

A PHENOMENOGRAPHIC STUDY OF CLINICIAN EDUCATORS' CONCEPTIONS OF CLINICAL MEDICAL STUDENTS' VOCATIONAL HABITUS

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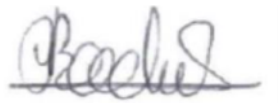
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Witwatersrand, Johannesburg, in partial fulfilment of the requirements for the degree of
Master of Health Sciences Education

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DECLARATION

I, Dr Loredana Maria Bocchino, declare that this Research Report is my own, unaided work. It is being submitted for the Degree of Master of Health Sciences Education at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.



(Signature of candidate)

_____1st____ day of _____ March _____ 2024__ in ____ Parktown _____

ABSTRACT

Background: Many medical educators have expressed concern about producing the ‘right kind of doctor’, noting that students’ professional identities are not always aligned with societal and professional expectations. The concept of habitus, whilst similar to identity, offers a more complex understanding of the process of ‘becoming’ inherent in vocational training, in that it can both shape students’ educational experiences as well as be shaped by them. There is currently little literature addressing clinicians’ perceptions or experiences of medical students’ vocational habitus.

Methods: To explore the ways clinician educators understand clinical medical students’ vocational habitus, a phenomenographic study was undertaken in which fourteen semi-structured interviews were conducted with clinician educators from various clinical departments.

Findings: Four conceptions of student vocational habitus were identified: 1) the Dependent Spectator, 2) the Interested Fledgling, 3) the Independent Contributor, and 4) the Interdependent Altruist. Conceptions were characterised by seven dimensions of variation: attitude to learning, communication skills, fortitude, values, professionalism, technical competence and relationship to technology. Two associated factors in the field were repeatedly reported that provide important context for the interpretation and development of these conceptions: failure to fail, and fitness for purpose of assessments.

Conclusion: Different conceptions exist about clinical medical student vocational habitus, with the narrowest conceptions viewing students as ‘not right for the job’. There is dissonance between clinicians’ general perceptions of students’ habitus, and the idealised expectation. The progressive development of these conceptions along the continuum is likely shaped by the identified associated factors within the field, and other potential factors such as program characteristics, the hidden curriculum, or focus on research versus clinical service delivery.

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LIST OF ABBREVIATIONS

CBME	Competency Based Medical Education
CE	Clinical Educator
COP	Community of Practice
GEMP	Graduate Entry Medical Program
COREQ	Consolidated criteria for reporting Qualitative Research

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CHAPTER 1

INTRODUCTION

There are two streams of entry into the Wits Faculty of Health Science MBBCh undergraduate medical program. Matriculating students can enter into the first year straight from school, whilst graduate entry students who already have a primary degree join the program at the third year level to complete the remaining four years. Students spend the last two years of study in clinical attachments, rotating through a number of clinical disciplines. It is in these rotations where they really begin to interact with patients, engage in service learning, encounter clinician educators, and begin the process of integrating into the clinical community of practice. It is the time and place where they can start *becoming* doctors.

The clinical heads of department (HOD) and undergraduate coordinators, who are generally senior clinicians, oversee the clinical training within these rotations. They also participate in various administrative roles. These include membership of and attendance at curriculum committee meetings and examiner's meetings. As part of the discourse around students in these forums, as well as other informal ones, a number of themes seem to recur. Typically these include students' mastery of content and clinical skills, professionalism and attitudes, general engagement with the academic programme, and student expectations of the School and teachers. Anecdotally, much of this discourse seems to be negative, and there is an apparent sense of discontent amongst clinicians with respect to students; a sense of unhappiness with the 'type of student we have these days' and the 'kind of doctor' we produce.

However, the program assessment results do not bear witness to this discontent. In general, the results in the medical program show a low overall failure rate (as compared with other professional degrees), and this tends to decrease with each higher year of study. Despite the seemingly negative perceptions held by clinicians about students, very few students actually fail a year (in general, <5% in the clinical years). Therefore it would appear that there is a disconnect between clinician's perceptions of students, and their assessment results; a tension between what clinicians say about students, and what they do in terms of passing them.

This conundrum raises a number of questions, such as what do clinicians really value in terms of the dispositions, behaviours, knowledge and skills that make up the 'right kind of professional' – and in this case, the doctor? How does the student get to orientate him/herself towards that ideal? And how do we measure that process of identity transformation, or becoming?

RATIONALE

There is a wealth of literature available on students' perceptions and experiences of various aspects of medical training and assessment (Walling *et al.*, 2017; Stone *et al.*, 2018; Costa-Drolon *et al.*, 2021; Alkhateeb *et al.*, 2022; Attard Mallia *et al.*, 2023), professional identity formation and preparedness for practice (Wilson *et al.*, 2013; Cameron *et al.*, 2014; Leedham-Green, Knight and Iedema, 2020; Sarraf-Yazdi *et al.*, 2021; Mount *et al.*, 2022). Literature also exists with reference to the clinician educator role – establishing identity as a clinical educator and views on teaching, including the benefits and challenges of having students on clinical placements (Dahlstrom *et al.*, 2005; Waters, 2018). However, there are no studies directly related to what clinician educators actually think of, and about, clinical students.

In addition, in our specific context, there is a disconnect between the narrative amongst clinicians about students, and their actual assessment outcomes.

In order to tackle this problem, we first need to better understand exactly how clinicians experience clinical medical students, and how this compares with their ideal of the 'right person for the job'. In other words, the different ways that clinicians understand clinical medical students' vocational habitus. Vocational habitus describes the set of values, behaviours, attitudes and beliefs, in addition to the mastery of knowledge and skills, necessary for and unique to a profession (Colley *et al.*, 2003; Shaughnessy, Hall and Perkins, 2023). The concept is based on the work of Pierre Bourdieu, whose theoretical framework is explicated in more detail in the literature review to follow.

Understanding such perceptions could help us to improve the teaching and learning experience for students and teachers alike, as well as to identify particular issues experienced by clinicians that may require more support on the part of the School and Faculty.

Finally, this study addresses a gap in the body of literature about clinician educator experiences and perspectives, as these relate specifically to clinical medical students. For the purposes of this study, clinician educators were defined as qualified doctors in various disciplines who are involved in teaching, supervising and assessing medical students on the clinical training platform.

RESEARCH QUESTION

1. What are the different ways that clinician educators understand clinical medical students' vocational habitus in the University of the Witwatersrand undergraduate medical programme?

AIMS

This study aimed to explore the different ways that clinician educators understand clinical medical students' vocational habitus.

OBJECTIVES

1. Explore clinician educators' perceptions of clinical medical students' professional behaviours
2. Explore clinician educators' perceptions of clinical medical students' content knowledge, skills and attitudes
3. Explore clinician educators' perceptions of fitness for purpose of the assessment process in the clinical years
4. Explore the tension between clinicians' narratives regarding clinical medical students, and the assessment outcomes

CHAPTER 2

LITERATURE REVIEW

Competency based medical education (CBME) has become the basis for the majority of Western undergraduate medical programmes over the last 2-3 decades, with competency frameworks such as CanMEDS informing curricular design (Frank *et al.*, 2010). The idea is that doctors must be able to ‘do’ the job, as opposed to simply having knowledge.

The CanMEDS Physician Competency Framework describes a number of abilities, competencies and roles that the medical practitioner should embody. Among these is the role of Professional, central to which is the doctor’s professional identity, described as:

“...a commitment to ongoing professional development, promotion of the public good, adherence to ethical standards, and values such as integrity, honesty, altruism, humility, respect for diversity, and transparency with respect to potential conflicts of interest.”
(Frank, Snell and Sherbino, 2015)

These ideas speak to the notion that there is a societal and professional expectation of who and what the doctor is meant to ‘be’, and that there is a ‘right kind’ of medical professional. So what makes the right person for the job? The right person embodies a certain set of values, attitudes and beliefs, in addition to mastering the gamut of knowledge and skills necessary for the profession. This has been described as vocational habitus (Colley *et al.*, 2003; Shaughnessy, Hall and Perkins, 2023), based on the work of social theorist Pierre Bourdieu. Vocational habitus can be described as developing both a ‘sense’ of the right way to be and behave in the workplace, and a ‘sensibility’ to the emotional aspects of training – the requisite feelings and morals, and the ability to respond to the emotional demands of the vocational culture (Colley *et al.*, 2003).

Central to Bourdieu's theoretical framework, and his most widely used concept, is the idea of the habitus – defined as a set of durable dispositions reflecting internal and external social structures, that shapes how the individual perceives the world and acts in it (Power, 1999; Brosnan, 2009, p. 56-7). The habitus is created out of all an individual's past experiences, and is the lens through which all subsequent experience is perceived, therefore being both structured by the past and acting to structure the future (Bourdieu, 1998; Brosnan, 2009, p. 57). The individual's primary habitus is developed in childhood through experiences of family life, and both underpins and tends to be more durable than subsequent habitus that are developed in school, higher education and when taking on a profession or trade (Power, 1999; Brosnan, 2009, p. 57).

Closely related to habitus are the concepts of field and capital. Field refers to the context or environment in which the individual operates, such as the home or family, workplace, university, or even the field of medical education (Power, 1999; Crozier *et al.*, 2008; Brosnan, 2009; Tan and Liu, 2022). An important aspect of the professional training field is the vocational culture that dominates there (Colley *et al.*, 2003).

Bourdieu describes capital as any resources, goods or characteristics which are valued, and used to gain position and power in a given field – such as academic capital, social capital (knowing the right people), cultural capital (having the right 'tastes'), or economic capital (Bourdieu, 1998; Brosnan, 2009, p.57). In training for the medical profession, the development of particular dispositions is important for the student in order to establish a legitimate position within the field (Colley *et al.*, 2003). It would follow then that desirable dispositions that would make someone the 'right person for the job' would include such qualities as described under the role of Professional in the CanMEDS framework – humility, altruism, integrity, ethical conduct and the like (Frank, Snell and Sherbino, 2015).

Habitus therefore is meaningful as a system of individuals' dispositions, accumulated through socialisation within a field, which guide daily practices; and where practice can be conceptualised as the outcome of the relationship between habitus, field and capital

(Swartz, 1997; Power, 1999; Tan and Liu, 2022). In addition, due to the multifaceted nature of habitus, it operates differently across fields and may exhibit continuity or discontinuity in different contexts, and in response to social changes (Tan and Liu, 2022).

We can see that in medical education, the process of 'becoming' a doctor is intricately linked to vocational learning (Colley *et al.*, 2003). Lave and Wenger's work has been instrumental in advancing the idea of learning in health sciences as a process of participation in communities of practice (COPs), rather than simply knowledge acquisition (Lave and Wenger, 1991). Immersion in the social, cultural and emotional aspects of work are crucial for learning, and indeed for the construction of a new identity and becoming a different person (Lave and Wenger, 1991; Colley *et al.*, 2003).

So why talk of habitus instead of professional identity? Whilst identity does encapsulate the qualities, beliefs and personality traits that characterise an individual, it lacks some complexity. Habitus expresses this additional complexity through the relationships with field and capital, and offers a framework that incorporates structure, agency, and past and future selves (Colley *et al.*, 2003). Whilst professional identity is conceived as being developed during the process of vocational training, pre-existing habitus can both shape students' educational experiences as well as be shaped by them (Tan and Liu, 2022).

A number of empirical studies have provided evidence for a distinct 'medical habitus' formed during medical training, that centres around producing practical competence rather than caring dispositions (Becker, 1961; Sinclair, 1997; Brosnan, 2009, p. 59). This habitus is thus both the source of, and helps reproduce and sustain problematic dispositions (Brosnan, 2009, p. 59).

Problematic dispositions would include behaviours that are deemed unprofessional, such as a lack of integrity, not taking responsibility for shortcomings or errors, not working well within a team, or not treating patients and colleagues with respect. There is evidence that medical students who exhibit such lapses in professionalism as

undergraduates are significantly more likely to demonstrate unprofessional behaviour in practice post-graduation, and are more likely to be sued or sanctioned (Krupat *et al.*, 2020).

In addition to vocational culture and field-specific influences, other wider societal and global factors may also impact the development of vocational habitus. Recent years have seen the emergence of the internet and social media as integral parts of both human society and the higher educational landscape, with internet and technology usage influencing learning behaviours (Khazaie *et al.*, 2023). However, excessive use of Information and Communication Technologies (ICT) can lead to internet and social media addictions, which have been linked to depression, poor mental health and psychosocial functioning, reduced physical activity and poor academic performance (Hamissi *et al.*, 2013; Haand and Shuwang, 2020; Khazaie *et al.*, 2023). A study amongst health sciences students in Western Iran showed an internet addiction prevalence of 25%, with a further 44% of students at risk for addiction due to high usage levels (Khazaie *et al.*, 2023). Apart from this, the global prevalence of anxiety amongst medical students is 33.8% - a rate substantially higher than the general population (Quek *et al.*, 2019). Other mental health issues such as depression and suicidal ideation have also been on the increase amongst medical students, with a prevalence higher than that in students in other degree programmes and in the general population (Zeng *et al.*, 2019). All of these are therefore potential factors that may influence habitus.

Clinicians are responsible for the bulk of in service training during the clinical years, and therefore serve a pivotal role in training medical students and shaping their habitus. They provide authentic representations and approximations of practice (Grossman *et al.*, 2009) that support students in developing competence in the profession. This educator role comes with a number of benefits and challenges. In a systematic review by Waters *et al.*, the major benefits to practitioners of being involved with teaching students included personal gratification, and a positive effect on their own skills, reflection and knowledge; whilst challenges included an increased workload and longer working hours (Waters, 2018).

There is evidence that clinicians' influence on shaping student habitus is directly related to how clinicians perceive students, and their relationship with them. Shanahan et al conducted a study investigating the perspectives of clinicians specifically related to conflict with students (Shanahan, van der Vleuten and Schuwirth, 2020). Student behaviours, assessment, and personal emotional impact on clinicians emerged as notable themes. They identified varied responses to conflict, including avoidance and adoption of a "failure to fail" approach, or withdrawal from subsequent teaching engagement – termed "retreatism". This study focused on a specific sub-set of students – namely those who were problematic in some way, and where an uncomfortable conflict arose between teacher and student. The impact of these encounters on clinician educators was significant, and often managed with dysfunctional mechanisms. There was also a feeling amongst the clinicians of a lack of support from their institution. This is important to note, as "avoidance" and "retreatism" responses could result in potentially negative consequences for students and medical programs.

The phenomenon of failure to fail is a concerning trend in healthcare education, as it is directly related to future patient safety and welfare. Students who are passed inappropriately turn into doctors who lack the skill and competence to practice safely. There is a complex interplay of factors that contribute to 'failing to fail'. These include difficulties or weaknesses of assessment tools, the desire to shield students, clinicians' desire to protect themselves, institutional culture, and lack of available remediation (Bush *et al.*, 2013; Yepes-rios *et al.*, 2016).

A unique study looking at the language clinicians use in explaining the act of passing underperformance in students, suggested that the practice is viewed as socially unacceptable, but also acknowledged as widespread and inevitable (Monrouxe *et al.*, 2011). Clinicians frequently distanced themselves from direct responsibility for the act. Monrouxe notes that, "implicit factors within their own talk [about this issue] serves to reinforce and legitimize that culture" (Monrouxe *et al.*, 2011). Given that welfare of patients is the ultimate goal of any healthcare professional program, changing this culture is both important and necessary.

So the discussion returns again to the problem identified earlier, of the disconnect between what clinicians seem to say (*paraphrased “the students are awful”*) and what they do (*pass them, thereby acting out that “the students are competent”*). It is unclear if this represents the phenomenon of failure to fail, or a case of dissonance between what clinicians value and what we measure. However before these questions can be answered, we first need to examine the different ways that clinicians understand clinical medical students’ vocational habitus, and how this compares with their ideal of the ‘right person for the job’.

CHAPTER 3

RESEARCH METHOD

Research Design and Positionality Statement

This qualitative study employed a phenomenographic approach using semi-structured interviews for data collection, and was situated within a social constructivist paradigm. Social constructivism hinges on the understanding that individuals develop subjective meanings of their experiences, and each individual's experience is different. These subjective meanings are formed through interactions with others, and are informed by the social and cultural context in which they work (McMillan, 2015, p. 19; Creswell and Poth, 2016, p. 35). For these reasons, phenomenography was selected as the research method.

I myself was a medical student and did my specialist training on the Wits circuit. My current role as the MBBCh 5&6 coordinator, which I have held since 2016, has allowed me to become intimately familiar with the clinical training program and sites, various clinician educators, and students. A large part of my role is to deal with operational and administrative aspects of the program, as well as deal with student and clinician concerns about various aspects of clinical training and the curriculum. This allows me a certain understanding from both the clinician and student point of view. As an insider researcher, I acknowledge that will always be some form of bias despite engaging in reflexive practice, and this will have influenced my interpretation and presentation of the data. However, my insider status also enabled me to gain a deeper understanding of the data in its context, and the meanings intended by the participants. Further information on my own experience and background is reported in the COREQ checklist (Appendix 4).

Data analysis was conducted using Bourdieu's concept of habitus as the lens through which to view the data.

Phenomenography

Phenomenography is a distinctive empirical approach that seeks to describe the different ways in which people experience and understand specific phenomena in the world around them, and how these ways of understanding are related to one another (Sjöström and Dahlgren, 2002; Stenfors-Hayes, Hult and Dahlgren, 2013; Tight, 2016). It is grounded in a non-dualist ontology, with the assumption that a person can only describe reality as they have experienced it, so that the person and the world are inseparable (Sjöström and Dahlgren, 2002; Kettunen and Tynjälä, 2018; Hajar, 2021).

As Marton & Booth assert:

“There is not a real world ‘out there’ and a subjective world ‘in here’. The world [as experienced] is not constructed by the learner, nor is it imposed upon her; it is constituted as an internal relation between them.” (Marton and Booth, 1997)

The epistemological assumption is that there are multiple and diverse interpretations of reality, but these differences can be described and understood by others (Sjöström and Dahlgren, 2002; Stenfors-Hayes, Hult and Dahlgren, 2013).

The outcome focus in phenomenography is on understanding the variation in experiences of a phenomenon (‘the world as I see it’), rather than understanding the essence of the phenomenon itself (‘the world as it is’), thus offering a second-order perspective (Sjöström and Dahlgren, 2002; Stenfors-Hayes, Hult and Dahlgren, 2013; Kettunen and Tynjälä, 2018; Hajar, 2021).

Results of the research are therefore presented as a structured set of meanings which are typically hierarchically related, called conceptions or categories of description, and laid out in the diagrammatic representation of the ‘outcome space’ (Åkerlind, 2005; Kettunen and Tynjälä, 2018; Hajar, 2021). These categories expand from least to most complex, with each revealing something distinctive about a way of understanding the phenomenon (Åkerlind, 2005; Kettunen and Tynjälä, 2018). Aspects of the phenomenon that distinguish conceptions from each other are illustrated through ‘dimensions of variation’ (Stoffels *et al.*, 2021).

Conceptual Framework

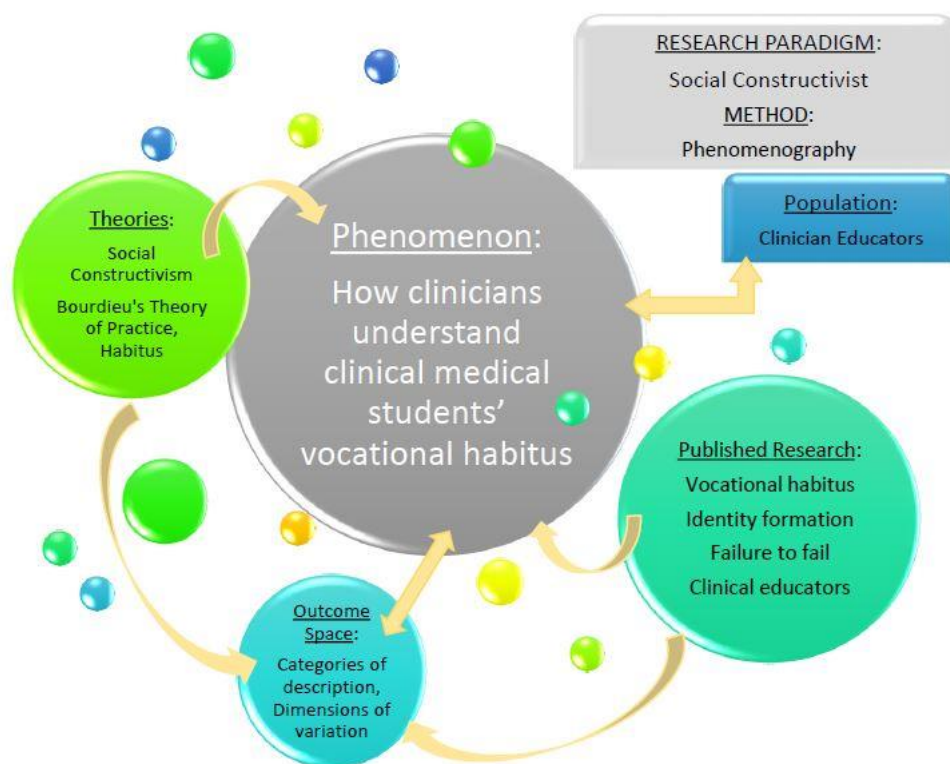


Figure 3.1 Conceptual Framework *Site and Sampling*

The study was conducted within the School of Clinical Medicine in the Faculty of Health Sciences at the University of the Witwatersrand.

The sample population consisted of two subsets of clinician educators – one group who sit on various School undergraduate committees and are involved with administrative, curriculum and assessment development activities, and a second group who are involved only with curriculum delivery on the training platform.

A purposive sampling technique was used, whereby clinician educators serving as undergraduate coordinators in their discipline were invited to participate. Clinicians were invited via email, from the following major clinical departments involved in the training of MBChB 5&6 clinical medical students:

- Internal Medicine
- Paediatrics
- Surgery
- Obstetrics and Gynaecology
- Psychiatry
- Family Medicine

These departments have inputs in both clinical years, and constitute major (five week long) clinical attachments in the final year of study.

A further snowballing technique was employed, whereby those coordinators were then asked to invite one or two other colleagues within their disciplines to be interviewed. These were colleagues who were involved with teaching students on the clinical platform, but did not sit on any School undergraduate committees and were not involved with any administrative undergraduate duties. This was done to ensure a variety of experiences with students, which was not necessarily influenced by the regulative discourse observed in Committee discussions. These clinicians were approached by the participants who were initially interviewed, and were provided with the study information sheet and consent forms. They then either contacted me directly, or consented to having their contact details shared with me.

Data collection process

A pilot study was conducted with two clinical educators working with MBBCh 3&4 students, in order to practice the interview technique and test the interview guide and the appropriateness of the questions. The data from these interviews was not included in the analysis. The interview guide was not significantly modified following the pilot, but additional potential probing questions were included. The final interview guide is included in Appendix 3.

A total of fourteen semi-structured interviews were conducted from June 2022 to May 2023. Ten of these were conducted via Microsoft Teams, being simultaneously recorded

and transcribed. Four interviews were conducted face to face, and were audio recorded using a digital voice recorder. The recording was played back for transcription using the online software Otter.ai. All transcripts were then checked against the original audio recordings and corrections made, to ensure verbatim reproduction.

Original audio recordings and initial transcripts were stored on a separate USB drive. All transcripts were anonymised before sharing with supervisors.

Ethics

Ethical clearance was obtained from the Human Research and Ethics Committee (Medical) of the Faculty of Health Sciences, University of the Witwatersrand (certificate no M211185 – Appendix 1). Informed consent was obtained from all participants.

As many of the participants are peers and work colleagues of the researcher, there was the potential that they might feel obliged to participate. However, all clinicians were reassured that participation was completely voluntary, they could withdraw at any time, and no one was coerced into participating. There were no benefits or risks to participants, and all received an information pamphlet detailing the purpose of the study as well as the researcher's and supervisors' details (Appendix 2).

Sources of bias

There was the potential for personal or 'insider' bias from my own prior experience in and perceptions of the program and students, to influence the interview process and data analysis. However, I am no longer in clinical practice and am not actively involved in clinical training of students on the teaching platforms. Therefore, being remote from the context under study, and by employing bracketing techniques, keeping a reflexive field journal, and ensuring criteria for trustworthiness as discussed later in this report, this bias was mitigated as far as possible. (Hewitt-Taylor, 2002; Brannick and Coghlan, 2007; Greene, 2014)

Another potential source of bias was informant bias, where interviewees try to tell the researcher what they think she wants to hear. This was managed by keeping the

interview questions as open and broad as possible, and reassuring interviewees that there were no right or wrong answers.

Data Analysis

Data was analysed using the seven steps described by (Dahlgren and Fallsberg, 1991):

Table 3.1 Seven steps of analysis in phenomenography	
1 Familiarization	Reading through all interview transcripts; all data in the entire pool are given equal consideration
2 Condensation	Identifying and coding meaningful units in the transcripts
3 Comparison	Comparing the units with regard to similarities and differences to identify sources of variations
4 Grouping	Allocating statements expressing similar ways of understanding the phenomenon to the same category
5 Articulating	Capturing and describing the essential meaning of a certain category
6 Labelling	Naming the categories using appropriate descriptors which best represent the theme of each category Steps 3-6 are repeated in an iterative process to ensure that the similarities within and differences between categories are discerned and formulated in a distinct way
7 Contrasting	Comparison of categories with regard to similarities and differences

MAXQDA 2022 software was used to code and retrieve data.

Step 1 (Familiarization) began with checking and correcting the transcripts against the audio recordings of the interviews, and continued with repeated readings of the transcripts. This process enabled me to become intimately familiar with the data.

Step 2 (Condensation) consisted of selecting and highlighting significant, relevant and interesting words and phrases to create codes (units of meaning).

Step 3 (Comparison) entailed comparing the codes and noting any similarities and differences.

Step 4 (Grouping) involved grouping similar and separating different codes, facilitated through the creation of summary tables. The use of summary tables for all codes generated from the 14 transcripts assisted with viewing the data as a collective 'pool of meanings' (Åkerlind, 2005; Stenfors-Hayes, Hult and Dahlgren, 2013; Kettunen and Tynjälä, 2018), from which the preliminary categories of description and their dimensions

of variation were derived. These dimensions of variation helped to structure the logical relationships both within and between the categories.

Step 5 (Articulating) involved writing the descriptions of each category and populating the outcome space table, while iteratively re-examining codes and adjusting the descriptions so that the essential meanings of codes and categories were captured.

Step 6 (Labelling) consisted of naming the categories and their dimensions of variation so as to best represent the theme of each.

Step 7 (Contrasting) entailed a comparison of the similarities and differences between categories, such that categories could be described in terms of their individual meanings as well as in terms of what they are *not*. This allowed each category to be distinguished from another.

In total, the transcripts were read through at least six times, and steps 2 – 4 were repeated even as steps 5 and 6 were undertaken. Regular discussions with my supervisors allowed for external checks of the coding process, and development and refinement of themes and categories.

Finally, the outcome space was judged against the three criteria for quality (Åkerlind, 2005; Han and Ellis, 2019):

1. Each category should reveal something distinctive about a way of understanding the phenomenon;
2. The categories should be logically related, typically as a hierarchy of structurally inclusive relationships; and
3. The number of categories should be parsimonious.

Trustworthiness

Lincoln and Guba described four criteria for establishing trustworthiness in qualitative research – credibility, transferability, dependability (analogous to reliability) and confirmability (analogous to objectivity) (Lincoln and Guba, 1986).

Literature suggests that in phenomenographic research, three measures of credibility should be addressed: content-related credibility, credibility of method and communicative credibility (Kettunen and Tynjälä, 2018).

Because phenomenography assumes that no description of reality can exist independent of the describer, content credibility is mainly related to the relationships among categories and the data, and is therefore strengthened by the use of supporting quotations (Stenfors-Hayes, Hult and Dahlgren, 2013). This evidence is provided in the findings described in Chapter 4. In addition, my own preunderstanding of the context and phenomenon under study as an ‘insider’ offered the potential to gather a greater depth of data, allowed a thorough understanding of shared values and contextual detail, and a deeper interpretation of the meanings intended by participants (Hewitt-Taylor, 2002; Brannick and Coghlan, 2007). The risk of insider bias and loss of objectivity was managed through the use of bracketing techniques, a reflexive field journal, and regular debriefing with my supervisors.

Credibility of method is based on a thorough description of the research process, presentation of the interview questions (Appendix 3), and a detailed description of the analysis process, as provided above (Sjöström and Dahlgren, 2002). The methods used should appropriately reflect the research aims (Åkerlind, 2005). In this study, individual semi-structured in-depth interviews were used for data collection, which is the preferred method in phenomenographic research (Sjöström and Dahlgren, 2002). Interviews were favoured over focus groups to allow participants to speak freely, and so that their answers would not be influenced by the viewpoints of others. To support description of the research process, this study was reported according to the Consolidated criteria for reporting Qualitative Research (COREQ) checklist (Tong, Sainsbury and Craig, 2007), provided in Appendix 4.

Communicative credibility is reflected in the ability to make a persuasive argument for the interpretation of the data (Åkerlind, 2005; Kettunen and Tynjälä, 2018), and this is hopefully demonstrated in the findings and discussion chapters.

Pragmatic validity includes the extent to which research outcomes are meaningful and seen as useful to their intended audience (Åkerlind, 2005), and I believe that my findings fulfil this requirement. Transferability refers to the extent to which findings may be applicable in other settings (Lincoln and Guba, 1986). Although phenomenographic studies are context specific, they may still offer insights which are broadly applicable, and the reader is able to determine this through the provision of sufficient contextual and thick descriptions of the phenomenon as offered in the findings and discussion (Shenton, 2004; Nowell *et al.*, 2017; Kettunen and Tynjälä, 2018).

Dependability was achieved through the use of reflexive journaling, keeping field notes, managing data and codes using MAXQDA 2022 software, and reporting with the COREQ checklist. Most importantly, weekly recorded meetings with my supervisors to discuss methods and process, theoretical frameworks, developing ideas and interpretations, check coding, and discuss the constitution of categories, provided external checks as well as an audit trail.

Finally, I attempted to achieve confirmability through explicit reporting on the research process, and provision of the final codebook (Appendix 5).

Limitations

I as the researcher am inexperienced with qualitative methods, interviewing and data analysis, and this presented a limitation to the study. This was mitigated by conducting pilot interviews, by appropriate literature review of analysis methods, and by consultation with my supervisors and other colleagues experienced in qualitative, and specifically phenomenographic research.

The interview process was reliant on participants offering candid and open accounts of their viewpoints. This was facilitated in most instances by good existing working relationships between the participants and I, by establishing rapport with those unknown to me, and by reassuring participants that there were no correct answers and expressing a genuine interest in their frank and candid views. This did not seem to be a major concern though, as participants were all eager to offer their views on the topic of discussion.

Although a snowballing sampling technique was used after initial purposive sampling, only three further participants were recruited. Therefore the views expressed by participants may still largely have been influenced by the narrative observed in School and Committee contexts, and may not be widely representative of all clinician educators.

This research focused exclusively on clinician educators' experiences. Whilst this was a deliberate choice, this study does not explore how students themselves develop or understand their vocational habitus.

CHAPTER 4

FINDINGS

Fourteen participants were interviewed from six clinical departments, including nine females and five males. The age range of participants was 36 – 63 years, reflecting a wide range of teaching experience and involvement with students. Eleven participants were involved in teaching and School and Undergraduate Committee activities, while three were involved only in clinical teaching.

The demographic characteristics are presented in Table 4.1:

Table 4.1 Demographics of Participants	
Clinical Department	Gender
Family Medicine	3 F
Internal Medicine	2 F 1 M
Obstetrics & Gynaecology	1 M
Paediatrics	1 F 2 M
Psychiatry	2 F
Surgery	1 F 1 M

Analysis of the data yielded an outcome space consisting of four qualitatively different conceptions of clinical medical students' vocational habitus, with seven dimensions of variation.

The four conceptions were labelled: 'Dependent Spectator', 'Interested Fledgling', 'Independent Contributor' and 'Interdependent Altruist'. The seven dimensions characterising the conceptions were: attitude to learning, communication skills, fortitude, values, professionalism, technical competence and relationship to technology.

During the analysis, there was repeated reporting of practical challenges in the clinical training space by numerous participants. Although these factors were not fundamental to describing the categories, they do provide important context for their interpretation and may reveal a barrier to the progressive development of clinicians' conceptions of

student vocational habitus. These associated factors were: failure to fail, and fitness for purpose of assessments.

The outcome space is summarised in Table 4.2, and explicated more fully below.

The Dependent Spectator

Clinician educators (CEs) experienced the Dependent Spectator as a passive learner who does not take on responsibility for their learning, and behaves as a receiver of knowledge. The student requires much encouragement and direction, and does not show initiative.

“But I guess students, even today still feel that they need to be sat in front of someone and taught.” (Participant 12)

“The school leavers, I find that they demand a lot more spoon-feeding, they demand a lot more nurturing. And that they're unable to take as much responsibility for their learning.” (Participant 6)

“But there are students who literally sit and wait for you to teach them something, they're not prepared to learn on their own.” (Participant 7)

There is a level of immaturity, perhaps influenced to some degree by entry into the program straight from high school, in the case of roughly two thirds of the class. The student has been sheltered or overprotected, and lacks resilience to deal with adversity and the rigours of the academic program. There is also a perceived increased incidence of mental health challenges, for which the student requires extensive support.

“But in general, I would say that the school leavers are not, they don't have the resilience, and they don't have the ability to take seriously, this process of becoming. So when they become interns, I find them particularly problematic and weak.” (Participant 6)

Table 4.2: Outcome Space

Conceptions (Categories of Description)	Dimensions of variation						
	Attitude to learning	Communication skills	Fortitude	Values	Professionalism	Technical competence	Relationship to technology
Dependent Spectator	Passive; requiring lots of direction, encouragement and support, unmotivated. External locus of control.	Poor and ineffective communication	Sheltered, immature. Lack resilience. Multiple mental health and emotional challenges that require extensive support.	Self-interested; focus is on obtaining degree. View Medicine as a job. Rely too much on others and not enough on themselves. Externally focused.	Sometimes unconscious unprofessionalism	Fragmented learning with siloed knowledge bases; deficient clinical skills	Distracted and overwhelmed by volume of information and resources available online; also distracted by social media
Interested Fledgling	Concerned with attaining SP and program requirements; does bare minimum to get by. Values book learning over clinical experience. Sense of entitlement and a consumer mentality.	Overfamiliar, blurring of professional boundaries	Inflexible, low resilience, have difficulty adapting to uncertainty.		Disdain and disregard for hierarchy; display ethical relativism; lack appropriate levels of respect for seniors and/or peers	Have difficulty transferring knowledge to clinical practice, struggle with clinical reasoning. Adequate basic clinical skills.	Prefer to engage with content online rather than hands-on experience in wards or contact time with clinicians.
Independent Contributor	Proactive, take responsibility for their learning. Keen and involved	Respectful and effective communication.	Mature and resilient. Take responsibility and able to manage self-care, get help when needed.	Show humility and gratitude, behave with integrity. Focus is on mastery and excellence. Internally focused.	Respect and reverence for seniors and expertise; punctual	Able to integrate and apply knowledge; Good clinical acumen	Able to find and use online resources appropriately, and navigate content to some degree.
Interdependent Altruist	Mature, self-directed learner; goes above and beyond. Values clinical experience and engages in deliberate practice.		Emotionally and mentally solid, self-regulating and able to cope	Display altruism and prioritise patient needs over their own. View Medicine as a vocation or lifestyle. Focus is on patients; focus is both external and internal.	Understand value and function of hierarchy, and their role in it.	Good clinical reasoning skills	Implement and practice Evidence Based Medicine (EBM)

“Yeah, so I do, I do find them more fragile, overall.” (Participant 5)

“...but when I hear things in the meetings that we have about students not coping and having multiple mental health issues, I just feel that if they are struggling at that level that perhaps they should be in a career that is less emotionally demanding because they need to have that ability to cope.” (Participant 11)

The Dependent Spectator sometimes displays ignorance of unprofessional behaviours, but is generally receptive to corrective feedback. The student has poor communication skills, in that they do not communicate enough or appropriately, and this is in particular reference to communication with seniors and clinicians.

“And methods of communication. I don't expect a WhatsApp message. I mean, I'm not gonna be happy with a WhatsApp message that the registrar shows me or whatever. [...] But there's also appropriate methods of communication, OK. So I don't wanna hear from your friend that you're not here because you're ill. That's not appropriate.” (Participant 8)

“You know, they've gotta go for a tut. They've been doing something and then they don't communicate effectively that they need to attend the tut, and then I get feedback that the students just disappear and nobody knows what's going on.” (Participant 7)

“I think they may not be conscious of certain things that they need to ensure [patient] privacy, but they do well with having been told that” (Participant 7)

In terms of clinical and theoretical acumen, the student has fragmented learning in siloes, with deficiencies in clinical skill.

“Because how we teaching medicine at the moment, [...] is segregated, right? They come in to the bedside and we give them a cardiac tutorial, but the patient isn't just a heart failure, the patient has got kidney disease, the patient has got... So now they have to laterally think, use and draw knowledge from different aspects of their teaching. And

then apply it to this particular patient, which is a real life situation. So that level, [...] is sorely lacking in these students.” (Participant 5)

“Their clinical acumen is terrible. [...] we examine the [final years] and their clinical skills are just not up to scratch.” (Participant 2)

Although technologically savvy, the student can become easily overwhelmed by the volume of information and resources available online, and is often distracted from engagement with the clinical training platform as a result.

“Social media, emails, WhatsApp, cell phones, I find same with myself, right? That this has taken up a lot of time in my day. And that was actually time that I had for something else, playing sports, you know, spending time in the wards. And I find that this is a significant distraction. I find students sitting here on the concourse, interacting with Instagram and everything else, whereas this was never ever the situation with us. [...] However, as the distractions became more easily accessible, WiFi became more available, Internet became available, I found that the students, you know, gradually, were more happy to engage with that information in a platform online rather than to get the benefits of the tutorial that the patient, that they will be able to offer.” (Participant 5)

“So you can’t turn along and compare that to what’s now available with online tutorials, and the access and the huge amount of information that’s available to them. And I think our role as an educator is number one to ascertain that they know where to look for information number one, from a reliable source. And also to try and hone down exactly what is needed of them, because [...] it’s a huge scope” (Participant 14)

The Interested Fledgling

CE’s experienced the Interested Fledgling as having a higher level of competence in respect of theoretical and clinical acumen, although they still experience difficulty with transferring knowledge and prior learning into clinical practice. Clinical reasoning skills are underdeveloped. However, the student does not realize the value of clinical hands-

on experience, and feels the need to be studying theory rather than spending time in the wards and with patients.

“You expect in a [final year] level that they start to integrate their knowledge and their skills. And the story that the patient tells them, and tries to make some sort of assessment that fits the patient, but some of them are still using a tick box approach. Do you have this? Do you have that? And then when you probe further, why did you ask this? What were you thinking? There's just nothing forthcoming.” (Participant 2)

“They're not taught to sort of think things through, they taught to regurgitate things. So for instance, everyone will tell me about the social circumstances of the patient, which is great, which is wonderful. But when it comes to the nuances, you know, of the actual patient integration into all of this, they tend to lose that a little bit.” (Participant 10)

“I think students tend to focus a lot more on the theory and they underestimate the value of the clinical. [...] I think they devalue what you learn on the floor on the ground, you know, on a ward round where you talk about a patient, or a specific clinical sign, they don't view it as particularly valuable. But their focus tends to be more on the [...] reading, going home and reading.” (Participant 7)

Perhaps as a coping mechanism to counter curriculum overload, the student is concerned primarily with meeting program and SP (Satisfactory Performance) requirements. They will do only what is necessary to get by and pass, and seem disinterested in long-term mastery.

“They're very logbook driven so they come with their logbooks and their miniCEX's and they want the minimum logbook requirements without really always taking part in the day-to-day ward activities, but it also is very dependent.” (Participant 2)

“And these kids learn for the degree, they don't learn for the patient.” (Participant 3)

“And for me, what I find is that students are so eager just to pass this exam and get 60% so they don't have to repeat, that they're missing the essence of what it is to be a good clinician at the bedside per se.” (Participant 10)

There is a lack of trust in the student, that ranges from mistrust in their competence to mistrust in their commitment to learning and engagement with the program.

“And so it all comes down to the trust, okay, we don't trust them. ... we don't trust their commitment to learning. ... So there's different levels of trust, there's trust in their professionalism and there's trust in their competence. And of course professionalism is part of their competence, but they can be competent, but not professional.” (Participant 6)

In their communication and interactive style, CEs experienced the Interested Fledgling as being informal, overfamiliar and lacking in appropriate levels of respect.

“But I also think it's the entitlement to you as a person. You know. They'll WhatsApp me at 5:00 on a Friday evening, you know, to discuss student matters, which to me is wholly inappropriate.” (Participant 9)

There is a sense of entitlement and a consumer mentality with regards to teachers and the degree, which manifests in an external locus of control and lack of personal responsibility. This entitlement and consumerism extends so far as to inform students' responses to poor assessment outcomes.

“So I think that they often, their expectations are very unrealistic and self-serving.” (Participant 11)

“But there's more of a sense of, you know. I'm a student and you're the lecturer and it's your job to give me all the information. And if you don't, then it's your fault I didn't do well.” (Participant 7)

“And they're all so strongly hung up on their rights, and their rights are ‘I pay you a fee, therefore you need to give me ... You know, you're a service provider to me.’ That concept really troubles me.” (Participant 6)

“Entitlement, disrespectful. Going higher in hierarchy than they should. And quite frankly, quite demanding.” (Participant 3)

“So yeah, in that sense, I feel like they do feel they are entitled to you as a teacher, as a person.” (Participant 9)

This entitled perspective also manifests as a disdain for the traditional hierarchical structure in medicine, where the student no longer maintains a proper regard for clinicians with both experience and expertise. They overvalue their own input.

“You know, as trainers we have an understanding of how the space works, and we have an appreciation for respect, rank and hierarchy. They just blow that out the water. They speak to me or my colleagues in the same way they would their peers. And it bites, that behaviour bites. Because [...] I was brought up in a space where you never dared to do that. [...] So there's this appreciation like we're friends, and fine you do need that kind of. You do need to be like a little bit friendly with the students, but there should be a little bit of respect that's built into those interactions.” (Participant 3)

“I was so thankful to even just be at medical school. And you know that has changed completely. I don't see that in the students these days. You know, now they are equals to us. And I say that humbly, I don't mean equal in the sense of a person. But you know, there is a degree of respect you get when you, as you become more senior and specialised. And I feel like that has completely gone away with students, you know. It's, they don't have that sort of hunger for the teaching, and respect even for where you are at and they, you know, would question you, question your judgment, question your knowledge, that sort of thing.” (Participant 9)

In common with the Dependent Spectator, the Interested Fledgling has low levels of resilience, is self-interested rather than altruistic, and views being a doctor as ‘just a job’ rather than a vocation and an identity.

“...they have very low tolerance for any kind of distress or uncertainty. And they function best if the environment is very structured and they know exactly what they need to do. They're not that resilient.” (Participant 11)

“Because we have a student that is not resilient in our program. We haven't trained them to have a growth mindset.” (Participant 3)

“So I do think that there's been a change in, and I think it's also been a work ethic change of medical students in all. [...] a lot of the students when I talk to them about where you're going or what you're looking for, rather than a vocation, it's a profession. Um, they're there to try and make money and that's their role.” (Participant 14)

“However, I don't know that most of the students perceive medicine, not as a career choice, but as a lifestyle. And that's the big difference, you know. They see it is something that they doing like accounting or engineering or architecture, where you do it from 8 to 5 hopefully, make a lot of money, and that's it. It's unfortunately not that, you know.” (Participant 5)

“So in the June, July riots last year, okay. The hospitals were overwhelmed. And I said to (a final year student), I said, mobilize your friends, and go to a casualty and just see what you can do to help. There really is a need, okay. He couldn't get people in his class to, he went, but he couldn't get others to do it. [...] But when we've had discussions about students playing a role, we spoke about volunteering during COVID, you know. “Well I don't get paid to do that; it's not my responsibility.” And I found those incredible sentiments, incredible sentiments. So again, you can't generalize to the whole class. But when we asked for volunteers, we got really very few.” (Participant 6)

The Independent Contributor

CEs experienced the Independent Contributor as a mature, proactive student who takes responsibility for their learning. This student is enthusiastic and involved. They are able to integrate and apply knowledge, and have good clinical acumen for their level of training and expertise.

“But generally, they were excited to be part of the program. They participated in most things, they were keen and eager, they wanted to get involved. And I think they really valued that clinical exposure.” (Participant 4)

“So you get some that give this amazing assessment. Like they’ve really thought everything through. They’ve put it down. Their history’s good, their exam’s good.”
(Participant 2)

They prioritise excellence and mastery of competencies rather than simply minimum requirements, and have an internal locus of control which prompts them to be motivated, disciplined and responsible.

“You know there is a certain personality of student, OK, that will do their self-learning as well, in addition to what they’re being taught, in addition to what’s provided on Ulwazi. [...] You know, when we see them at the clinics and we informally discussing cases. So how did you hear about that, you know? And they tell us how they heard about that, or they read or they whatever, which textbook they read and everything, and we get impressed with those particular students.” (Participant 8)

The student holds experts in high regard, and shows humility and professionalism in their approach to patients and the delivery of care.

“I am always impressed and I’m always encouraged by their, the way they interact with patients. The way they get on with staff. They’re just nice kids, these are very respectful, well-spoken kids [...]. They have such a nice manner with their patients.” (Participant 13)

“...so there’s no problem with confidence, there’s no problem for me with the way they present themselves, they professional enough. I see them interact with patients, with colleagues.” (Participant 12)

“They always very respectful when they handle, and deal with me.” (Participant 14)

The Interdependent Altruist

CEs experienced the Interdependent Altruist as a mature, self-directed learner who values clinical experience and engages in deliberate practice, thereby actively attempting to integrate into the medical working environment and community of practice.

They have good clinical reasoning skills and are able to practice Evidence Based Medicine (EBM).

“There's some students are so keen and they go the extra mile and they join the registrars during the day, they really get involved in the everyday working life.”

(Participant 2)

“...it's nice to have them and they're helpful in casualty. They really helpful in casualty because they run around and do things. Drips, plasters, what not. So when the students are there, it's a bonus for the staff.” (Participant 13)

“So I would say mostly they average, but there are a few students and I would say this is about 30% that are exceptional in [final year]. I have really been amazed by some of the students, their level of knowledge sometimes challenges my own knowledge on certain aspects of psychiatry [...]. And so, yeah, I must say that I'm very impressed.”

(Participant 9)

Although not free from emotional or psychosocial stressors, the student has high levels of resilience, is able to balance their academic and other obligations and manage self-care.

“We've had a lot of students over the years who've had family bereavements. We've had students lose parents, we've had students lose siblings, you know, obviously, we cut them as much slack as they need. But we've never had a sort of, they've never completely neglected their work. They've managed to fit it in around, you know, other. Big stories.” (Participant 13)

Like the Independent Contributor, the student engages in respectful and effective communication. They understand the value and function of hierarchy, and reflect on their role within it.

The student has altruistic motives with an ultimate focus on the patient and delivery of good care. They consider the interplay of internal motivation and ethical standards, along with external factors including an often dysfunctional health system.

“...you know, there's a hierarchy here. And if you don't understand the hierarchy, the hierarchy feels very much like a bullying environment. And sometimes it can be, there's a fine line, but hierarchy is not intended to be a bullying environment. It's just that if you understand where you fit in that hierarchy, but that even at the lowest level. [...] it's those kinds of things that I think students don't always understand, that they become part of the health team early on, they become part of health delivery. (Participant 6)

“You, you get some that are that are, you know, excellent and so professional and completely understand, umm, you know the terrain they're working in” (Participant 9)

“I find the, the graduate [entrants] have a much more approach mature approach and that reflects in their professionalism as well. So they are much more cognizant of what their responsibilities are, and they are, they tend to view themselves as not just students... [...] they much more self-directed I find. And they, they require less. I mean you still, they have to be supervised, but they can direct themselves.” (Participant 7)

Associated Factors

Failure to fail was noted as a particular concern amongst the majority of participants. In addition, clinicians offered multiple reasons for why this occurs. These included pressure from students and faculty, an increasing risk of litigation, examiners feeling the need to protect themselves, as a compensatory mechanism for poorly reliable assessments, and a consideration of the financial and emotional impact failing has on the student. The notion of students being passed inappropriately in turn influenced a number of other sentiments around assessments, student competence, and the quality of the graduate leaving the program.

“So I think our failing to fail is a massive issue at Wits.” (Participant 3)

“Some of our exams are too easy, and when now, when we set difficult papers then we can't fail as many of the students as we need to.” (Participant 5)

“I think the students have made it very difficult for us to fail them. So we, we quite nervous about failing students. If they're really bad, there's no question. We will justify it to the nth degree. In someone who's borderline, we would, I think for peace of mind,

we'd rather just push them through, than have to deal with the fallout. Umm, students are very entitled, and in terms of what they should be getting for exams, and if they're not getting what they want to for an exam, it's automatically the examiner's fault. And so sometimes we push people through just because it's easier to." (Participant 11)

The second challenge noted in the clinical training space was the fitness for purpose of the assessment tools and strategy employed. There was an overall sense that while assessments are generally trustworthy for gaining insight into level of clinical skill and theoretical knowledge, or 'technical competency', they are not adequate for assessing attitudinal and professionalism competencies. In deciding whether someone is the right person for the job and suitable for the profession, it is these moral and ethical values and professional behaviours that clinicians value and on which they make judgements. However, these are not captured in our assessments. The assessments are therefore not useful for understanding the better part of vocational habitus, and indeed this is what clinicians seemed to most want to know.

"I think they not able to capture all aspects. I think we do quite well at assessing their theoretical knowledge. I think we assess their capacity to assess a patient. But I'm not sure that we adequately assess some of the important features that are required to make them good at the job. And it's more about those who we think are bad at the job. So I think we manage to capture quite well those students who are good. But I think that the ones that are disinterested, that are not all that professional. I think those are harder to capture, because I think they can slip through by having book learning, where it doesn't really, it's not really of assistance to generate an overall picture." (Participant 11)

"Sometimes the assessment doesn't take into account the students' attitude either, because sometimes the student can give a really good history, exam, assessment. They can answer all your questions and they're going to get a good mark and that's great for them. But their attitude isn't wonderful. So they cocky, or they'll argue with you and there's nowhere in the assessment for you to put that in." (Participant 2)

CHAPTER 5

DISCUSSION

This study shows that clinician educators in various disciplines and across multiple training sites on the Wits platform, understand the vocational habitus of clinical medical students according to four hierarchical conceptions, each illuminated by seven descriptive dimensions. Whilst each category is distinct and represented separately for the purposes of description, the development of habitus is a fluid and multifaceted process that does not necessarily progress in a linear fashion. As such, an individual student may be perceived to embody characteristics from more than one category, and these may change over time.

Two broad patterns are noted across the conceptions: the two narrowest conceptions experience clinical students as ‘not right for the job’ and therefore ‘not able to trust’, whilst the two more complex conceptions experience students as ‘right for the job’ and therefore ‘able to trust’. Entrustability as a concept derives from the literature on workplace-based assessment and entrustable professional activities (EPAs), which employ entrustment decision-making as a form of assessment (ten Cate, 2019). Entrustment decisions are based on judgments of a trainee’s competence, and consider the following key features of the trainee: agency, reliability, integrity, capability, and humility (ten Cate and Chen, 2020). These features are consistent with the desirable dispositions of the medical vocational habitus, and indeed with the characteristics of the Independent Contributor and the Interdependent Altruist.

It is interesting to note that while the focus of discussions seemed to centre predominantly on the characteristics of the Interested Fledgling, when pushed to really consider the proportion of students who fall into this category, clinicians did acknowledge that it is a minority. Estimates varied from between 20% - 30% of students who are truly problematic. Whilst this is still a relatively high number, overall clinicians admitted that most students are “fine”. Negativity bias exists as a well-described phenomenon in which negative information and experience tend to hold greater weight and influence perceptions more strongly than comparable positive information (Ito *et al.*,

1998; Rozin and Royzman, 2001). The influence of this bias can therefore not be discounted. However, the clinicians' misgivings and tendency to generalise students into the narrower conceptions may be explained in part by the associated factors present in the clinical training landscape.

First is the issue of failure to fail. The majority of participants raised this as a concern, offering a variety of reasons for why it occurs, as described in the findings. All of these agree with previously reported barriers to failing underperforming students (Bush *et al.*, 2013; Yepes-rios *et al.*, 2016). Participants also admitted to behaviours such as avoidance and retreatism as described by (Shanahan, van der Vleuten and Schuwirth, 2020), in themselves and their colleagues in response to these barriers. There is a sense that clinicians are much more likely to inappropriately pass someone, than inappropriately fail them. The acknowledged widespread existence of failure to fail, whether real or perceived, has obvious short term implications not only for patient safety, but also for graduating incompetent professionals – those who are “not right for the job”. In the long run, this may result in damage to institutional reputation and loss of confidence in the program's product, i.e. our graduating doctors.

However, there is another potential long-term implication which is less well considered. I propose that as concerns of failure to fail become more widespread and ensconced amongst clinicians, this may foster a broad sense of mistrust in *all* students, not just the weak ones. This could affect relationships between faculty and subsequent students, and negatively impact on students' ability to 'become through training'. It also likely undermines clinicians' perceptions of student vocational habitus, and keeps us stuck at the Interested Fledgling instead of moving on to more complex and 'right for the job/ able to trust' perceptions of students.

In a study at a Pakistani medical school, teachers noted numerous qualities that engender trust in students. Most of these were attitudinal and values related, although a strong academic performance was also cited (Mukhtar *et al.*, 2023). It follows then that if CEs are not confident that students who pass are 'true positives', that trust may be eroded.

Trust plays a pivotal role in the learning environment, especially in the context of CBME (Young and Elnicki, 2019). The teacher-student relationship can have a significant influence on students' engagement in the program, academic performance and professional development (Mukhtar *et al.*, 2023). Appropriate levels of trust in students from CEs provides a scaffold for learning, and promotes a positive learning climate in which students are motivated to participate and integrate into the community of practice (Karp, Hauer and Sheu, 2019; Young and Elnicki, 2019). Conversely, students who are not trusted may be relegated into passive roles, being kept at the periphery of the COP, and this may stunt learning (Karp, Hauer and Sheu, 2019).

The second issue is clinicians' perceptions of the available assessment tools, the assessment strategy employed, and its fitness for purpose. Whilst generally considered adequate for assessing technical competence, there is an overall sense of dissatisfaction that by the end of training, we are not currently able to confidently pronounce a trainee 'right for the job/ able to trust'. This is related to the inadequacy of our assessment tools and strategies to measure those essentials of the desired vocational habitus. It is much easier to assess knowledge and skills than attitudes and professionalism (Westwood and Griffin, 2013, p. 9-10; Ferris and O' Flynn, 2015). This is easily recognised in traditional assessment tools where the focus is very much on technical competence, but even in newer strategies such as EPAs and entrustment decision making, relevant information on the learner's overall abilities are not always easily captured (Young and Elnicki, 2019; Chin, Pack and Cristancho, 2023). In other words, only one dimension of variation of the habitus is related to technical competence. The remaining six are attitudinal and values related, and are less easily assessed. Again, this could have implications for the development of clinicians' perceptions of students along the continuum from less to more trustworthy.

Medical educators have long been concerned that we are not producing the right kind of doctors, and this has been the basis for many attempts at curriculum reform and much of the work on professional identity formation (Brosnan, 2009; Frost and Regehr, 2013). Certainly, this study aligns with other literature expressing such concerns, but for the first

time offers a unique look at the various conceptions clinicians hold about medical student vocational habitus. It expands our understanding not only of clinicians' perceptions and experiences of clinical students, but also of what is desired and considered the ideal, through the descriptive dimensions of the conceptions.

It was not in the scope of this work to try to understand why or how that habitus is formed. However as noted previously, habitus is intricately intertwined with field – for example, the occupational and educational context (Bourdieu, 1998; Colley *et al.*, 2003; Crozier *et al.*, 2008). Given that the values of the field will help shape the medical student vocational habitus, it would be important to analyse the field of medical education in which that habitus is generated (Brosnan, 2009, p. 61). This could include considerations such as medical school admissions practices, curriculum or program characteristics, the hidden curriculum, faculty staffing and promotions criteria (which influence what clinical and other staff will value), and pressure to conduct research and/or focus on clinical service delivery, amongst others. All of these factors will influence how individuals act within the field in order to gain various forms of capital, thereby advancing their position. They help to generate the vocational culture to which students must orient their habitus.

Ultimately, the extent to which the student is able to 'become' the doctor depends both upon the conditions of the vocational field, and upon the habitus of the student (Colley *et al.*, 2003).

Conclusion and Recommendations

Any attempt to improve relationships between CE's and students, and thereby improve the teaching and learning experience for both, necessitates first having an understanding of how educators actually experience and understand those students. Different conceptions exist about clinical medical student vocational habitus, with the narrowest conceptions viewing students as 'not right for the job'. There is dissonance between clinicians' general perceptions of students' habitus, and the idealised expectation. This work showed that CEs tend to generalise students into the narrowest conceptions, and carry an underlying sense of mistrust towards students. This could

negatively impact on vocational culture and students' training, as students are held at the periphery of the community of practice unless they make an active effort to be integrated.

The implications of these findings for practice may include a rethinking of how to effectively integrate students into the COP – how to prepare students better for entry into the wards, as well as how to prepare clinicians for encounters with students. Role modelling is an important feature of the hidden curriculum that undoubtedly impacts on both culture and habitus, and is another potential area that deserves attention.

An explicit consideration of what is truly valued by clinicians in the wards, as implied by the characteristics of the broadest conceptions and the 'A RICH' EPA framework, may also help to bridge the gap between what is desired and the current reality of student behaviours.

Workplace based learning and assessment would be one identifiable way to implement this. However, substantial training for both students and educators is necessary in order for this to be a truly transformative practice, rather than simply another tick box exercise. Faculty development efforts to improve and increase the implementation of WBAs with appropriate feedback, could offer additional and more robust tools to reliably assess the non-technical aspects of the habitus, as well as providing opportunities to shape it. This offers the potential not only to integrate students better into the COP, but also address some of the concerns around assessments.

Additionally, if CE's felt supported and empowered to fail underperforming students, this may increase trust in the assessment process and be extrapolated to increased trust in students who do pass. Even simple awareness of the potential for failure to fail to undermine trust in all students, and therefore negatively impact faculty-student relationships, may encourage CE's to resist the temptation for avoidance and withdrawal.

In terms of policy, it may be necessary to review the MOU agreements that exist between the Department of Health and the University, and consider how these influence the relationships between CEs and students. There has long been an anecdotal tension

between service delivery and teaching, and the focus of CEs will be determined by the pressures they face at the coalface.

From the point of view of educational policy, at present the ownership of assessments resides entirely within the individual clinical departments without any centralised, coordinated or integrated oversight or quality assurance process. This may present an opportunity for greater collaboration between departments to strengthen the assessment process, and allow for thoughtful and innovative assessments to capture elements that are currently not well assessed.

Recommendations for future research would include:

- A repeat of this or a similar study in other medical schools to see how conceptions of medical students compare in other settings
- A more detailed analysis of the field of medical education to explore the values of the field, and how these influence vocational habitus.
- An exploration of vocational culture in this and other medical schools across the country.
- A deeper exploration of clinician educators' perceptions of assessment practices and tools, and their fitness for purpose.
- An exploration of what is valued as learning by students, versus what is valued by clinicians in practice

Finally, the findings of this study provide novel insights into the conceptions of CEs at a South African medical school of the vocational habitus of clinical medical students. It contributes to the body of literature coming out of the global South in the field of medical education. It also provides a thorough overview of the phenomenographic research process.

Although the conceptions relate to medical students, the categories of description are broad enough that they are relatable to students in other clinical fields as well. In addition, they offer insights which are broadly transferable to medical students in other

contexts, both in our own country and globally. This would therefore have relevance for medical educators in other contexts.

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APPENDICES

Appendix 1: Ethics Clearance Certificate



R49 Dr L Bocchino

HUMAN RESEARCH ETHICS COMMITTEE (MEDICAL) CLEARANCE CERTIFICATE NO. M211185

NAME:
(Principal Investigator)

Dr L Bocchino

DEPARTMENT:

Faculty of Health Sciences
CHSE (Centre for Health Science Education)
Medical School
University

PROJECT TITLE:

A phenomenographic study of clinician educators' lived experiences of clinical medical students

DATE CONSIDERED:

2021/11/26

DECISION:

Approved unconditionally

CONDITIONS:

NOTE:

If contact information regarding student study participants is required, please contact the Registrar's office - <Nicoleen.Potgieter@wits.ac.za>

SUPERVISOR:

Ms S Moch

APPROVED BY:


Dr CB Penny, Chairperson, HREC (Medical)

DATE OF APPROVAL:

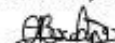
2022/03/17

This Clearance Certificate is valid for 5 years from the date of approval. An extension may be applied for.

DECLARATION OF INVESTIGATORS

To be completed in duplicate and **ONE COPY** returned to the Research Office secretariat on the 3rd floor, Phillip Tobias Building, Parktown, University of the Witwatersrand, Johannesburg.

I/we fully understand the conditions under which I am/we are authorized to carry out the above-mentioned research and I/we undertake to ensure compliance with these conditions. Should any departure be contemplated from the research protocol as approved, I/we undertake to submit details to the Committee. **I agree to submit a yearly progress report.** When a funder requires annual re-certification, the application date will be one year after the date when the study was initially reviewed. In this case, the study was initially reviewed in **November** and therefore reports and re-certification will be due in the month of **November** each year. Unreported changes to the study may invalidate the clearance given by the HREC (Medical).


Signature of Principal Investigator

26/04/2022
Date

Appendix 2: Participant Information Pamphlet



PARTICIPANT INFORMATION SHEET

Project Title: A phenomenographic study of Clinician Educators' lived experiences of clinical medical students

Dear Clinical Educator

My name is Dr Lori Bocchino, and I am a PG student studying towards a Master of Health Science Education degree. I would like to invite you to participate in a research project entitled: "A phenomenographic study of clinician educators' lived experiences of clinical medical students".

This study is a qualitative study based on individual interviews, which seeks to explore how clinician educators experience and perceive clinical medical students in the 5th and 6th years of study (GEMP 3&4). The interview will take approximately 1 hour, and will be audio-recorded and transcribed for analysis. You will also be asked to check the transcription after the interview in order to verify that it matches your intended meanings during our discussion.

The transcribed data from the interviews will be anonymised and stored in a password protected electronic database, to which only the principal investigator will have access.

Your participation is entirely voluntary, and you are free to decline to participate or to withdraw participation at any time. If you decline to participate, this will not negatively affect you in any way. There are no direct benefits or risks to participation in this study.

If you have any questions or concerns about the research, or if you are interested in participating and would like to set up an interview time, please contact me at Loredana.Bocchino@wits.ac.za or call me on 083 259 2232.

You are also welcome to contact my supervisors Ms Shirra Moch or Dr Lizelle Crous.

Kind regards,
Lori Bocchino

Contact details:

Dr Lori Bocchino
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Supervisor
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Appendix 3: Interview Guide

Introduction

In this interview, I would like to talk to you about GEMP 3&4 students in clinical rotations. The ultimate goal is to analyse, based on a number of interviews, how different clinicians experience our medical students in the clinical years. I am curious about your personal views and experiences. There are no right or wrong answers.

Questions

1. You have GEMP 3&4 students attending in your unit/hospital. Can you tell me a little bit about how you find them?

Depending on the participant's answer, follow up questions are asked to clarify specific issues raised or explore ideas in more depth.

2. **If not addressed in Q1, prompt:** How do you find the students with regards to their professional characteristics?

3. **If not addressed in Q1, prompt:** How do you find the students with regards to their clinical and theoretical acumen?

4. What is your experience of assessment?

5. How do you find these students in assessments?

Depending on the participant's answer, follow up questions are asked to clarify specific issues raised or explore ideas in more depth; and to explore the tension between perceptions of students and performance in assessments

6. Do you think our assessments give an accurate reflection of student competence?

Appendix 4:

COREQ Checklist for MHSE research project: A Phenomenographic Study of Clinician Educators' lived experiences of Clinical Medical Students

Domain 1: research team and reflexivity		
<i>Personal characteristics</i>		
1. Interviewer/facilitator	Which author/s conducted the interviews?	Dr Loredana Bocchino conducted all interviews
2. Credentials	What were the researcher's credentials?	MBBCh; FCP(SA); PGDip HSE; SAFRI Fellowship in HSE; pursuing Master's in HSE
3. Occupation	What was their occupation at the time of the study?	Coordinator for GEMP 3&4 in the Unit for Undergraduate Medical Education (UUME), University of the Witwatersrand.
4. Gender	Was the researcher male or female?	Female
5. Experience and training	What experience or training did the researcher have?	LB has completed a PG diploma in Health Science Education, a fellowship in Health Science Education through SAFRI, and course work for a Master's degree (MHSE) which included modules on educational research and qualitative research methodologies, and the scholarship of teaching and learning. However, the researcher had never completed a qualitative research project, nor conducted interviews previously.
<i>Relationship with participants</i>		
6. Relationship established	Was a relationship established prior to study commencement?	Yes. Most study participants were colleagues with whom the researcher has had a good and lengthy working relationship, and interacts with on a regular basis. Those whom the researcher did not know personally, were referred by mutual colleagues.
7. Participant knowledge of the interviewer	What did the participants know about the researcher? <i>e.g. personal goals, reasons for doing the research</i>	Most participants have a working relationship with the researcher and are aware of her duties and responsibilities, and involvement with students. All participants were also provided with an information sheet about the research, detailing the reasons for the research.
8. Interviewer characteristics	What characteristics were reported about the	As the researcher is employed in UUME and is intimately familiar with the

	interviewer/facilitator? <i>e.g. Bias, assumptions, reasons and interests in the research topic</i>	MBBCh program and students, there was the potential for insider bias. Bracketing, reflexive journaling, and regular discussions with supervisors were employed to mitigate this.
Domain 2: study design		
<i>Theoretical framework</i>		
9. Methodological orientation and Theory	What methodological orientation was stated to underpin the study? <i>e.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis</i>	Phenomenography, using the seven steps of analysis as described by Dahlgren and Fallsberg (1991). Bourdieu's theoretical framework of habitus was the lens through which data were interpreted.
<i>Participant selection</i>		
10. Sampling	How were participants selected? <i>e.g. purposive, convenience, consecutive, snowball</i>	Purposive sampling, where undergraduate coordinators from various clinical disciplines were selected. A further snowballing technique was used, whereby those coordinators were asked to invite 1-2 other colleagues within their disciplines who were not involved in any administrative undergraduate duties.
11. Method of approach	How were participants approached? <i>e.g. face-to-face, telephone, mail, email</i>	Purposively selected participants were approached via email; snowball participants were approached by the initial participant, and then put in touch with the researcher (via either email or telephone).
12. Sample size	How many participants were in the study?	Fourteen
13. Non-participation	How many people refused to participate or dropped out? Reasons?	Four. After initially consenting to be interviewed, four clinicians did not respond to further follow-ups.
<i>Setting</i>		
14. Setting of data collection	Where was the data collected? <i>e.g. home, clinic, workplace</i>	Mostly in the workplace. Ten interviews were conducted via MS Teams, four were face to face and either conducted at the Wits Medical School or the participants' clinical site.
15. Presence of nonparticipants	Was anyone else present besides the participants and researchers?	No
16. Description of sample	What are the important characteristics of the sample? <i>e.g. demographic</i>	Age range: 36 – 63 Male/Female: 5 / 9 Interview period: June 2022 – May 2023

	data, date	Clinical departments represented: • Family Medicine • Internal Medicine • Obstetrics & Gynaecology • Paediatrics • Psychiatry • Surgery Range of teaching experience: 5 – 40 years 11 participants were involved in undergraduate administrative duties as well as clinical teaching; 3 were involved in clinical teaching only.
Data collection		
17. Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	The interview guide has been included as an appendix. Yes, the questions were pilot tested.
18. Repeat interviews	Were repeat interviews carried out? If yes, how many?	No
19. Audio/visual recording	Did the research use audio or visual recording to collect the data?	Yes, audio recordings were made of all interviews (either via MS Teams or voice recorder), and then transcribed.
20. Field notes	Were field notes made during and/or after the interview or focus group?	Yes, but mainly for recording contextual details and noting questions for clarification.
21. Duration	What was the duration of the interviews or focus group?	On average 60 minutes; a few ran up to 90 minutes.
22. Data saturation	Was data saturation discussed?	No
23. Transcripts returned	Were transcripts returned to participants for comment and/or correction?	No – this is not standard practice in phenomenography. The underlying ontological assumption is that an individual's experience of a phenomenon is context sensitive, and so may change with changes in time and situation. Therefore, participants may not necessarily experience the same understanding of the phenomenon at the time they are consulted over an interpretation, as they were during the interview.
Domain 3: analysis and findings		
Data analysis		
24. Number of data coders	How many data coders coded the data?	One (LB)
25. Description of the coding tree	Did authors provide a description of the coding tree?	Yes, the codebook is provided as an appendix.

26. Derivation of themes	Were themes identified in advance or derived from the data?	Derived from the data.
27. Software	What software, if applicable, was used to manage the data?	MAXQDA 2022
28. Participant checking	Did participants provide feedback on the findings?	No
<i>Reporting</i>		
29. Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? <i>e.g. participant number</i>	Yes (to both)
30. Data and findings consistent	Was there consistency between the data presented and the findings?	Yes
31. Clarity of major themes	Were major themes clearly presented in the findings?	Yes – the outcome space.
32. Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Yes – associated factors that provide context for the interpretation of the outcome space.

Appendix 5: Codebook

Code System – MAXQDA 2022

Code System	Frequency
Code System	1521
Sense of hierarchy	15
Suitability for the profession	13
Generation gap	13
Overall impressions of students	0
Assertive	7
Diligent	4
Diversity of students (+)	23
"Becoming" a doctor	15
Don't take on their learning (+)	22
Enthusiastic	10
Entitlement	29
Lack of altruistic motives	11
Resilience (mostly lack of)	23
Mature approach to learning	9
Poor work-life balance	2
Quality of students as compared to the past	25
Reluctance vs willingness to receive feedback	9
Spoilt and overprotected	5
Teamwork and collaboration amongst students	8
Technologically savvy	2
Technology as a distraction	13
View patients as a vehicle for their learning	4
Arrogance	5
Inflexible; fixed mindset (+)	13
Student engagement	0
Favour book learning over practical experience	7
Focus on program requirements rather than excellence (+)	20
Good engagement	7
Mark driven	7

Poor engagement	16
Unwillingness to go above and beyond	12
Variable levels of engagement (+)	10
Student expectations	0
Concerns about appearing incompetent	1
Consumer mentality	9
Expectations of guaranteed success	8
Lack of understanding of what's expected of them	7
Clinicians' difficulties with providing feedback	4
Clinicians' challenges with failing students	28
Clinicians expect that weak students will be caught elsewhere	5
Reasons to support failing a student	3
The importance of appropriate and honest feedback	4
Clinicians' expectations of students	0
Differing expectations of competence between disciplines	7
Graded level of ability with seniority (+)	9
Humility and a good attitude	6
Integration into the COP	9
Owning their learning (+)	13
Reflection on learning	2
Mastery of competencies	0
Achieving competencies adequately (+) (+)	34
Deficiencies in basic sciences	11
Deficiencies in level of clinical skill/acumen	20
Failure of educators to adequately prepare students	8
Professional communication as a skill	4
Proportion of students who achieve competencies (majority)	14
Safety vs competence	4
Struggle to transfer knowledge into practice	17
Struggle with clinical reasoning	23
Theoretical knowledge better than clinical acumen	8
Variable achievement of competencies	12
Siloed/fragmented learning	8
Professional characteristics (+)	29

Behaving without integrity	8
Communication and interactions with patients	18
Ignorance of unprofessional behaviours	8
Impact of a dysfunctional health system	3
Lack of respect for peers	4
Poor/inappropriate communication with teachers	25
Proportion of students with poor professionalism	10
Unprofessional	11
Variable levels of professionalism	12
Sense of responsibility	7
Don't recognise/respect the privilege of access to patients	3
Managing concerns around unprofessionalism	3
Continued learning beyond block/undergraduate training	23
Change in required competencies for practice	15
Role modeling, mentorship and the hidden curriculum (+)	40
Mental health issues and emotional distress	22
Impact of COVID on student learning	13
Trustworthiness of students (competence)	0
Able to trust	20
Not able to trust	6
Trustworthiness of students (learning process)	10
Confidence in a good product	8
Lack of confidence in our product (+)	12
'Deficit model" view of students (+)	4
Differentiation between the group and the individual	6
Knowing a student as a person	6
Difficulty adjusting to the clinical space (+) (+)	6
Assessment	0
Adequacy of assessment tools	49
Assessing students over time	17
Assessment as an accurate reflection of student competence	18
Assessments NOT an accurate reflection of student competence	24
Authenticity of assessment modalities	8
Competing assessment priorities	3

Constructive alignment of assessments	9
Defensibility of assessments	9
Educational impact of assessments	5
Examiners' discomfort with rating scales	12
Inter rater variability (+)	18
Language as an obstacle	5
Perform better in low-stakes or untimed assessments (+)	6
Student performance in assessment is generally good	13
Test anxiety negatively impacts students' performance	7
Trustworthiness of assessments	30
WBAs not always a reliable reflection of students abilities	15
Direct observation of professional activities	6
Lack of buy-in from clinicians	7
Robust decision making process	6
Yet/not yet approach vs marks and scores	4
Feedback from other colleagues	6
Perceptions of students skewed by few negative experiences	5
Preparedness for practice beyond primary care	2
Fostering good relationship between clinicians and students	13
Students' mistrust of faculty	5
Offering guidance and direction for learning	26
Program characteristics	0
60% pass mark	11
Admissions criteria	4
Demands on clinician educators	19
Disconnected from 'campus life'	3
Evolving technologies and changing educational needs	14
Focus on assessment rather than learning	3
Focus on core competencies	4
Clinical exposure/time (+)	15
Increasing student numbers	13
Loss of small group teaching	10
Not enough support for intended goals	11
Toxic clinical environment (+)	4

Unmet expectations (+)	5
Progressive educational approaches vs familiar traditional ones	15
Clinicians being equipped to teach appropriately	9
Curriculum planning	10
Lack of recognition and support for educators	3
Variable experience/exposure	8
Institutional reputation (+)	9
Unique nature of Medicine as a profession (+)	15
Alternate career paths for those not coping in medicine	2
Post graduate training concerns	4
Teaching experience (+) (+)	33
Paraphrased Segments	0