

**THE EXPERIENCES OF FIRST-TIME REGISTERED CHIROPRACTIC
STUDENTS AT A SOUTH AFRICAN UNIVERSITY OF TECHNOLOGY
REGARDING THEIR TRANSITION FROM HIGH SCHOOL TO UNIVERSITY**

By

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I do hereby declare that this dissertation is representative of my own work in both
conception and execution

(Except where acknowledgements indicate to the contrary).

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DEDICATION

“Heaven lies beneath the feet of mothers” – Prophet Muhammad (S.A.W)

Alhamdulillah.

I dedicate this dissertation to my mother, Nisha Boosi, who did it all, to give me everything, that made me, me.

I am because you are.

I also dedicate this dissertation to my late grandfather, who guided me along my pursuit of knowledge. You will always be my champion.

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ABSTRACT

BACKGROUND

There has been a vast amount of literature that has contributed to the topic of transition regarding first-year university students. Much of these studies address the challenges that university students face in their first-year, but few discuss the actual experience that students may face entering university for the very first time. In the realm of chiropractic education there has been abundant literature on the mental health of chiropractic students, as well as the curriculum and the accreditation of chiropractic programmes. Interestingly, unlike other healthcare professional programmes, literature regarding the transition of the chiropractic student into the course, from secondary school, and how that experience affects the attrition rate of the programme is scarce. This study recorded the experiences of first-time registered chiropractic students at a South African university of technology regarding their transition from high school to university.

AIM

The aim of this study was to explore and understand the experiences of first-time registered chiropractic students at a university of technology.

METHOD

A qualitative, exploratory, descriptive approach was utilised for this research. A purposive sample of 17 first time registered, first-year chiropractic students was interviewed. Their experience regarding their transition from high school to university was obtained through semi-structured interviews. A total of five key questions, each relating to a specific aspect of the transition process, were used to stimulate a discussion. The data were recorded electronically and thereafter transcribed. Thematic analysis was used to interpret the data.

RESULTS

The participants indicated that, for the most part, their experience regarding their transition into first year was pleasurable but that it was not devoid of its own set of challenges. The participants indicated difficulties regarding certain modules, the volume of the workload, as well as challenges that were congruent with the literature

regarding the obstacle that South African students face in general. The participants highlighted developing relationships with their peers and having a successful orientation as positive factors in their transition experience. The SARS-CoV-2 pandemic had an additional influence on the results of this study and its effect was particularly noted by the participants.

CONCLUSION

This is the first South African study to document the experiences of first time registered first-year chiropractic students regarding their transition to university. These experiences were based on a variety of external and internal factors in relation to the university, course content and participants' homelife environments. While participants acknowledged and appreciated the positive factors in their experience in their first-year, they also provided constructive feedback on matters needing improvement to enhance the overall first-year experience in the chiropractic course at the university. For many participants, the mismatch between their prior expectations of university and their actual experience at university presented them with most of their challenges. It is recommended that the findings of this study be utilised by educational institutions and stakeholders within chiropractic education to enhance chiropractic education in South Africa and ensure that attrition rates for this course are lowered.

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LIST OF ABBREVIATIONS

DUT	–	Durban University of Technology
Vs	–	versus
NSFAS	–	National Student Financial Aid Scheme
IEB	–	Independent Examination Board
NSC	–	National Senior Certificate

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CHAPTER ONE

OVERVIEW OF THE STUDY

1.1 INTRODUCTION

According to the literature, “few studies have been conducted on the African continent regarding the transition from high school to university” (Chidzonga 2014: 1-2). The studies conducted indicated that “the transition from high school to university is fraught with challenges and that there is a need to appreciate them from students’ perspectives” (Mittelmeier et al. 2019; van Breda 2017; Benner, Boyle and Bakhtiari 2017).

“The transition from high school to the university culture is often complex and difficult, with challenges for all those making this transition” (De Clercq, Galand and Frenay 2017; Briggs, Clark and Hall 2012; Yam 2010). Examples of such challenges include student expectation, student identity, student adjustment to the new workload, newfound independence, transition from adolescence to adulthood, time management as well as homesickness and loneliness. Some challenges that are unique to South Africa include student diversity, language proficiency, first-generation students, financial difficulties, transportation or living constraints and inadequate academic preparation from secondary school (Setlalentoa 2013: 349-352).

The chiropractic course is a demanding one and it requires students to be academically inclined and physically fit. The chiropractic course at a university of technology in South Africa is a minimum of five years duration (Department of chiropractic 2020). Before students are accepted into the chiropractic programme, they are put through a screening process. The educational programmes for chiropractic students are comparable to that of other medical programmes (Meckamalil *et al.* 2020). The hours required to fulfil the demands of the chiropractic course involve the student spending more than 4 200 hours over four years in their educational journey (Kingsinger, Puhl and Reinhart 2011: 143).

Meckamalil *et al.* (2020) further indicate that students in professional healthcare programmes have a higher prevalence of psychological distress as compared to the

general population of their peers in the similar age group. “The chiropractic course is often one where significant psychological strain is seen in students trying to complete a rigorous academic and clinical programme” (Rubin 2008: 13).

The year 2020 brought with it unique challenges for the post-school education and training sector. The World Health Organization (WHO) reported “a cluster of pneumonia cases confirmed as ‘Severe Acute Respiratory Syndrome Coronavirus 2’ (SARS-CoV-2), as the causative agent of what is now known as ‘Coronavirus Disease 2019’ (SARS-COV-2) or COVID-19”. This paper will use the term SARS-COV-2. The virus spread to more than 100 countries, including South Africa (South African Department of Health 2020).

“Higher education institutions, as part of their lockdown measures, had to have recourse to the use of information and communications technology (ICT) to deliver their programmes online, at a distance, to their enrolled students” (Mohamedbhai 2020). The term lockdown is used for “a set of measures aimed at reducing transmission of COVID-19 that are mandatory, applied indiscriminately to a general population and involve some restrictions on the established pattern of social and economic life”. The suspension of contact classes, while manageable for some students, has posed great difficulty for others. Many students were unaccustomed to this new form of online learning and for first-year students, this compounded challenges to their transition into tertiary education.

Tinto (2008) suggests that “institutes of higher education should not blame the students for their poor understanding of university expectations, but instead should adopt a more student-centred and supportive approach that will encourage their social and academic integration right from their first-year” (Chidzonga 2014). Therefore, this study endeavoured to explore and understand the experiences of first-time registered chiropractic students, in the year 2020, at a university of technology, with regards to their transition, to identify factors that could aid that transition successfully.

1.2 PROBLEM STATEMENT

It is unknown whether the chiropractic students at a university of technology in South Africa experience the same set of challenges as students in Europe, North America or Australia, with regards to their transition into university. Research into students’

transition to university indicate that “experiences during the first semester at university may be critical in students’ decisions to continue or discontinue studies” (Kantanis 2000). In South Africa, approximately 30% of students drop out of university in their first-year and 55% of all students never graduate (Wilson-Strydom 2015: 2).

Merely being eligible, or meeting the requirements, and therefore being admitted into a particular course does not necessarily mean that the student is ready to study that course. From the literature, it is well documented that there is a gap between high school and university that students need to overcome in order to be successful. “The gap between school and university in terms of content knowledge (and to some extent learning skills) is often noted” (Wilson-Strydom 2015:3).

A transition period, however, is not a one-dimensional obstacle but rather it encompasses a wide range of components that need to all be recognised and overcome for a student to transition into university successfully (Wilson-Strydom 2015). Therefore, it is important to explore and understand the experiences of first-time registered chiropractic students at a university of technology to ensure successful transition into university.

1.3 AIM OF THE STUDY

The aim of this study was to explore and understand the experiences of first-time registered chiropractic students at a university of technology.

1.4 RESEARCH QUESTIONS

1. Describe how your high school studies prepared you for university.
2. Mention the factors that were of concern to you during your application and acceptance into university.
3. Describe your experiences regarding your transition from high school to university.
4. What challenges have you encountered when you entered university?

5. Upon entry into university, what aspects did you feel were of importance to you, such as academic demands, relationships with your lecturers and peers and social demands?

1.5 RATIONALE

“The early experiences of university students have a profound impact on their approach to academic studies and social life at a tertiary level” (Tinto 1989). The ‘freshman’ year is a challenging transition that is accompanied by many changes in students’ academic environments (De Clercq, Galand and Frenay 2016). A freshman is defined as a student in the first year of high school, college, or university. According to Dalziel (2000: 1), during the transition process, students experience at least some difficulties from high school to university (Dalziel 2000: 1). In recent research by Mittelmeier *et al.* (2019), it was stated that “early experiences in higher education, such as during the first year of study, are particularly influential on students’ success and attrition” Mittelmeier *et al.* (2019).

Starting university may be the first time a student has lived away from home, looked after themselves and been faced with so many new people and opportunities (Maunder *et al.* 2012: 1-2). According to the *Journal of Student Affairs of Africa* (Moja, Luescher and Schreiber 2016: 1), the experience of a first-year university student is crucial to their academic success and, for this reason, there has been a rise in the focus on student affairs and higher education of first-year experiences. “Adapting to university life not only involves academic transitions in terms of new educational demands, but also involves personal, social and lifestyle transitions” (Hussey and Smith: 2010).

Students studying chiropractic at South African universities face the challenges of studying in a South African context, as well as the intense academic structure that accompanies chiropractic. This means that in comparison to students studying the chiropractic course in first world countries, South African chiropractic students are additionally subjected to factors such as language proficiency, child-headed families, no funding, as well as accommodation and transportation issues (Setlalentoa: 2013). All of these factors further compound transitional difficulties. Globally, there has been

limited literature exploring the experiences that chiropractic students experience while transitioning into the first-year of the course.

From the research done globally on the general transition of students to university, there has been little consideration given to the students' perception of what factors contribute to a successful transition from high school to university (Bowles *et al.* 2011: 61-71). However, a study conducted by Rubin (2008) at a university counselling centre, with a unique population of chiropractic students compared with the normative college population, indicated the following emotional challenges in chiropractic students: emotional issues, relationship issues and alcohol and drug issues as contributing to the negative transition of students to university in the first-year. In addition to this, SARS-COV-2 has spread to more than 100 countries, including South Africa (South African Department of Health 2020).

South African higher education institutions, as part of their lockdown measures, had to have "recourse to the use of information and communications technology (ICT) to deliver their programmes online at a distance to their enrolled students" (Mohamedbhai 2020). The suspension of contact classes, while manageable for some students, posed great difficulty for others. Many students are unaccustomed to the new form of online learning and for first-year students, this compounded challenges to their transition into tertiary education.

Students as the "consumers" of chiropractic education are valuable assets in providing feedback for curriculum revision and improvement of the learning environment (Palmgreen and Chandratilake 2011: 161). In a study by Moodley and Singh (2015), on addressing student dropout rates at South African universities, "many of the participants interviewed displayed the inability to integrate academically". For this reason, Bitzer (2009:226) advises that "the successful academic and social integration of students in higher education remains important regarding study commitment, study success and preventing early student departure". Gaining more insight into factors that may contribute to the successful transition of a chiropractic student from high school to university life in South Africa may help ensure that a greater percentage of qualified chiropractors enter the healthcare sector to serve the South African community. "Understanding what factors enable successful transition informs and provides insights into student experiences, expectations, and outcomes" (Bowles *et al.* 2011: 62).

1.6 OVERVIEW OF THE CHAPTERS

- Chapter 1: The introduction, research problem and aim of this study, as well as the rationale behind the study and the research questions are discussed.
- Chapter 2: The relevant literature review pertaining to the topic is extensively described in this chapter.
- Chapter 3: The research methodology, the data collection, as well as data analysis, will be presented in this chapter. The ethical principles followed in this study are also discussed in this chapter.
- Chapter 4: The data analysis for this dissertation is presented in this chapter complying with qualitative research.
- Chapter 5: The results of the study are discussed and compared to previous studies that are relevant to this dissertation.
- Chapter 6: The overall conclusions and limitations of the study are presented.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

According to O'Shea (2013: 135-158), a transition is defined as "a movement that involves revision of identity and agentic affiliations". Educational perspectives on transition are further defined by Crafter and Maunder (2012: 10-18) to be a "change brought about or influenced by some external or social situation, which has the power to shift our understandings of ourselves". According to Meehan and Howells (2019), transitioning into higher education is considered to be a process rather than a singular event. It could then be said that transition is not just dependent on an individual in isolation but rather encompasses their environment, socio-economic, and socio-cultural levels. Transition from one environment to the other involves capturing students' experiences of changing between the two environments.

2.1.1 Transition in an Educational Context

Transition is different from change. "Change is external and visible, whereas transition is internal and less visible; it is the process an individual goes through mentally when facing a big life change" (Griffin 2014:1). "Experiences in the early weeks of university life are important in influencing students' decisions to withdraw from their course" (Wilcox, Winn and Fyvie-Gauld 2005: 707-722). "The transition from high school to university marks a distinct step in students' academic careers" (Mutch 2005: 143-145).

2.1.2 Challenges and Considerations of Transition in a University Context

"Transition to university life requires that students learn to cope with new work and a different interpersonal environment, which imposes many intellectual, social, and instrumental demands" (Wintre *et al.* 2011). Some demands include "homesickness, financial problems, different methods of instructions, increased workload, difficulty fitting in with the other students and the new social environment" (Tom 2015: 19). According to Bowles *et al.* (2013), "a range of external pressures make it difficult for students to adjust to university life, including the need to earn money, the inability to integrate socially and the wrong choice of subject or degree".

Research on the transition from high school to university education focuses on two main areas: entry into university and completion of studies at university (Bowles *et al.* 2013). “A rich and smooth transition to university will avoid student dissatisfaction with their academic experience, and thereby, reducing poor performance and ultimately withdrawals from university” (Chidzonga 2014: 6).

2.2 THE EDUCATION SYSTEM IN SOUTH AFRICA

There has been a drastic change in the education system of South Africa over the last 25 years. The 1990s saw the most significant change, with the abolition of the apartheid system and its separation of education, along racial divides for each of the different population groups in South Africa. “One of the most significant challenges facing the South African educational structure is the ongoing quest for the improvement in the quality of education” (Mlachila and Moeletsi 2019). The education system in South Africa comprises of both private or independent institutions and government school education institutions as a result of this, there is great disparity between the quality of education received by students that attend each of these institutions. Although quality of education at these intuitions may vary, the structure of the education system remains the same.

2.2.1 Structure of the South African Education System

The South African Department of Basic Education (DBE) oversees education in both government and private schools. The DBE shares a concurrent role with the provincial departments for basic schooling but it is the responsibility of each provincial department to finance and manage its schools directly. Schooling in South Africa is compulsory for scholars aged seven to 16 years. Schooling is divided into elementary and secondary education, which is then followed with higher education and training.

2.2.1.1 The Primary Phase

The primary education phase in South Africa has a duration of seven years and requires the completion of grades R through to grade six. This phase is further divided into two parts, the foundation phase and intermediate phase. Primary school begins at six years of age. The foundation phase starts at grade R through to grade three, the intermediate phase includes grades four to six. “There are no national examinations

and there is no formal qualification awarded at the end of the primary school cycle". (Macha and Kadakia 2017)

2.2.1.2 The Secondary Phase

The secondary education phase in South Africa is six years in duration (grades seven to 12) and is divided into two phases: lower and upper secondary school. Lower secondary, also known as general education and training (GET), lasts from grade seven to grade nine and is mandatory. Students typically begin lower secondary at age 12 or 13 years. Upper secondary, also known as further education and training (FET), lasts from grade 10 to grade 12 and is not compulsory. Entry into this phase requires an official record of completion of grade nine. At the start of upper secondary school in grade 10, students are streamed into one of two tracks: academic (general) or technical. Students who select the technical track are enrolled in a technical secondary school. Students are advised to select subjects related to areas of study that they might be interested in pursuing in higher education.

Graduation depends on performance on a final examination, the National Senior Certificate, or matric, at the end of grade 12. "Those who earn a second level or higher certificate, but who do not score high enough to continue into diploma or degree-granting institutions of higher education (tertiary education), may enrol in a bridge year at an accredited institution" (Macha and Kadakia 2017).

2.2.1.3 The Higher Education Phase

The Department of Higher Education and Training (DHET) is responsible for providing integrated post-school education and training to South African citizens to aid the improvement of quality of life for all. "The DHET is striving to create a South Africa that can provide decent opportunities for youth and adults through education and skills development initiatives" (DHET 2020).

In South Africa, there are three main types of higher education institutions: colleges, technikon and university. The difference between these institutions is the level of education that they offer to the student. Technical and Vocational Education and Training (TVET) colleges aim to "equip students with academic knowledge and practical experience so they will be prepared for the workplace. Courses offered at TVET colleges range from only a few months to three years" (SACO 2019). Universities of technology offer career-oriented certificate and diploma qualifications.

Some also offer degrees. Students start with theoretical work, followed by practical training. “The entrance requirements may vary depending on the course, but a matric certificate is required for all programmes” (SACO 2019). “Universities offer undergraduate and postgraduate education. Their courses mainly focus on academic, rather than vocational training”. (SACO 2019).

The distinguishing factor between universities of technology and universities is that they focus on “technology innovation and transfer and offer technological career-directed educational programmes” (Bridge 2020). They allow the student to engage with industry and they produce innovative problem-solving research. Many of the programmes offered include work-integrated learning. This requires students to complete a structured programme while working in an organisation. “This exposure to industry develops additional competencies that are not gained through purely academic programmes and assists graduates to find employment after graduation” (Bridge 2020).

2.2.2 Secondary Education Versus Higher Education

“For the majority of students entering first-year at university, the transition to tertiary study represents a new educational context distinct from previous experiences” (McEwan 2017). First-year students who have not as yet started university have identified the differences between high school and university as “a different learning experience, having more flexibility, greater independence, greater responsibility for their own learning and less supervision” (McPhail 2015).

Myburgh (2019) highlights the relationship between secondary schooling system and higher education. Myburgh (2019) notes that they are interdependent and are both essential in preparing a student and providing them with adequate readiness to enter university. Essentially, the difference between these two phases of education is that in higher education, the institution is no longer responsible for taking ownership of the student’s educational success. It becomes the responsibility of the student to manage their educational path, taking into consideration what has been taught at the secondary level of education to meet their goals at a higher education level.

2.2.3 Schooling Types

The South African Schools Act of 1996 established a national schooling system and recognised two different categories of schooling: public and independent (Government Gazette 1996: 1-6). “The National Norms and Standards for School Funding (NNSSF) (Republic of South Africa, 2012:3) aimed to improve equity in the funding of education by ranking each school into one of five quintiles”. This ranking is based on the unemployment rate and literacy rate of the community in which the school is located. “Quintile one ranking indicates a poor or impoverished school and a Quintile five ranking indicates a wealthy or affluent school” (Van Dyk and White. 2019). The United Nations Scientific and Cultural Organization ([UNESCO] (2014) confirms that “the school environment and facilities exercise a strong influence on learners’ education”. The quintile level of a public school in South Africa, determines the quality of the physical facilities at the school.

2.3 FACTORS INFLUENCING TRANSITION INTO UNIVERSITY

2.3.1 Stages of Transitioning

From a research perspective, Vincent Tinto is the most widely cited writer of transition literature, especially regarding student transitional issues. Tinto (1989) draws on “anthropological models, viewing this phase as one of the “rites of passage” to adulthood” (Mutch 2005: 144). His model explains that “students need to negotiate three stages, which are separation, transition, and incorporation”. Separation refers to the students’ past communities; transitions refer to the students’ new system and values associated to that new environment and incorporation refers to adapting to the new environment.

These rites of passage are achieved once the individual is able to respond accordingly to collegial expectations (Pichon 2019: 20-21). “In order to make a successful transition from high school to university, students need to make their own adaptations and need to be supported by the individuals and systems around them” (Mutch 2005: 144-145).

Siri *et al.* (2016) state that learners experience a “change from the state of being a dependent learner to an independent learner”. Therefore, this shift in responsibility

presents as a great contributing factor that impacts on a student's transition into university.

2.3.2 Transition into University: A Global Perspective

The first-year at university is “the period in which most students face serious challenges in adjusting both socially and academically and, thus, efforts must be made to assist them to adapt to the different set of university learning expectations and experiences” (McInnis 2001). From the literature it is evident that the “transition from high school to university is fraught with challenges and that there is a need to appreciate these challenges from the students' perspectives and devise ways of assisting them to navigate those challenges smoothly” (Chidzonga 2014: 1).

In their research, Hassel and Ridout (2018) highlight that “there is a gap that students have between their prior expectations and the actual realities of university life and this often effects their transition experience”. Predominantly studies on the transition from high school to university have been undertaken in Europe, Northern America, and Australia (Krause *et al.* 2005; Briggs *et al.* 2012; Yam 2010). These global studies indicate that the transition from high school to the university culture is often complex and difficult, with challenges for all those making this transition (Briggs *et al.* 2012; Yam 2010).

The challenges that are often encountered by first-year students include “homesickness, financial worries, different teaching styles used by lecturing staff, large amounts of work and fitting into the new environment” (Tom 2015: 4-19). According to Briggs *et al.* (2012), “these challenges substantially affect upon their sense of identity and belonging and can generate feelings of disorientation” (Gerodetti and Nixon 2017: 428).

2.3.3 Factors Influencing Transition in a South African Context

According to the literature, few studies have been conducted on the African continent regarding the transition from high school to university (Chidzonga 2014: 1-2). There has been an emerging notion that “the first-year experience is crucial to academic success in higher education and this in turn has given rise to a focus in student affairs and higher education on the first-year experience in South Africa” (Moja, Luescher and Schreiber 2016:). A significant report by the Council on Higher Education (CHE 2013) revealed that only 30% of students registered for degrees graduated in the specified

three years, with overall 56% graduating within a five-year period (Case *et al.* 2018: 10).

Pather *et al.* (2017: 165) state that universities in South Africa have “granted access to a diverse population of students, which has resulted in an increased participation of first-generation, low-income and mature students. Concomitant to the widening access, issues relating to retention and success continue to remain a challenge”. In other words, students studying in a South African university have an increased number of challenges to overcome in order to ensure a successful transition into the first-year of university.

In a study by Mason (2017), the majority of participants (first-year students at a South African university) indicated that financial stresses are of particular concern. \

According to Setlalentoa (2013), South African educators, from five high schools in the Motheo Education District in the Free State, identified the following challenges to be influential over a student’s readiness for university in South Africa: inadequate academic preparation, personal and social issues, such as child-headed households, and language proficiency.

2.4 THE CHIROPRACTIC STUDENT IN SOUTH AFRICA

In addition to the general challenges that South African students face transitioning into their first-year of university studies (Tom 2015: 4-19), chiropractic students have the added challenges of an intense and extensive curriculum. The chiropractic course at a university of technology in South Africa has a curriculum model that focuses on the “basic sciences in the first two years of the programme, with the emphasis shifting to the clinical sciences in the third and fourth years of study, and culminating with clinical training in the fifth year” (DUT. 2020).

According to the European Council of Chiropractic Education (ECCE), the curriculum and educational methods provided from a chiropractic course must ensure that students develop responsibility for their learning, and it should provide adequate preparation for self-directed learning throughout their professional life. Long and Chen (2020) state that past chiropractic research had addressed the correlation between

average academic points, course performance and licensing exams and so there is still a need to investigate the transition into the course.

2.4.1 The Educational Environment of a Chiropractic Student in South Africa

Similar to other educational programmes of healthcare professionals, chiropractic students are required to spend more than 4200 hours, over four years, in their educational journey (Kingsinger, Puhl and Reinhart 2011: 2). Students in the health sciences field are placed under a lot of pressure during their studies. The educational environment has a significant impact on student behaviour, their sense of well-being and academic advancement (Palmgreen and Laksov 2015: 1).

In a study done by Buthelezi (2018), there are several determinants of the high dropout rate from the chiropractic programme. Intrinsic chiropractic programme factors include course structure, workload, and assessment strategy (Buthelezi 2018: 4). The dropout rates at DUT for 2015 to 2017 have been reported as 19%, 13% and 19% respectively and the graduation rate has remained at 26% throughout these years (DUT 2018). Although the dropout rate remains below the university benchmark of 32%, the Chiropractic Department has not been able to maintain the university target of 2% decrease in annual dropout rates (DUT 2018). Not being able to successfully transition into this environment means that students are unable to cope with the demands that such a course places on them academically, socially, and emotionally and, thus, ultimately resulting in student drop out. This then results in a reduced number of qualified chiropractors in the South African health sector.

2.4.2 Transition and the Chiropractic Student

Despite the research and studies done on the general student population and their transition to university, very little has been done on chiropractic students. From the studies of chiropractic students globally, the majority have focused on stress levels, mental health and learning environments (Rubin 2008; Palmgreen and Laksov 2015; Kingsinger, Puhl and Reinhart 2011). According to Palmgreen and Laksov (2015), students perceive that the institution and its educational programme foster a sound educational environment for all students despite demographic variations. A sound educational environment includes being able to successfully transition into that environment.

In an article by Kingsinger, Puhl and Reinhart (2011), undertaken at the Canadian Memorial Chiropractic College, it was concluded that “students within the chiropractic programmes are not immune to the stresses that stem from an intensive healthcare educational programme”. The three year, longitudinal-type study sampled students from all years of training at the college and was aimed at identifying depressive symptoms in chiropractic students.

In a study conducted at Life University, USA, “significant strain can be seen in chiropractic students trying to complete a rigorous academic and clinical programme” (Rubin 2008: 13). This study was an attempt to frame the emotional challenges that specifically chiropractic students experience compared to other students of other professions. The results indicate that chiropractic students may find it even more difficult to transition as the programme itself is intense and stress may attribute to an unsuccessful transition.

2.5 SUMMARY OF THE CHAPTER

The South African education system comprises of two phases which are expected to prepare an individual for higher education. However, despite the efforts of the educational system in South Africa, various internal and external factors do not allow the optimal transition into higher education for students. It is important to reiterate that further to the challenges of studying at a university in the South African context, chiropractic students also bear the load of an increasingly demanding academic curriculum.

According to Kingsinger, Puhl and Reinhart (2011), chiropractic students should be aware of their own personal health and well-being, as well as their future patients, as this will benefit the profession, future practitioners, and the public for whom they will provide care. Juma, Abas and Banu (2016) stress the importance of giving the transition phase more attention to positively influence the student experience and thereby potentially prevent students from dropping out.

Gaining more insight into factors that may contribute to the successful transition of chiropractic students from high school to university may help ensure that a greater percentage of qualified chiropractors enter the healthcare sector to serve the South African community.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

In this chapter, the methodology used to execute this study will be discussed. Aspects of the research process such as sample size and population, data collection and analysis, as well as ethical issues are also discussed in this chapter.

3.2 STUDY DESIGN

A qualitative, exploratory, descriptive research design was utilised for this research. Qualitative research was best suited for this study as it aimed to explore a topic, understand phenomena and answer questions by analysing, categorising and making sense of unstructured raw data (Houghton *et al.* 2013:12-17). Qualitative research provides results that are true to the participant and their experiences, is not restricted to set questions, and therefore produces information that is rich and dense in nature (Houghton *et al.* 2013:12-17). An exploratory descriptive design was utilised in this research, as the aim of the study was to explore and understand the difficulties associated with transitioning from high school to university and how this influences the first-year of study.

3.3 RESEARCH SETTING

A research setting is defined as a place where data are collected (Mbambo 2009:39). The study took place in the Durban University of Technology (DUT) Faculty of Health Sciences research room. Permission to use the venue was obtained from the Head of Department of Chiropractic (Appendix A). Owing to the SARS-CoV-2 pandemic, should the interviews not have been able to be conducted on campus at the DUT Faculty of Health Sciences research room face-to-face, then Microsoft Teams would have been used to conduct the interview with each participant.

3.4 POPULATION, SAMPLE TECHNIQUE AND SAMPLE SIZE

According to Kumar (2014), a “research population refers to the entire group of people from a particular organisation from which participants will be selected”. The research population for this study consisted of first-time registered first-year chiropractic students who were transitioning from high school education to tertiary education. It also included mature students who had not attended tertiary education previously. Permission to have the first-time registered chiropractic students participate in the study was sought from the Head of Department of chiropractic (Appendix B) and the Research Director at DUT (Appendix C).

Purposive sampling was used in this study. The purposive sampling technique which is also referred to as judgment sampling, is the “deliberate choice of a participant due to the qualities the participant possesses. It is a non-random technique that does not need underlying theories or a set number of participants” (Etikan, Alkassim and Abubakar 2016). This allowed participants to be chosen using the researcher’s own judgement. The researcher selected participants from a list of first-time registered first-year chiropractic students in the year 2020 who expressed interest in wanting to participate in the study.

The sample size was 17 first-time registered first-year chiropractic students. Data collection took place until data saturation occurred. Data saturation is usually defined by researchers as the point when “no new information or themes are observed in the data” (Guest, Bunce and Johnson 2006: 59).

3.5 INCLUSION AND EXCLUSION CRITERIA

3.5.1 Inclusion Criteria

- Participants who were first-time registered first-year chiropractic students in the year 2020.
- Participants who signed the informed consent form.
- Participants of various ethnicities and genders.
- Participants 18 years of age or older.

3.5.2 Exclusion Criteria

- Participants who had studied previously at other tertiary institutions.
- Participants who refused to be audio recorded.

3.6 PARTICIPANT RECRUITMENT

The researcher approached the first-year chiropractic class of 2020. The purpose and aim of the study were explained. The contact details for the researcher were given to the class to contact the researcher should they wish to participate. Interviews were arranged with individuals who expressed an interest in wanting to participate in the study. There were no incentives offered, participation was voluntary as stipulated in the letter of information and informed consent form (Appendix D and Appendix E)

3.7 DATA COLLECTION PROCESS

The researcher reminded each participant of the time and venue for their interview the day before their scheduled interview via a text message. Before commencing each interview, the participants were again informed about the purpose and aim of the study. Participants were given a hand sanitizer to sanitize their hands upon arrival and at the end of the interview. Participants were then requested to complete a SARS-CoV-2 screening form and to have their temperatures assessed. After assessing the screening form and temperatures to ensure the participants did not present with any SARS-CoV-2 symptoms, participants were provided with the letter of information and informed consent form to read and sign (Appendices D and E).

Once consent was obtained each participant was given a code to use during the interview process and the transcription process. This code ensured that the principles of confidentiality were upheld. Only the researcher and the research supervisor had access to the data obtained. A semi-structured interview was done to obtain the data.

The duration of the interviews varied, but lasted an average of 15 minutes per interview. All interviews were recorded on a pre-tested digital audio-recording device. The interviews were conducted at the end of the first academic year (11 months after commencing the first-year of study).

3.8 RESEARCH INSTRUMENT

The research instrument used in this study was an interview guide. This study used a semi-structured interview guide to collect data (Appendix F). The semi-structured interview guide is a qualitative data collection strategy in which the researcher asks the participants a set of predetermined but open-ended questions. Probing questions were used to supplement the pre-determined questions. This method allowed for a discussion with the interviewee rather than a straightforward question and answer format (McMillan and Schumacher 2006: 204).

3.9 DATA ANALYSIS

Data were analysed using thematic analysis, which is defined as the “process by which patterns or themes are identified within qualitative data” (Maguire and Delahunt, 2017). The intended goal of a thematic analysis is to identify themes, such as patterns in the data that are important and/or interesting and to then use these themes to address the research topic or state something about an issue. This is much more than simply summarising the data; a thorough thematic analysis interprets and makes sense of the data collected.

Thematic analysis of the data provides a systematic element to data analysis. It allows the researcher to associate decipher an analysis of the frequency of a theme with one of the whole contents. This allows for accuracy and intricacy and enhances the research’s whole meaning. Qualitative research requires understanding and collecting diverse aspects and data to be able to draw conclusions and notice patterns and themes. Thematic analysis also “gives an opportunity to understand the potential of any issue more widely” (Marks and Yardley 2004).

Tesch’s eight steps on thematic analysis was utilised (Tesch 1990):

1. Get a sense of the whole.
2. Pick one document.
3. When this task is completed for several informants, make a list of all topics.
4. Take this list and go back to the data.
5. Find the most descriptive wording for the topics and turn them into categories.

6. Make a final decision on the abbreviation for each category and alphabetise these codes.
7. Assemble the data material belonging to each category in one place and perform a preliminary analysis.
8. If necessary, recode the existing data.

3.10 ETHICAL CONSIDERATIONS

3.10.1 Ethical Approval

Approval to conduct this study was obtained from the Institutional Research and Ethics Committee (IREC) of the DUT (Ethics Reference Number: 096/20) (Appendix H). Gatekeeper permission was obtained from the Director of Research at DUT and the Head of the Department of Chiropractic at DUT (Appendices B and C).

Ethical considerations require adherence to the four pillars of ethics: 1) Autonomy, 2) Non-maleficence, 3) Beneficence, and 4) Justice. Each are detailed further here.

3.10.2 Autonomy

Autonomy means “having the capacity to self-govern, which is the ability to act independently, responsibly and with conviction” (Motloba 2018). Participants have freedom from external control and are able to make their own decisions and are entitled to their own opinions. The participants were made aware of their autonomy in the letter of information (Appendix E) and were made aware that they could withdraw from the study at any point.

3.10.3 non-Maleficence

The principle of nonmaleficence is captured by the Latin maxim, *primum non nocere* “above all, do no harm” (Heston and Pahang 2019). Participants were not harmed in this study. This refers to the active care and consideration by the researcher to ensure there was no harm to the participants who were partaking in this study. The participants were made aware that there would be no harm to them in the letter of information and informed consent form that they were given (Appendices D and E).

3.10.4 Beneficence

Bitter (2020) states that beneficence “requires that researchers obtain scientifically valid data with useful applications, while minimising risks within the study protocol and protecting subjects during the trial” (Bitter 2020). This study aimed to benefit the Chiropractic Department and the student’s studying chiropractic as it meant to explore and understand the experiences of first-year chiropractic students with respect to their transition from high school to tertiary education, with the intention of providing feedback to the department to improve student continuity after enrolment.

3.10.5 Justice

Justice “pertains to participants’ right to fair treatment and the right to privacy” (Barrow, Brannan and Khandhar 2021). No discrimination was exhibited towards participants, as each participant had an impartial opportunity to voice their opinions. Each participant was made aware that they could share their point of view without being judged or discriminating against for sharing that information. Each participant’s information and opinions were kept anonymous.

3.11 CONFIDENTIALITY AND ANONYMITY

The participants should not be identifiable in print and thus, the participants were allocated pseudonyms to ensure confidentiality and anonymity. The data were labelled according to their participant pseudonyms and will be stored at the Chiropractic Department for five years. Electronic data will be password protected/stored on a USB at DUT. Thereafter, the hard copies will be shredded and electronic data will be deleted. Only the researcher and supervisor had access to the data. Confidentiality serves to preserve autonomy and justice.

3.12 TRUSTWORTHINESS OF THE RESEARCH PROCESS

Ensuring rigour in qualitative research means that all data need to be collected, analysed and presented as accurately as it can be from the research participant. Lincoln, Lynham and Guba (2011) indicate that there are four criteria that need to be met to establish trustworthiness in a qualitative study. These criteria are credibility, dependability, confirmability, and transferability.

Korstjens and Moser (2018) define credibility as the “confidence that can be placed in the truth of the research findings”. Anney (2014) states that “Credibility establishes whether the research findings represent plausible information drawn from the participants’ original data and whether they are a correct interpretation of the participants’ original views”.

Credibility was ensured in this study by issuing a letter of informed consent to the participants. Participation was also voluntary and the participants were able to discontinue from the interview process at any point if they wished to do so.

Transferability refers to “the degree to which the results of qualitative research can be transferred to other contexts with other respondents. It is the interpretive equivalent of generalisability” (Anney 2014). Transferability was ensured by the researcher providing a highly detailed description of the research situation and methods. A comprehensive description of the methods and findings was done.

According to Bitsch (2005: 86), dependability refers to “the stability of findings over time”. Dependability also involves participants “evaluating the findings and the interpretation and recommendations of the study to make sure that they are all supported by the data received from the informants of the study” (Anney 2014). To ensure dependability, an audit trail was done to track the research procedure. This strategy enables the supervisor to study the transparency of the research path.

“Confirmability refers to the degree to which the results of an inquiry can be confirmed or corroborated by other researchers” (Baxter and Eyles 1997). “Confirmability is concerned with establishing that data and interpretations of the findings are not figments of the inquirer’s imagination, but are clearly derived from the data” (Tobin and Begley 2004: 392). Confirmability was ensured by the researcher maintaining objectivity of the data. The voice recordings were listened to and re-listened to so as to ensure that the interpretations of that data were not distorted.

3.13 CONCLUSION

In this chapter, the research protocol used in the study, as well as the method in which the data was obtained and analysed, were discussed.

The next chapter will present the findings from the data.

CHAPTER FOUR

RESULTS

4.1 INTRODUCTION

In this chapter, the results of 17 semi-structured interviews are presented. The results were obtained from a thematic analysis of these interviews which were performed on 17 first time registered first-year chiropractic students in 2020.

4.2 MAIN THEMES

In Table 4.1, the five main themes, and their associated subthemes, are presented together with the relevant synopsis. The themes are mostly interrelated and collectively influence each other. The themes and subthemes have a significant contribution towards the experience of first-time registered chiropractic students at a South African university of technology regarding their transition from high school to university.

Each of the narratives of the research participants were transcribed verbatim.

Table 4.1: The main themes, subthemes, and their synopses

THEMES	SUBTHEMES	SYNOPSIS
THEME ONE: Readiness for university	Subject choice. Shift in responsibility to independent learning. University expectation. Schooling system.	The first time registered first-year chiropractic student's transition into university is largely influenced by these factors. These factors had a collective and undivided influence on the initial orientation into the university life.
THEME TWO: Factors influencing university application	The interview. Meeting the minimum requirement. Financial concerns. Subject requirements. Distance/locations of university from home.	The application process for an undergraduate student is in itself a daunting experience. For the first time registered first-year student this was a rigorous and pressurised experience influenced by various factors. The student, in this experience, is expected to conduct him/herself professionally, with good interpersonal skills and negotiate all the administrative requirements of the process. As such, it is necessary to examine the process, as well as other factors influencing application into university.
THEME THREE: Experiences related to transition	Workload. Responsibility and independence. Transportation. Home living vs residence living. Chiropractic orientation. High school educational environment.	The experience of the first-year students' transition remains central to the entirety of the chiropractic experience. How the student perceived that experience, the internal and external factors influencing the transitions, as well as the tone of the transition experience, all contribute holistically to the transition into university.
THEME FOUR: Challenges encountered upon entry	SARS-COV-2 Pandemic. Physical sciences. Availability of resources. Teachers' vs lecturers.	Entering into university brings with it new and exciting experiences and challenges, that a student needs to overcome, in order to be successful. Added to that, a global pandemic in the first-year provided a significantly challenging situation. Both learning methods and teaching techniques had to be adapted. Adequate support structures and the availability of sufficient resources are paramount to ensuring a smooth transition.
THEME FIVE: Factors of importance to first-year students:	Maintenance of results. Prioritising and time management. Peer relations and support structures.	On becoming a university student, the expectations and goals of the student change. Students become more independent and are cognisant of the impact of their own attitudes and knowledge towards their studies and future career. Thus, they place importance on the factors they presume to have a positive influence on their time as students.

The age, gender, ethnicity, and school type of participants are presented in Table 4.2. In this research study, the majority of the participants were females ($n = 11$, 64.7%). The predominant ethnic groups were Indians ($n = 7$, 42.1%), followed by Whites ($n = 4$, 23.6%) and Blacks ($n = 4$, 23.6%). There were only two Coloured participants ($n = 2$, 11.8%). The age range of students were from 18 to 20 years old, with the mean age of students being 18.7 years.

The predominant school type was public (government) schooling ($n = 11$, 64.7%).

Table 4.2: Participant demographics

PARTICIPANT	AGE	GENDER	ETHNICITY	SCHOOL TYPE
1	18	Female	Black	Public
2	18	Female	Indian	Home Schooling
3	19	Female	Black	Public
4	19	Female	White	Public
5	19	Female	Indian	Public
6	18	Female	Black	Public
7	20	Female	White	Private
8	19	Male	Indian	Private
9	19	Female	Coloured	Public
10	19	Female	Black	Public
11	19	Male	Coloured	Public
12	19	Male	Indian	Public
13	18	Female	Indian	Public
14	18	Male	Indian	Private
15	18	Male	White	Public
16	19	Male	Indian	Private
17	19	Female	White	Private

4.3 THEME ONE: READINESS FOR UNIVERSITY

Participants were asked questions regarding how their high school had prepared them for university. There was a varied response from participants from different backgrounds.

4.3.1 Subject Choice

The following participants were of the opinion that selecting life sciences and physical sciences as subject choices in high school impacted positively and aided them in their ability to understand biology and physics at a first-year university level.

“Well firstly I took subjects like life science and physics so when I came to university it was easy so the transition was easy because some of the things were similar to what I had studied at school.” (Participant 5)

“I think that it has helped in some subjects like biology and physics because in physics this year we didn’t get much help so I relied on my high school knowledge and without that I feel like I would be failing basically.” (Participant 13)

“So basically, I did physics and life science and that helped me with some subjects that we doing this year like Anatomy and stuff so it helped me to build a foundation for the quality of education at DUT.” (Participant 14)

“In high school I took a lot of subjects that was related to medical sciences so coming into university I felt well prepared.” (Participant 16)

One participant, who selected history as a subject choice in high school, found that this assisted in preparing for the questioning technique and assignment load and structure in university.

“Personally, I think it depends on which subjects you took for example I took history and I felt like the research papers and essays we did really help me word things better and helped me with answering questions and prepared me

a lot for varsity assignments. I found a lot of my friends who did not take history really battled with answering questions and they did not know how to structure assignments.” (Participant 4)

4.3.2 Shift in Responsibility to Independent Learning

Some participants felt that high school did not prepare them for the independence of university learning. They also did not expect the change in the percentage required to pass a subject at university, which is significantly higher than high school.

“Well, I don’t think I got much preparation from school but there was this camp I went to in matric, I think that gave me preparation because they forced us to get in the game of studying because in varsity as you know nobody pays attention to you nobody forces you to submit things nobody forces you to do anything.” (Participant 1)

“I do not think that high school prepared us or did enough preparation because I feel varsity is different, you responsible for yourself. You responsible for your own studies and I think you know like you know in varsity 50% is the pass mark but in school its 30% to 40% so I do not think that was preparing us for the difficulty of university.” (Participant 3)

“I personally don’t think so because I feel like high school is more like what can I say the obvious thing is that university is a lot different, it’s stricter with everything. It’s a lot of work all of that I’m not saying high school should have given us more work, but I feel like in that sense it was different and it took some getting used to. In terms of preparing us on the whole for the real world, I don’t feel like that’s the case even though we did life orientation and stuff there’s so many other things that could have been taught like our school didn’t offer stuff like etiquette and cooking and that kind of stuff it was limited to one standard thing.” (Participant 9)

These participants felt that, in addition to the shift towards independent learning, there was also a change in their social environment and a greater flexibility with their choices and decision making.

"It didn't prepare me. In my school it was so closed off, you were confined to the same environment where everything was the same everyday whereas at university there's different people every day, you freer to do whatever you want to do, there's more independency compared to high school." (Participant 8)

"It was quite different I won't lie because where I am from my whole family are very protective and I never really had freedom and now that I am just staying with someone who is just there and isn't really a guardian. I can do whatever I want so it's different so I can go out even during the day with my friends so I really have a lot of freedom." (Participant 11)

4.3.3 University Expectation

These participants felt that high school did not prepare them on the following aspects:

- They were not correctly informed on the intensity and volume of the work load at university.
- They did not have enough information on the level of independent work ethic required.
- They were not adequately prepared for the diversity of cultures, ethnicity and social change at university.

"I just feel like, they needed to prepare us more, I feel like they should have told us exactly what was going to happen when you get to university. I know they say it is going to be hard but that's really just all they say and they always say you going to be on your own, but that's really not true." (Participant 4)

“While the teachers did say it was going to be harder and whatever but when I came here, I guess I just didn’t realise how hard it was going to be I mean the work volume is much higher than it was in high school.” (Participant 6)

“I just feel like high school is much easier than university. You know for tests you are given work in small quantities; it was manageable, you could procrastinate as much as you want, but you had a chance to cover up because the teachers kept on pushing and pushing you. It was much easier. You’ve been in high school for five years already you used to the space, you used to the people, you in your comfort zone whereas coming to university you actually in a completely different place all the people come from different backgrounds, different provinces sometimes even different countries and now you exposed to them, exposed to professors, doctors just all overwhelming but it’s for a good cause.” (Participant 10)

4.3.4 Type of Schooling

These participants were of the opinion that having attended private schooling or home schooling better prepared them for the intense workload and independent learning at university as they already had that experience in their school.

“Okay so home schooling is very different to mainstream schooling in a way it is a lot like university because a mmm. so, I used to go for extra help at a centre where they would have tutors that with help with the work so kits kind of like how you come to campus and the lecturer just teaches the content and afterwards it’s your own duty to go and do the homework or the questions and further learning.” (Participant 2)

“I feel like being in the international school it further prepared me for the university level standards, by saying that I mean that we did more assignments and written tasks and I feel that that prepared me for the long assignments that we do now. And the study content is the same sort of set up so for your exam

you have a multiple choice and exam paper two was a long paper and I feel that it's similar to what we do now so I feel more prepared.” (Participant 7)

“Because I was in a private school, I feel that the private school was quite demanding especially in life sciences. I had to do a whole research task to prepare us for doing papers in university.” (Participant 17)

The following participants attended public schooling and indicated that they required additional tuition to supplement their education and prepare them for their examinations.

“Well, I don't think I got much preparation from school but there was this camp I went to in matric, I think that gave me preparation because they forced us to get in the game of studying. We also had a normal school day on Saturdays like extra lessons. The only thing that they did for us was a three-day first aid training and that's the only thing they did. I wouldn't really say they prepared us.” (Participant 1)

“In high school I had to go for extra lessons, but those helped me a lot.” (Participant 3)

“We used to have extra lessons from the Department and they used to bring different teachers in. They did teach us different study methods and I tried to use them, but it didn't really work.” (Participant 6)

“I needed extra lessons for maths and physics but it wasn't all the time only close to exams but I did go. I used a lot of the methods to study now and I did in high school too I just didn't realise I was using them until they taught us the different names.” (Participant 9)

“I used to go for extra lessons for maths, physics and Afrikaans. I used to take notes a lot but then it became a bit much and I started using the flashcard method and that helped a lot.” (Participant 12)

4.4 THEME TWO: FACTORS INFLUENCING UNIVERSITY APPLICATION

Participants were asked to describe the factors that concerned them during their application and acceptance into university. They expressed a number of concerns as well as a varied number of factors that influenced their decision.

4.4.1 The Interview

A pre-acceptance interview is not common at universities in South Africa; however, the chiropractic course requires one before preliminary acceptance into the course.

The following participants had some reservations regarding this interview. Before the interview, the participants were nervous and felt overwhelmed as well as underprepared for the interview. On completion of the interview, they were concerned about the appropriateness of their answers and the outcome and how it would affect their acceptance into the course.

“My interview, after the interview I was really worried because I felt like I was not going to get accepted into the varsity this was the first interview we had after we wrote those assignments.” (Participant 1)

“After my chiropractic interview I was bit sceptical because I felt I made a few mistakes so I was worried and the interviewers they just gave me a sense of ‘okay this is done and I am not coming back here’, but when I got accepted with the preliminary acceptance, I was very excited. And I think I knew then I would choose chiro.” (Participant 5)

“For the interview I was very worried I wouldn’t get in because I wasn’t dressed like everyone else, I came in a jean and a T-shirt and everyone else was formal or in their school uniform, I also felt like I could have done better in the interview.”

I felt like I was too much in my own head because I wanted to get in so badly so for weeks I was thinking about the interview and how I would answer and what type of questions there would be and then the questions were completely different to what I thought and it threw me off so I felt I didn't answer then properly and thought I wouldn't get in.” (Participant 9)

4.4.2 Meeting the Minimum Requirement

Participants were concerned if they had adequate marks to meet the acceptance requirement and some concerns about the limited availability of places at the university for the chiropractic course and if another student with higher marks could be accepted instead of them.

“I was worried about getting accepted. I was afraid that my marks would not be good enough for chiropractic also I only applied to study here in Durban.” (Participant 2)

“I was pretty worried about getting accepted I was most worried about my maths marks and physics marks you know in grade 10 and 11 that's like your foundation of your maths and physics but I feel like I did not get a good foundation, you know.” (Participant 3)

“Well, the one thing I was worried about was getting accepted because the competition is so strong and there's limited space available so that didn't guarantee my acceptance into university and personally not getting accepted would have jeopardised my future plans. Also, I had only applied here so I didn't have many other options.” (Participant 8)

“The application process was pretty straight forward compared to other universities. So, I felt I stood a better chance. I was a bit worried about my marks because at school I spent more time focusing on Sport than on my academics.” (Participant 14)

One participant felt it necessary to re-write matric to obtain higher marks and thereby gain acceptance into the chiropractic course.

“I was worried that I would not get into the course because I’m the type of person who always feels the need to do more so in terms of my marks I went back and redid matric so I could get higher marks.” (Participant 9)

4.4.3 Financial Concerns

One participant did not qualify for NSFAS and the financial constraints at home caused some insecurities about whether their parents could pay for their studies.

“First of all, I knew I wasn’t going to get funded by NSFAS cos my parents both of them work in the department so I don’t qualify. So, I was very worried whether my parents were going to be able to pay for the school fees.” (Participant 10)

Another participant had a bursary to study at high school and was therefore under stress to maintain marks to continue the bursary funding into university.

“I don’t come from a family that has a lot of money so in high school I had a bursary to attend that high school otherwise I would never have been able to so I needed a good set of results to come to university otherwise we would not have been able to pay for my studying so that was a bit of a stress factor because I needed to get a certain number of A’s but I did manage to get it.” (Participant 17)

This participant had received NSFAS funding from the beginning of first-year, but it was revoked mid-year and this placed strain on their family to find alternate means to cover the cost.

“This is not about the course but I had a problem in August which I felt challenged me it actually affected my studies and myself as well when I lost my NSFAS they just rejected me after they had already accepted me which was pretty insane because I feel like if they had not accepted me in January maybe I would have come up with a better plan but since they just rejected me now

they've given me all the money and I had to pay back all of that money it was super hectic now my mum took out a loan and everything is just going to be upside down.” (Participant 1)

4.4.4 Subject Requirements

One participant was concerned that at high school their subject choice was limited and this would disadvantage them in the application process.

“I was worried about one. The physics requirement because in my high school you could only do two of the sciences so I did biology and chemistry and not physics and most requirements for health professions you have to have all three. When I realised there was no physics pre-requisite, I was a bit relieved but I knew the course learning would be harder otherwise I did feel prepared because I knew how to study and prepare myself for course work.” (Participant 7)

4.4.5 Distance/Locations of University from Home

These participants were applying to a university far away from their homes and had some reservations concerning being alone, their safety and their time away from family.

“It was a bit scary though because I was applying somewhere far away from home, but it helped that I had friends and family here in Durban so I know that I am not completely alone and on my own.” (Participant 7)

“I think one of the biggest things that concerned me was safety because this university is in a dangerous area.” (Participant 13)

4.5 THEME THREE: EXPERIENCES RELATED TO TRANSITION

Participants were asked to describe the experience that they faced while transitioning from high school to university. There were a number of factors that differed from the

one environment to the other, which was influenced by their individual high school experiences.

4.5.1 Workload

These participants felt that the volume of work in first-year was difficult to manage. Although the content was understood, consistent work was needed to get through the volume of the workload.

“Uhm in terms of the school work and my modules and everything...well for the modules some of them I found them to be, there’s a lot of work compared to high school and you have to make sure that if you don’t study, if you just skip just one day. I feel like it’s just too much so you have to do something in one day because if you don’t then it’s really bad.” (Participant 1)

“Some of it was easy and some of it was hard the hard part was coping with the work. We do a lot of modules and each module requires your attention. The content is fine and manageable, but the volume was a lot and finding the time was difficult.” (Participant 12)

“At first it wasn’t so bad in terms of how many modules we had but then dealing with the stress was a lot to take on. Afterwards it wasn’t too difficult.” (Participant 16)

“Well, the teachers did say it was going to be harder and whatever. but when I came here, I guess I just didn’t realise how hard it was going to be I mean the work volume is much higher than it was in high school.” (Participant 6)

These participants experienced a change in their studying approach that was required to overcome the volume of the workload that was more than they had expected.

“There is a lot more work to do though and, in my mind, I was prepared for quite an easy year because everyone tells you that first-year is the easiest and then they tell you it gets harder.” (Participant 4)

“The workload is way more than high school that is the main challenge I am facing. I’m able to understand my lecturers and the content but there is not as much pressure from them as there used to be from our teachers to get our work done so it’s been a lot of self-studying to make sure I understand everything.” (Participant 8)

“The workload is a lot and sometimes difficult to manage. Since I didn’t study that much in high school it has been a challenge to fully immerse myself in studying again.” (Participant 11)

4.5.2 Responsibility and Independence

Participants encountered a change in responsibility in which they were now expected to be conscientious and take ownership of their own studying. They felt this was different to high school in that no one guided and encouraged them to complete their work.

“So compared to high school you have more responsibilities here because there’s nobody watching over you or anything you have to self –study if you don’t understand something it’s your own duty to go and learn more.” (Participant 2)

“It very different than high school in the sense that you don’t really have teachers telling you that your assignment is due on this particular day you got to figure it out on your own so that is tough and if you don’t understand the work, it’s on you to go and make a plan about that.” (Participant 4)

“The transition was a lot of growing up you can’t go to a teacher and be like aaah I missed an assignment please extend it for me when they say this is the deadline. There is no change university is stricter, but I prefer it this way because I know I can’t slack off because you passed the one test you can’t fail the next.” (Participant 7)

One participant felt that despite noticing the shift in responsibility to complete independently, the disruption in studying at university due to the SARS-COV-2 pandemic hindered the full impact of that shift in responsibility.

“I feel like the transition is hard in general because you going from being in high school where the teachers are checking up on you to coming to university where you are completely responsible for yourself. We were only here for a few months and then Covid happened and we didn’t get the full impact of what first-year would have been like I feel like there is a lot of adjusting that still needs to happen because we didn’t have that full experience.” (Participant 9)

4.5.3 Transportation

These participants felt that there was a significant change in the process of travelling to and from university. In high school, schools were near their homes and easily accessible, whereas now these participants are travelling a distance to make their way to university. This requires transportation, which is an additional cost as well as time spent travelling that was previously used in high school to study. These participants also indicated a decrease in their safety due to travelling in public transport.

“At first, it was so difficult because like in high school I was used to being home at about 4 o’clock and now in varsity my lectures only finish at five and I take public transport so by the time I get to the rank there is a queue and I have to wait another hour for a taxi to come and then by the time I go home its already dark so that’s been pretty difficult.” (Participant 3)

“So, one was transport, getting to university like I’ve never been to this area and also the fact that I had to take a taxi. I used to just walk to school because

it was near my house now, I travel with the taxi so it took a lot of getting used to because now I have to travel by myself and you have to be street smart and it was challenging.” (Participant 9)

“Ay ...no me going to high school is just twenty minutes away if I’m strolling, but a proper ten minutes if I’m walking fast and then I get to school my friends are there it was almost like home. It was my second home. Whereas now in university I have to take a taxi it’s like a long journey as it’s further away from home. We have to travel and now with this pandemic you have to make sure you have the sanitizer in your bag and a mask on it’s really, really overwhelming.” (Participant 10)

4.5.4 Home Living Vs Residence Living

Those participants who live in university residence found that staying in a student residence has allowed them to have the privacy that they need to concentrate fully when studying.

“I found it much easier to have my own study space because here at res I have my own room and its super quiet and I think it was much better than high school because it used to be many people in the house and I found it hard to study.” (Participant 6)

“I think it’s been really easy but it helps a lot that I’ve been staying in res completely on my own so that’s helped a lot it’s been really fun and I enjoyed it a lot more than high school.” (Participant 15)

Some participants who live at home while studying felt as though they were not fully supported by their families with regards to their studying as they were inundated with chores and household activities over and above their university workload.

“Now from my side I have factors like procrastinating, chores at home – you see now if I go home, I’ll have to clean because you see now my brother decides

to do no chores so I have to step in. So, I have a lot of responsibilities because if my dad comes home and nothings done he'll be angry. I understand because when he grew up, he was taught the lady in the house does the chores. Sometimes I get too tired to study, sometimes I just get frustrated because I am in university and sometimes, I will be writing a test the next day and they will expect me to cook and it can be so stressful. I understand about eighty percent of my lectures.” (Participant 10)

“Also I feel like at home there's not much environment for you to actually study because since I live in a rural area there's no library for me to go there, at home there's many people so I can't study really well.” (Participant 1)

“I don't feel I had enough support from home at home both my parents work during the day which meant that I was responsible for the care of the kids the household and everything so I just felt with everything I couldn't pay enough attention to my studies my parents just left everything to me. When they come back have to cook and basically just do everything.” (Participant 3)

4.5.5 Chiropractic Orientation

These participants were of the opinion that the orientation programme organised by the Chiropractic Department helped them engage with their classmates and made joining the course less difficult as they could share their experiences with each other.

“I've enjoyed coming to campus as well and meeting friends and people were friendly and I think the orientation at the beginning of the year was really helpful because we got to know each other we didn't just come in the first week and not know anything about each other it would have been much more difficult.” (Participant 5)

“In the beginning of the year it was hard to make friends I felt like everyone had already formed their groups after orientation, but after the first few weeks I

made a good group of friends and I orientated myself to people like me, hard workers and people who are on time.” (Participant 7)

4.5.6 Type of Schooling

Participants who went to private schools, as opposed to public schools, found it easier to cope in first-year at university, however, some participants who attended private school had a syllabus that was very different to the national curriculum and they found they needed to adjust to the new content.

“It was actually a lot easier than I thought it would be. In high school they said it was going to be quite difficult so what you did was going to be a lot easier than what you will see in university. But I think their rigorous preparation helped a lot.” (Participant 16)

“In a lot of our subjects, a lot of the work is new to me because in the IEB syllabus we left a lot of the CAPS work out so a lot of the content was new to me so that was a bit of a challenge because I had to catch up.” (Participant 17)

“Relating it a lot to my high school over there it was a lot like here so I wouldn’t say it’s completely different and when I speak to some of my friends that matriculated here in SA and went to government schools and they say it’s completely different. They always freak out and panic whereas I can’t relate to them because my grade 11 and 12 was very similar to first-year.” (Participant 7)

One participant attended an all-Islamic high school and on entry to university was presented with a diverse student culture which, therefore, required an adjustment to this new environment.

“I adapted quickly, but I found it very different as I said you are more independent here than in high school, because I went to an all-Islamic school and was only surrounded by Muslim people it was different to be in university

with people of all different cultures and races, but it didn't really affect me in any way." (Participant 8).

A participant who attended a single sex school had some difficulty in interacting at university, as the environment is co-ed/mixed-sex education unlike her schooling.

"I guess with being at an all-girls school I personally didn't have much interaction with boys and stuff so it was a little bit different coming to university, but it wasn't such a hard transition almost the same as being with girls."
(Participant 5)

4.6 THEME FOUR: CHALLENGE ENCOUNTERED UPON ENTRY

Participants were asked to explain any challenges that they may have encountered when they entered university. Their response centred around the SARS-CoV-2 pandemic and its impact on their year as well as other additional factors.

4.6.1 SARS-CoV-2 Pandemic

These participants indicated that due to the SARS-COV-2 pandemic there was a change to online learning. They felt that although online learning allowed them to revisit information, insufficient data and unstable internet connections were an added stress to already challenging circumstances.

"With Covid and the online learning there was a period of time where we just didn't do any work for the first two weeks of lockdown. I understand it was because not everybody had access to internet and things and they had to obviously sort that all out but it also kind of delayed us." (Participant 2)

"Online learning was a bit hard at first but I tried hard and I did my best, but sometimes I didn't have data so I had to be wise and buy night data so I could download videos at night to study in the day. There's a lot of positives for example because it's a video if you don't understand you can always just rewind and go back whereas in class you feel a bit awkward to ask the lecturer to keep explaining." (Participant 10)

"It was actually the first time studying physics at home. Physics for me is a subject where I need the lecturer to be there to ask questions and I feel like with Covid, I did not get to experience that and at home I have a lot of connection problems and we use Microsoft Teams and that needs a steady and good connection and sometimes I can't get on teams and I miss the whole meeting or lecture at home. I get no connection at all and that is what we were using."
(Participant 3)

"I didn't really have any other challenges besides Covid. It made it a lot harder than it would have been because I am a visual learner and I like to sit in a lecture and listen to what's going on as well and see everything. I felt that watching the videos, yes it was nice to replay the video it was not the same as being inside the lecture venue. Also, there was a whole lot of struggles with data which also added an extra stress which we didn't really need in the midst of everything."
(Participant 4)

These participants experienced a decrease in motivation and an increase in procrastination which they attributed to the lack of self-discipline due to the prolonged period of online learning and being away from the university setting.

"Covid was definitely a downer because when we first arrived, we had the first few months and then we had to go back and then start again a few months later. I feel like I lost my enthusiasm because I was at home and everyone around me was sitting and doing nothing and I had to study but I just decided I needed to use it as a learning phase." (Participant 6)

"I think because we were left to study alone at home a lot of procrastination happened because if you actually at campus you have to make lectures and deadline, but because you were at home and had a two-month break, I became lazy then I was struggling to meet the actual deadlines." (Participant 13)

“The first few months before Covid came along things were going really well, but after that everything went off. Now we have to sit on our laptops the whole day watching online lectures, self-studying even more to catch up but I was able to cope. But being at home didn’t help with my time management because I did things in my own time and I wasn’t really disciplined.” (Participant 8)

These participants felt as though they did not get the true experience of what they expected in the first-year of university to be like. This, in their opinion, was due to the disrupted academic year because of the SARS-COV-2 pandemic. They felt as though this would impact on the future of their studies.

“Covid happened and we didn’t get the full impact of what first-year would have been like I feel like there is a lot of adjusting that still needs to happen because we didn’t have that full experience, Online learning was a big thing for me because I’ve never done that before.” (Participant 9)

“Everyone says your first-year experience will be where you get to experience new things and do things, but because of Covid I didn’t really get to have that experience.” (Participant 11)

“Apart from the fact that Covid ruined our first-year experience, the fact that everything is online and us missing out on class and interacting in person and have the lecturer right there where you can ask questions and even dissections and all of that we missed out on it all. I feel like we not going to be able to do those things again and will have to move on without having that foundation.” (Participant 9)

The following participants indicated that not having face-to-face learning and hands-on practical lectures with practical experience has significantly disadvantaged them in respect of their knowledge of the human body, as related to their chiropractic course.

“I didn’t really find anything difficult. But, with Covid, subjects like histology we had to look at pictures instead of specimens and don’t get the real feel for things

and dissections we can't do that anymore so I think it has impacted on our academic studies also we barely had interaction with our class mates and things I thought I would be doing in my first-year have just been scratched out." (Participant 5)

"I will say for Anatomy and the subjects we had to be there for pracs I felt a bit limited and battled to understand because we didn't get to experience in person." (Participant 11)

"We haven't been able to do our anatomy dissections which was a big let-down and I think we would have all benefitted a lot more from having that exposure. I think just being able to visualise a 3D structure of the body would have been better and helped us across all the different subjects we had." (Participant 17)

"Covid had a big impact on our interaction with each other, our practicals were limited. We were so excited to study anatomy and see the cadavers, but we did not get to do that only now towards the end are we getting to physically see what we learnt, but the lecturers have tried their best to make up for that loss." (Participant 7)

"I know it wasn't possible because not everyone had the amenities to do online learning but I would have preferred physical zoom lectures or something. Just something more interactive compared to just sitting and watching a voice over video because it's a bit hard to concentrate when you are at home and you not like in a studying environment." (Participant 2)

"I'd say before the lockdown yes because we had face-to-face contact with the teachers, I feel like I understand work more when we have face-to-face interaction, but when we were doing these online classes it as very difficult for me to adjust. Well, I feel like if there wasn't this pandemic I would have done

better because I would have understood work more as I said I prefer face-to-face interaction.” (Participant 1)

4.6.2 Physical Sciences

One participant was of the opinion that physical science should be a pre-requisite for the chiropractic course.

“This is my own personal opinion they should make us do physics as a requirement for the course because I never took physics in school and as much as there’s tuts and tutors, you need to have that basic understanding. So, I definitely think it needs to be a requirement.” (Participant 4)

These participants felt as though the physical science they did in high school differed to the physical science course at university. Their results at university did not reflect their knowledge of physical science that they felt that had at high school.

“...and I was really shocked about my physics results. I remember in high school I used to do well in physics and when I came here, it was just like Oh my God physics is so difficult but now at least I am passing. I don’t complain but it’s not the same results that I anticipated getting.” (Participant 1)

“For the majority of lectures, I could understand, but not for physics.” (Participant 7)

“I’ve done physics before, but somehow the physics in university seemed way harder than what I did at school so physics was a bit of a challenge and chemistry as well we did it in high school but not like how we doing it now.” (Participant 9)

“I understand about eighty percent of my lectures. Physics is the worst, everything about it and trying to do it online, it’s very difficult to understand the lecturer. I find it weird because I took physics in high school.” (Participant 10)

“I found physics and chemistry a bit difficult because I forgot most of the work I did in high school and I am finding it much harder to work with the formulas now than I did in high school.” (Participant 14)

4.6.3 Availability of Resources

Participant 6 found the experience of new resources and equipment overwhelming and, although exciting, they were faced with difficulty adjusting to this new experience.

“It has been exciting because there have been different people and there has been more equipment especially for chemistry, physics and bio. For anatomy, it has been a lot. It’s super different because in my high school we didn’t have specimens to look at so it was completely different especially the spotter tests.” (Participant 6)

“...and for the spotters I had difficulty with that because I wasn’t used to that and everything looks the same, I can’t tell what is what especially when it is in the same specimen, but the lecturer has introduced tuitions for that and it has been a great help.” (Participant 6)

4.6.4 Teachers Vs Lecturers

These participants found adjusting to the style of lecturing as compared to how they experience teachers teach at high school challenging. However, they did note that lecturers were helpful in providing support when needed.

“I’m able to understand my lecturers and the content but there is not as much pressure from them as there used to be from our teachers to get our work done.” (Participant 8)

“I feel like lecturers are a lot different to teachers so getting used to how they teach and trying to figure out where to go on campus and getting used to how things function and manage your time was a lot for me.” (Participant 8)

“It is very easy to speak to the lecturers if you need any help or if you struggling with something so in that aspect, I would say we received support from the department.” (Participant 2)

“The lecturers have been providing a lot of stuff and if you need, they provide tuition too.” (Participant 6)

“To be honest academically with the lecturers I have I feel like they doing their best on their side to make sure we are understanding. We can even text them the day before the test and tell them we confused about this, could you please elaborate and they will help you, so I feel on their side they doing the best that they can and I can’t fault them.” (Participant 10)

Some participants felt as though lecturers could be more caring, interactive and display greater effort in their lecturing approach.

“Some lecturers are easy to understand and some are not so easy like sometimes it’s just the way they speak or sometimes they just reading from the notes and they themselves don’t understand everything completely. So that is a bit difficult and for some subjects you in a big lecture room so it’s a lot more difficult because it’s so full and the lecturer is just trying to focus on teaching, but not everyone has their attention.” (Participant 2)

“The way the lecturers have been taking face-to-face lectures to online, I am happy with some of them but some could do with a bit of improvement. I think some of the lecturers go the extra mile, but others could try and interact and communicate with us more even though we responsible for ourselves it would be nice to know that our lecturers care more.” (Participant 9)

“When we started online learning not all lecturers would put in the same effort. Some would do the voice-over videos but some wouldn’t even send anything for the week.” (Participant 2)

4.7 THEME FIVE: FACTORS OF IMPORTANCE TO FIRST-YEAR STUDENTS

For the students to make the most of their academic year, they had to prioritise certain aspect over others. The participants were asked to explain the aspects they placed importance on when their first-year at university commenced.

4.7.1 Maintenance of Results

Participants indicated that maintaining a good academic record and above average marks was the first and most important factor to them in their first-year at university.

“Well obviously, academics I knew I had to achieve certain things because I want to go emigrate and maybe go to a country in Europe so I know that I have to work hard in order to get there so that was the main objective this year.” (Participant 5)

“I felt there were a few things to start, my grades come first so that means I can’t go out on a weekend because I have a test on Monday then I don’t go out on the weekend.” (Participant 7)

“One, my academics, that was and is my number one priority because I came to DUT to get my degree whatever happens around me I feel it’s none of my concern.” (Participant 10)

One participant indicated that maintaining their marks would help with their financial concerns, as it would guarantee a fee reduction from the university.

“I wanted to like make sure I maintain a 75% aggregate because we were told about the 75% and getting a fee reduction.” (Participant 1)

4.7.2 Prioritising and Time Management

These participants felt that an important step in their first-year was being able to manage their time efficiently so that each of their subjects had equal amounts of dedication to ensure they performed well.

“Well, I needed to be able to manage my time because unlike school you not pushed for a deadline and I needed to be able to dedicate a certain amount of time for different subjects.” (Participant 13)

“For me it was the self-studying, I had to schedule and make timetables to make sure I completed all my work within the deadline and things that was an important thing.” (Participant 2)

“...and learning how to time manage and plan my week has gotten me through a lot of stuff.” (Participant 7)

“I think time management, prioritising, in high school we would have time for things outside of school but in university the work doesn’t stop so being able to balance the work and having time to yourself was super important to me.” (Participant 9)

Some participants who have additional activities outside of the university experience indicated that learning to prioritise their studies and finding a balance between studies and their activities was important to them.

“Being able to stay on-top of my work I needed to prioritise that. And I am an artist so I needed to get a space where I could tap into my creativity. So finding a balance between that and my sport was a bit difficult. But I have finally found a balance and now I am really enjoying it.” (Participant 17)

“Mostly I felt the need to find a balance in completing my work and all the activities I participate in.” (Participant 14)

“I definitely made my studies more important than anything else because I used to be very involved with my sports and I cut down on a lot of my club sports and cut down a lot of my social life because of the workload. I think if there was less work, then I would have been able to have all of it at once. And I prioritise my health especially my mental health than I have done previously.” (Participant 4)

One participant felt as though they could have placed more importance on their first-year of studying and taken it more seriously.

“With my experience this year despite the challenges that I had I feel that I was too chilled I was just a bit too laid-back I think I should have worked a little bit harder.” (Participant 3)

4.7.3 Peer Relations and Support Structures

The chiropractic course is a minimum of six years, throughout which adequate support structures have a significant role to play.

These participants were of the opinion that finding a good group of friends who have the same goals would be beneficial for the duration of their study in the chiropractic course.

“Friendships were definitely going to be important to me because you have to be with these people for the next six years so I did make some really good friends and we get along.” (Participant 10)

“And also meeting different people and opening up to making new friends.” (Participant 5)

“Friends was a big one because you need that moral support and support system from each other.” (Participant 7)

“Getting a good group of friends because people can tell who you are by your group of friends and if you have friends who are negative then your whole life will end up being negative, so good friends were key to me.” (Participant 8)

4.8 CONCLUSION

In this chapter, the findings of the study were presented. Excerpts from the interviews substantiated each of the themes as well as their associated sub-themes.

The following chapter will contain the discussion of these results and how they relate to the current literature.

CHAPTER FIVE

DISCUSSION OF RESULTS

5.1 INTRODUCTION

In this chapter, the findings of the study will be discussed and interpreted within the context of the already existing literature regarding the transition of students from high school to university. According to Meehan and Howells (2019), “transitioning into higher education is considered a process rather than a single event”. “Transitioning forms a bridge between the formal and informal, with students engaging in a range of social, cultural and academic transitions” (Araujo *et al.* 2014).

Although there is a vast body of literature regarding student transition into university and the first-year experience, a gap in the literature regarding the transition of first-year chiropractic students in particular is evident. According to Long and Chen (2020), past chiropractic research have addressed the correlation between average academic points, course performance and licensing exams, and thus there is a need to revisit the existing literature and provide a 21st century perspective.

Therefore, there is a need to investigate current chiropractic education further to ensure that previous findings are updated and a smoother transition into the chiropractic course is maintained and thereby reducing the dropout rate and increasing the number of chiropractic graduates.

5.2 OVERVIEW OF THE RESEARCH DISCUSSION

The aim of this study was to explore and understand the experiences of first-time registered chiropractic students at a university of technology.

Five main themes were identified:

THEME 1: Readiness for university.

THEME 2: Factors influencing university application.

THEME 3: Experiences related to transition.

THEME 4: Challenges encountered upon entry.

THEME 5: Factors of importance to first-year students.

The themes and their subthemes are discussed and interpreted below and further substantiated by relevant literature.

5.3 THEME ONE: READINESS FOR UNIVERSITY

It is important to understand the readiness of first-year students for university in order to determine any factors that may influence how prepared they are to study the chiropractic course. “Being eligible for university does not necessarily mean that one is ready for university” (Cohen 2008). “Student preparedness is an essential component of transition to university. A broad suite of attributes, including academic aptitude, prior knowledge, self-efficacy, self-confidence and a complex assortment of study and life skills” (Long and Chen 2021: 923-947), influence student preparedness.

Participants were asked to describe how they felt their high school prepared them for university. In general, the participants indicated that they were dissatisfied with their high school preparation for university and felt that they were not fully informed or well prepared for what the university expected of them. Hassel and Ridout (2018) stated that “the gap that students have between their prior expectations and the actual realities of university life can cause significant distress, poor academic performance and increased dropout rates if not managed effectively”. Some factors, like appropriate subject choice for the degree and private education systems, were highlighted as having a positive impact on their preparation or readiness for university. According to van de Meer et al “students’ preparedness for academic education is one of the most important factors for success at university”. Wilson-Strydom (2015) highlighted that university readiness is multi-dimensional and that there is a degree of complexity with regards to transitioning into university. This refers to the multiple factors that contribute to the readiness of university students.

According to Agherdien, Mey and Poisat. (2018), the following factors can contribute to a university students’ readiness for university: socioeconomic status, academic proficiency, support mechanisms, level of motivation, as well as integrational and

institutional conditions. This framework correlates to the results from this study, where the level of readiness for university and its contributing factors were highlighted.

5.3.1 Subject Choice

According to Anders *et al.* (2018), the subjects that young individuals, aged 14 years and older, study have important consequences for their future academic and labour market outcomes. “Choosing the ‘wrong’ set of options at this point may have long-term consequences” (Iannelli 2013). The consensus among the participants was that opting to take life sciences and physical sciences in high school as part of their subject package had a positive impact on their ability to understand and comprehend the subject content in the university subjects of biology and physical science at a first-year level.

In a study conducted on year 11 and year 12 students of Australian schools by Goodrum, Druhan and Abbs (2012), it was highlighted that senior students reported that they chose science to meet university pre-requisites and to maintain their career options. Globally, years one and two of the chiropractic programmes include foundational courses in the basic sciences (Meckamalil *et al.* 2020: 2). Without a solid understanding of these subjects in first-year, it can be said that problems will arrive in later years. Choosing subjects that align with the course content and structure at the university gave the participants the added advantage in their readiness for university.

5.3.2 Shift in Responsibility

“First-year students tend to find the changeover from high school to university difficult” (Lekena 2018: 158). In a study by Ray and Joseph (2010), it was highlighted that medical students are often overwhelmed by the enormous syllabus to be covered, the change in the style of studying, flooding of medical science and new concepts, lack of proper guidance as well as the thought of failing in exams.

In this study, participants reported that they were deficient in their preparation in high school for the start of the university curriculum. The participants felt that even though they were familiar with having work to do and they knew they had to submit work for marks, they were not aware that there would be nobody helping them to meet deadlines and persevere through their workloads.

According to Siri *et al.* (2016), learners experience a change from the state of being a dependent learner to an independent learner. Kopzhassarova *et al.* (2016) state that

the development of students' critical thinking skills and them becoming independent learners is one of the crucial problems facing current education. Together with the shift in responsibility, some participants also noted a change in their social environment and an increased amount of freedom with regards to their choices and decision-making. In general, participants noted that at school their learning was guided as they were supervised in all that they did and the percentage required to pass was lower. At university, they now had the responsibility of taking ownership for their learning, to meet deadlines and the percentage passing mark was considerably higher.

5.3.3 University Expectation

Pather and Dorasamy (2018) stated that "student expectations of university have varied across the continuum from being realistic to unrealistic". Participants voiced their opinion regarding the misinformation with regards to the expectations at university. "The mismatch between a student's expectations and reality has the potential to influence their experiences during first-year" (Hassel and Ridout. 2018). As stated by Tinto (1993), the first-year experience plays a significant role in shaping students' attitudes and performance in subsequent years. Therefore, it can be said that addressing the expectation of both the student and the university is an essential component in ensuring that students are adequately prepared for university.

The participants found that they were overwhelmed by the intensity of what was expected of them and the work ethic required to cope with the first-year demand. From the literature on the expectations and experiences of university students, "it is evident that that there is a mismatch between students' pre-university expectation and their actual university experience" (Smith and Wertlieb 2005). Participants further acknowledged that there was a change in diversity and cultural experience from high school to university that they had not expected. It can be said that these feelings emanated from the experience of "culture shock". According to Kraimer, Bolino and Mead (2016), culture shock refers to the inability to adjust to a new environment.

"South African higher education has undergone significant changes since 1994, most notably, the shifting demographics of historically "White only" universities". (Cornell and Khessi 2016). South African universities have moved to a more democratic educational system that is representative of the countries demographics; they now have "opened access to a diverse population of students which include first generation

students, low-income students as well as mature students” (Pather *et al.* 2017). These demographics may be unfamiliar to certain students who come from different backgrounds or educational environments that catered to only one demographic e.g. single gender schools, religious schools and private schooling. Not being able to adapt to this new change in life hinders the progress of the first-year student as their transition is negatively impacted by this factor.

5.3.4 Schooling System

The secondary schooling system serves as the gateway into higher education and higher education is in turn dependent on what the secondary schooling system provides in terms of academic preparedness and quality of students (Myburgh 2019). The South African Schools Act of 1996 established a national schooling system and recognised two different categories of schooling: public and independent (Government Gazette 1996: 1-6. The public schooling system is classified according to quintiles in order to improve the equity of funding for each school.

In their study, Van Dyk and White (2019) conclude that the “current funding system of primary and secondary education in South Africa affects the maintenance of schools, the access to learning and teaching support materials, and the personnel provision at schools, thus, compromising the overall attainment of educational goals”.

The South African schooling system was found to be highly imbalanced due to differences in the quality of education and the socio-economic status of schools (Wangenge-Ouma 2012). The Independent Schools Association of Southern Africa state that the following are common features that distinguish private education from public education in South Africa: high academic standard, choice of school leaving examinations, individual attention for students as well as access to support (ISASA 2017). It can then be stated that university students who attended public education in South Africa are at a disadvantage as opposed to the other students who attended private education. This corresponds to the results in this study that found that participants who had attended private schooling or home-schooling were better prepared for the intensity and change in the educational environment. Notably participants who attended public schooling indicated that over and above the school learning, extra lessons were required to supplement and prepare them for examinations. Participants in private schooling were not only more prepared for the

intensity of work at university but they were also familiar with the structure and layout of assignments, tests, and examinations, which gave them an added advantage in their first-year experience.

5.4 THEME TWO: FACTORS INFLUENCING UNIVERSITY APPLICATION

The success of an application to any undergraduate course is of particular concern to many high school students as the results will determine how their life progresses from that point on. According to Schachter (2007), “preparing for college admission is a highly tense and stressful experience for many high school students”. The chiropractic course at a South African university of technology includes an additional aspect, over and above obtaining adequate academic success, which is the preliminary interview. Participants were asked to discuss any factors that were of concern to them during their university application. Factors of primary concern were the chiropractic admission interviews as well as meeting the minimum requirement. Factors such as the distance/location of the university and financial concerns were also highlighted.

5.4.1 The Interview

The application to university is a demanding and rigorous process which places stress on the students applying. “Interviews that are undertaken for the selection of students have become more important as higher education institutions place importance on seeking capable candidates to enrol in their courses, especially courses related to health and medical sciences” (Yusoff 2019). “After an extensive screening process (assignment completion and academic record review), the selected candidates are invited to interviews (usually towards the end of the year – September/October)” (DUT 2021). This preliminary interview must be passed to gain acceptance into the course. This selection process is also undertaken in the radiography and homeopathy departments at the same university (DUT 2021).

Lamadrid-Figueroa *et al.* (2012) highlights that the interview process gives the selection committee an opportunity to assess the valued characteristics of candidates that would attribute to their future career over and above their current academic

performance. However, “the pressure that youth applicants to public universities feel during the admission process is overwhelming” (Arce-Medina and Flores-Allier 2012).

Participants reported that they felt nervous, overwhelmed and unprepared for an interview of this nature. These emotions, therefore, made them hesitant as to whether this was the correct career path for them, as they were feeling this way before commencing the course. The interview process made the applicants apprehensive to pursue chiropractic as a career path, and therefore possibly discouraged a positive transition into the course.

5.4.2 Meeting a Minimum Requirement

As with most health science courses, the students applying to study should have a degree of academic excellence. Participants unanimously stated that they were concerned that their marks were not adequate for the chiropractic course and that their acceptance into the course would be impacted by this. It is worthy to note that most of participants who applied for the chiropractic course had applied only to this particular university. This placed added pressure and concern on them as to what their future would be should they not be accepted.

5.4.3 Financial Concerns

According to Ray (2016), high tuition fees, among other factors, constitute a significant source of stress for students enrolled at Southern African higher education institutions. In the study by Mason (2017), most participants (first-year students at a South African university) indicated that financial stresses are of particular concern. In research previously conducted on medical undergraduate students at the University of Aberdeen, it was indicated that students who had financial struggles during their higher education, and who had incurred debt, performed less well academically in comparison to other students (Ross, Cleland and Macleod 2006).

In South Africa, students have the opportunity to receive financial aid or National Student Financial Aid Scheme (NSAFAS) funding. However, in a study conducted in 2013 by Munroe *et al.*, on a sample of 1.083 University of KwaZulu-Natal students, it was noted that students on financial aid were more vulnerable within the academic context. In a study done by Lekena and Bayaga (2018) on 27% of first year students registered at the University of Mega Don (pseudonym), it was indicated that “50% of

students, often those from low income or derived circumstances, dropout due to financial struggles to carry the direct and indirect costs of university attendance”.

The participants in this study revealed that having insufficient finances for the university year was a concerning factor when applying to study. In addition, participants noted that not receiving a scholarship, bursary or some funding towards their studies placed added pressure on them and their families. Therefore, this was a concerning factor when applying for the chiropractic course, and a reoccurring factor of concern throughout the year.

5.4.4 Distance/Location of the University from Home

In recent years, a significant proportion of university students, both international or domestic, have left home to pursue their studies (UKCISA 2016). According to Nghiem *et al.* (2021), one of the most common concerns to freshmen applying to college is the feeling of homesickness that may arise when studying away from home. Calguas (2014) states that “a major factor, which could affect college freshmen’s adjustment in transition, includes being in college for the first time and moving away from home”. The participants in this study were of the opinion that studying away from home would be a daunting experience and were therefore hesitant prior to the university application.

Safety at the university was also a concern. Safety on most South African campuses seems increasingly compromised and unattainable (Dlamini 2021). One participant had anxiety when applying because, from the information available to her, she believed that the university was located in a dangerous place, as well as it being an unsafe campus.

South Africa has a notably high crime rate (Businesstech 2018) which has filtered into the university setting. Gender-based violence is prevalent in South Africa and its universities (Dlamini 2021). In a 2017 article in the *Mail and Guardian* by Maduna, it was reported that students of the Durban University of Technology felt under threat from criminals while they were on campus grounds. In addition, many female students reported feeling fearful when at the university with regards to their safety, with some students dropping out due to not feeling safe.

5.5 THEME THREE: EXPERIENCES RELATED TO TRANSITION

“A wide variety of literature from around the world outlines that adjustment to the multifaceted transitions, that are associated with higher education, impacts student success” (Crede and Niehorster 2012). Transition occurs when there is a change between two different environments and the subject is moved from the one to the other. “Transition can also be defined as the “capability to navigate change”, where capability refers to the ability to access resources necessary to engage with change, without having knowledge or control over what the change involves” (Gayle and Parker 2014: 737). According to Gowers *et al.* (2010), transition should not solely be perceived as the changes that occur inside the classroom but also from outside the classroom and should consider any factors that influence that change.

The participants in this study acknowledged the difference between the educational environment of high school and university. They reported that the difficulty in transitioning stemmed from the fact that the participants had no previous experience of independency at the level required in a university setting. It is important to also note that the transition to university is related to the transition into adulthood. Siri *et al.* (2016) state that “the transfer to university from high school involves the change from adolescence toward adulthood and that the struggle to learn a new studying system requires more flexibility, self-regulation, and self-organisation”.

The findings in this study with regards to the experiences during transition in first-year are consistent with other studies related to first-year transition (Van Breda 2017; Benner, Boyle and Bakhtiari 2017; De Clercq, Galand and Frenay 2016, Frischiemann and Moor 2017; Briggs *et al.* 2012).

5.5.1 Workload

In a study by Pillay and Ngcobo (2010), at a university in KwaZulu-Natal, South Africa, the most prevalent stressor for students was their academics. The study revealed that “out of 243 first-year students, 96% had a fear of failing and 76% indicated that the academic workload placed too great of a demand on them”. In this study, a large number of the participants noted that the volume of the workload for the chiropractic course was greater than their high school workload.

A study by Hester *et al.* (2013) regarding stress in chiropractic education on a population of chiropractic students, highlighted that 40% of the respondents were not

“coping well” with their college workload. The participants in this study were of the opinion that they were not fully prepared to manage the amount of work required for each module. In order for the participants to overcome this change, they noted that they had to adjust their studying approach so that they could cope with the increase volume of workload.

It is worthy to note that this study took place at a South African university of technology. “Characteristics of universities of technology include a strong corporate orientation focus, geared to the relevance of programmes and responsiveness and fulfilment of the needs of industry, community, and society” (Du Pré 2004). Due to this, this university adopted the method of Work Integrated Learning (WIL).

According to an article by Bilgin, Rowe and Clark (2017), there are several factors that contribute to the assessment workload of the students studying in WIL environments. This is since WIL requires a diverse and complex assessment strategy to ensure that learning is more holistic in nature (Rowe and Zegwaard 2017). This new learning method differs from the common education experience in most South Africa high schools and, therefore, poses a significant transition for students to overcome. Additionally, the education environment can contribute significantly to first-year health sciences undergraduate student success (Long and Chen 2020).

5.5.2 Responsibility and Independence

“Year one is a valuable stage of the student journey during which students begin to take responsibility and develop skills relating to self-management” (Porteous and Machin 2018). The consensus among the participants was that a considerable part of their transition into university was the shift in responsibility that took place. According to Bowles *et al.* (2011), “as students make the transition from the supportive frameworks of schools, they commonly find it difficult to manage the levels of autonomy and flexibility”. Participants in this study were of the opinion that there were no longer guided by their lecturers, unlike how they were helped in high school, and that they now needed to be able to account for their own actions and take responsibility for their work.

Huon and Sankey (2002) state that in the initial period of transition, “students need to develop a sense of their own identity and use their new skills to be able to act autonomously as a tertiary education student”. One participant, however, noted that

due to the interruption of his studies because of the SARS-CoV-2 pandemic, he did not fully experience the impact of the transition experience and felt that it was still to come.

5.5.3 Transportation

It was highlighted in the study that most of the participants lived off campus and had to travel daily to campus. Zewotir *et al.* (2011) state that at the University of KwaZulu-Natal in South Africa, students who were living off campus had a significant increase in the likelihood of them failing their first-year. The participants in this study indicated that the experience of travelling to university, especially on public transport, was new and effected their transition as it took up extra time that could have been used for studying.

Public transport services are generally regarded as low quality and dangerous in many developing cities, particularly in South Africa (Luke and Heyns 2020). They also indicated that this created a stressful situation, as they had to be on high alert constantly while using public transport in South Africa.

The use of mini-bus taxis is common among university students. “This mode of transportation is more accessible than trains, due to the route and network flexibility” (Statistics South Africa 2018). However, “several mini-bus taxis operate without licenses and, in some cases, unlicensed drivers drive them. This has been followed by complaints from commuters, who are affected by the violence associated with this transport mode” (Mtizi 2017). There are high rates of sexual harassment reported from taxi drivers as well as high rates of traffic crimes committed (Ngubane 2017).

The findings in this study correlates with other studies in South Africa that investigated transport challenges in university students. In 2013, Mbara and Celliers conducted a study on 1707 students from the University of Johannesburg in South Africa, regarding the transport challenges they faced. The study revealed that most students spend “an average of 38 minutes travelling between their homes and their campus”. The students raised further concerns that this act of extensive travelling resulted in them missing class or being late. They also experienced violence while in transit on public transport.

5.5.4 Home Living Vs Residence Living

In a study conducted in America by Graham, Socorro Hurtado and Gonyea (2018) on first-year bachelor’s degree students and the benefits of living on campus, it was found

that “students living on campus had a small advantage in three ways over their peers who commuted from farther than walking distance to the campus. These were more engagement in collaborative learning, discussions with diverse others and student–faculty interaction”. Participants in this study who lived in a student residence as opposed to living at home during their first-year said it was more beneficial to their studies.

Students who lived with their families during the first-year indicated a considerable strain when it came to their studies. They stated that there were distractions from family members and chores that were expected to be completed daily. The participants noted that the above made the transition difficult as they did not feel fully supported by their families.

In a study done on 452 first-year students at a peri-urban South African university, moderating the effect of social support on the burnout and intention to dropout from their studies, it was highlighted that social support from parents and significant others moderated the burnout effects on the intention to drop out and satisfaction with studies (Mostert and Pienaar 2020). This suggests that students who live at home require the support and understanding from the people with whom they live to cope successfully with the task that transition into a course requires. From this, it is evident that students living in the residence do not have this concern and have adjusted well.

5.5.5 The Orientation

“Although this aspect of a first-year student's experience is important, an institution's first-year orientation programme is also critical in the development and acclimation of first-year students” (Evensen 2017). The chiropractic course at this university of technology in South Africa has an orientation programme every year to help ease the students into their first-year of the course. The orientation programme involves the introduction of various structures in the university which provides assistance to the students, such as the library, the academic development department, student counselling as well as the centre for excellence in learning and teaching. The participants were also introduced to the chiropractic professional body, the Chiropractic Association of South Africa.

Thomas (2012) reported that “students are less likely to think about dropping out or leaving a particular course if they are more aware of university procedures, engage

more with their peers and have good relationships with their lecturers". The participants in this study noted that the first-year orientation programme was beneficial to their transition as it helped them form bonds and feel accepted by their peers. This correlates to the literature regarding factors that enable a smooth transition.

According to Hillman (2005) and McInnes *et al.* (2000), "an orientation programme is suggested as an effective enabler to aid the transition process in first-year". "A significant body of research exists about the importance of first impressions in terms of student satisfaction and engagement with their studies at university" (Meehan and Howells 2019). The orientation programme gave the students a chance to introduce themselves to a new environment and the people with whom they would be spending the next five to six years engaging without the strict constructs of a classroom setting. They were given the opportunity to ask questions about uncertainties and become familiar with their surroundings, which gave them a sense of belonging to the new institution. Meehan and Howells (2019) concluded from their study, regarding the feeling of "belonging" in students transitioning to higher education, that ensuring students have a smooth transition into first-year, and that they pursue their studies, is mitigated by creating a sense of "belonging" both psychologically and sociologically for students. From this study it is evident that the orientation programme was able to do this and, therefore, contributing positively to the transition process of first-year chiropractic students.

5.5.6 High School Educational Environment

"Most first-year students enter university directly after completing Grade 12 and often have an inability to deal with first-year adjustment challenges, this is understood to be based on their high school background" (Daniels 2017). In the first-year class, the background of schooling systems varied between each student. Teachers or family members often do not prepare students for the shift from secondary school to university, especially those from poorer schooling backgrounds. "They do not know what will be expected of them at university level" (Daniels 2017). School-leaving examinations, also known as National Senior Certificate (NSC), "in South Africa are of two main forms: the state-administered matric examination, more commonly known as the Department of Basic Education (DBE) matric exam and the independent matric examination, administered by the Independent Examinations Board" (IEB) (Hill 2019). The participants who had private or home-school education and who wrote the

Independent Examination Board (IEB) school leaving exam found their transition into first-year comparatively easier than their peers who experienced the public schooling system. The Independent Schools Association of South Africa note that “the IEB specifically aims to challenge traditional teaching and learning models by introducing new assessment methods that force critical engagement on the part of students” (ISASA 2019).

Over and above the curriculum change, participants who attended single gender or educational institutes with particular religious preference found that their transition into university included a culture and diversity shock. South Africa, more than many other countries, is blessed with cultural diversity (Mabunda 2020). According to Mabunda (2020), cultural diversity affects most of the students in the university either socially or emotionally and not being able to transition to the change in diversity can significantly affect students’ effectiveness and productivity in academic development. For many students, especially those entering university for the first time, they may lack the cultural knowledge about what university is and how one behaves at university (Meehan and Howells 2019). Many students who came from independent schools with a gender or religious bias had difficulty in adjusting which, had it not been addressed with the orientation programme, could have hindered their transition.

5.6 THEME FOUR: CHALLENGES ENCOUNTERED UPON ENTRY

In order to understand the experience of first-year students in their transition, it is important to explore the challenges they have faced. According to Juma, Abas and Banu (2016), “there are several changes that students need to adapt to in order to make the move from high school to university. Struggling in any of these aspects can influence students’ experiences and may possibly contribute to them dropping out of university” (Juma, Abas and Banu 2016: 517-518).

The participants were asked to mention and explain any challenges they encountered when entering university. The year was significantly influenced by the SARS-CoV-2 pandemic and the experiences of the first-year chiropractic students were no exception to this. The participants revealed challenges that resulted from the SARS-CoV-2 pandemic, which affected them academically, socially, and emotionally, as well as other challenges that stemmed from their past choices at high school. Their

comparison of high school teaching systems to university, as well as the types of schools they attended, were noted. The actual orientation process into university also presented some challenges and influenced their transition into university.

5.6.1 SARS-COV-2 Pandemic

The SARS-CoV-2 pandemic has had and is having a profound affect tertiary education globally (Brammer and Clark 2020). An overwhelming number of students highlighted the effect the SARS-CoV-2 pandemic had on their first-year and the they experienced. New students have been concerned about the impact on their experience. Students and their family members have contracted SARS-COV-2, causing considerable anxiety within student communities (Brammer and Clark 2020). The greatest challenge noted by the participants was the shift from face-to-face learning to an online learning platform. Participants noted that this change to an online learning system required them to be highly independent and self-sufficient concerning their academics.

According to Sison and Brennan (2012), “online education refers to an instructional environment supported by the internet and it is can be fully online or blended with face-to-face interaction”. “Online education can also be defined as an approach to teaching and learning that utilises internet technologies to communicate and collaborate in an educational context” (Salleh *et al.* 2020). Online education has many benefits. According to Salleh *et al.* (2020), “one of the benefits from online education is that it gives flexibility for the students to learn”. Many of the participants noted that even though the online learning provided them with an opportunity to view and revisit the subject content more regularly than face-to-face lectures, they lacked the self-discipline and motivation to take full advantage of this learning opportunity. This is similar to the study done by Du Plessis and Benecke (2011) that “explored the academic challenges faced by 31 first-year students at the University of Johannesburg”. Their study revealed that, “even though students have the necessary support structure, they themselves lack drive and initiative” (Du Plessis and Benecke 2011). The participants also noted that insufficient data and the unstable internet connection added to the already challenging circumstances.

Participants who identified as visual learners struggled with the concept of online learning and the general consensus from the majority of the participants was that the

shift to online learning posed a disadvantage with regards to the practical component and the practical skills required in the chiropractic course.

The participants felt as though not being able to complete their anatomy dissections was detrimental to their education and posed a challenge towards the end of the first-year when they were tested on the required knowledge even though they did not have a full practical experience. This is supported by Strkalj *et al.* (2011: 63-66), who stated that “Anatomy has been a core preclinical subject in the training of the medical allied and complementary health professions”.

5.6.2 Physical Sciences

Physical science is known as a difficult subject to comprehend by many learners (Motlhabane 2017). It is important to note that “undergraduate physics education provides students with unique skills and ways of thinking that are of profound value to the students and society” (National Research Council 2013). However, physical science has become a very difficult subject and it is a common occurrence for students to have some alternative conceptions and difficulties regarding the subject matter (Daud *et al.* 2015). This corresponds to the findings in this study where participants in this study believed the subject of physical science was particularly challenging in comparison to the rest of their modules in first-year.

In Indonesia, the goal of learning physical science in high school is that “learners have the ability to master the concepts and principles of physical science and the skills to develop the knowledge and attitude of self-confidence as a provision for continuing education at a higher level, especially developing science and technology” (Darmaji *et al.* 2019).

The participants in this study who did physical science at high school did not expect to find the physical sciences at university level as difficult as they did. The participants who did not do physical sciences in high school stressed that to cope with the subjects at university level it should definitely be a prerequisite to gain entry into the chiropractic course. “Future improvement of undergraduate physical science education depends critically on a vigorous physical science education research enterprise and effective application of its findings” (National Research Council 2013)

5.6.3 Availability of Resources

“South African students entering universities do so from positions of extreme inequality in terms of schooling, ethnicity, class, financial and other resources”, such as access to technology, internet and media resources (Chetty and Pather 2015). This suggest that not every student who enters university has previously had access to the resources that are made available at university such as WIFI, fully resourced libraries, laboratories, scientific equipment, and academic development centres.

In a study by Mittlemeir *et al.* (2019) on 320 first-year student at UNISA, regarding their adjustment experience in first-year, it was revealed that access to resources required to study was linked to a positive academic adjustment. Some participants indicated that the increased availability of resources was an overwhelming experience. Although the experience of new resources was exciting, it posed a challenge to their learning, as they were unfamiliar with it and faced difficulty adjusting to the new learning tools and methods.

5.6.4 Teachers Vs Lecturers

Academically, students hope to increase their understanding of a subject, gain more knowledge, improve cognition, and develop critical thinking skills. Achieving these hopes can present challenges for students if their educators (Govender 2020) do not support them. “Establishing a collaborative relationship between student and lecturer is key to enhancing student engagement and success” (Pather *et al.* 2017). The participants in this study believed teachers were very different to lecturers and found it challenging to adjust to the change.

In a study by Biggs and Tang (2011) on veterinary students, it was noted that students also expect to be extrinsically motivated by their educators and universities to attend class, understand the content of their curricula easily and solve problems quickly when assessed (Biggs and Tang 2011). Some participants felt that lecturers took an active role in their learning, as compared to their high school teachers, and they felt that this had a positive impact on their studies as it motivated them to perform better. Other participants felt that even though some lecturers made every effort to engage and be well understood, there were other lecturers that they felt could be more understanding towards interactive engagement with the participants.

Burke *et al.* (2016) found that “the academic staff play a key role in how students construct their feelings about capability, which ultimately leads to success or failure in higher education”. A study by Hassel and Ridout (2018), regarding students and lecturers’ expectations of university education, found that “lecturers who teach students in second-year and/or above would show a larger number of positive learning endorsements relative to lecturers who taught first-year students”. The findings in the study by Pather *et al.* (2017) correspond to the findings in this study that suggest that lecturers need to be more aware of the needs of students, especially first-year students, and that adapting teaching and learning methods will encourage student-lecturer engagement and ultimately student academic success.

5.7 THEME 5: FACTORS OF IMPORTANCE TO FIRST-YEAR STUDENTS

To experience an adequately positive transition, the participants had to place importance on certain aspects. According to Meehan and Howells (2019), “three things matter to students about their transition experience into university: the academic staff with whom they work, the nature of their academic study and feelings of belonging”. The expectations of first-year students are to enhance their personal development, gain social community membership and experience a shared emotional connection with other students (Lathrop, O’Connell and Howard 2012). Generally, the participants indicated that they felt the need to place importance on academic demands, time management and support structures. Placing importance on these factors were perceived to have a positive impact on their experience.

5.7.1 Maintenance of Results

Students begin their academic studies with good intentions in their first semester of their first-year, yet a large percentage fail to set or achieve their academic goals. Their desire may be to pass all their modules and to gain distinctions in a few modules yet they do not (Ebersöhn 2016). According to Kingsinger, Puhl and Reinhart (2011), chiropractic is similar to other programmes within health care professions, such as medicine. “Medical students are traditionally known to be high achievers and if their effort is not in cognisance with outcomes or results, these first-year students experience a drop in self-worth and esteem” (Akinla, Hagen and Atiomo. 2018).

The general consensus among the participants in this study was that the most prioritised objective of their first-year was to maintain their academic record. The students' objective was further magnified by the incentive of a fee reduction if a 75% aggregate was obtained in a first-year. Therefore, it is evident that the participants in this study placed primary importance on achieving optimal results in their first-year.

5.7.2 Prioritising and Time Management

In this study, several participants stressed the importance of them learning time management and prioritising their academic work in order to complete their first-year. Participants who took an additional activity outside of the university work noted that additional effort was required to balance their time equally among their activities. It was also noted that the participants were of the opinion, however, that they did not take their first-year of their studies as seriously as they should have and that had a negative impact on their academic. This corresponds to the research by Govender (2020) which highlighted that South African first-year at-risk university students expect to be motivated and inspired to gain knowledge and achieve academic success, especially if they face challenges, such as a lack of understanding, not keeping pace with lecturers, time management, poor memorisation ability, lack of concentration and low motivational levels.

5.7.3 Peer Relations and Support Structures

According to Daniels (2017), "factors that influence the first-year experience in South Africa include family and support structures". The participants in this study stated that obtaining good peer relations helped them have adequate support structures during their first-year. Research shows that being able to have "peer support provides accessible informal advice on any aspect of student life" (Juma, Abas and Banu 2016: 517-518). Kiessling *et al.* (2004) suggested "that students adapt better to their university environment when they feel supported by their peers and when they are part of a social network and overall culture". The participants in this study also highlighted the six-year duration of their studies and emphasised the importance of moral support for each other to be successful by the end of the study period.

5.8 CONCLUSION

In this chapter, the results of the study were discussed in order to illustrate the experiences of first-year registered chiropractic students at a South African university of technology regarding their transition from high school to university.

Many of the findings were found to be consistent with the consensus of research regarding the transition of first-year university students. However, this study provided a deeper insight into the transition experience of a first-year university students within a South African context. More particularly, it highlighted the perception and challenges of first-year chiropractic students in South Africa concerning the experience of their transition. This discussion further reiterated the paucity of literature regarding the educational experience of chiropractic students.

The following chapter will provide the conclusion of this study including limitations and recommendations of the study.

CHAPTER SIX

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS OF THE STUDY

6.1. INTRODUCTION

In this chapter, the purpose of this study will be summarised, the research questions revised and at the commencement of this study will be addressed. The reflections of the researcher, as well as the strengths and limitations of the study, will also be presented.

This chapter concludes with further recommendations for this study.

6.2. SUMMARY OF THIS STUDY

The aim of the study was to research the experiences of first-time registered chiropractic students at a South African university of technology regarding their transition from high school to university. The feedback from the research questions indicates how the research aim was met.

6.2.1. Research Question One

Describe how your high school studies prepared you for university.

The participants described that there was a varied number of factors that influenced their level of preparation for university. They expressed concerns that there were deficiencies in how they were prepared by their individual high schools. The type of high school schooling system that each participant was exposed to further influenced this. The participants who attended South African public schools indicated that additional tuition was needed to supplement their education.

Other key factors that played a role in their preparation for their first-year university was their choice of subjects in high school and their ability to shift from dependent to independent learning and how they perceived the university experience/expectation to be.

6.2.2. Research Question Two

Please describe the factors that were of concern to you during your application and acceptance into university.

The participants highlighted that there was a greater concern during the process of application, as opposed to their acceptance into university. The pre-acceptance interview, as well as concerns regarding their academic record, in their view, presented as an obstacle as to whether they would be accepted or not.

In addition, the financial constraints that many participants faced added to the concern that even if they were accepted to study the chiropractic course, they would not be able to.

The distance of university away from home was also a concerning factor during the application process and acceptance into university.

6.2.3. Research Question Three

Describe your experiences regarding your transition from high school to university.

Participants described a multi-faceted experience with regards to the transition from high school to university. The transition to a greater volume of workload was found to be one of the more prominent obstacles to overcome accompanied by their shift of autonomy. Other changes that affected their transition experience centred around new transportation and travelling methods, as well as a change in their living environment. A culture and diversity transition were also noted as a factor adding to their transitional experience. The chiropractic orientation programme aided and facilitated a smooth transition into first-year university.

6.2.4. Research Question Four

Can you mention and explain any challenges you have encountered when you entered university?

The challenges experienced by the participants can be divided into two parts: concerns around the SARS-CoV-2 pandemic, which was encountered three months into the academic year, and the additional ongoing challenges that participants faced outside of the SARS-CoV-2 pandemic. The SARS-CoV-2 pandemic challenges were attributed to the change from face-to-face learning to on-line learning as well as decreased practical experience.

Other challenges which were on-going included a lack of self-discipline, the change in teaching style and the increased availability of resources that unexpectedly overwhelmed the participants.

It is worthy to note that a significant challenge encountered by the participants was the physical science subject which contributed significantly to the participants academic success.

6.2.5 Research Question Five

Upon entry into university, mention the and explain the aspects that you felt were of importance to you such as academic demands, relationships with your lecturers and peers and social demands?

Participants explained that their priority and major concern throughout the year was to maintain their academic success. Participants also expected to maintain good peer relationships as they were of the belief that this would contribute positively to the rest of their studies. Time management and learning to prioritise was an ongoing and important skill that the participants felt were essential to know.

6.3 STRENGTHS OF THE STUDY

This qualitative study contributes to the scientific literature of chiropractic students' educational experience in South Africa. The researcher was able to obtain detailed and ample responses with regards to various aspects in the first-year chiropractic experience. While this study identified specific issues regarding the transition of first-year chiropractic students into university it also touched on the effects of the SARS-CoV-2 pandemic on tertiary education at a University of Technology in South Africa. Further-more the cohort used in this study was unique compared to other studies on the transition experience of first-year students as this study focused particularly on first-year chiropractic students in a South African university.

6.4. LIMITATIONS OF THE STUDY

The study took place at a South African university and was focused on the specific population of first-time registered chiropractic students in 2020. The research findings are exclusive to the sample population: the first-time registered chiropractic student at

a South African university of technology and their transition from high school to university. The results of this study undertaken elsewhere may be different for chiropractic students at different universities as different universities have their own academic programme and curriculum. The experiences of first-year registered chiropractic student may differ from each institution.

6.5. REFLECTION

To the researcher's knowledge, this study is the first of its kind in South Africa among chiropractic students and, therefore, the researcher felt gratified to be able to conduct and present this study. Every participant conformed to the interview requirements and shared their views openly and honestly without reservation. The researcher acknowledges the participants with gratitude. Despite the interruption of the researcher's research process by the SARS-CoV-2 pandemic, the researcher was able to make the necessary amendments with the assistance of the university to continue this study. Due to this, all SARS-CoV-2 protocols were adhered to and the researcher was able to adapt to unforeseen circumstances. For that, the researcher is appreciative. Due to the limited amount of published literature regarding the educational experience of chiropractic students in South Africa and internationally, the researcher had to rely on the available literature despite the literature not being up to date.

6.6. RECOMMENDATION OF THIS STUDY

The educational institution as well as the stakeholders of chiropractic education have the responsibility to address the challenges encountered by first-year chiropractic students in order to help facilitate their transition from high school into university. The recommendations to help facilitate the process are as follows:

6.6.1. Recommendations for the Institution

The findings of the study should be presented to the university as well as the Department of Chiropractic to bring to attention factors highlighted in the study, that when addressed could facilitate a smoother transition of first-year students into the course.

It is recommended that the subject physical science becomes a compulsory pre-requisite for entrance into the chiropractic course and that a physical science bridging course is undertaken before the semester commences to address any shortfall in the foundational knowledge the students have in the subject.

A formal programme should be implemented with the Department of Higher Education and Training and high school educators to bring awareness as to what the expectation of tertiary education is, in order for high school educators to provide optimal preparation of their students for university.

It is recommended that the Chiropractic Department provides their own students with workshops that address the student's deficits in study skill, organisational skills, and management skills.

6.6.2. Recommendations for Further Research

This study should be done again in the absence of the SARS-CoV-2 pandemic so as to rule out the influence of the pandemic on the result.

It is also recommended that a similar study is conducted at other chiropractic educational institutes to determine any similarities and differences in the findings of these studies that could contribute to and enhance the literature regarding chiropractic education.

The results of this study should be re-evaluated on a regular basis to ascertain whether any changes made may have positively or negatively influenced the results.

6.7 CONCLUSION

This qualitative study explored the experiences of first-time registered chiropractic students at a South African university of technology regarding their transition from high school to university. The findings of this study indicated that first-year chiropractic students in South Africa are not immune to the challenges faced by most first-year students with regards to their transition from high school into university. However, it was brought to the fore that they experienced additional challenges and difficulties. The highlights and favourable aspects of the first-year chiropractic students transition experience were also noted. For the most part the students had a positive disposition regarding their first-year experience despite the challenges they faced.

While it was noted, that a majority of the findings corresponded with the literature regarding transition of first-year students into university in South Africa and internationally, there was not an abundance of literature in the context of chiropractic education to compare the findings.

This, to the researcher's knowledge, is the first qualitative study pertaining to the first-year experience of chiropractic students and as such, this will add valuable perspective for the chiropractic education domain. However, further research can be done to investigate other factors that affect the education of chiropractic and ultimately the chiropractic profession.

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APPENDICES

Appendix A: Request to Use Faculty Room

24 February 2020

Request for Permission to use Faculty Research Room

Dear Dr O'Connor

My name is Keiron-Ashleigh Boosi, an M.Tech: Chiropractic student at the Durban University of Technology. The research I wish to conduct for my Masters dissertation involves the experiences of first-time registered Chiropractic students at a South African University of Technology regarding their transition from high school to university.

I am hereby seeking your consent to use the Faculty research room to conduct the interviews for my study.

I have provided you with a copy of my proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me (cell: 083 666 8001, email: kboosi8@gmail.com). Thank you for your time and consideration in this matter.

Yours sincerely,

Keiron-Ashleigh Boosi
Durban University of Technology

Appendix B: Request to Head of Programme to Conduct Research

24 February 2020

Request for Permission to Conduct Research

Dear Dr O'Connor

My name is Keiron-Ashleigh Boosi, an M.Tech: Chiropractic student at the Durban University of Technology. The research I wish to conduct for my Masters dissertation involves the experiences of first-time registered Chiropractic students at a South African University of Technology regarding their transition from high school to university.

I am hereby seeking your consent to use the first-time registered first year chiropractic students of 2020 at the Durban University of Technology as participants in my research study.

I have provided you with a copy of my proposal which includes copies of the data collection tools and consent and/ or assent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me (cell: 083 666 8001, email: kboosi8@gmail.com). Thank you for your time and consideration in this matter.

Yours sincerely,

Keiron-Ashleigh Boosi
Durban University of Technology

Appendix C: Request to Research Director to Conduct Research

12 May 2020

Request for Permission to Conduct Research

To the Director Of Research and Postgraduate Support,

My name is Keiron-Ashleigh Boosi, an M.Tech: Chiropractic student at the Durban University of Technology. The research I wish to conduct for my Masters dissertation involves the experiences of first-time registered Chiropractic students at a South African University of Technology regarding their transition from high school to university.

The aim of this research is to explore and understand the experiences of first-time registered Chiropractic students, in the year 2020, at a university of technology. The study will be qualitative in nature using an exploratory descriptive design. Semi-structured interviews will be used to obtain data. The interviews will be conducted at DUT in the faculty research room. Owing to the Covid-19 Pandemic, should face to face interviews not be able to take place, the interviews will be conducted online via Microsoft teams. Purposive sampling will be utilised for this study. The sample size will be a minimum of 12 first-time registered first year Chiropractic students. Data collection will take place until data saturation point occurs and an additional two interviews will be conducted to confirm that saturation has occurred. This study will be conducted in the academic year in which it is the student's first registration at the university of technology. The data will be analysed using Tesch's eight step method for qualitative data analysis (Tesch 1990). All audio-recorded data will be transcribed verbatim and stored at DUT.

I am hereby seeking your consent to use the first-time registered first year chiropractic students of 2020 at the Durban University of Technology as participants in my research study.

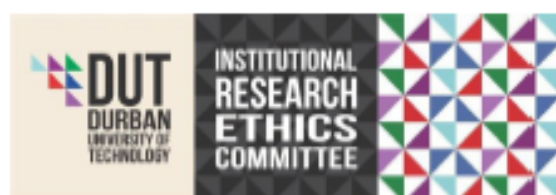
I have provided you with a copy of my proposal which includes copies of the data collection tools and consent forms to be used in the research process, as well as a copy of the approval letter which I received from the Institutional Research Ethics Committee (IREC).

If you require any further information, please do not hesitate to contact me (cell: 083 666 8001, email: kboosi8@gmail.com). Thank you for your time and consideration in this matter.

Yours sincerely,

Keiron-Ashleigh Boosi
Durban University of Technology

Appendix D: Letter of Information



LETTER OF INFORMATION

Dear Participant,

Title of the Research Study: The experiences of first-time registered Chiropractic students at a South African University of Technology regarding their transition from high school to university.

Principal Investigator/s/researcher: Keiron-Ashleigh Boosi, B.Tech: Chiropractic.

Co-Investigator/s/supervisor/s: Dr Desiree Varatharajulu, M.Tech: Chiropractic.

Brief Introduction and Purpose of the Study: The aim of this research is to explore and understand the experiences of first-time registered Chiropractic students, at a university of technology regarding their transition from high-school to university. You will be interviewed on various aspects that attribute to your transition. The interview will be approximately 30 minutes to 40 minutes in duration and the data will be collected via a digital audio-recording device. You are only required to provide answers to the interview questions. Any first-time registered first year chiropractic student in 2020 is eligible for this study.

Outline of the Procedures: If you are willing to participate in this study and have signed a letter of informed consent, an interview will be set up at your convenience. The interview will be approximately 30 to 40 minutes and will take place in the faculty research room. Covid-19 Protocol for face to face interviews: letter of information and consent will need to be returned and kept in quarantine for one week before the interview date. You will be screened for Covid-19 symptoms prior to the interview being conducted. You will have to pass the screening to be interviewed. Both researcher and research participant will be required to wear a face mask during the entire duration of the interview. Sanitizer that is 70% alcohol-based will be made available. You and the researcher will need to adhere to social distancing protocol during the duration of the interview. Owing to the Covid-19 Pandemic, and the interviews not being conducted in person at the DUT Faculty research room, the letter of information and consent form would have been emailed from the researcher to you via your dut4life email addresses to then be signed and returned to the researcher one week before the interview date. Should you not have sufficient data to use to be interviewed, DUT has a student wireless network that all registered students have access to when on the campus, these facilities can be utilized for the interview to be conducted. The interviews will be conducted on a day when you are already at campus for blended learning. You will be allocated pseudonyms to ensure confidentiality and anonymity. The data will be labelled according to your pseudonym and stored at the Chiropractic programme for 5 years and electronic data will be password protected/ stored on a USB at DUT. Thereafter, hard copies will be shredded, and electronic data will be deleted. Only the researcher and supervisor and will have access to the data.

Risks or Discomforts to the Participant: There are no risks/discomforts involved from your participation in this study.

Benefits: This study will be beneficial to both the Department of Chiropractic and the Durban University of Technology as it will assist in improving the first year student experience and making necessary modifications to ensure a successful transition. This will enhance chiropractic students experience into the chiropractic course.

Reason/s why the Participant May Be Withdrawn from the Study: You may withdraw from the study at any point, there will be no adverse consequences for you should you choose to withdraw.

Remuneration: No remuneration will be given to you for participating in this study. Participation in this study is voluntary.

Costs of the Study: You will not incur any costs while participating in this study.

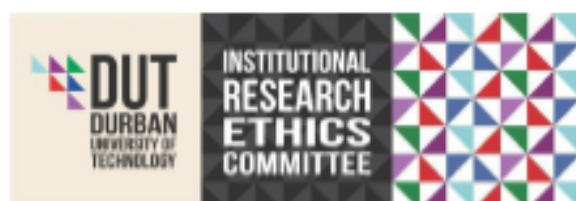
Confidentiality: All details and information obtained in this study will be treated with the utmost confidence. With the exception of the letter of information and consent no personal identification details are required. Pseudonyms will be used instead of actual names to maintain confidentiality.

Research-related Injury: The research involves interviews therefore there is no possibility for injury.

Persons to Contact in the Event of Any Problems or Queries:

Please contact the researcher (083 666 8001.), my supervisor Dr Desiree Varatharajulu (031 373 2533) or the Institutional Research Ethics Administrator on 031 373 2375. Complaints can be reported to the DVC: Research, Innovation and Engagement Prof S Moyo on 031 373 2577 or moyos@dut.ac.za

Appendix E: Letter of Informed Consent



LETTER OF CONSENT

Statement of Agreement to Participate in the Research Study:

- I hereby confirm that I have been informed by the researcher, (Keiron-Ashleigh Boosi), about the nature, conduct, benefits and risks of this study - Research Ethics Clearance
Number: IREC 096/20
- I have also received, read and understood the above written information (Participant Letter of Information) regarding the study.
- I am aware that the results of the study, including personal details regarding my sex, age, date of birth, initials and diagnosis will be anonymously processed into a study report.
- In view of the requirements of research, I agree that the data collected during this study can be processed in a computerised system by the researcher.
- I agree to have this interview audio-recorded for research purposes.
- I may, at any stage, without prejudice, withdraw my consent and participation in the study.
- I have had sufficient opportunity to ask questions and (of my own free will) declare myself prepared to participate in the study.
- I understand that significant new findings developed during the course of this research which may relate to my participation will be made available to me.

Full Name of Participant

Date

Time

Signature

I, _____ (Keiron-Ashleigh Boosi) herewith confirm that the above participant has been fully informed about the nature, conduct and risks of the above study.

Full Name of Researcher

Date

Signature

Full Name of Witness

Date

Signature

Appendix F: Interview Guide



Section A: DEMOGRAPHIC DATA

1. Age:
2. Gender:
3. What type of high school did you attend? (public/private)
4. Where do you live and did you live there during high school?
5. With whom do you live?

SECTION B: INTERVIEW QUESTIONS

1. Describe how your high school studies prepared you for university.

Probe questions: Did you require extra lessons? Were you made aware of different study methods? Please explain.

2. Please describe the factors that were of concern to you during your application and acceptance into university.

Probe questions: Were you concerned about your academic record? Did you apply to a university away from home? Please explain.

3. Describe your experiences regarding your transition from high school to university.

4. Can you mention and explain any challenges you have encountered when you entered university? Probe questions: Are you able to understand your lecturers and subject content? Were you able to interact with your classmates? Do you feel you had an adequate support structure? Explain how the COVID-19 pandemic has had an impact on your first year studies? Please explain.

5. Upon entry into university, mention and explain the aspects that you felt were of importance to you such as academic demands, relationships with your lecturers and peers and social demands?

Appendix G: Covid Screening Form



COVID-19 SCREENING TEST

Name: _____

Contact Details: _____

Temperature on screening (°C): _____

Have you experienced any of the following symptoms in the past 48 hours:	YES (✓) or NO (X)
Fever or chills	
Cough	
Fatigue	
Headache	
Muscle or body aches	
Diarrhea	
Nausea or vomiting	

Shortness of breath or difficulty breathing	
Congestion or runny nose	
Sore throat	
New loss of taste or smell	

Please read the following questions carefully before answering	YES (✓) or NO (X)
Are you isolating or quarantining because you may have been exposed to a person with COVID-19 or are worried that you may be sick with COVID-19?	
Are you currently waiting on the results of a COVID-19 test?	
Within the past 14 days, have you been in close physical contact with a person who is known to have laboratory-confirmed COVID-19 or with anyone who has any symptoms consistent with COVID-19?	

SIGN: _____

DATE: _____

Appendix H: Exemplar Transcript

Age:	19
Gender:	Male
What type of high school did you attend? (public/private)	Private school.
Where do you live and did you live there during high school?	I used to live in Musgrave during high school but I just moved to Overport
With whom do you live?	I live with my mum and little sister.
Describe how your high school studies prepared you for university. Probe questions: Did you require extra lessons? Were you made aware of different study methods? Please explain.	It didn't prepare me. In my school it was so closed off, you were confined to the same environment where everything was the same everyday whereas at university there's different people every day, you freer to do whatever you want to do, there's more independency compared to high school. I didn't have any extra lessons. but I didn't really need any and nobody taught us about different study methods
Please describe the factors that were of concern to you during your application and acceptance into university. Probe questions: Were you concerned about your academic record? Did you apply to a university away from home? Please explain.	Well, the one thing I was worried about was getting accepted because the competition is so strong and there's limited space available so that didn't guarantee my acceptance into university and personally not getting accepted would have jeopardised my future plans. Also, I had only applied here so I didn't have many other options.
Describe your experiences regarding your transition from high school to university.	I adapted quickly, but I found it very different as I said you are more independent here than in high school, because I went to an all-Islamic school and was only surrounded by Muslim people it was different to be in university with people of all different cultures and races, but it didn't really affect me in any way.
Can you mention and explain any challenges you have encountered when you entered university? Probe questions: Are you able to understand your lecturers and subject content? Were you able to interact with your classmates? Do you feel you had an adequate support structure? Explain how the SARS-COV-2 pandemic has had an impact on your first-year studies? Please explain.	<p>The work load is way more than high school that is the main challenge I am facing. I'm able to understand my lecturers and the content but there is not as much pressure from them as there used to be from our teachers to get our work done so it's been a lot of self-studying to make sure I understand everything.</p> <p>The first few months before Covid came along things were going really well, but after that everything went off. Now we have to sit on our lap-tops the whole day watching on line lectures, self-studying even more to catch up but I was able to cope. But being at home didn't help with my time management because I did things in my own time and I wasn't really disciplined.</p>
Upon entry into university, mention and explain the aspects that you felt were of importance to you such as academic demands, relationships with your lecturers and peers and social demands	Getting a good group of friends because people can tell who you are by your group of friends and if you have friends who are negative then your whole life will end up being negative, so good friends were key to me. Also not fooling around too much because you have to work hard for your own future.

Appendix I: Permission from Director of Research



*Directorate for Research and Postgraduate Support
Durban University of Technology
Tromso Annexe, Steve Biko Campus
P.O. Box 1334, Durban 4000
Tel.: 031-3732576/7
Fax: 031-3732948*

17th November 2020
Ms Keiron-Ashleigh Boosi
c/o Department of Chiropractic
Faculty of Health Sciences
Durban University of Technology

Dear Ms Boosi

PERMISSION TO CONDUCT RESEARCH AT THE DUT

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research and Innovation Committee (IRIC) has granted Full Permission for you to conduct your research "The experiences of first-time registered Chiropractic students at a South African University of Technology regarding their transition from high school to university" at the Durban University of Technology.

The DUT may impose any other condition it deems appropriate in the circumstances having regard to nature and extent of access to and use of information requested.

We would be grateful if a summary of your key research findings would be submitted to the IRIC on completion of your studies.

Kindest regards.
Yours sincerely



DR LINDA ZIKHONA LIGANISO
DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT DIRECTORATE

Appendix J: Permission from Head of Programme

To : To Whom It May Concern

From : Dr L. O'Connor Acting HoD Chiropractic

RE : Permission to access first time registered students in the Bachelor of Health Sciences in Chiropractic programme

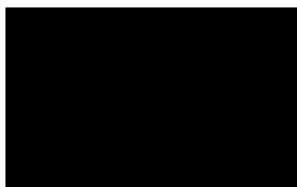
Date : 6 November 2020

Permission is given to Miss K. Boosi (student number: 21609331) to conduct her research at the Durban University of Technology Department of Chiropractic, whereby she will be interviewing first time registered students in the Bachelor of Health Sciences in Chiropractic programme.

The title of the research study is: The experiences of first-time registered Chiropractic students at a South African University of Technology regarding their transition from high school to university.

Supervisor: Dr D. Varatharajulu

Yours sincerely,



Dr L. O'Connor
Acting HoD: Chiropractic
M. Tech Chiropractic
Tel. 031 373 2923
Lauraw@dut.ac.za

Appendix K: Editor's Certificate



Helen Bond

IMPELA EDITING SERVICES

impelaediting@gmail.com

079 395 5873

12 December 2021

CERTIFICATE

keiron boosi

kboosi8@gmail.com

Dear Keiron

Thank you for using my editing services to proofread your Master's dissertation entitled, *"THE EXPERIENCES OF FIRST-TIME REGISTERED CHIROPRACTIC STUDENTS AT A SOUTH AFRICAN UNIVERSITY OF TECHNOLOGY REGARDING THEIR TRANSITION FROM HIGH SCHOOL TO UNIVERSITY"*.

I have proofread for errors of grammar, punctuation, spelling, syntax and typing mistakes. I have formatted your work and checked the references (this means checking the formatting). I believe your work to be error free.

PLEASE NOTE: Impela Editing accepts no fault if an author makes changes to a document after a certificate has been issued.

I wish you the very best with your submission and your career.

Kind regards

Helen Bond (Bachelor of Arts, HDE)

Appendix L: Ethical Clearance



20 November 2020

Ms K-A Boosi
Flat 12 Chesslea
6943 Ridge Road
Morningside
Durban

Dear Ms Boosi

The experiences of first-time registered Chiropractic students at a South African University of Technology regarding their transition from high school to university
Ethical Clearance number **IREC 096/20**

The Institutional Research Ethics Committee acknowledges receipt of your gatekeeper permission letters.

Please note that FULL APPROVAL is granted to your research proposal. You may proceed with data collection.

Any adverse events [serious or minor] which occur in connection with this study and/or which may alter its ethical consideration must be reported to the IREC according to the IREC Standard Operating Procedures (SOP's).

Please note that any deviations from the approved proposal require the approval of the IREC as outlined in the IREC SOP's.

Yours Sincerely



Prof J K Adam
Chairperson: IREC



Appendix M: Plagiarism

Masters dissertation

ORIGINALITY REPORT

7 %	7 %	2 %	3 %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	pdfs.semanticscholar.org Internet Source	2 %
2	hdl.handle.net Internet Source	1 %
3	scholar.sun.ac.za Internet Source	<1 %
4	www.tandfonline.com Internet Source	<1 %
5	scnpdi.org.za Internet Source	<1 %
6	Submitted to University of South Africa Student Paper	<1 %
7	www.ncbi.nlm.nih.gov Internet Source	<1 %
8	cejsr.academicjournal.io Internet Source	<1 %
9	ulspace.ul.ac.za Internet Source	<1 %