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Multiple transitions resulting from remediation and re-entry of first-year undergraduate medical students: Expectations and experiences, emotions and recommendations

Abstract

Transitioning from school to tertiary education can be daunting and overwhelming, and neither students nor institutions are necessarily prepared for these transitions. Some students may even experience multiple transitions in their academic programmes. This paper focuses on the multiple transition stages during the first year of the medical programme at the University of the Free State (UFS) in South Africa. The study aimed to determine first-year undergraduate medical students' perceptions of the multiple transitions involved in the medical programme. The research was designed as an exploratory qualitative study that used focus group discussions to obtain data. Two focus group discussions were held with 17 first-year undergraduates who had undergone multiple transitions in the first year of the medical programme. Multiple transitional stages were investigated: The first was at the start of the first year (January–June), then six months later (July–December), and then back to the start of the first year for the second time (January–June of the following year). The analysis exposed three main themes, namely (1) expectations and experiences, (2) emotions, and (3) recommendations. These themes are explained by focusing on the participants' perceptions and following a linear process for the multiple transition stages. Medical students who went through remediation and re-entered the first-year undergraduate programme reported that, during the initial transition, lecturers and senior students did not provide the 'big picture' regarding expectations in the medical programme. Instead, the shared expectations did not match their 'real' experiences in the programme.

Furthermore, students experienced a range of emotions during the multiple transitions. In conclusion, students are accepted into medical schools such as the UFS but are underprepared for the rigours of the programme and are then exposed to multiple transitions. To ease the students' transition, medical schools must

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consider designing support strategies that will enable these students to manage these transitions by attending to 'soft determinants', such as expectations and experiences, emotions, and contextually applying the students' recommendations in setting up such strategies.

Keywords: Transition, multiple multi-dimensional transitions, medical students, expectations, experiences, emotions

1. Introduction

Transitions are a fact of life and are considered ongoing psychological, social and educational adaptations over time because of changes in context, interpersonal relationships and identity (Jindal-Snape, 2010; Gordon *et al.*, 2017). The transition to tertiary study can be a daunting and often overwhelming experience (Birks *et al.*, 2013; Thalluri, 2016). The first year of study is more complicated than the following years because students may face challenges that are associated with being separated from their families, living with new people and encountering new academic and financial problems that they had not been exposed to in high school (Zhuhra, Wahid & Mustika, 2022). All over the world, these first-year challenges are accompanied by concerns that not all students are prepared to cope with this transition (Thalluri, 2016). The author can argue that many students who have the potential to perform academically are underprepared for the 'traditional forms of education' presently offered by higher education institutions. However, this argument implies that many institutions are at least equally as underprepared for the students they accept as students are to commence their studies (Van Zyl, 2017).

Notably, these transition challenges do not deter students from enrolling for medical studies. It is a long-held dream of many young learners and students to secure admission to a medical school. The students may be academically prepared for the curriculum when they enter medical school. However, not all are equally prepared for the rigours of the curriculum and the demands of their new educational environment and lifestyle (Deepa & Panicker, 2016).

In medical education, transitions are emotionally and socially dynamic processes through which students continually increase their expertise by acquiring new knowledge and skills (Atherley *et al.*, 2016). Transitions are associated with an increased risk of error from the time they are initiated and medical students must be prepared well for their transition into medical studies (Birks *et al.*, 2013).

The nature of and reasons for underperformance of undergraduates in medical schools is not well established or defined. However, it is known that even students with prior good academic performance and learning success could experience learning challenges and struggle at medical school (Kebaetse *et al.*, 2018). Remedial education is usually available for medical students with or without special needs – their defining trait is that they are at a point of underpreparedness, regardless of the reason (Misra, 2015). Remediation in medical education is 'facilitating a correction for trainees who started on the journey toward becoming a physician but have moved off course' (Kalet, Chou & Ellaway, 2017: 419). Remediation for students who are failing because of underpreparedness is an essential part of medical education, and it is a necessary component of education for underperforming medical students (Kalet *et al.*, 2017). Raw *et al.* (2015) report that research concerning the transition into medical programmes has only investigated the state of being a first-year medical student and not the transition process itself.

The multiple and multi-dimensional transitions (MMT) theory of Jindal-Snape and Rienties (2016) states that an individual inhabits multiple 'domains', namely, physical, cultural, psychological and social. Complexities, and one moves between several domains daily, can characterise each domain. When an individual assumes a new role (in this case, as a medical student), the move can trigger transitions in other domains, resulting in multiple transitions (Gordon *et al.*, 2017).

Most studies on this topic (Birks *et al.*, 2013; Thalluri, 2016; Gordon *et al.*, 2017; Zhuhra *et al.*, 2022) report on the usual transition of students from school to university. Very few have considered the multiple transitions and their impact on some academic programmes. Hence, this study aimed to determine the perceptions of first-year undergraduate medical students of the multiple stages of transitions, that is, (1) from high school to enter the medical programme, (2) taking a detour into the remediation programme, and (3) re-entering the medical programme.

2. Context

The School of Clinical Medicine (SoCM) in the Faculty of Health Sciences at the University of the Free State (UFS) offers a five-year undergraduate medical programme. This programme is organised into three phases, which are further subdivided into 10 semesters and culminate in a medical degree. Phases I (Semester 1) and II (Semesters 2–5) are preclinical phases of which the content of the curriculum is arranged in thematic or system-based modules, while Phase III (Semesters 6–10) is devoted to clinical medicine (Jama & Coetser, 2016). The focus of this study was on Phase I (Semester 1).

Most first-year medical students at South African medical schools were admitted straight from high school. Such is the case at the SoCM, UFS, which admits a limited number of students to the first year of the medical programme annually. These students undergo a rigorous selection process based on marks obtained at the matriculation level and the results of the National Benchmark Test (Kridiotis & Swart, 2017).

Students who are successful in all their Phase I (Semester 1, January–June) modules progress to Phase II (Semester 2, July–December). In contrast, unsuccessful students can be admitted into the Learning Development Programme (LDP, July–December), a remedial programme in the second semester.

3. Aim

This study aimed to determine first-year undergraduate medical students' perceptions of the multiple transitions in the medical programme.

4. Method

The research was designed as an exploratory qualitative study that used focus group discussions to obtain data (Stalmeijer *et al.*, 2014). Focus group discussions were used as a technique to allow participants to share their experiences through open and freely fluent discussions (Martín-Badia, *et al.*, 2021).

4.1 Sample size and selection of participants

A judgemental or purposive sampling technique was used to select participants (Botma, *et al.*, 2015) because participants shared the trait of having enrolled for the LDP. Students qualify to enrol for the LDP programme if they fail two of the six modules of the main MBChB

programme in the first semester. The LDP environment offers learning and teaching activities in small groups to reinforce core modules, generic skills and graduate attributes, aiming to promote student success. Students who complete the LDP may repeat the first year of the medical programme (Tlalajoe-Mokhatla, *et al.*, 2022). The researcher invited students to participate in the study by distributing announcements via the class communication group and making in-person announcements during scheduled lessons to recruit the students. Because the LDP has mentorship sessions, students were also approached during their mentorship meetings and were invited to participate in a discussion to reflect on their multiple transitions. The population consisted of 23 students, of whom 17 participated in the study. Of the 17 participants, 10 were men and 7 were women, with a mean age of 19. No limitations were set on gender, ethnicity, home language, living conditions, birth year and relationship status (Engelbrecht *et al.*, 2020). In total, 15 of the 17 participants had entered university straight from high school, and the other two had, after school, enrolled at a university to study for another degree. Informed consent was received from all participants, and the project was carried out under the university's ECUS NR 112/2014 ethics clearance. All 17 students volunteered to participate in focus group discussions planned around the participants' schedules.

4.2 Focus group discussion question

The focus group discussions of this study asked an open-ended question: *How did you experience the multiple transitions during your first year in the medical programme?* This question was used to guide the discussion and for further probing. The multiple transitional stages that were investigated are: Stage 1, the start of the first year (January–June 2016); Stage 2, six months later in the LDP (July–December 2016); and Stage 3, back to the start of the first year, for the second time (January–June 2017).

The rationale for using focus groups was to gather information from different participants' points of view. In-depth conversational exchanges between participants and the facilitator offered opportunities to hear what participants thought and the details about the circumstances, causing participants to experience multiple transitions through which meaning was constructed. Moreover, focus groups are particularly appropriate for exploratory research such as this study (Stalmeijer, *et al.*, 2014).

4.3 Focus group discussions

A focus group is a type of in-depth interview involving a group with similar backgrounds or experiences to discuss a specific topic of interest. The discussions are used to generate information on collective views, and the meanings that lie behind those views. Moreover, these discussions are useful in generating a rich understanding of participants' experiences and beliefs (Mishra, 2016; Tawana & Romm, 2023).

This study conducted two separate discussions. The researcher, a skilled lifelong learning skills facilitator with excellent communication skills and, at the time, a PhD candidate, led the discussions. The first focus group discussion was held in October 2017 and accommodated all 17 participants; it lasted 90 minutes. This discussion was explorative because of the students' sensitivity and because the researcher who conducted the FGD was a former lecturer of the students. Field notes were taken during this discussion as the only way of recording the discussion.

The second discussion took place in November 2017 and accommodated all 17 participants; it lasted 60 minutes. This discussion started as a reflection on the first focus group discussion, and the intention was to do further probing. Discussions were guided by

themes identified during the first discussion. Students were more open and relaxed and provided more details during the second focus group discussion, which was audio-recorded after participants had consented. Transcripts of the discussions were made available to all the participants to confirm their accuracy.

4.4 Data analysis

Data were analysed using a thematic framework analysis, which is a structured inductive analytical approach involving a five-stage process, namely (1) Familiarisation: The first author read and re-read the field notes and listened to the recording produced of the discussion to familiarise herself with the content; (2) Identifying a thematic framework: The two authors analysed a subset of data separately to identify key themes, before coming together to agree on key cross-sectional and longitudinal themes to develop a coding framework; (3) Indexing: The coding framework was used by the first author to code the data; (4) Charting: The first author charted the data according to themes and subthemes; and (5) Mapping and interpretation: Both authors examined the data using the MMT theory as a guide (Gordon *et al.*, 2017). The participants' views in each focus group were considered separately and then compared to those of the other participants in the group to identify similar themes and ensure that all codes were accounted for. All the codes and themes identified were confirmed (Gray *et al.*, 2019).

The process of analysis and synthesis of the information gathered in the two focus group discussions led to the identification of three main themes, namely (1) expectations and experiences, (2) emotions, and (3) recommendations. In the following discussion, these themes will be explained with a focus on the participants' perceptions by following the process of the multiple transition stages in a linear way. The themes are structured further to represent the process of growth through students' expectations and experiences, their emotions and their insight as provided in the recommendations they made, from the initial transition stage up until the last transition stage of the first academic semester of the medical programme.

5. Results of the focus group discussions

Theme 1: Expectations and experiences

In an academic context, expectations and experiences refer to the anticipated academic, social and institutional demands as lived realities that students must deal with when transitioning from one education phase to another. These expectations and experiences may originate from various stakeholders, including students, educators, institutions and parents.

Stage 1 of transition: In this stage, the participants had transitioned from high school into the medical education environment. Most participants alluded to the first year of a university being different from high school (*cf.* quotes #1 to #8).

- #1. *You do not study for marks, for instance, an 80% on a test; however, you study to treat patients, meaning you study to know 80–100% of all your work.*
- #2. *There is no spoon-feeding; you are on your own, though help is available, but you are mostly on your own.*
- #3. *At varsity, you are supposed to correlate different subjects to enable thinking. We were immediately thrown into the deep end in *Tissues of the Body* as soon as the academic work commenced.*

- #4. *The Baccalaureus Scientiae (BSc) programme has an intermediate phase, more like a thirteenth-grade.*
- #5. *The books gave us an anxiety attack. It showed just how much work there was to be done.*
- #6. *Lecturers are a big thing and scary. First-years do not see lecturers as human, they are unapproachable.*
- #7. *MBChB I modules had no comprehensive feeling, bigger picture. Lecturers communicated an integrated module assessment between the Structure and Development of the Body and Tissues of the Body modules to identify at-risk students as early as possible. However, no actions were implemented after writing the assessment to help the failed students.*
- #8. *There are mean people around the faculty; everybody just passes everybody in the faculty. Nobody greets anybody. Even senior students are unapproachable.*

Stage 2 of transition: In this stage, the participants had enrolled for the remedial programme known as the LDP (July–December) after they had been unsuccessful at completing their first academic semester (January–June). The participants expressed great relief regarding this detour, which they saw as a second chance to pursue the dream of becoming medical doctors (*cf.* quotes #9 to #12).

- #9. *It was the 'it' for me, it all made sense*
- #10. *The remedial programme modules were more organised and made more sense.*
- #11. *The letter-to-self, helped a lot.*
- #12. *I felt more welcomed by my classmates in the LDP as compared to my previous class*

Stage 3 of transition: During this stage, all participants who had completed the remedial programme could apply for readmission to the main medical programme, thus transitioning back into the first year for the second time. Participants expressed a sense of familiarity with the programme expectations, which enabled them to take charge of their outcomes at the end of their first year of study (*cf.* quote #13).

- #13. *This time round, we knew what to expect, and this made it easier to manage the medical first-year programme*

Theme 2: Emotions

As students navigated their transitions, they anticipated experiencing certain emotions and encountering real-life experiences that could align with or differ from their expectations. Emotions experienced during *the Stage 1 transition* were primarily negative (*cf.* quotes #14 to #18)

- #14. *An emotional journey filled with confusion, feeling lost, overwhelmed, alone, daunting*
- #15. *Transitioning into medicine was totally different as compared to when I transitioned into BSc ... you get here, then you hear a lot of rumours about how difficult the course is ... you tell yourself well, I will work hard, but then comes your first fail, then you be like well it was said to be difficult, making one passive to work harder*
- #16. *I constantly felt inferior, not having the courage to approach the lecturers to ask for help*

#17. *The work was fast-tracked. I constantly fell behind with the workload, which made matters worse, especially during assessments ... you keep telling yourself, I will improve; I will do better. But you never get to recover, and then things quickly go downhill*

#18. *The unwelcoming atmosphere in the faculty did not help matters; I am a very shy person. I was hoping that someone would come and take my hand before I drowned.*

In Stages 2 and 3 of the transition, participants did not refer to the emotions they experienced as much as they did in the Stage 1 transition.

Theme 3: Recommendations

Understanding students' expectations, experiences and emotions through multiple transitions is essential for designing preparatory programmes to equip students with transferrable skills for higher education success. Thus, it is important to note the recommendations proposed by the students.

Recommendations that were proposed were explicitly directed at *Stage 1 of transition* in attempts to be proactive in dealing with the challenges participants had experienced during this transition (cf. quotes #19 to #20)

#19(a). *A boot camp can create a platform that will allow all stakeholders involved in Phase 1 to participate in socially related activities like team building to bridge the isolation among students and meet the lecturers.*

#19(b). *Invite second-year senior students to give talks to the first-years about transitioning from high school into medical studies. I think I would have done better.*

#19(c). *lecturers can also use this platform to give orientation on their module's 'snapshot' in a casual manner and even come dressed in casual clothes such as jeans, t-shirts and sneakers. Lecturers should bring across the reality of the workload and give a 'bigger picture' of the subjects, specifically on the 'HOW', how to study the content, and how the content will be evaluated. As well, give students mock multiple-choice questions [MCQs] on general medical terms relating to their specific modules and give feedback on the MCQs*

#19(d). *Mentors could also be introduced at this point, mentors being the seniors within the SoCM throughout the medical curriculum; one way to do this is to use t-shirts that read 'Mentor' to identify them in case a first-year needs help. A 'find a t-shirt' initiative.*

#20. *Structuring of content: Soft skills development themes such as time management must be introduced way before academic starts, and the theme on medical terminology, also from the soft skill development, must be integrated within the academic content it must be made a first-year module and not only a two-hour session*

6. Discussion

According to the findings, more male (10) than female (7) students underperformed and experienced multiple transitions, which is consistent with research (Ullah & Ullah, 2019). Although most of the participants were male, it seems as if the expectations, experiences and emotions of the two genders were the same. The focus of this paper concerning transition was on the various encounters associated with multiple transitions, which resulted from being remediated and re-entering the medical programme. The study investigated three main themes identified, namely expectations and experiences, emotions and recommendations,

which gave insight into the multiple transitions that occurred in the first year of the medical programme for medical students at the UFS in South Africa. The following section provides a summary and discussion of findings related to the literature.

Theme 1: Expectations and experiences

Stage 1 of transition

Students realised almost immediately that medical school presented very different expectations and experiences about navigating academic workload, assessment preparation, faculty culture and experiences of lecturers and senior students than high school. The factors participants mentioned indicate that academic failure was caused by academic and non-academic aspects (Gray *et al.*, 2019; Kebaetse *et al.*, 2018). Of the 17 participants, two, aged 20 and 21, had been exposed to studying for a BSc degree before enrolling for medical studies. These students identified themselves as a separate group within the participation cohort, and their unique experience of entering a medical programme several years after high school made them feel even more underprepared. They expressed that they had been accustomed to a slow-paced programme – considering it a 13th school year less challenging than medicine. This shows that students entered the medical programme with little knowledge of what to expect (Kebaetse *et al.*, 2018). Participants reported being unprepared for the academic workload and described the experience as being thrown into the deep end.

Furthermore, they did not know what to expect from the first-year modules, as they struggled to see the ‘big picture’ of their expectations in the programme. The pressure caused by integrated assessments, which were assigned in attempts to determine which students were at risk, exacerbated their feelings of anxiety. The participants’ perceptions of an unexpected and overwhelming academic workload are consistent with the findings of other studies (Atherley *et al.*, 2016; Deepa & Panicker, 2016; Thalluri, 2016). Like the findings of Gordon *et al.* (2017) regarding interpersonal relations, the students expressed frustration with the faculty culture and found both lecturers and senior students unapproachable. Moreover, students experienced ‘multiple expected and unexpected, positive and negative’ personal and academic-related transitions as they progressed (Gordon *et al.*, 2017:10).

Stage 2 of transition

In this stage, students who struggled academically received remediation through the LDP. Because their academic failure had triggered this support and they were considered to be students who were at risk, this remediation approach is described as deficit reactive by Kebaetse *et al.* (2018) and Kim *et al.* (2018). Deficit reactive means that support focuses on remediation, which generally includes testing, intervention and retesting, to enable students to pass the following assessment. Sadly, this means that students risk being labelled, which may lead to stigma and the potential to ignore the core reasons for failure, thus leading to repeated failure on the programme, even after remediation (Kebaetse *et al.*, 2018). However, contrary to the characteristics of a deficit reactive remediation process, the participants in this study reacted positively regarding their experiences in the remedial programme, thus highlighting a rather proactive developmental approach involving lifelong learning to acquire skills (Gray *et al.*, 2019).

Stage 3 of transition

Stage 3 was the transition from failing the first academic year to the remedial programme and getting reaccepted into the main programme. It can be seen that, despite students experiencing learning challenges, most students can succeed again if they receive appropriate and effective learning support (Kebaetse *et al.*, 2018).

Theme 2: Emotions

Stage 1 of transition

Participants disclosed emotional responses that involved strong adverse reactions to their unsuccessful transition to *Stage 1 of transition*. Emotions such as feeling confused, lost, alone, drowning, inferior, fast-tracked, daunted and overwhelmed were associated with failing to see the big picture of the first-year medical programme. They experienced poor communication of expectations and insufficient detailing of module content. Similar findings are reported by Koch *et al.* (2014), who report that third-year medical students describe care-transition incidents and reveal high rates of strongly negative emotions and communication gaps that may adversely affect patient care. Jindal-Snape (2010) suggest that students need emotional intelligence during multiple transitions.

Theme 3: Recommendations

Stage 1 of transition

A literature review by Kebaetse *et al.* (2018) on learning support interventions for first-year medical students reveals a need for research to empirically understand the learning challenges that must be addressed. The recommendations made by the students in this study speak to this call for empirical understanding. However, the findings provide a potentially contextualised proactive-developmental approach to the transition challenges identified during *Stage 1 of transition*. The participants recommended boot camp interventions and better first-year medical programme content structuring. Most of the recommendations participants made focused on facilitating personal and professional growth and should be introduced as early as possible for all students, irrespective of academic performance, personal characteristics or life events. This approach can potentially reduce the long-standing issues that prevent students from seeking help and cause them to experience stigma. A multi-dimensional, comprehensive approach is required to facilitate the multiple domains of transition (Jindal-Snape & Rienties, 2016).

7. Conclusion

In conclusion, this study investigated how first-year medical students experienced multiple transitions during their first year in a medical programme. The students highlighted elements were mostly 'soft determinants', such as their expectations, experiences and emotions. They shared recommendations that could help to ease the transitions. The study emphasises the importance of ensuring that faculty is aware of medical students' unpreparedness for the multiple transitions that occur in medical studies. Thus, students' unpreparedness, which exposes them to multiple transitions, should be addressed long before they start their academic lessons and continue throughout their studies. The study results indicate the significance of social integration and relationships in the faculty and with lecturers. Therefore, medical schools, such as the UFS, should consider medical students' multiple transitions in their first year and design strategies to ease these transitions.

8. Limitations

Considering the back-to-back class attendance required and the limited availability of students, the researchers had no choice but to seize the opportunity provided by the entire group being available around the same time. Unfortunately, that resulted in one large focus group being facilitated in an attempt to collect data.

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