a call to address this lack of intergenerational dialogue.

The binaries created in terms of individual characteristics further ties in with the third theme of personal histories which puts the student – as a person- at the centre of the experience. Some students linked incidents in which they identified prejudice attitudes or judgements made towards patients to their personal histories. These histories included stigmas attached to diseases learnt in their childhood communities or morals based on religious beliefs that dictate ‘right and wrong’ behaviour. Students generally linked these prejudice behaviours as being unprofessional. One student was shocked about how having being trained in pharmacy could still conjure up these prejudices which she thought she had unlearned, yet they re-surfaced as an issue in her reflection. However, some were so conflicted that they were not sure if they could ‘ever’ get over their preconceived judgements. The personal nature of this work-based learning programme points to learning that is dictated by subjective experience which is intimately linked to emotional responses that might be disconnected or even contrary to what is ‘known’ or learnt at a cognitive level.

In terms of South African society, it seems ironic that the above mentioned issues have to be termed ‘hidden’ in our

curriculum. From these findings, connecting societal realities more explicitly to classroom teaching requires imminent attention. Darder (2015) suggests that the transformation of medicine and the culture of medical schools requires “full insertion into the very fabric of society, the place where the genuine transformation of oppressive values and beliefs can be identified, challenged and reinvented” (Darder, 2015: p.8). However learning to engage with difference in the classroom and in the workplace is inherently distinctive to each environment. In a classroom, this skill is simulated in a neutral (idealistic) environment between two rational individuals and the student can weigh the pros and cons of each side, eventually deciding which is the ‘right’ side requiring little or no emotional involvement. Scientific teaching would probably term these issues that are related to soft skills that students have to learn. Yet these soft skills involve asking the ‘hard’ questions of our society. The ambiguity inherent to these hard questions and overwhelmingly greyness in its answers also connects to pharmacy culture, which does not respond well to “less than textbook perfect” circumstances (Rosental *et al.*, 2010).

Awareness to the plethora of structural forces such as interpersonal networks, environmental factors, political, socio-economic forces that surround the clinical and pharmaceutical encounter need to be examined and addressed collectively. Structural competency is an attempt to broaden skills that advocate for public health, social justice, and health equity; a curriculum aimed at social, cultural and historical context which is coupled with an active recognition for societal problems and a search for appropriate solutions (Metzl & Hansen, 2014). The training of a structurally competent pharmacist calls for structurally competent institutions, agencies, networks and politicians to engage constructively in micro- and macro-level negotiations about structural ways that champions the interest of people who are disenfranchised (Metzl & Hansen, 2014).

From the themes, the major skills required for students to be successful in this work-based environment are the ability to cope well with pressure (time), engage with and navigate difference (binaries), and translate cognitive learning into professional actions underpinned by personal values and professional ethics (personal histories). Embedded across the three themes is the students’ ability to bear witness to their internal struggles and tensions emanating from the formal and hidden curricula. As such the concept of ambiguity that emerges between the two contrasting curricula, offer students a platform to articulate the disconnect that exists between theory and practice (Table II). Students should be given the platform to question work-based hegemony and challenge the *status quo* through critical reflection. One of the keys to link experiential learning to formal knowledge is reflective practice, which is a relatively novel area in pharmacy education (Tsingos *et al.*, 2014).

Table II: Ambiguities as identified for the three themes between formal versus hidden curricula

Theme	Formal curriculum	Hidden curriculum
Time	Quality of service; patient-centred Micro-level negotiations	Quantity of service; population-centred Macro-level negotiations
Binary	Learning space is a neutral environment – formal, classroom-based, simulated interactions, focusing on discipline-specific content delivery and associated with “hard science”	Learning space is a polarised environment – informal, contextualised learning taking broader historical, social, economic, cultural, political factors into consideration and associated with “soft skills”
Personal history	Learning requires objective and cognitive abilities – knowledge acquisition is focused on technical skills development	Learning requires subjective and affective abilities - Socialisation skills that depend on values, self-awareness, critical reflection

Limitations of this study include self-report by students as well as voluntary participation and a low response rate. We also might have appealed to students who are more motivated and as such our results might be skewed. The reader should further keep in mind that the nature of a hidden curriculum is that it is “...of some setting, at some time and for some learner” (Martin, 1976: p. 138), so caution should be exercised in the generalisability of these results. Another limitation is that students spent relatively little time at the facility consequently they could not become part of a team nor foster relationships to understand the structural constraints of the health system. The reader should also keep in mind that data collection focussed on discomfort, so it fails to mention all the instances of dedicated pharmacists and other healthcare professionals who work hard to respect their patients; and the patients who are kind and understanding of the limitations of the health system, and show their gratitude and support for the staff and students aiming to serve. As such the balance between the hidden and formal curricula is not quantifiable *i.e.* are these incidents so common that it overwhelms all the good ones or did we due to our selection bias, really only report on the minority? However, the uncovering of the hidden curriculum is necessary, to add to the plight of pharmacy students in the service context, guilty of misconduct or not, to highlight the problems in society that is played out in silence.

In conclusion, uncovering of the hidden curriculum revealed that the student’s ability to navigate workload pressure, polarisation between groups and their own biases are crucial to firstly survive and secondly to learn in this workplace environment. These data support calls for structural competency which require skills such as networking and advocacy as well as the incorporation of critical reflection that pharmacy training institutions should consider developing in students in order to close the gap between theory and practice. This requires institutional and intergenerational dialogue to dismantle the inherent silos that exist between students, the training institution and pharmaceutical services.

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References

- Anderson, C., Bates, I., Beck, D., Brock, T.P., Futter, B., Mercer, H., Rouse, M., Whitmarsh, S., Wuliji, T. & Yonemura, A. (2009). The WHO UNESCO FIP Pharmacy Education Taskforce. *Human Resources for Health*, 7, 45.
- Aultman, J.M. (2005). Uncovering the hidden medical curriculum through a pedagogy of discomfort. *Advances in Health Sciences Education*, 10, 263-273.
- Benjamin, G. C. (2016). Ensuring population health: an important role for pharmacy. *American Journal of Pharmaceutical Education*, 80(2), 19.
- Bheekie, A., Obikeze, K., Bapoo, R. & Ebrahim, N. (2011). Service-learning in pharmacy: opportunities for student learning and service delivery. *African Journal of Pharmacy and Pharmacology*, 5, 2546-2557.
- Darder, A. (2015). Racism in a medically segregated world (online). *Truthout*, December 2015. Available at: <http://www.truth-out.org/opinion/item/34126-racism-in-a-medically-segregated-world>. Accessed 12th January, 2016.
- Elvey, R., Hassel, K. & Hall, J. (2013). Who do you think you are? Pharmacists’ perception of their professional identity. *International Journal of Pharmacy Practice*, 21, 332-332.
- Ginsberg, S., Regehr, G. & Lingard, L. (2003). To be and not to be: the paradox of the emerging professional stance. *Medical Education*, 37, 350-357.
- Hafferty, F.W. (1998). Beyond curriculum reform: confronting medicine’s hidden curriculum. *Academic Medicine*, 73 (4), 403-407.
- Holmes, C.L., Harris, I.B., Schwartz, A.J. & Regehr, G. (2015). Harnessing the hidden curriculum: a four step approach to developing and reinforcing reflective competencies in medical clinical clerkship. *Advances in Health Sciences Education*, 20, 1355-1370.
- Janicijevic, N. (2013). The mutual impact of organizational culture and structure. *Economic Annals*, LVIII (198), 35-60.
- Kritikos, V., Watt, H.M., Krass, I., Sainsbury, E.J. & Bosnic-Anticevich, S.Z. (2003). Pharmacy students’ perceptions of their profession relative to other health care professions. *International Journal of Pharmacy Practice*, 11, 121-129.
- Lempp, H. & Seale, C. (2004). The hidden curriculum in undergraduate medical education: qualitative study of medical students’ perceptions of teaching. *British Medical Journal*, 329, 770-773.
- Martin, J.R. (1976). What should we do with a hidden curriculum when we find one? *Curriculum Inquiry*, 6 (2), 135-151.

- Mayosi, B.M. & Benatar, S.R. (2014). Health and health care in South Africa - 20 years after Mandela. *The New England Journal of Medicine*, **371**, 14.
- McLaughlin, J.E., Dean, M.J., Mumper, R.J., Blouin, R.A. & Roth, M.T. (2013). A roadmap for educational research in pharmacy. *American Journal of Pharmaceutical Education*, **77** (10), Article 218.
- Metzl, J.M. & Hansen, H. (2014). Structural competency: theorizing a new medical engagement with stigma and inequality. *Social Science and Medicine*, **103**, 126-133.
- National Department of Health. (2011). National core standards for health establishments in South Africa. Tswane, The Republic of South Africa.
- Noble, C., Coombes, I., Shaw, P.N., Nissen, L.M. & Clavarino, A. (2014). Becoming a pharmacist: the role of the curriculum in professional identity formation. *Pharmacy Practice*, **12** (1), 380.
- Phillips, S.P. & Clarke, M. (2012). More than an education: the hidden curriculum, professional attitudes and career choice. *Medical Education*, **46**, 887-893.
- Rampele, M. (2012). Conversations with my sons and daughters. Penguin Books, Johannesburg, South Africa.
- Reid, L. (2014). Moral distress and moral disorientation in the context of social accountability. *Journal of Graduate Medical Education*, **September 2014**, 583-584.
- Rosental, M., Austin Z. & Tsuyuki R.T. (2010). Are pharmacists the ultimate barrier to pharmacy practice change? *Canadian Pharmacists Journal / Revue des Pharmaciens du Canada*, **143**(1), 37-42.
- Schafheutle, E.I., Hassell, K., Ashcroft, D.M. & Harrison, S. (2013). Organizational philosophy as a new perspective on understanding the learning of professionalism. *American Journal of Pharmaceutical Education*, **77**(10), Article 214.
- South African Pharmacy Council. (2011). Pharmacy Human Resources in South Africa 2011 (on-line). Available at: <http://www.e2.co.za/emags/phrsa/pageflip.html>. Accessed 6th February, 2015.
- Taylor, K.M.G. & Harding, G. (2007). The pharmacy degree: the student experience of professional training. *Pharmacy Education*, **7**(1), 83-88.
- Tsingos, C., Bosnic-Anticevich, S. & Smith, L. (2014). Reflective practice and its implications for pharmacy education. *American Journal of Pharmaceutical Education*, **78**(1), Article 18.
- Walsh, A. (2007). An exploration of Biggs' constructive alignment in the context of work-based learning. *Assessment and Evaluation in Higher Education*, **32**(1), 79-87.