# Exploring the challenges and efforts implemented to improve the academic performance and success of nursing students at a university in the Western Cape

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ABSTRACT

Satisfactory academic performance and success of undergraduate nursing students is a fundamental goal for schools of nursing worldwide. However, many students are confronted with various challenges that may hinder this endeavour. The study adopted a qualitative approach to explore and describe the challenges experienced by undergraduate nursing students at the identified school of nursing, regarding academic performance and success and the efforts implemented to overcome these challenges. The population (N = 1131) included all under-graduate nursing students at the identified university. The sample (n = 50) was selected through stratified random sampling. Six semi-structured focus group discussions were conducted. Data were analysed by means of thematic analysis. The findings of this study revealed that nursing students experience challenges related to: (1) living in an off- campus residence that is not conducive for learning, (2) participating in part-time paid employment, (3) the current structure of the curriculum, (4) inadequate academic and clinical support, and (5) unfavourable physical educational environment. Furthermore, the findings revealed that nursing students resort to: (1) a surface approach to learning and (2) active academic engagement. Based on these findings, it is evident that nursing students at the university understudy are overwhelmed with various challenges that pose a threat to their academic performance and success. Thus, there is a need for interventions to be put in place in response to the challenges experienced by the undergraduate nursing programme.

## 1. Introduction and background

Theoretical and clinical education is of vital importance for under-graduate nursing students. Educational researchers worldwide are interested in studying the challenges experienced by students from higher education institution (HEI) in general, but more specifically the challenges hindering academic performance and success (Perna & Thomas, 2006; Jeffreys, 2015). Academic performance and success are a complex phenomenon that is influenced by the interaction of various factors (Perna & Thomas, 2006; Jeffreys, 2015). In this study, academic performance and success refers to the student's achievement of the minimum academic requirements stipulated by the university to successfully complete a module or year of study.

Jeffreys (2015) proposed that undergraduate nursing students face various challenges during their studies. These challenges may be the result of the interaction between multiple levels of context (internal context, family context, school context and social, economic and policy context) (Perna & Thomas, 2006).

Internal student related challenges such as the student's profile, academic factors, psychological and emotional factors, as well as family factors such as family background and economics have been identified as some of the factors that have an impact on the academic performance of nursing students (Beauvais, Stewart, DeNisco, & Beauvais, 2014; Glew et al., 2015; Wambuguh, Eckfield, & Van Hofwegen, 2016; Mthimunye & Daniels, 2017; Mthimunye & Daniels, 2019a,b). Some studies have also found that school related factors such as professional integration and the teaching and learning environment, as well as social, economic and policy related factors have a significant impact on the academic performance of undergraduate nursing students (Ali & Naylor, 2010).

In the Republic of South Africa (RSA), the dropout rate in 2005 was 50% of the total number of students registered at Higher Education Institutions (HEIs). Of the 120 000 first-year students in HEIs in 2000, 36 000 (30%) dropped out in their first year of study, and an additional

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24 000 in their second year. Of this 120 000, only 26 500 (22%) ultimately completed and graduated from their respective programmes (Council on Higher Education, 2010). However, exceptional efforts that are put in place by public HEIs are starting to yield positive results. The Department of Higher Education and Training (DHET) (2018), reported that in 2016, 203 076 (39.7%) undergraduate students graduated from public HEIs, the highest during the period 2009–2016.

The situation in nursing education is not that devastating. In 2017, the South African Nursing Council (SANC) reported that of the 8 600 final-year undergraduate nursing students from various universities and nursing colleges in the RSA, 7 409 (86.15%) successfully completed the undergraduate nursing programme while the remaining 1 191 (13.85%) were either unsuccessful or dropped out due to various reasons (SANC, 2017).

In an unpublished masters study conducted by Mthimunye (2015) at the same university identified in this study investigated the academic success of second-year undergraduate nursing students and revealed that 118 (52.21%) of the 226 students registered for their second-year of study in 2012 – 2013, experienced difficulties and failed to meet the minimum requirement for promotion to the next level of study at their first attempt. However, a major limitation of this study was that it only focused on the participants who matriculated with National Senior Certificate (NSC), which resulted in a limited sample size. Nevertheless, it was deemed necessary to investigate and explore the challenges facing undergraduate nursing students in their pursuit of satisfactory academic performance and success.

## 2. Theoretical framework

The conceptual framework for reducing the School of Nursing (SoN) success gap and promoting success for all by Perna and Thomas (2006) was adapted for this study. This framework postulates that success of student's is influenced by multiple layers of context: (1) the internal context, (2) the family context, (3) the school context, and (4) the social, economic and policy context (Perna & Thomas, 2006).

### 2.1. Significance of the study

This study highlights vital information which can be used by the HEIs to provide the necessary support required by undergraduate nursing students to alleviate the challenges they face and ultimately increase their academic performance and success. It is to be noted that the current undergraduate nursing programme will be phased out as from 2020 to 2024 as the new undergraduate programme is phased in from 2020. Despite this changes, some of the findings in this study may still be applicable in the new programme.

### 2.2. Aim of the study

The study aimed to explore and describe the challenges experienced by undergraduate nursing students at the identified school of nursing, regarding academic performance and success and the efforts implemented to overcome these challenges.

## 3. Research question

What are the challenges experienced by undergraduate nursing students at the identified school of nursing regarding academic performance and success and what efforts have they implemented to overcome these challenges?

## 4. Methodology

### 4.1. Research approach and design

A qualitative research approach and an exploratory-descriptive research design with an interpretive view was implemented to obtain insight and understanding regarding the phenomenon of academic performance and success of undergraduate nursing students. According to Grove and Gray (2018), a qualitative research approach provides an in-depth understanding about some aspects of the phenomenon. An explorative-descriptive design is used to expand theory, determine current problems in practice and to identify what others in similar situations are doing (Grove & Gray, 2018). In this study, this design was useful to explore the challenges experienced by undergraduate nursing students' as well as the efforts implemented to overcome these challenges.

### 4.2. Context of the study

The study was conducted at a School of Nursing (SoN) at a university in the Western Cape, South Africa. The school offers a four-year Bachelor of Nursing (BN) undergraduate nursing programme with an extended curricular programme over five years (foundation programme). This programme prepares graduates to practice as a general nurse, midwife, community health and psychiatric nurse after registration with SANC. The four- and five-year programmes were the focus of the study.

### 4.3. Population and sampling

The population (N = 1131) of the study included all undergraduate nursing students at the identified university during the 2017 academic year. A stratified random sampling technique was used to recruit the study participants. The year level of study represented the strata. 10 students per strata were randomly selected using the year level class lists. However, not all students honoured the invitation to participate. The final sample comprised of 50 undergraduate students. The first-year BN (foundation) strata was comprised of 9 participants; the second-year BN (foundation) strata of 10; the first-year BN strata of 7; second-year BN strata of 8; third-year BN strata of 7 and the fourth-year BN strata of 9 participants.

### 4.4. Data collection and management

Six focus group discussions (FGDs) with the respective year levels were conducted between June and October 2017, with each lasting about 60 min. All six FGDs took place in a tutorial room at the identified university. In qualitative research, FGDs allow participants to build on each other's thoughts and promotes comfortable group dynamics (Rubin & Rubin, 2012). Data was collected with the assistance of the study research assistant. The primary researcher as well as the study supervisor oversaw the process and the quality of the data collected. To get the required data on the challenges experienced by undergraduate nursing students at the identified school of nursing, regarding academic performance and success and the efforts implemented to overcome these challenges, specific questions were asked as indicated in text box 1. Probe questions allowed the research assistant to delve deeper into the discussion. All interviews were conducted in English and the discussions were digitally recorded to ensure accurate verbatim transcription. Audio recordings and transcripts were saved on a password protected file.

Text box 1: Interview questions

1. Describe your experiences (whether negative or positive) in the nursing programme that has an influence on your academic performance and success and what efforts did you put in place to ensure satisfactory academic performance and success?
   - Describe your experiences (whether negative or positive) in

the nursing programme that has an influence on your academic performance?

- What efforts did you put in place to ensure satisfactory academic performance and success?
- What do you think should be put in place (from the nursing programme point of view) to improve your academic performance and success?

### 4.5. Data analysis

All Microsoft word transcripts were imported to Atlas, ti. Mac Version 1.6. software for data organisation and analysis. Atlas, ti is useful for the management of text, graphics, audio, data files that are visual, along with coding and memos (Creswell & Creswell, 2017). Six steps of data analysis as described in Braun and Clarke (2013) were adopted to guide the data analysis: (a) listening to the recordings and reading through the transcripts several times in order to become familiar with the data, (b) generating initial codes across the entire data set to ensure that all data belonging to one code is grouped, (c) searching for themes and sub-themes through categorisation and renaming of codes, (d) reviewing of themes through collaboration with the study supervisor with the aim of assessing internal coherence in the themes and distinctions between them, (e) defining and naming the themes using some of the participants' responses and (f) writing a report by transforming the analysis into an interpretable piece of writing using vivid and compelling extracts from the participants responses. Identification (ID) codes were used to present verbatim quotes.

### 4.6. Rigor

The principles of credibility, transferability, dependability, confirmability and reflexivity were employed to ensure rigor (Thomas, Silverman & Nelson, 2015). Trustworthiness during data collection was ensured by conducting a pre-test FGD with 5 undergraduate nursing students to ensure the practicality of the data collection process as well as to refine the interviewer's interviewing skills. This was excluded from the study. Transferability was ensured by documenting all decisions made during the study and by providing a detailed description of the research setting, the process of sampling, data collection, data analysis as well as transcribing the findings. The use of semi-structured interviews as the method of data collection increased dependability. During the semi-structured interviews, the researcher asked a question (text box 1) and used probing questions, depending on the participant's response (Ritchie, Lewis, Nicholls, & Ormston, 2013). Dependability was also heightened by collaboration between the researcher and study supervisor during the study. Keeping accurate documentation of field notes, memos, transcripts and reflective reports, which are available upon request from the researcher, was the measure used to ensure confirmability. Member checking to assess the accuracy of the interpretation of the data, by allowing participants to read through the data and results, ensured credibility. The use of the conceptual model adapted from Perna and Thomas (2006) ensured transferability of the findings of this study.

### 4.7. Research ethics

Ethics clearance was obtained from the Research Ethics Committee of the University of the Western Cape (Ethical Clearance Number: HS17/1/42). Permission to conduct this study was gained from the Registrar and the Director of the SoN. Participation in the study was voluntary. After participants were made aware of their right to withdraw from the study at any stage, they gave their written informed consent. Participant's identity was not revealed during discussions and participants were identified by a code to ensure that the principle of anonymity and confidentiality was upheld. The participants were

requested to complete a confidentiality binding form to declare that all information discussed (including the identity of other participants) would not be disclosed outside of the group. All data collected is kept safe in a file that is password protected to uphold confidentiality.

### 4.8. Findings

The analysis generated 238 quotations and 56 codes which were categorised. A total of 5 themes and 9 categories emerged from the data. The conceptual model adapted from Perna and Thomas (2006) guided the categorisation of the data and the clarification of the study themes.

**Theme 1: Students' academic performance and success is adversely affected by engagement in paid part-time employment during the period of study**

Some students revealed that they are from disadvantaged backgrounds and sometimes face financial challenges that leave them with no choice but to seek part-time employment during the period of study. Financial challenges led students to engage in paid part-time employment, which negatively affected learning and resulted in unsatisfactory academic performance. Their struggle is evident in reports that they do not have the finances to buy textbooks or even make photocopies of texts:

*"… about the finance because most of us are coming from poor backgrounds so we can't afford to buy textbooks and paying fees"* (FGD1, BNF1, P7)
*"I made copies, but the copies weren't enough but couldn't make copies of everything I needed for the test because I had no printing credits and I didn't have enough money …"* (FGD6 BN4, P4)

Students also reported that engagement in paid part-time employment resulted in them not having time to study:

*"… it is very difficult for me to go home, have a whole day of school then go to work and then come home and study. I know myself. I'm not going to do that."* (FGD3, BN1, P3)

The same sentiments were shared by another student:

*"I just struggle to find time like to go home and physically sit down and study. I've got another job that I have to do, as well, which is in the evenings … it is a bit difficult. Because my other job from five to nine leaves me … So, I get home, I shower, eat and go sleep. I don't have study time. I just change from varsity to work and then go sleep. So, studying time at home and summarising and actually sitting down watching all those things, it is difficult"* (FGD4, BN2, P5)

**Theme 2: Residing at home or off-campus during the period of study has a negative effect on students' academic performance and success**

Some students expressed that residing at home has a negative impact on their academic performance. It presents additional challenges related to transportation from home to the campus and clinical placements. They also articulated that residing at home adds more pressure because they are expected to perform household tasks like everyone else, leaving them with little time to study.

*Category 1: Unfavourable conditions to study at home/off-campus residence*

Some students' home environment is not conducive for studying as there are too many distractions.

*"Especially like this weekend, it is just for studying. And then we are at home, and on a weekend, everyone is at home. So, it is really hard to study."* (FGD2, BNF2, P10)

One student mentioned that added to this challenge is the burden of household tasks.

*"You have to clean. You have your duties at home that you have to do."*

(FGD2, BNF2, P2)

Another student mentioned:

*"If only I had like a residence maybe my marks would not have been this average. Maybe I would have gotten above the mark I got now." (FGD5, BN3, P4)*

*Category 2: Poor transport arrangements*

Students making use of off-campus accommodation shared that transport to and from campus as well as to and from clinical placements is problematic. The students expressed that they spend more time struggling with transport instead of investing the time in engaging with their studies. One student reported:

*"To study is also a struggle because you have to balance between travelling and academics" (FGD2, BNF2, P8)*
*"Especially those who stay off campus we don't have access to transportation." (FGD6, BN4, P1)*

**Theme 3: The utilisation of surface learning to overcome the challenges of the programme's structure'**

The most common theme among all participant groups was centred on the challenges posed by the manner in which the programme is structured.

*"… we have to work as well as attend class in the same week. And it is really difficult. You work twice a week and you have to get up early the next day to go to class and then come home to study when you have work the next day and it is difficult and it is hard to manage especially if you have a life outside of schooling as a whole and I think that is very taxing. That is one thing that is difficult." (FGD4, BN2, P2)*

*Category 1: Students find it challenging to maintain the balance between 12-hour clinical shifts and the theory component of the programme*

When asked to describe how their clinical placements impact on their academic performance and success in the nursing programme, students indicated that they found it challenging to work the required clinical shifts (07 h00 to 19 h00) and engage theoretically. Students expressed that the 12-hour shifts are lengthy and make it difficult for them to study and attend classes the following day.

*"… when I'm coming from hospital, I usually get home at half past eight. So, I have to get there, I'm very tired, I have been standing the whole day. I just wash and go to bed. So, I won't be able to study for my Hub. Because the next morning I have to wake up very early so that I can get up … at six for campus for the half past eight class." (FGD2, BNF2, P5)*
*"So, the seven to sevens in first and second year was very difficult especially if you have to do a test the next day." (FGD5, BN3, P1)*

One student suggested that the 12-hour shifts should be reduced and rather be replaced with shorter clinical hours over a longer period.

*"They must do something about those hours … It must be maybe five hours per day for the whole year so that it can sum up …" (FGD6, BN4, P7)*

*Category 2: The grouping of science modules in the second level of study results in difficult content being clustered in one year of study*

It was quite clear from the interviews conducted with the current second-, third- and fourth-year students that the second level, is the most overwhelming year of the undergraduate nursing programme. Students expressed that this is due to the fact that the second level of study is loaded with science modules that are perceived as difficult modules by nursing students. These were identified as physics and pharmacology.

*"That was sort of like how my year ended off. It was really bad because the level, the academic level from first year to second year, I think there was a ten per cent drop in my average because of much pressure they put us under in second year with everything just being on top of each other and all of that …" (FGD5, BN3, P7)*

*"I think the times of particular modules that are offered during the second year do not help the students to be able to study, like pharmacology …" (FGD6, BN4, P9)*

In addition, the students feel that if the workload and the modules were distributed equally across the programme, it would alleviate the pressure from the second level of study.

*"I think they could just really split the work. You know get some work over to third year because third year is so like chilled in community." (FGD5, BN3, P6)*

*Category 3: Poor time-table and assessment planning results in inadequate preparation for assessments*

Students shared that the way in which specific classes are scheduled (time-table planning) is not strategic and has a significantly negative impact on their concentration in class. Most students revealed that some modules require full concentration and that it would be better if they were scheduled for morning slots rather than in the afternoon when students are already tired. The situation is worse if science modules are scheduled for the afternoon slots.

*"It is not really according to the time the brain is to assimilate most. Because when you're tired that is another problem. The timing that the module is scheduled to take place is not correct in my opinion." (FGD6, BN4, P4)*
*"And again, I think the times of particular modules that are offered during the second year do not help the students to be able to study like pharmacology." (FGD6, BN4, P1)*

Furthermore, the students raised challenges related to poor assessment planning. Most students are challenged with the fact that assessments are scheduled too close to each other, thus not allowing enough time in between to prepare.

*"And last year we also wrote the exams … final exams, Hub [human biology] and physics on the same day" (FGD2, BNF2, P10)*
*"Friday we're writing human biology, around five o' clock and then the following day, Saturday, you are writing another test, at nine o' clock you are writing pharmacology. And how do they expect us to study?" (FGD5, BN3, P2)*

The students also expressed that the assessments dates are changed without them being notified timeously.

*"Also, some of these tests just pop us. Nobody says anything. You actually have to go and check yourself. Nobody says anything" (FGD2, BNF2, P3)*

Categories Four and Five describe the efforts that students have implemented to ensure satisfactory academic performance despite the challenges arising from the current structure of the programme.

*Category 4: Students maintain a positive attitude and remain dedicated towards programme responsibilities*

The students reported that despite experiencing programme related challenges, they try to keep a positive mind set.

*"So, I try to keep like a positive attitude as well as getting the work done." (FGD1, BNF1, P6)*
*"I am here because I want to be here. I want to be a nurse and I want to be a damn good nurse." (FGD3, BN1, P8)*

*Category 5: Students memorise content for the sake of passing assessments*

The students admitted to sometimes resorting to desperate measures in order to cope with the pressure. One measure that emerged strongly from this study was that students memorise content without understanding, a measure referred to as "Cram, Pass and Forget" (CPF) by the students.

*"It is like you study to pass the test and not to just take it in. Just to pass … I think that is how everyone live their lives. Cram, Pass and Forget*

(CPF)… If you ask me a day after a test, I won't be able to tell you anything. It's a real thing." (FGD6, BN4, P5)

"With regard to what P5 said about cram, pass and forget, next week we have a pharmacology test on Monday; general nursing science test on Thursday, we have a practical on Wednesday… and then we have another pharmacology test on Saturday. How do you not cram pass and forget…?" (FGD3, BN1, P4)

"… pharmacology you need to memorise, you don't study, you memorise" (FGD5, BN3, P1)

**Theme 4: Remaining academically engaged to overcome the perceived challenge of inadequate academic and clinical support**

This theme highlights the challenges experienced by students which are directly related to the nurse educators, clinical supervisors as well as the nursing stuff in the hospital. Most students shared the struggle of remaining academically engaged due to the insufficient support they receive.

*Category 1: Perceived insufficient teaching and learning support in both theory and practice*

The students shared that they do not receive adequate support in both theoretical and practical components of their programme. With regards to the theoretical component, students revealed that nurse educators do not always come prepared to class and that the learning material given to them is not always adequate. Students further elaborated on the teaching methodology implemented by nurse educators in the classroom. They also indicated that case-based learning disadvantages them because it encourages students to only engage with a specific section of the case to be presented.

"Yes. And sometimes the notes were irrelevant like they would give extra stuff for our benefit, but it is not what they're going to ask." (FGD5, BN3, P6)

"… like in a presentation-based case where you're supposed to do just a part; I do a part; this one does a part and then I focus on what everyone else is supposed to present and I present. What he is saying, just because it is not coming directly from my lecturer, I don't know … I don't get it. Because after all I do not know whether he is right or wrong. So, at the end of the day I'm missing because I was just a part of this whole thing …" (FGD6, BN4, P6)

Another student commented:

"So, we need more from the lectures. I feel like they're not really giving us what we actually need for skills in the hospital." (FGD5, BN3, P2)

Likewise, with regards to the practical component of the programme, students revealed that the practical teaching they receive from the clinical supervisors is inconsistent and results in confusion.

"… because at skills lab you also have one supervisor and then you get into the hospital and then it's someone else. And in skills lab they show you this is how you do it and, in the hospital, they show you another way …" (FGD4, BN2, P3)

One student said:

"… all the supervisors should be taught one way of teaching the students a procedure because last year I found out that I was taught this procedure which ended up being my OSCE and I was taught wrong. I only realised last year I was wrong. I actually missed critical points and everything." (FGD4, BN2, P4)

Students also shared that opportunities are not created for them to learn in the practical setting and they feel that they are part of the workforce. As a result, they just wonder around and do not learn anything.

"I work in the cancer paediatric ward and we are placed in a room. We can't leave that room because we need to look after the children. But now there is no opportunity for me to learn anything. Because all I need to do is do the observations …" (FGD4, BN2, P5)

"So, while everyone is doing other things you are not just sitting there looking like a lost soul" (FGD4, BN2, P8)

"… you actually have to create your own opportunities because no-one is going to come and show you, which is frustrating for me because like I say it's an environment where we should be taught. We are not being taught." (FGD4, BN2, P4)

However, students shared the efforts implemented to ensure that learning takes place despite the lack of support.

*Category 2: Students strive to remain academically engaged by being self-directed, attending class, seeking consultation and active participation in study groups*

Students mentioned that in order to deal with the challenges related to insufficient teaching and learning support, they take responsibility for their own learning by putting in extra time for study, attending class and consulting with nurse educators.

"For me, it is like self-studying. I actually go home and sit with my books at night and try to figure it out myself." (FGD3, BN1, P6)

"I study obviously. I have to study every day a lot and I also have guys, study group sessions" (FGD3, BN1, P3)

"I go to like all the classes. I am very into studying. That's the only way that I can like pass this. It is to attend all my classes." (FGD5, BN3, P6)

**Theme 5: Students view learning as being negatively affected by the unfavourable physical teaching and learning environment**

This theme highlights environmental challenges experienced by undergraduate nursing students that impact on their academic performance and success.

A final theme that was frequently mentioned by the students across all participant groups was that the poor physical education environment at the identified university does not promote learning. They shared their dissatisfaction with the physical state of both the theory and practical (skills laboratory) educational environment. The students shared that some classes are so full, there is no place for everyone to sit.

"I went to a pharmacology and a psych lecture once each. Like there is no seating for everyone in the class. I didn't even bother going back. They sit in the aisles." (FGD4, BN2, P1)

One student mentioned that the practical educational environment poses unfavourable challenges that hinder the learning process.

"And in skills lab it is like two in the afternoon, and it is so hot, and you just stand there. I don't know I don't even learn anything in skills lab." (FGD5, BN3, P1)

## 5. Discussion

The aim of this study was to explore and describe the challenges experienced by undergraduate nursing students at the identified school of nursing, regarding academic performance and success and the efforts implemented to overcome these challenges. The discussion of the study findings will be based on the three layers of the framework for reducing the SoN success gap and promoting success for all as adapted from Perna and Thomas (2006).

### 5.1. Layer 1- internal context

#### 5.1.1. Student profile

This study revealed that undergraduate nursing students at the identified university engage in paid part-time employment, which poses a challenge and ultimately impacts negatively on their academic performance. A scoping review conducted by Phillips, Kenny, and Esterman (2016) reported that nursing students engage in paid part-time employment due to inadequate financial support by higher education institutions. Similar findings were echoed in a systematic review conducted by (Mthimunye & Daniels, 2019a,b). Furthermore, literature

reveals that the number of hours spent in part-time employment has an impact on the academic performance of nursing students. In particular, Salamonson, Everett, Koch, Andrew, and Davidson (2012) reported that nursing students who work more than 16 h per week during term-time are at risk of unsatisfactory academic performance. Tiredness and exhaustion as a consequence of working extended hours can result in poor attentiveness in class and academic disengagement. In this study, this result can be exacerbated by the fact that majority of the students at the identified university are from disadvantaged backgrounds and thus the need to engage in paid part-time employment to meet their financial needs (University of the Western Cape, n.d.).

Given the history of the Republic of South Africa, black and coloured students, who form the majority of those enrolled for the undergraduate nursing programme at the identified SoN, are likely to come from disadvantaged backgrounds. Hence the vicious cycle that students are caught up in: if they study, they need finances; if they work while studying, their academic performance is negatively affected.

### 5.2. Layer 2 – family context

Various studies around the world have reported that family context factors such as residing at home while studying for a higher education degree impacts on the student's academic performance and success (Turley & Wodtke, 2010; Muslim, Karim, & Abdullah, 2012). The participants in this study expressed that residing at home during the course of the undergraduate nursing programme is one of the challenges they experience at the identified university. Similarly, an exploratory study conducted by Ali and Naylor (2010) in Pakistan, with the aim of exploring the association between certain academic and non-academic factors and academic success of the nursing students in the three-year diploma programme, reported that the place of dwelling has an impact on their academic performance. By contrast, a study conducted by Oducado and Penuela (2014) in the Philippines revealed that the place of dwelling does not have any significant impact on the academic performance of nursing students. The findings of the current study may be explained by the context in which many South African students find themselves. Many South Africans still reside in sub-economic housing with limited basics such as adequate space which may have a negative impact on studying (Marais, 2015). Unlike students residing on a university campus, students residing at home may also incur financial implications such as high data costs to access the internet and travelling costs to campus and clinical placements. These conditions may pose a serious challenge to students who reside at home that may negatively influence their academic performance.

### 5.3. Layer 3 – school context

#### 5.3.1. Professional integration

In recent years, various studies have been conducted focusing on the impact of hospital shifts in nursing (Harris, Sims, Parr, & Davies, 2015; Mariani, Arcamone, & Cummins, 2012). However, conflicting findings have been reported. A recent study conducted by Reising, Fickenscher, and Satrom (2017, p. 1) aiming to "compare opportunities for students to develop their psychomotor skills in the clinical unit and the perception of clinical experience across a 6-hour day, 6-hour evening, and 12-hour day schedules in an acute care setting" revealed that 12-hour shifts afforded the students with more meaningful skill development opportunities than other shifts. By contrast, a study conducted by Danner (2014) with the aim of comparing competency achievements of undergraduate nursing students allocated 12-hour shifts with those allocated 7–8 h shifts reported that there was no significant variance in learning outcomes among the 2 groups.

The current study reported that undergraduate nursing students are not in favour of 12-hour hospital shifts. Similar findings were reported in the mixed method study conducted by Mariani et al. (2012, p. 3) that aimed to "evaluate the student and registered nursing staff's perceptions of whether the 12-hour clinical shift rotation enhances the student's clinical learning ability, allows for better continuity of care for their assigned patients and families, and facilitates the ability to correlate theory to nursing practice". This finding should be understood bearing in mind that students may feel tired after long shifts and have to deal with poor transport arrangements and household responsibilities as discussed earlier. Furthermore, the 12-hours shifts were perceived to have an impact on their academic performance because the participants reported that they sometimes have to attend class or write assessments on the morning after a 12-hour shift without having had enough rest.

The study also revealed that nursing students do not receive adequate academic and clinical support. Previous research studies such as those of Cooley and DeGagne (2016) have indicated the importance of having good supervision to facilitate a smooth transition and ongoing support into new environments. In nursing education, supervision refers to the clinical support provided to students in the educational environment (Jervis & Tilki, 2011). It is important to note that at the SoN in this study, nurse educators and clinical supervisors employed by the university, are expected to see students on a one to one or group supervision session at least once a week. In addition, the role of registered nurses (RNs) in clinical placements is to provide students with support, however the high workload due to patient acuity makes it difficult for RNs to perform this role. A study conducted by Jack et al. (2018) in the United Kingdom revealed that many supervisors do not see themselves as educators but rather as managers and superiors and consequently neglect the nursing student's educational needs. This could explain why most students in this study reported feeling like "lost souls" in clinical placement. Another challenge highlighted by Nguyen, Forbes, Mohebbi, and Duke (2018) is the inadequate preparation and training of clinical supervisors, which is one of the aggravating factors of insufficient nursing student's support. Similarly, in the current study, students reported that the information they receive from their clinical supervisors is inconsistent and sometimes contradictory. Therefore, the findings of this study highlight the importance of standardised training for nurse educators and clinical supervisors. Despite these challenges, the current study revealed that the students strive to remain academically engaged by being self-directed, attending class, seeking consultation and active participation in study groups.

#### 5.3.2. Teaching and learning environment

The educational environment in nursing includes both clinical and theoretical learning settings (Billings & Halstead, 2016). Furthermore, in the education of nurses, the educational environment requires a variety of fundamental components such as the physical infrastructure, the teaching and learning processes, school resources/materials, and the teacher-student relationship (Miles, Swift, & Leinster, 2012). Previous studies conducted across the world have reported that generally, undergraduate nursing students have a positive perception towards the education environment (Victor, Ishtiaq, & Parveen, 2016; Mthimunye & Daniels, 2019a,b). A study conducted by Yang, Becerik-Gerber, and Mino (2013) reported that the student's perception of their learning environment is linked to spatial attributes such as room layout and furniture and ambient attributes such as temperature and air quality. Similarly, in this study, the students revealed that insufficient space and seating in classrooms have a negative impact on the quality of learning and ultimately influence their academic performance. Furthermore, this study revealed that ambient attributes such as temperature and noise levels in the classroom and skills laboratory at the identified university do not promote quality teaching and learning processes. These conditions deter students from attending classes.

The findings of this study revealed that the second-year level of undergraduate nursing programme is the most challenging year of the entire programme. The second year is comprised of a number of challenging science modules, such as physics, pharmacology and general nursing science. The findings of this study support the results of a study conducted at the same university by Mthimunye (2015), which found

that 52.21% of second-year students (2012–2013) who hold a NSC failed to successfully complete their second-year of study at the first attempt. Thus, the findings of this study confirm that the second-level of undergraduate nursing programme at the identified university is problematic and requires prompt intervention.

Most participants in this study indicated that they memorise content ("cram, pass and forget") for the sake of coping with the workload and passing assessments. Similar results were found in an unpublished study conducted by Furst (2011, p. 6) aimed at evaluating "the perceptions of student nurses regarding the effectiveness of the teaching methods which they experienced at a nursing college in the Western Cape Province". Kyndt, Berghmans, Dochy, and Bulckens (2014) states that students who perceive their workload to be excessive will apply a surface learning approach. Furthermore, Kyndt et al. (2014) reported that the educational environment may have a positive or negative influence on the students' perception towards their workload. This suggests the significance of promoting an effective and cooperative educational environment that minimises environmental challenges without making the workload seem overwhelming and promotes a strategic approach to learning (Abualrub, Karseth, & Stensaker, 2013).

### 5.4. Layer 4 – Social, economic, and policy context

#### 5.4.1. Economic conditions

Social conditions as well as public policies did not feature in the data. However, the findings of this study revealed an indirect link between economic conditions and the challenges experienced by undergraduate nursing students through the internal and family contexts. Economic challenges drive students to engage in paid part-time employment and ultimately put them at risk of unsatisfactory academic performance. In addition, poor economic conditions have a greater impact for students residing at home during the period of study. Regrettably, the economic challenges are beyond the student's and the HEI's control.

### 6. Study limitations

The study was conducted with a sample from one school of nursing, which limits the generalisability of the findings to other institutions offering undergraduate nursing programmes. Another limitation is that FGDs may lead to participants not sharing their thoughts and not feeling comfortable with speaking in a group. This may influence the quality of the data collected (Stewart & Shamdasani, 2014)

### 7. Conclusion

The aim of this study was to explore and describe the challenges experienced by undergraduate nursing students at the identified school of nursing, regarding academic performance and success and the efforts implemented to overcome these challenges. The findings of this study highlighted that nursing students' academic performance and success is influenced by multiple layers of context. Participating in part-time paid employment, residing off- campus, the structure of the curriculum, inadequate academic and clinical support as well as unfavourable physical educational environment are some of the challenges the nursing students are confronted with while endeavouring to achieve satisfactory academic performance and success. Nevertheless, surface approach to learning and striving to remain academically engagement are some of the efforts that nursing students have implemented to overcome their challenges. The findings of this study clearly indicate that more needs to be done, especially at the second level of the programme, to assist students to cope with the challenges that hinder them from achieving the desired outcomes.

### 8. Recommendations

The findings of this study revealed that nursing students are overwhelmed by various challenged from multiple levels of context while endeavouring satisfactory academic performance and success. Based on the findings of this study, it is clear that the efforts that nursing students implemented to overcome this challenge are not adequate and do not promote deep approach to learning. Thus, the findings of this study supports the need for the development and implementation of interventions to improve academic performance and success of nursing students. Based on this finding the researcher recommends that the university should provide nursing students with on-campus residence/ accommodation and providing those that are staying in off-campus residence with reliable transport. The university should ensure high quality and standardised training for nurse educators and clinical supervisors. The university should ensure equal distribution of modules across the undergraduate nursing programme to ensure that the workload is distributed evenly. Furthermore, educators should ensure that the modules across the programme are synchronised to ensure a holistic approach to teaching and learning.

### 9. Disclaimer

The views expressed in the submitted article are the authors own views and not an official position of the institution or funder.

### Competing interests

The authors declare that they have no competing interests and no financial or personal relationships which may have inappropriately influenced them in writing this article.

### Author contributions

K.D.T.M. (University of the Western Cape): Primary student researcher; was responsible for the conceptualisation of the study, data collection, data analysis and discussion.

F.M.D. (University of the Western Cape): was the study leader, supervised the conceptualisation of the study and guided the methodology for the study.

### Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.ijans.2020.100196.

### References

Abualrub, I., Karseth, B., & Stensaker, B. (2013). The various understandings of learning environment in higher education and its quality implications. *Quality in Higher Education, 19*(1), 90–110. https://doi.org/10.1080/13538322.2013.772464.

Ali, P. A., & Naylor, P. B. (2010). Association between academic and non-academic variables and academic success of diploma nursing students in Pakistan. *Nurse Education Today, 30*(2), 157–162. https://doi.org/10.1016/j.nedt.2009.07.006.

Beauvais, A. M., Stewart, J. G., DeNisco, S., & Beauvais, J. E. (2014). Factors related to academic success among nursing students: A descriptive correlational research study. *Nurse Education Today.* https://doi.org/10.1016/j.nedt.2013.12.005.

Billings, D. M., & Halstead, J. A. (2016). *Teaching in nursing: A guide for faculty* (5th ed.). St.Louis, MO: Elsevier.

Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners.* London: Sage Publications Ltd.

Cooley, S., & DeGagne, J. C. (2016). Transformative experience: Developing competence

in novice nursing faculty. *Journal of Nursing Education, 55*(2), 96–100. https://doi. org/10.3928/01484834-20160114-07.

Council on Higher Education. (2010). Higher Education Monitor. Access and throughput in South African Higher Education: Three case studies. Pretoria.

Creswell, J. W., & Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches.* Thousand Oaks, CA: Sage Publications.

Danner, M. (2014). Comparison of 1 long versus 2 shorter clinical days on clinical learning outcomes of nursing students. *Nurse Educator.* https://doi.org/10.1097/ NNE.0000000000000068.

Department of Higher Education and Training (DHET) (2018). Statistics on Post-School Education and Training in South Africa. Accessed 08 June 2019. http://www.dhet. gov.za/Research%20Coordination%20Monitoring%20and%20Evaluation/6_DHET% 20Stats%20Report_04%20April%202018.pdf.

Furst, L. N. (2011). *The effect of teaching methods used as experienced and perceived by student nurses at a nursing college in the Western Cape province.* Masters DissertationStellenbosch: University, South Africa.

Glew, P. J., Hillege, S. P., Salamonson, Y., Dixon, K., Good, A., & Lombardo, L. (2015). Predictive validity of the post-enrolment English language assessment tool for commencing undergraduate nursing students. *Nurse Education Today.* https://doi.org/10. 1016/j.nedt.2015.04.012.

Grove, S. K., & Gray, J. (2018). *Understanding nursing research: Building an evidence-based practice* (7th ed.). St Louis, MO: Saunders Elsevier.

Harris, R., Sims, S., Parr, J., & Davies, N. (2015). Impact of 12h shift patterns in nursing: A scoping review. *International Journal of Nursing Studies.* https://doi.org/10.1016/j. ijnurstu.2014.10.014.

Jack, K., Hamshire, C., Harris, W. E., Langan, M., Barrett, N., & Wibberley, C. (2018). "My mentor didn't speak to me for the first four weeks": Perceived Unfairness experienced by nursing students in clinical practice settings. *Journal of Clinical Nursing.* https:// doi.org/10.1111/jocn.14015.

Jeffreys, M. R. (2015). Jeffreys's Nursing universal retention and success model: Overview and action ideas for optimizing outcomes A-Z. *Nurse Education Today.* https://doi.org/10.1016/j.nedt.2014.11.004.

Jervis, A., & Tilki, M. (2014). Why are nurse mentors failing to student nurses who do not meet clinical performance standards? *British Journal of Nursing.* https://doi.org/10. 12968/bjon.2011.20.9.582.

Kyndt, E., Berghmans, I., Dochy, F., & Bulckens, L. (2014). "Time is not enough". Workload in higher education: A student perspective. *Higher Education Research and Development.*. https://doi.org/10.1080/07294360.2013.863839.

Marais, H. (2015). *South Africa pushed to the limit: The political economy of change.* Claremont: UCT Press.

Mariani, B., Arcamone, A. & Cummins, J. (2012). Student and Registered Nursing Staff's Perceptions of 12-Hour Clinical Rotations in an Undergraduate Baccalaureate Nursing Program. Sigma Theta Tau 41 Biennial Convention. Accessed at: http://hdl. handle.net/10755/201914.

Miles, S., Swift, L., & Leinster, S. (2012). The dundee ready education environment measure (DREEM): A review of its adoption and use. *Medical Teacher, 34*(9), e620–e634. https://doi.org/10.3109/0142159x.2012.668625.

Mthimunye, K. D. T. (2015). *Predictors of academic performance and throughput among second-year nursing students at a university in the Western Cape*Masters dissertation. South Africa: University of the Western Cape.

Mthimunye, K. D. T., & Daniels, F. M. (2017). Performance in grade 12 mathematics and science predicts student nurses' performance in first year science modules at a university in the Western Cape. *Curationis, 40*(1), https://doi.org/10.4102/curationis. v40i1.1776.

Mthimunye, K. D. T., & Daniels, F. M. (2019a). Predictors of academic performance, success and retention amongst undergraduate nursing students: A systematic review.

*South African Journal of Higher Education, 33*(1), https://doi.org/10.20853/33-1-2631.

Mthimunye, K. D. T., & Daniels, F. M. (2019b). Student nurses' perceptions of their educational environment at a school of nursing in Western Cape province, South Africa: A cross-sectional study. *Curationis, 42*(1), https://doi.org/10.4102/curationis. v42i1.1914.

Muslim, M. H., Karim, H. A., & Abdullah, I. C. (2012). Satisfaction of students' living environment between on-campus and off-campus settings: A conceptual overview. *Procedia-Social and Behavioral Sciences,* 601–614. https://doi.org/10.1016/j.sbspro. 2012.12.252 ISSN: 1877-0428.

Nguyen, V. N. B., Forbes, H., Mohebbi, M., & Duke, M. (2018). The effect of preparation strategies, qualification and professional background on clinical nurse educator confidence. *Journal of Advanced Nursing.* https://doi.org/10.1111/jan.13737.

Oducado, R. M. F., & Penuela, A. C. (2014). Predictors of academic performance in professional nursing courses in a private nursing school in Kalibo, Aklan, Philippines. *Asia Pacific Journal of Education, Arts, and Sciences, 1*(5), 21–28.

Perna, L.W., & Thomas, S.L. (2006). A framework for reducing the college success gap and promoting success for all. Retrieved from National Center for Educational Statistics website: Available at: http://nces.ed.gov/npec/pdf/Perna_Thomas_ ExecSumm.pdf.

Phillips, C., Kenny, A., & Esterman, A. (2016). Pre-registration paid employment practices of undergraduate nursing students: A scoping review. *Collegian, 23*(1), 115–127. https://doi.org/10.1016/j.colegn.2014.09.012.

Reising, D. L., Fickenscher, R., & Satrom, A. (2017). Comparison of differing clinical schedules for nursing students. *Nurse Educator.* https://doi.org/10.1097/NNE. 0000000000000286.

Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (2013). *Qualitative research practice: A guide for social science students and researchers* (2nd ed.). Thousand Oaks, CA: Sage.

Rubin, H., & Rubin, I. (2012). *Qualitative interviewing: The art of hearing data* (3rd ed.). Thousand Oaks, Calif: SAGE.

Salamonson, Y., Everett, B., Koch, J., Andrew, S., & Davidson, P. M. (2012). The impact of term-time paid work on academic performance in nursing students: A longitudinal study. *International Journal of Nursing Studies.* https://doi.org/10.1016/j.ijnurstu. 2011.10.012.

South African Nursing Council (2017). South African Nursing Council statistics. Accessed 23 August 2018. http://www.sanc.co.za/stats.htm.

Stewart, D. W., & Shamdasani, P. N. (2014). *Focus groups: Theory and practice, Vol. 20.* Thousand Oaks, CA: Sage.

Thomas, J. R., Nelson, J. K., & Silverman, S. J. (2015). *Research methods in physical activity.* Champaign, IL: Human Kinetics.

Turley, R. N. L., & Wodtke, G. (2010). College residence and academic performance: Who benefits from living on campus? *Urban Education.* https://doi.org/10.1177/ 0042085910372351.

Victor, G., Ishtiaq, M., & Parveen, S. (2016). Nursing students perception of their educational environment in the bachelors programs of Shifa College of Nursing, Pakistan. *Journal of Educational Evaluation for Health Professions.* https://doi.org/10.3352/ jeehp.2016.13.43.

University of the Western Cape. (n.d.). UWC History. Accessed 27 June 2018. https:// www.uwc.ac.za/Pages/History.aspx.

Wambuguh, O., Eckfield, M., & Van Hofwegen, L. (2016). Examining the importance of admissions criteria in predicting nursing program success. *International Journal of Nursing Education Scholarship.* https://doi.org/10.1515/ijnes-2015-0088.

Yang, Z., Becerik-Gerber, B., & Mino, L. (2013). A study on student perceptions of higher education classrooms: Impact of classroom attributes on student satisfaction and performance. *Building and Environment.* https://doi.org/10.1016/j.buildenv.2013.08. 030.