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Every Student Nurse Matters: Understanding of Academic Monitoring and Support in an Undergraduate Nursing Education Programme

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Abstract: *The attrition and dropout rate of nursing and midwifery students affects the planned nursing workforce projections, especially in countries where health care systems are nurse-led. A range of student support interventions including academic monitoring and support (AMS) are implemented to ensure that all the nursing students complete their studies and to avoid preventable wastage. Nursing education institutions plan their enrolments in line with the nursing human resource needs of the country. They also attract students from remote and rural areas, where there is the greatest shortage, and support them through a structured student support programme to curb failure and dropout. Literature however reveals inconsistencies in the understanding and provision of support to the students in order to understand the nature of AMS. An ethnographic design was adopted to explore the conceptualisation of the phenomenon "academic monitoring and support" [AMS] of undergraduate students. Data was collected through interviews with forty key informants, observations and document analysis. The findings revealed that there were specific antecedents, attributes and consequences that characterised AMS. AMS emerged as playing a significant role in attracting, retaining and supporting all nursing students to completion irrespective of their backgrounds*

Keywords: *academic monitoring and support, academic development, , concept analysis, nursing students*

I. Introduction

Nurses globally are regarded as the major contributors in the provision of care. They are the majority health care providers even in remote and rural areas. In South Africa, although the number of nurses per 100 000 population seems favourable, the mix in the various categories is skewed, with a significant shortage of professional nurses and this scenario is worse in remote and rural areas. In 2010 a shortage of 44 780 professional nurses was reported nationally in the public health sector and that only 3 596 nurses were produced a year [1]. This discrepancy between the required and produced number of nurses is also associated with high attrition rates, especially in public nursing colleges. One of the public nursing colleges with eleven campuses reported a 45 per cent attrition of student nurses and above 60 per cent at first year level. With nursing having moved to higher education institutions, away from clinical training platforms, student attrition is reported to be increasing due to additional pressure to cope with the higher education culture over and above challenges associated with education and training as a nurse. This high attrition rate upsets the health workforce production plans of the Ministry of Health as the ministry funds nurse training. More importantly, it impacts negatively on health outcomes in a health care system that is nurse-lead (The National Strategic Plan for Nurse Education Training and Practise 2012/13-2016/17) [2]. Interventions such as academic monitoring and support of students are regarded as crucial in ensuring student progression and timeous completion of education and training [3]. The effective implementation of academic monitoring and support programmes is, however, affected by lack of a common understanding of what academic monitoring and support is and the processes, practices and procedures in such a programme. The purpose of this paper is to contribute towards clarifying the concept of academic monitoring and support of nursing students in nursing education.

II. Background to the study

The World Health Organization [4] recommends a number of interventions to address the chronic shortage and inequitable distribution of health workers, including nurses, which commonly affects rural and remote areas. One of the recommendations is to transform health professionals' education and training by considering targeted admission policies to increase the socio-economic, ethnic and geographic diversity of students. Students have to be drawn from remote and rural areas where there is the greatest shortage [4]. There are, however, some concerns about academic preparedness of students emanating from remote and rural areas to cope with the demands of studies [5]. Attracting students from diverse backgrounds in line with the human resources plan is important, because evidence is starting to show that students from rural areas, if well supported, are most likely to complete their training and serve in rural areas [5]. The student body in the training institution should be in line with the human resources needs of the country, with training institutions investing

resources in monitoring and supporting students to ensure that they have the best chance of succeeding. In South Africa, where this study took place, a shift in the demographics of the students' body since 1994, with more students from previously disadvantaged backgrounds now accessing higher education institutions, was noted. Nursing programmes, in particular, are highly affected by the change as they attract an increasing number of students from remote and rural areas [6]. The majority of these students are from poorly-resourced schools and they are not adequately equipped with life skills to cope with academic challenges in higher education institutions [7]. They are reported to have limited understanding of the rigors of higher education in general, and the nursing programme, in particular. They have limited reading and academic writing skills, skills to use technology for learning purposes, proficiency in the language of instruction and other life skills that would allow them to navigate a higher education system competitively and with confidence. These shortcomings make it difficult for them to cope, leading to high attrition and drop-out rates [3, 4]. Literature however shows that innovative student support interventions are contributing significantly to the success of students, irrespective of their backgrounds [4,5]. This reduces the wastage of funds that occurs when students prematurely exit nursing education programmes. Student attrition in nursing should be avoided at all costs as there is a growing shortage of nurses in South Africa and training nurses is very expensive and is subsidised by the government through tax-payers' money [3].

Globally, the notion of academic development and student support has received considerable attention in the past three decades [8]. Interest in academic development and student support stems from the recognition that it plays a fundamental role in student success rates [9; 10] Education and training institutions around the world have developed and implemented various academic development and student support programmes aimed at increasing students' wellbeing, retention and throughput [11]. In South Africa, matching equity of access to equity of outcome in marginalised groups necessitates the implementation of innovative strategies [12]. The Faculty of Health Sciences, where the undergraduate nursing education programme is housed, established an academic monitoring and support (AMS) programme in 2006, which includes support services such as the academic development programme (ADP), peer mentorship, student counselling, skills development, and supplemental instruction [12]. This AMS programme is considered vital in supporting and enhancing wellness, holistic growth, personal and academic development of the student nurses and, more importantly, to improve student retention and their chances of success [12]

Despite the growing interest in the field of academic monitoring and student support, there is no agreed upon definition of what constitutes academic monitoring and student support. For example, Stewart, Goodson, Miertschin, Norwood and Ezell (2013)[13] view academic monitoring as a consistent method of observing and recording student activities in a programme. Some authors [14] describe AMS as including peer and academic mentorship, academic guidance and assistance, whilst others [15] define AMS as services that include all activities beyond the delivery of class lectures, including also learning material based on any gaps in academic work affecting academia or assistance with personal problems. The few captured examples reflect that the concept of AMS is sometimes presented as comprising a range of activities with significant differences across institutions in terms of design and implementation: some AMS programmes focus on monitoring students, others focus on supporting students, and still others include both monitoring and supporting of students in the classroom as well as beyond. This conceptual ambiguity presents a challenge in terms of replicating academic monitoring and student support programmes, as well as in undertaking a systematic study of academic monitoring and student support, due to the lack of precision of concepts. Brink [16] warns against the use of poorly defined concepts in research as they affect the trustworthiness or validity and reliability of the study and recommends analysing and defining the concepts in the context of that particular study. This paper therefore aims to explore the understanding of the concept of academic monitoring and support in an undergraduate nursing education programme in South Africa. The two key questions of interest are (a) how is AMS described by the students, nurse educators and student support personnel and (b) what are the dimensions of AMS and how are they structured?

III. Methodology

This study adopted an ethnographic approach to allow the researcher the opportunity to be immersed in the culture of the informants so as to understand how the phenomenon of academic monitoring and support is conceptualised and practiced by the nursing students and nurse educators. Data was collected through observations, individual and focus group interviews, document analysis and natural conversations in the field [17]. Informants were purposively selected and later theoretically sampled as determined by their involvement in and experience of AMS. A total of 40 informants participated in this study. They included 24 Bachelor of Nursing students, four peer mentors, four academic mentors (student tutors), four nurse educators, an AMS coordinator, a student counsellor and two Academic Development Officers. The process of data collection took about 18 months to allow for researcher immersion in the cultural settings [17], with observations conducted in the Nursing Department and in the clinical settings where additional student support was provided. Data was

analysed using Strauss and Corbin's [18] grounded theory framework which is regarded as useful in concept analysis [16]. This framework has six elements and this paper focuses on one of these six elements: defining the core phenomenon or core concept. The core phenomenon of interest was AMS in an undergraduate nursing education programme. Selected elements of Walker and Avant's [19] model of concept analysis were utilized for in-depth interrogation of the concept in terms of attributes, antecedents and consequences of this concept. Ethical principles were observed throughout the study and ethical clearance was obtained from the University of KwaZulu-Natal Humanities and Social Science Research Ethics Committee: the Study protocol reference number is: HSS/0562/014D.

In qualitative studies, Creswell [20] states that data findings must be trustworthy, reliable and reflective of the phenomena, which can be generalised to that specific cultural or study context. *Credibility*, which is about ensuring that collected data matches the informants' original conceptualisation of the phenomenon [21] was ensured by double-checking with the informants the emerging findings which established objectivity of data representation [22], having a co-coder to confirm the emerging codes and categories, and a research mentor to serve as a critical reader of the emerging findings in relation to the collected data. *Confirmability* was ensured through triangulation of data sources**,** validating transcribed interviews with the informants and with the research mentor double-checking emerging codes and categories. *Dependability* was ensured by having a clearly articulated research plan, methods and processes, which were discussed with the research mentor who is experienced in ethnography and grounded theory, while the research plan was approved by the Nursing Department where this study was conducted. *Transferability* was ensured through providing thick descriptions of the study context, settings, procedures and findings.

IV. Results

The findings in this study reflected that the phenomenon of academic monitoring and support is conceptualised as a multifaceted phenomenon. In line with Walker and Avant's model [19] three categories emerged in the analysis of the concept AMS. These included (a) AMS antecedents, (b) AMS characteristics /attributes and (c) AMS associated consequences or outcomes.

1.1. AMS antecedents

Antecedents are those incidents that provided the basis for the introduction of AMS in the undergraduate nursing programme. They provided a social context within which AMS was based, as defined by Walker and Avant [19]. Three subcategories emerged under AMS attributes: (a) strategic recruitment and selection of students from remote and rural areas; (b) high failure rate and dropout rates; (c) inadequate preparation to cope with higher education demands.

1.1.1. Strategic recruitment and selection of students from remote and rural areas

Data in this study revealed that recruiting and selecting students from remote and rural areas is part of the education institution's strategic plan. The key informants reported that, in 2012, the institution introduced an admission and selection policy which used a quota system. This policy clearly stipulates that 15 per cent of the spaces should be reserved for students from previously disadvantaged backgrounds who meet the entry requirements. According to the data sources, this was intended to change the demographics of the student body in the institution to ensure that it is line with the human resources needs of the country where the majority of the population is in rural areas but with limited access to health care due to inequitable distribution of the nursing workforce.

> *….15 per cent students are coming from quintile 1 and 2 schools (under-resourced schools in remote and rural areas) ...this is part of opening access to higher education to all students [KI 17].*

1.1.2. High failure and dropout rates

The data sources revealed a high failure rate in the undergraduate programme, especially at first year level, where students struggled with gateway subjects such as anatomy, physiology and chemistry. *In the past our institution has reported high failure rates and dropout due to subjects such as Anatomy, physiology and chemistry. This failure rate is not only affecting the students but the health care system as well. If students take long to complete or drop out, that messes (up) our country's human resource planning. Therefore we try our best to ensure that all students stand an equal chance to succeed in their studies by supporting them aggressively.*

> *… the audit report … showing that while many more historically disadvantaged students were gaining formal access to institutions, they were not gaining epistemological access, this was reflected in the inability of so many of them to successfully graduate. Hence, the need for Academic development and (a) student success project, our AMS [KI 27].*

1.1.3. Inadequate preparation to cope with higher education demands

Data sources revealed that the quality of some of the students gaining access to nursing education programmes was posing a challenge, in that they were inadequately prepared to cope with the demands of higher education. Although this emerged from all data sources, it was reported mainly by the key informants who were drawn from under-resourced schools in remote and rural areas. They reflected on their lived experiences of struggling with fluency in the language of instruction, academic writing skills, self-confidence in class and in group work, self-management in terms of planning own academic study plans, time management, and finance management. The informants cited this as a major setback because they had to learn these life skills while learning discipline-specific competencies, whereas students from well-resourced schools concentrated their efforts mainly on discipline-specific requirements. Their inadequate preparation influenced their academic performance especially in subjects such as anatomy, physiology and chemistry.

> *I associate their poor academic performance mainly with the language of instruction as most of the students from under-resourced schools battle with English. …communicating in English is a challenge because they learn the language but do not use it at home… [K1 16]*

> *…Students from rural areas struggle with a lot of things, including self-confidence, adjusting to university life,(and) financial management due to their backgrounds. The skills developer has to take them through a series of workshops to try and help them cope with their challenges. The AMS programme is assisting them a lot [KI 7]*

> *…some of them will tell you it is their first time using a computer, typing an assignment,(using) the internet or going into such a big library or even using electricity… so all these things are posing a challenge in terms of adjustment over and above focusing on learning nursing skills. [K1 10]*.

1.2. AMS Attributes

In this study AMS attributes are those characteristics unique to the understanding and implementation of AMS in the undergraduate nursing programme. The characteristics of AMS that emerged from this study were grouped into five sub-categories; (a) opening access for success, (b) facilitating integration into higher education (c) holistic, comprehensive and structured students support, (d) facilitating a fair and transparent academic exclusion process, and (f) providing a way to transform student demographics.

1.2.1. Providing access to success

AMS in this study was conceptualised as a driver to open access for all students: access that is accompanied by a significant degree of success, especially for those students who are from rural and remote areas. AMS was perceived as a way of providing the students from diverse backgrounds with an opportunity to compete successfully and to complete their studies timeously. Data sources reflected that with nursing attracting an increasing number of students from remote and rural areas, academic monitoring now plays a pivotal role in supporting these students to ensure that they progress with their studies and complete the course, with the possibility of going back to their communities where the greatest shortage is experienced. AMS was perceived as a driver to ensure that all students, irrespective of their backgrounds, have an equal opportunity to succeed. This is reflected in the extracts below:

> *I view academic monitoring and support as a driving force to ensure that student nurses drawn from previously disadvantaged backgrounds including remote and rural areas are supported to complete their training within record time like all other students. In our institution we target students from rural and remote areas where the shortage of nurses is, and we have a rule of reserving a minimum of 15 per cent of the spaces in the programme just for this group. AMS is then used to ensure that we do not only open access but also ensure that they have a fair chance of succeeding. This is important to us because the greatest need for nurses is in rural areas, we hope they will go back and serve their communities [KI 17].*

> *AMS… ensures that as many students as possible are successful in their studies, especially those from previously disadvantaged backgrounds. … There is an Academic Development Officer specially employed to ensure support for these students [Document analysis, KI 1].*

1.2.2. AMS facilitates integration into higher education

In this study AMS was also conceptualized as facilitating integration into higher education institutions away from a familiar hospital environment. AMS emerged as an effective tool to facilitate the integration of students into higher education. Data sources revealed that integration into the culture of the higher education environment comes with a number of challenges, where student nurses are expected to be independent and self-directed in the absence of their parents or mother tutors in the nursing college environment. The Academic Monitoring and Support programme was seen as providing both academic and personal support to first year students assisting them with integration into the higher education environment. The AMS programme was viewed as a means of providing additional support especially to students from previously disadvantaged backgrounds to ensure that they adjust to higher education and are able to cope better with the academic demands of the institution.

> *AMS facilitate(s) integration of naïve first year students into higher education, (for) the students who are away from their homes and parents for the first time (and) who still need additional (support)… [KI 17]*

> *It was easier when nursing was still in (a) hospital-based school where there were mother tutors to support nursing students. Now with nursing in higher education… students in one class are from other disciplines,(and) there is no one playing a mother role. AMS helps in such cases [KI 17].*

> *I view academic monitoring and support as providing students with constructive help to support them as they navigate their way… from 1st year through to graduation [KI 13].*

1.2.3. Facilitates a fair and transparent academic exclusion process

The informants in this study also conceptualised AMS as a tool to support the implementation of university academic monitoring and exclusion policy to ensure that the process is fair and transparent. The academic exclusions policy according to the informants outlined the process to be followed before excluding students from the university and that the students' academic performance had to be monitored and students provided with relevant support. The AMS programme emerged as a support structure for the nursing students to ensure that students are supported adequately as stipulated in the policy before they are academically excluded from the programme. As stipulated in the policy, a student coding system is used where students are colour coded in the student management system according to their academic performance. The students who are performing well, in line with the set academic performance requirements in that semester are coded green. They have an option to participate in academic monitoring and support interventions. The students who have passed with less than 75 per cent of their required module load per semester are coded orange (at risk) and placed on academic probation, and are advised to seek additional student support. The academic development officer, according to the key informants, is expected to work closely with these students, monitor their academic performance to ensure that they improve and change from their orange status to green. The students whose academic performance is below the minimum progression requirements per semester are coded red and placed on compulsory academic, personal or career counselling as stipulated in the policy. The informants indicated that these students were monitored strictly by the academic development officer and had access to group and individualised student support initiatives to ensure that their academic performance improves and they progress well towards completing their studies.

> *AMS Programme is a tool to implement the Academic Monitoring and Exclusions Policy of the University. The students are coded in the student management system as green, orange or red. … The University has committed funds to support the implementation of this policy through the AMS programme [KI 17].*

> *…AMS is a support structure that was created to support the implementation of the Academic Monitoring and Exclusions Policy in 2009. This programme was created in order to deal with the increasing number of students that fall into the "At Risk" (academic exclusion) status. As the (phrase) suggests, we monitor and support these students before they are at risk of being excluded from the programme. … the aim is to get them out of the "At Risk" status and back to the Good" or "Satisfactory" academic status or the commonly known as the "Green" status [KI 5].*

The findings further revealed that AMS ensured that a fair and transparent process is followed before academic exclusion of students from the programme takes place. AMS, according to the informants, ensures that

the process determined in the academic monitoring and exclusions policy was adhered to before the final decision to academically exclude the student is taken. This is reflected in the quotes below:

> *AMS ensured a fair and transparent process before exclusion of the students… Students will finally be excluded from the university on account of poor academic performance after all other avenues [AMS interventions] have failed to restore their academic performance to the required level... no academically underperforming student will be excluded from the university in their first year of study… (Document analysis: KI 5).*

> *If a student does not respond to AMS interventions and s/he continues to underperform s/he must appeal for readmission. If readmitted and still does not respond to AMS interventions while on final probation the student will be excluded in line with the exclusions policy. No further appeals are allowed [KI 17].*

1.2.4. AMS is a structured, holistic and comprehensive student support programme

In this study, AMS was also conceptualised as an holistic, comprehensive and structured student support programme, with a range of student-centred interventions. AMS is regarded as structured in nature because it is a formalised institutional programme, with a guiding policy, implementation framework and resources allocated to support its implementation. AMS emerged as holistic in that it comprised a range of student support interventions, which focused on academic (theoretical), clinical, psycho-social, financial, health and personal needs of the students. AMS was also described as comprehensive as it had a wide range of student support interventions, which were targeting needs of students at different stages of their academic lives; from the pre-admission phase to completion of studies.

> *Our aim is to provide students with constructive help to support them as they navigate their way… from 1st year through to graduation [K1 7].*

> *AMS… includes a broad collection of student support initiatives for holistic support…, and support is provided from first year up to completion where students attend workshops that prepare them for the world of work [KI 3].*

> *AMS comprises a range of interventions and support programmes which are student-centred and comprehensive in nature; including a students' academic performance monitoring system, the tracking of students' progress in a transparent way; embedding academic support within core modules; offering support for 'at risk' students through student counselling, peer wellness mentorship and skills development; supplemental instruction; targeting potential 'at risk' students from registration to exam completion... [KI 6].*

In elaborating on the comprehensiveness of the AMS programme, key informants and other data sources revealed that the student support initiatives were grouped into four phases. The initial phase was pre-admission to the nursing education programme where students had access to career guidance and counselling. This phase was followed by support related to integration into higher education institutions, which included an extended one-week orientation programme before registration week, life skills development workshops facilitated by a professional skills development officer and peer mentorship for the whole first year where first year students are attached to peer wellness mentors using a ratio of 1:15 students. Phase three focused on support during the academic programme. This phase started with comprehensive risk profiling of all first year students three months into the programme, screening for risk in terms of academic, psychosocial, financial, health, clinical and other personal issues. Risk profiling results informed the student support team whether the student required additional support or not, and the nature of support required, which was either individualised or group or both. The interventions were coupled with tracking individual students' academic performances in all the subjects, especially those known to have a high failure rate such as anatomy, physiology and chemistry and ensuring that the students access the prescribed support according to the exclusions policy.

> *Students participate in an online "risk profiling" assessment… The assessment comprise(s) 6 broad categories used to identify possible risk areas for students, viz. Personal/Emotional aspects, Skills Development, Academic, Clinical Skills Practice, Career and Health [K1 3].*

> *Invitations to access intervention were sent to … students whose profiles indicated risk areas in one or more of the categories reflected (in) the assessment. … students accessed Skills Development*

Workshops, which covered topics such as time management, study skills and examination preparation. Students who access services are also referred to other resources (e.g. the ADO's, Counsellors, SI Leaders and Health Services) to address their other identified needs thus ensuring a(n) holistic service to the students [K1 5].

The last phase of AMS was reported to focus on preparing the students for the world of work as professional nurses through workshops and exposure to professional nurses from different fields in nursing to assist them with career choice. The services were reported as essential to improve all aspects of a student's life.
We hold workshops for our final year students preparing them for the world of work. We take them through creating a CV and preparing for interviews [K1 12].We have career days during the second semester where we invite professional nurses from different areas of nursing practice to address and advise our students on available career options [K1 10]. The academic support included lecturers integrating student support at day-to-day lectures through using student-centred approaches, supplemental instruction or additional tutorials by senior students who had excelled in those courses; clinical peer mentors who assisted those students who needed additional support over and above the structured clinical support available to all the students. It was observed that clinical peer mentorship was done by senior students in the clinical settings. It is voluntary because sometimes the nurses are too busy with the ward routine to focus on teaching students. The students also had communities of learners in residences after hours and over weekends as part of additional support for studying subjects such as anatomy, physiology and chemistry. The researcher also observed that the academic development officer organised additional learning resources such as bones and models to teach anatomy, extra books and CDs to be watched by the students during their extra sessions in residential areas. The extra tutorials were reported to be run in two languages; English and isiZulu to ensure that difficult concepts are explained and understood by all.

Academic mentors also referred to as supplemental instructors were second and third years who had passed well who have gone through these difficult subjects. They run their tutorial in English and isiZulu translating and explaining where other students are struggling to understand. The ADO is there to support the peer academic tutors. [KI 17]

… support to first year student[s] in the clinical area is needed as they are very anxious and scared. The reality is different from what they had in mind. Some pull out of the programme after three months. So clinical mentorship by the students, though not formalised, is making a difference because the senior students walk this journey with them. [KI 17]

A range of academic support activities… including remedial and supplemental tutorial support, support for language literacy and numeracy skills, study skills, one-on-one consultations with lecturers, bilingual isiZulu-English tutorials and peer-mentoring support [KI 36].

1.2.5. AMS facilitating transformation of the student body in education institutions

In this study AMS was also conceptualised as a vehicle for institutional transformation in terms of student demographics. The support provided to students from diverse backgrounds enhanced progression of all students in terms of success rates. It was reported that, through AMS, the picture changed from a course that was attracting, retaining and promoting the success of students from privileged groups. Institutional throughput and graduation reports began to change and include students from all demographics in the country. AMS facilitated the change in the demographics of students in higher education by increasing access for students and their success within the required and minimal timeframe. This ensured that they were retained in the system and did not prematurely drop out, without being qualified.

Our institution has an admission policy which uses a quota system, having students from all demographics as part of transformation agenda. These students have to be supported to ensure that they also succeed. [KI 17]

Our throughput rates and graduation rates are changing now, instead of one group doing well, there is a good mix because of the intensive support provided to those students in need. [KI 3]

Transforming the students' body was perceived as a process of addressing inequities and injustices of the past. Key informants reported that the availability of the AMS programme afforded students from previously disadvantaged backgrounds an opportunity to compete successfully in a higher education system that was formerly accessible to privileged groups only. Through AMS, the students from previously disadvantaged

backgrounds were allocated peer wellness mentors to provide continuous support on and off campus and had academic mentors who offered extra tutorials in traditionally difficult subjects such as anatomy, physiology and science. AMS was perceived as affording an opportunity to those students who, because of their social backgrounds, were excluded previously from higher education. The extracts below attest to this statement:

> *AMS is addressing issues of social injustice and discrimination inherited from the past. Those students who did not stand a chance to succeed in higher education because of their historical background now have an opportunity to make it because of AMS … In our programmes we reserve spaces (about 15 per cent) for those students from under-resourced schools who meet the entry requirements but who won't stand a chance if competing equally with those students from well-resourced schools. These students are supported through a structured programme for them to succeed [K11].*

> *We students who do not have good background(s).[We] even have extra tutorials which are run by senior students in subjects like anatomy, physiology, science and that helps a lot, otherwise we were going to drop out of the programme. We have peer mentors who help us with additional support in terms of academic skills required… referencing, writing assignments…[FGD 13].*

1.3. AMS-associated consequences/outcomes

The consequences associated with AMS were grouped into two subcategories (a) reduced dropout rates (b) improved health outcomes.

1.3.1. Reduced dropout rates:

Key informants in this study reported reduction in student dropout rates as a result of AMS. The additional tutorials in anatomy and physiology and the gatekeeper courses contributed to improving pass rates in these courses. According to the key informants, these courses were difficult and students could not progress to the next level if they did not pass these (gatekeeper courses). With AMS, the key informants reported improved pass rates and progression to the next level.

> *In 2013, a year after the introduction of the admission policy that [said] 15 per cent of the students should come from previously disadvantaged backgrounds, we saw an above 80 per cent pass rate in anatomy and physiology due to the structured support that was provided to the students [K1 13].*

> *In 2014 we had a 100 per cent pass rate in anatomy, something which was regarded as impossible. Aggressively supporting the students as the team contributed to these positive results. These are two subjects that contribute to high drop-out rates [K1 4].*

1.3.2. Improved health outcomes

Another subcategory in that, through improved numbers of students graduating, more nurses were injected into the health care system, especially in rural areas where the greatest shortage is. The key informants were hopeful that the concern over inequitable distribution of nurses will eventually be addressed if nursing education institutions make an effort to recruit students from remote and rural areas and support them accordingly up to completion.

> *We are hoping that as we have opened access to all groups of students and we have spaces reserved in our undergraduate programme for those recruited from rural areas, we are going to see improvement in service delivery because we are motivating them to go back to their communities… this will eventually contribute (to) improving the population and health care system outcomes [K1 9].*

> *All our programmes are training for the health care system. If we support our students well we stand a chance of producing good numbers that will serve across the health care systems and in rural and remote areas. This will increase access to health care (for) all, as this is the government's agenda [K1 3].*

V. Discussion

AMS in this study emerged as one of the possible solutions to address the shortage of nurses especially in remote and rural areas by providing a vehicle to strategically recruit and select student nurses from these areas and to support them through using a structured student support programme to ensure that they have an opportunity to succeed. Targeting students from rural and remote areas also assisted in changing the demographics of the student body in the education institution to be in line with that of the country's population and human resources needs [5,4]. The mismatch between student demographics and the national population in South Africa as reported [5], that health sciences students of rural origin

in the country were estimated at 26 per cent with a national population of 46 per cent residing in rural areas. This had to be addressed, as there is growing evidence showing that students of rural origin, with support are more likely to succeed in their studies and return to rural areas or serve in under-resourced settings [4,5]. Ross and MacGregor [5] reported that 75 per cent of the students of rural origin in their cohort returned to their communities to serve.

Because of the history of the country in South Africa, this study showed AMS as a tool to address inequities of the past where students from previously disadvantaged backgrounds were admitted to the programme, supported through a structured programme to ensure that they complete their studies just like those students from advantaged backgrounds. This group of students was reported to struggle with adjusting to academic expectations in higher education due to limited life skills, self-confidence, self-management and English as the language of instruction. AMS provided this cohort of students with an opportunity to develop personally and academically to succeed, as adjustment to higher education is an important factor in predicting academic success [23]. Walker and Mkhwanazi [24] warn that opening access without success is like a new form of discrimination because that sets students up for failure. More importantly, student failure to succeed reflects badly on the institution that it is failing to achieve its primary goal of educating students [24]. Education institutions have an obligation to support all the students to ensure that they stand an equal chance to succeed in their studies [12]. To address the issue of English as a language of instruction, peer tutoring was reported to be run using English and the indigenous language in line with the recommendation by Mngomezulu and Ramrathan [25]. AMS in this study was reported to provide structured, holistic and comprehensive support to the students to ensure that all students irrespective of their backgrounds are supported to completion of their studies. In this particular study, a range of student support initiatives were reported to be in place to cater for the students' academic and psycho-social needs. Career counselling offered to all students before enrolment to the nursing programme was important in ensuring that students make informed decisions about choosing nursing as a career of choice. Literature showed that a number of students drop out of nursing because it was not their first choice or they were not well-informed about nursing as a profession and what it entails [3, 26]. The student support in this study started as early as possible and the students were profiled for risk of academic failure and supported accordingly [27]. the students need to be supported from the time they are admitted into a course by providing opportunities for pre-entry advice and support by career guidance, identifying early those who are academically at-risk, and monitoring academic progression up to completion of studies.

The AMS programme in this particular study had peer wellness mentorship where all first year students were attached to peer wellness mentors to facilitate integration into higher education, assist with integration and adjustment into higher education, as well as in developing that sense of belonging, enhancing the chances of student engagement, retention and success [28]. Tinto asserts that social and academic integration is critical for student retention and it enhances their academic performance [9] Academic support included extra tutorials by the peers in the form of supplemental instruction, communities of learners in residences where students studied in groups, and clinical peer mentorship where senior students provided additional support especially to junior students. Peer supported learning or supplemental instruction facilitated by peers provides a space where students learn how to learn, develop study skills and improve academic performance [29]. Clinical peer mentoring assists student nurses to adjust to the challenging clinical learning environment which is cited as one of the reasons for dropping out of nursing [3]. This study revealed that a decision to exclude the student academically from the programme takes a long time as there are processes to be followed before a final decision is made, thus making the process fair and transparent to all involved. The students were reported to be colour coded in the student management system in line with their academic performance. This assisted in alerting them and the responsible support staff to the students' academic performance status. This assists with early identification of those who may be at risk of academic exclusion and refers them to appropriate interventions. This student management system is viewed as keeping students under surveillance at all times, encouraging them to continue accessing the available student support services to improve their academic performance [25].

Outcomes associated with AMS included reduced dropout rates, an increase in the number of nurses graduating from the undergraduate programme and it contributed to improved health outcomes as there will be a good pool of nurses attracted from rural and remote areas with interest to go back into their communities to serve.

VI. Conclusion

The phenomenon of academic monitoring and support emerged as part of the solution to the high attrition rate of student nurses which later impacts on the nursing and midwifery workforce numbers. The chronic shortage of nurses requires a range of interventions including attracting students from rural and remote areas to address the issues of the inequitable distribution of nurses. This study stresses the importance of investing in each student who enters the system, in terms of student support, to ensure that s/he succeeds. Although students come from diverse backgrounds, if they meet entry requirements to the programme they all have the potential to succeed. Nursing education institutions have to invest resources, both financial and human resources, to ensure that the students have access to quality student support services. High student attrition rates reflect negatively on the institution as that indicates that the institution is failing to achieve its primary goal of educating and producing graduates who will contribute to improving the performance of the health care system and health outcomes.

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