RESEARCH ARTICLE

Individual student support and counselling for undergraduate pharmacy students at an historically disadvantaged institution

Apoyo individual al estudiante y consejería para estudiantes de farmacia de pregrado en una institución históricamente desfavorecida

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ABSTRACT

Many students who meet higher education admission standards struggle in their respective programmes because they lack the necessary skills and/or abilities to navigate complex higher education institutions. This study aimed to determine individual counselling's role in pharmacy students' academic performance in a problem-based learning (PBL) programme at a South African university. Students identified as 'at-risk' of failing were the focus, and the study was retrospective, cross-sectional and quantitative. This article presents possible individualized remedial measures that can be applied to reduce the attrition rate and stimulate success among a diverse student body in the BPharm programme. Early monitoring and evaluation of 'at-risk' students across all year groups ensure the long-term success of activities and plans in a diverse atmosphere, effectiveness, efficiency, and accountability to the stakeholders.

RESUMEN

Muchos estudiantes que cumplen con los estándares de admisión a la educación superior enfrentan dificultades en sus respectivos programas porque carecen de las habilidades y/o capacidades necesarias para desenvolverse en instituciones de educación superior complejas. Este estudio tuvo como objetivo determinar el papel de la consejería individual en el rendimiento académico de los estudiantes de farmacia dentro de un programa de aprendizaje basado en problemas (ABP) en una universidad sudafricana. Se

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centró en los estudiantes identificados como "en riesgo" de reprobar, y el estudio fue retrospectivo, transversal y cuantitativo. Este artículo presenta posibles medidas remediales individualizadas que pueden aplicarse para reducir la tasa de deserción y fomentar el éxito entre un cuerpo estudiantil diverso en el programa de BPharm. El monitoreo y la evaluación temprana de los estudiantes "en riesgo" en todos los años de estudio aseguran el éxito a largo plazo de las actividades y planes en un ambiente diverso, así como su efectividad, eficiencia y responsabilidad ante las partes interesadas.

PALABRAS CLAVE

Estudiantes de BPharm, programa de aprendizaje basado en problemas, estudiantes en riesgo, asesoramiento/apoyo, tasas de aprobación individuales

Background and introduction

Expanding access to higher education is one achievement; ensuring that those who have access to this level of education can succeed is another challenge (Council on Higher Education [CHE], 2015). Improving throughput rates is a major concern faced by African institutions of higher learning, due to a complex interplay of factors that may affect individual students at different levels of study (CHE, 2013). Measures to improve education quality include an enhanced curriculum, effective assessment practices and relevant teaching methodologies. However, these measures are not sufficient to increase student throughput unless students who are 'at-risk' of failing are adequately supported (Masino & Nino-Zarazua, 2016).

The secondary education system has a crucial role to play regarding the preparedness of first-time university entrants and, subsequently, the quality of graduates produced (Najimi et al., 2013). Students face various difficulties at university due to their diverse educational and socio-economic backgrounds (Mngomezulu et al., 2017), language challenges (Makoe & McKinney, 2014; Ngwenya, 2004), and lack of maturity and motivation to perform (Lake & Boyd, 2015). Students often come to university with unrealistic expectations regarding both learning and the social environment in which they may find themselves (Smith et al., 2012). It is well recognised that students enter university being unprepared for the academic demands of higher education (Oduaran & Bechuke, 2018). At the university entry stage, it often becomes evident that a knowledge and skills gap exists, placing students at a disadvantage from the start.

Sub-optimal academic performance or failure could be the result of various factors and behaviours. The occurrence of negative situations at any stage of a student's life results in a direct financial burden on the budgets of different state sectors and communities. These factors may affect each student's performance differently. They may lead to poor academic or social outcomes, with subsequent failure that requires repetition of a year, or dropout before completion of studies within the prescribed time (Balfanz & Chang, 2013; Khalid & Mehmood, 2017). Specific interventions are required to assist students to succeed considering these factors.

Factors affecting students' academic performance are commonly grouped into three categories (Mushtaq & Khan, 2012; Najimi et al., 2013): (1) individual or personal

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factors, which include goals, motivation, anxiety, study methods, intelligence, attention, planning, effective mental conditions, class attendance and interaction among students; (2) internal organisational factors which include professional characteristics of instructors, space, proper facilities and equipment, teaching strategies, academic and social systems of university; and (3) external organisational factors affecting students including parents' educational level and their approach to dealing with a student's academic failure, the socio-economic status of families, unclear and uncertain occupational prospects.

Academic failure and dropout not only result in psychological, social and family problems for students, but also lead to wasted time and financial resources for the university, students, parents and the country (Najimi et al., 2013). This situation creates personal and social problems (Hazavehei et al., 2003). Africa needs an improved, quality education to produce well-qualified graduates for social cohesion and economic development (CHE, 2013).

In South Africa, the dropout rates of students between 2000 and 2014 were high. Although less than half (42.0%) of first-time entering undergraduate degree cohorts never graduated during this period (Higher Education Management Information Systems [HEMIS], 2017), these figures highlight the need for higher education institutions to identify interventions to ensure greater efficiency in the system.

The risk of student attrition occurs across the student life cycle. Thus, early monitoring, tracking of students' performance, and referral for support are essential and cannot be a once-off occurrence (CHE, 2015). Given the challenges faced by a diverse student body in terms of personal finances and adjusting to new academic demands, individual universities must put systems in place to identify students at risk of failing or dropout. Individual universities must develop early tracking, monitoring and evaluation support programmes to enable students to complete their studies within the required time (Steyn et al., 2014). Despite the pressure from internal and external stakeholders to increase access to higher education, there is no purpose in doing so if adequate support for students is not provided or effective, as the policy and goals of equity of access and outcome will not be achievable (Shay, 2017).

Student success requires certain efforts, including intensive student support initiatives such as personal counselling to understand individual needs to improve the higher education system as a whole (Scott, 2018). Student counselling utilises interpersonal relationships to enable students to develop confidence and the necessary skills to succeed. It requires students to learn how to examine their own performance, strengths, weaknesses, and areas of satisfaction and dissatisfaction and to be able to make changes in their lives (Renuka Devi et al., 2013).

Evidence obtained from developed countries has shown that additional support from universities does have a significant effect on students' academic or social performance and retention (Tinto, 2014). Research has shown that students who receive counselling report higher self-rated academic, social and emotional adjustment than comparable groups who do not (Choi et al., 2010; Lockard et al., 2012). Furthermore, those who attended more counselling sessions demonstrated greater improvement than those who attended fewer counselling sessions (Renuka Devi et al., 2013). Further, targeting individual students was

shown to have important implications for the development of appropriate intervention strategies (Smith et al., 2012). Improved success rates require intentional, structured, proactive, systematic action applied in a coordinated way (Tinto, 2014).

It is necessary to develop early intervention strategies specific to the needs of individual students who are struggling while simultaneously also developing the student. Students usually do not voluntarily seek help when they experience academic or social challenges, while some only seek assistance when their challenges are advanced (Grebennikov & Skaines, 2009). Because referral of an at-risk student is voluntary, some may not use the opportunity (Czyz et al., 2013) and may subsequently leave the registered academic programme for another programme within the university or elsewhere. Strategies to minimise non-progression and non-completion rates are essential for quality assurance in education (Norrish et al., 2014). For students with a low chance of graduating on time, such strategies are necessary to ensure resource effectiveness and efficiency and to prevent wastage of human potential and parents' investments in the children.

The DHET (2013) identified the improvement of undergraduate throughput rates as a key strategy to increase graduate output, to instil skills needed by the economy, and ensure larger numbers of students available for postgraduate study. Thus, the institution needs to find and develop institutionalised measures that can be used within or outside the institution, to address and contribute to better educational outcomes. The institutional aim should be to produce competent graduates with valuable attributes, skills and knowledge at the required time to meet the needs of the country (CHE, 2015).

There is a dearth of information regarding the role of individual counselling in pharmacy students' academic performance in a problem-based learning (PBL) programme with a diverse student body and from a historically disadvantaged university. The objectives of this study were therefore to (i) identify factors affecting students with academic difficulties; (ii) describe strategies identified by students to improve their academic performance; (iii) describe recommended referral for support by university structures as agreed by students; and (iv) to determine the pass rates of students at risk of failing who received individual counselling.

Methodology

Context and setting of the study

The 4-year Bachelor of Pharmacy (BPharm) programme offered by the School of Pharmacy at Sefako Makgatho Health Sciences University (SMU) in South Africa departs from the traditional teaching methods for a dynamic pedagogy. These teaching methods consist of a hybrid problem-based learning (PBL) approach, which contributes to developing knowledge, skills and attributes for success. The model chosen was adopted from the McMaster University in Canada, and has been implemented in various countries, including the University of Makerere in Uganda (Galukande, 2015), and the University of Cape Coast's School of Medical Sciences in Ghana (Amoako-Sakyi & Amonoo-Kuofi, 2015). This model emphasises that a PBL educational programme can be effectively implemented despite its cost implications. The language of instruction is English, and the academic

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content is presented in an integrated, thematic, semester and modular-based format, with most of the learning taking place in small groups (Mabope & Meyer, 2014).

At the time of this study, SMU was known as the University of Limpopo, Medunsa Campus, and the BPharm programme was offered in partnership with the Tshwane University of Technology (TUT) (Mabope & Meyer, 2014). Most students admitted to the BPharm programme are first-time applicants from diverse culture, race, language, academic level, aptitude, expertise, social status and socio-economic backgrounds (Mabope, 2007; Mabope & Meyer, 2014). Most of the students' secondary education is based on traditional methods of passive teaching and learning, which is different from the PBL BPharm programme where learning is self-directed. Very often, the language of learning and teaching is also different from that to which students have been exposed during their secondary education.

At SMU, the BPharm students' performance is monitored using individual student counselling as one of the strategies to improve students' success and evaluate the programme's effectiveness. Assessment methods that are aligned with the skillsets of intended learning outcomes include tests, end-of-module and practical examinations, problem-solving exercises, assignments and oral presentations. Tests and end-of-module examinations include true/false and multiple-choice questions, where negative marking is used to prevent students from guessing, matching type questions, short answer questions and longer essay-type questions. Results from these assessments are monitored regularly. Personal behaviour during small group and tutorial sessions and attendance during formal learning activities are also monitored. A minimum of 80% attendance in academic activities is a requirement for access to summative assessment (SMU, 2020).

Standard procedures are followed to identify students 'at-risk' of academic failure and such students are subsequently provided with individual counselling. Once assessment results are published, students who failed an assessment or those identified as at-risk are requested in writing to meet with the school's student support officer to discuss their performance, during which possible factors are identified that led to unsatisfactory performance. This process facilitates the identification of support services and the development of an academic plan that articulates strategies and resources that a student can use to improve their academic performance. Such counselling sessions are individualized and take place in a private room. During the counselling session, documents reviewed include results sheets of all assessments as evidence of academic performance, attendance registers as evidence of class attendance, and staff members' observational notes, based on their encounters with the particular student in small group or tutorial sessions (psychosocial behaviour).

During these one-on-one counselling sessions, the student is interviewed to assess and understand the challenges or needs that might have affected their academic performance. A student counselling guide is used during each session to gain an understanding of the students' challenges (see appendix). The following main questions are posed to the student:
- Are you satisfied with your own performance?
- What problem(s) do you experience that might be interfering with your study?
- How do you study (methods)?

Responses to these questions are manually recorded by the student support officer and used to guide the discussion. The specific needs of each student determine the duration of their counselling session.

Confidentiality is assured during these sessions so that the student is free to express their academic and personal challenges. Students receive a sympathetic ear and are offered encouragement and possible solutions depending on the challenge at hand. At the end of the session, the student is asked what they are going to do to improve their performance and requested to write down their plan of action on the counselling sheet. After this, the student support officer provides comments as appropriate. Information obtained during these private sessions allows the student support officer to identify and suggest specific interventions or referral for support appropriate for the particular student (e.g. financial, psychosocial and welcoming support). Support is, therefore, tailor-made to meet the needs of each student and by agreement with the student. At the conclusion of each session, the document is signed by both the student and the student support officer to confirm agreement about what has been discussed and the proposed strategies to improve academic performance. Students' progress is monitored in subsequent assessment cycles.

An overview of the procedures used in the BPharm programme to identify and support at-risk students is demonstrated in Figure 1.

Study design and study population

This was a quantitative descriptive study based on a retrospective document review. This study was part of a larger tracking project where two cohorts of students, enrolled for the first time in 2008 and 2009, were tracked over a period of nine years until completion of the pre-registration examination to practice as a pharmacist in the country. To complement the larger project's results, the study population for this study included all students registered in the BPharm programme, from first to fourth-year level, during the two calendar years of 2008 (n=198) and 2009 (n=217). The final sample included all students identified as at risk of failing from these two groups.

Data collection and analysis

Retrospective data on students' academic performance were obtained from the School of Pharmacy database. Information on students identified as at-risk and who received counselling was collected from completed individual counselling feedback sheets. This included students' responses to the questions posed to them during the student counselling sessions, subsequent comments and notes made on the sheets by the student support officer during individual counselling sessions, and hand-written strategies proposed by the students themselves at the end of the counselling sessions to improve their academic performance. Frequencies and percentages were calculated for overall pass rates, for at-risk students who were counselled, and for pass rates of students who received individual counselling.
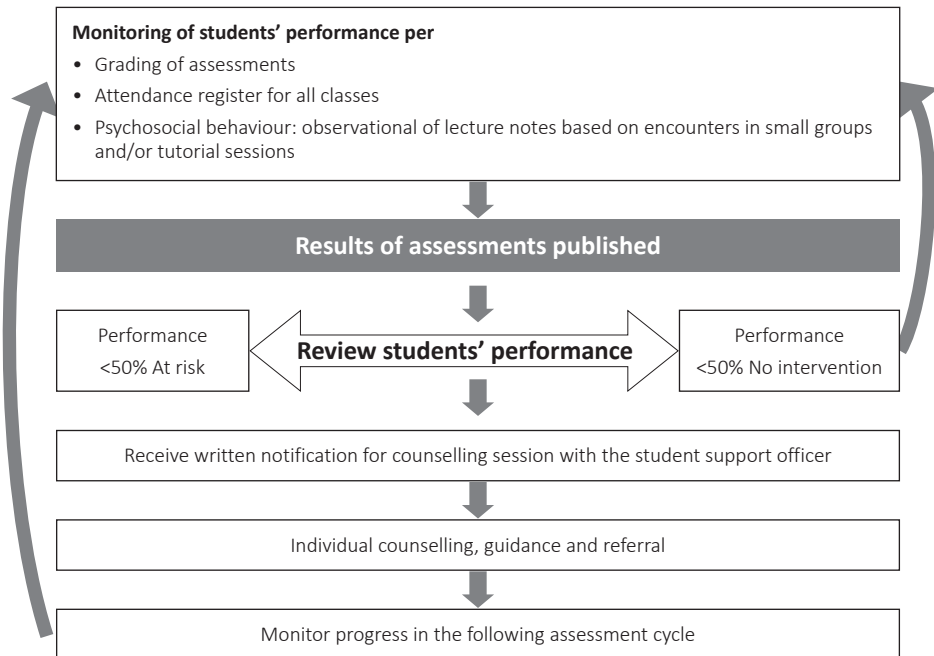
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Monitoring of students' performance per
- Grading of assessments
- Attendance register for all classes
- Psychosocial behaviour: observational of lecture notes based on encounters in small groups and/or tutorial sessions

Results of assessments published

Performance <50% At risk ⟵ **Review students' performance** ⟶ Performance <50% No intervention

Receive written notification for counselling session with the student support officer

Individual counselling, guidance and referral

Monitor progress in the following assessment cycle

Figure 1: Standard procedures used to identify and counsel 'at-risk' students in the BPharm programme

Ethical considerations

The research and ethics committee at SMU granted ethical clearance for the study (MREC/H/173/2014). Permission to access student records was obtained from the Dean of the School of Pharmacy. Students had the right to confidentiality to protect their interests and ensure that relationships based on trust can be developed and maintained. Consent was sought before the commencement of counselling; sharing of information with whom and how was explained. All records are kept secure with access controlled and are only available to members of the relevant team on a need-to-know basis. Confidentiality and anonymity, while collecting, analyzing, and reporting data for the counselling sessions, had to be maintained

Results

Students in the BPharm programme who obtained less than 50% (minimum pass rate) for a particular assessment in a module were identified as at risk to fail the particular module and subsequently the year and received individual counselling. Table 1 shows a summary of the students' pass rates in the two study groups per calendar year (2008 and 2009) and per study level of the 4-year BPharm programme, distributed by overall pass rates and pass rates for at-risk students who received counselling. More than a third of the students from the two groups received individual counselling because of their

poor academic performance (178/415; 42.9%), of whom the majority (153/178; 86.0%) succeeded in their respective years.

From Table 1, it is evident that in 2009 more students were counselled than in 2008. In both instances, a smaller proportion of first-year students required individual counselling, however, the pass rate for those students at the first-year level who received counselling was lower compared to students from the second-year level onwards. A larger proportion of the final year group in 2009 experienced challenges compared to the other year groups, as 81.5% (44/54) of the students were identified as at risk and had to receive individual counselling and support. The vast majority (43/44; 97.7%) of them passed their final year successfully.

Results from the students' self-reflection during the individual counselling sessions regarding their academic outcomes showed that most of them were aware of their poor academic performance in the identified assessments (170/178; 95.5%) and rated their academic performance as average (9/178; 5.1%) or below average (169/178; 94.9%).

Table 1. Overall pass rates and pass rates for students who received counselling per calendar year and per study year (n=415)

Year	BPharm 1 (n=126) *				BPharm 2 (n=101) *				BPharm 3 (n=95) *				BPharm 4 (n=93) *				BPharm 1-4 (178) *		
	All students		Students "At-risk" n (%)		All students		Students "At-risk" n (%)		All students		Students "At-risk" n (%)		All students		Students "At-risk" n (%)		All students	Overall Students "at-risk"	
	n	Pass rate (%)	Counselled (n)	Passed	n	Pass rate (%)	Counselled (n)	Passed	n	Pass rate (%)	Counselled (n)	Passed	n	Pass rate (%)	Counselled (n)	Passed	n	Counselled (n)	Passed
2008	56	82	11 (19.6%)	8 (72.7%)	48	83	16 (33.3%)	14 (87.5%)	55	96.4	10 (18.2%)	8 (80.0%)	39	97.4	12 (30.8%)	10 (83.3%)	198	49 (24.7%)	40 (81.6%)
2009	70	81	31 (44.3%)	21 (67.7%)	53	87	35 (66.0%)	31 (88.6%)	40	80.0	19 (47.5%)	18 (94.7%)	54	96.3	44 (81.5%)	43 (97.7%)	217	129 (59.4%)	113 (87.6%)
Total	126	82	42 (33.3%)	29 (69.0%)	101	85	51 (50.5%)	45 (88.2%)	95	88	29 (30.5%)	26 (89.7%)	93	97	56 (60.2%)	53 (94.6%)	415	178 (42.9%)	153 (86.0%)

*Note: *The sample size for each calendar year level included all students in each class for that particular year, irrespective of whether they were repeating a year or not*

Table 2 provides a summary of these at-risk students' own reasons for and factors contributing to their poor academic performance, as identified during the individual counselling sessions. Most of them (95.5%) experienced financial difficulties, followed by challenges with personal relationships and family problems (91.6%) and emotional and anxiety problems (87.1%). The most common factors related to the academic and institutional environment were insufficient time to study (84.3%) and poor understanding of questions (78.7%).

Table 2. Summary of factors contributing to poor academic performance as identified by 'at-risk' students (n=178)

Factors contributing to poor academic performance	Number (%) of students
Personal factors	
Financial difficulties	170 (95.5%)
Relationships, family problems (peers, parents, partners)	163 (91.6%)
Emotional and anxiety problems	155 (87.1%)
Lack of motivation	120 (64.4%)
Lack of concentration	80 (44.9%)
Academic and institutional factors	
Insufficient time to study	150 (84.3%)
Poor understanding of questions	140 (78.7%)
Poor study methods	100 (56.2%)
Multiple-choice questions	99 (55.6%)
Lack of ability to recall information during exam	70 (39.3%)
Workload	50 (28.1%)
Group dynamics	45 (25.3%)
Absenteeism	25 (14.0%)

At the end of each individual counselling session, at-risk students had to indicate in writing what their individual strategies were in terms of a way forward to improve their poor academic performance. Table 3 shows a summary of the strategies identified by at-risk students, including recommended referral for support by the university. All the students (100%) agreed that they needed to work harder and schedule specific study sessions, followed by improving their time management (89.3%). More than half of the students attending individual counselling sessions (56.2%) opted to improve their performance after the session by using their support structure, such as studying in a group, and having consultative sessions with their mentors or lecturers within the BPharm programme.

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Table 3. Strategies identified by 'at-risk' students and student support officer to improve academic performance (n=178)

Strategies identified	Number (%) of students
Students' plan of action	
Hard work and schedule study sessions	178 (100%)
Improve time management	159 (89.3%)
Support structure (e.g. study in group or with another student, consult with mentor or lecturers)	100 (56.2%)
Student support officer's recommendations for referral in agreement with student	
Financial assistance	170 (95.5%)
Psychologist for professional counselling	165 (92.7%)
Wellness through the Centre for University Teaching and Learning (e.g. goal setting, time management, study skills, examination preparation)	110 (61.8%)

Table 3 shows that most of the at-risk students who had received counselling saw the value of additional support, as they agreed to be referred to relevant university supporting structures. Referrals were made according to students' specific needs and challenges and included financial support (95.5%), psychosocial (92.7%) and wellness support (61.8%) from the Centre for University Teaching and Learning, focusing on improving students' life skills such as goal setting, time management, study skills and examination preparation.

Discussion

Understanding the key factors that affect student success gives instructors a proposition to empower students to take heed of their risk factors and progress academically. In this study, the majority (95.5%) of students who did not obtain the 50% required pass rate, identified as at-risk of failing the particular module, were aware of the decline in their academic performance as they all rated their performance as either average (5.1%) or below average (94.9%). A limited number of students (4.5%) was satisfied with their performance, despite having obtained between 40% and 49% for an assessment. This could be because they considered the university's sub-minimum examination entry mark of 40% as adequate (SMU, 2020).

The overall pass rate for the two groups of students (2008 and 2009) in the BPharm programme at SMU was 87.7%, exceeding the DHET target of 79%, stipulated in the *Ministerial Statement on Student Enrolment Planning for 2014/15 to 2019/20*, which was an increase of 3% in 2012 (76%) (DHET, 2014). The support programme of monitoring and subsequently identifying students at risk of failing at an early stage showed encouraging results as 86.0% of those identified as at-risk eventually passed their respective module assessments and subsequently their year (level) of study. Similarly, exposure to counselling of underprepared first-year students in a public university in the Northeast region of the United States was positively associated with improved grade point average (Cholewa &

Ramaswami, 2015). Mouresh et al. (2014) echo that student support and academic or personal development is a crucial role player for assisting graduates in developing the meta-level of generic competencies required to succeed in their studies, which are also the competencies required to succeed in the world of work (CHE, 2015). However, one must acknowledge that, apart from individual counselling, other factors could have contributed to the good pass rates, including the selection procedures for BPharm candidates (e.g. interviews, potential and pre-academic performance), the PBL and teaching approach.

Institutions of higher education need to achieve high pass rates and, subsequently, high throughput rates. Low throughput rates are putting further strain on inadequate resources at these institutions, as throughput rates are used in the subsidy formula of the DHET in its funding allocation to higher education institutions in South Africa (Barnard & Fourie, 2013; DHET, 2015). Furthermore, low pass and throughput rates also contribute to students' financial and emotional challenges (Barnard & Fourie, 2013). From our study, 95.5% of the at-risk students identified financial challenges as contributing to their poor performance, and 87.1% of them experienced emotional problems and anxiety.

Despite the various external and internal challenges at-risk students face, the vast majority realised that they had to work harder and apply themselves better. Students have to develop responsibility for their own learning and apply themselves fully by attending classes and studying. At-risk students also identified poor understanding of questions during assessments (78.7%) and multiple-choice questions (55.6%) as factors contributing to their poor academic performance. This could be explained by the fact that both poor understanding of questions and guessing answers could lead to incorrect answers. In the case of the BPharm programme, negative marking is applied when multiple-choice questions are used. Compared to secondary education, where negative marking is not applied, students find negative marking to be challenging, especially first-year students who are in the process of adjusting to higher education and have not encountered negative marking before (Romm et al., 2019). Studies have shown that the existing articulation gap for many students entering higher education causes difficulty throughout the years of study, resulting in poor overall academic performance (McGhie, 2014).

Another possible contributing factor is insufficient English language proficiency, which can hinder generic skills acquisition and professional development (including information handling, managing learning and critical thinking) (McLean et al., 2013). The medium of instruction at SMU is English, and underprepared students struggle with academic performance in universities and professional courses where the medium of instruction is English (Kumar, 2014). Previous research amongst students in this programme has shown that such changes may result in some students taking an extended period to acclimatise to a university environment (Mabope, 2007). Ideally, such students would be referred to the English Department for additional support to obtain language proficiency in both receptive language (understanding concepts) and expressive language (speaking and writing) skills. Instead, students in the BPharm programme at SMU were referred to CUTL for life skills such as examination preparation, study skills and time management.

In this study, the vast majority of the students indicated interpersonal challenges (91.6%) (i.e. strained relationships with their parents, peers and partners), and anxiety

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(87.1%) as factors contributing to their poor performance. In addition to 84.3% who identified not having sufficient time to study as a reason for poor performance, 89.3% also identified improving their time management as a strategy to improve their academic performance. Poor time management and emotional challenges experienced by students in this study could be associated as previous research has shown that poor relationships with parents, partners, friends, and siblings can contribute to a student suffering academic stress (Kim & Lee, 2013). Furthermore, the literature has shown that emotional or anxiety problems and lack of motivation can lead to phobia of examination rooms or assessments, leading to post-traumatic stress disorder and lack of time management (Afolayan et al., 2013). Low self-esteem and disengagement can also lead to high academic anxiety and stress (Sharma & Jagdev, 2012). Students' psychological factors are notable, as 92.7% requested and agreed to be referred for assessment and counselling by a professional psychologist at the university. This kind of referral is essential to minimise anxiety and stress levels, which, if not addressed in time of need, may limit educational and professional development and promotion through the educational system (Fazel et al., 2014) or result in students leaving the programme without completion (Afolayan et al., 2013).

In this BPharm programme, most of the students are first-time university entrants, as required by the selection criteria (SMU, 2020). Previous studies have shown that first-year students experience challenges as they make the transition to university life (Bexley et al., 2013; Brinkworth et al., 2013; King et al., 2015; Nelson, 2014). The reasons for this could be attributed to students' academic and social background, acclimatising to teaching and learning pedagogy expectations and adjustment to university life. Students struggle to develop habits such as time management, study skills, language, and prioritisation; they experience relationship challenges and are not familiar with high-level technology (Diab et al., 2015). These challenges would warrant further investigation amongst students in this BPharm programme. Interestingly in our study, a smaller proportion of first-year students (33.3%) needed counselling, compared to the senior years, which ranged from 50.5% in the second year to almost double the proportion (60.2%) in the final year (Table 1). These statistics call for further investigation, considering other possible contributing factors, including the PBL methodology.

Students in this study confirmed that factors such as poor study skills, time management, lack of concentration and the inability to recall information impacted their academic performance. Such factors can negatively affect student motivation, including teacher and/or parent inability to care, resulting in increased absenteeism (Senyametor et al., 2018). Commitment, motivation, self-discipline, resilience, teaching and learning strategies in conjunction with peers and lecturers at the university (Pather et al., 2017; Tinto, 1975; Zepke, 2013) and time management are some of the underlying values for the success of individual counselling sessions. The student support officer in this programme is invaluable for identifying those who need intervention, referral to the CUTL and assigning mentors to assist these students.

Recommendations

Based on the experience from the individual counselling process used in this BPharm programme, the results showed that at-risk students are distributed across all the programme levels. The students themselves identified various reasons for poor performance and the required supportive strategies. Therefore, the BPharm programme would benefit from a more structured student support and mentoring programme, considering these factors. Academic and personal performance should be tracked periodically at an early stage of the student's academic life to allow referral for professional support, whether financial, psychosocial or wellness where appropriate. Measures should be in place to ensure a timely turnaround time to optimise these efforts. In addition, those referred for support should be monitored to ensure they are attending their sessions. Students should seek assistance from an earlier stage in their academic programme to prevent the identified challenges affecting their senior years' performance. Hence, such a programme should also include pathways for the students themselves to obtain support from peers, mentor(s) and teaching staff at an early stage or whenever the need arises. Academic staff should be sensitive and accessible when students approach them, as these students considered at risk are epitomised as individuals with specific needs and special issues (Mngomezulu et al., 2017).

In promoting a structured student support programme, the university should design and implement enhancements to their information management information system, which will allow early identification of at-risk students and notify the individual students and relevant student support officer in the various schools. The student support officer should then identify and explore specific challenges through personal interviews with the identified students and recommend appropriate action and referral.

Interim recommendations based on this study's results include regular and coordinated workshops for all students targeting study skills, time management, and preparation for examinations across all levels of study. English is the only medium of instruction at SMU for a diverse student population. Although students in the BPharm programme complete a foundational module in English during their first year of study, the results indicate a need to review the contents of the English module with the responsible provider to address the concerns, especially regarding the understanding of questions.

Lastly, considering the results of this study, further qualitative research is required to better understand the challenging factors identified by students in this study, and to determine students' perceptions about the current individual counselling process and support system used in the BPharm programme for the development of a structured student support programme.

Limitations

We are aware of some of this study's limitations. The results should be considered with caution as the findings are not intended to be generalised beyond the target population due to the relatively small sample size and the fact that the study was confined to a single programme. This was not a controlled study, as it would have been unethical to exclude certain students from counselling sessions that could have benefitted them. Determining the actual impact or effect of the individual counselling sessions on students' academic

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performance was, therefore, not possible in this study but should be considered in future studies. However, considering students' pass rates across an entire programme, this individual support programme shows great promise and provides guidance for future initiatives and studies.

Conclusions

To the best of our knowledge, this is the first study to explore the role of individual student counselling in the academic performance of pharmacy students within a PBL programme in the African context. The results suggested that individual counselling and support in this BPharm programme contributed to students' positive academic outcomes at this historically disadvantaged institution, as students' pass rates in this programme were high and exceeded higher education pass rates at a national level. However, considering the programme's nature, there may be other contributing factors that need to be explored. It was evident that an individual student monitoring and evaluation approach plays a crucial role as an early identification and warning system that forms part of student tracking, which is essential to provide appropriate support to specific students as soon as required. This study's findings are consistent with those of other studies and afford some confirmation of the variables that should be monitored with a view to potential interventions. The multifaceted factors identified by at-risk students as affecting their academic performance and their requested referral for assistance or support require coordinated efforts by staff and students. A one-size-fits-all approach to student support is not suitable in such a diverse student population, which calls for the development of a more structured and comprehensive student support programme. Additional qualitative research to better understand the identified factors contributing to poor academic performance and strategies identified by students to address these would be necessary to develop a responsive student support programme.

Author contributions

Lindi A. Mabope (LAM), Johanna C. Meyer, Beverley Summers and Anna-Marie Wium developed the concept and designed the study. LAM collected and analyzed the data. All authors interpreted the data and LAM drafted the initial manuscript. All authors participated in the manuscript's critical review for intellectual content and contributed significantly to the final manuscript.

Ethics statement

The research and ethics committee (REC) granted ethical clearance for the study. Permission to access student records was obtained from the Dean of the School of Pharmacy. Participants' right to confidentiality and consent were developed and maintained.

Potential conflict of interest

The authors have no conflict of interest to declare.

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Appendix: BPharm – Student counselling/support form

1. **Student Details**		
Full Name:		**Signature:**
Number:		**Date:**
2. **Questions to Student**		
Q1: Are you satisfied with your own performance so far?	**A1:** *(Student to state whether they are aware of the problem or not. Staff member to state that the student's performance is not satisfactory because marks are below average/sub-minimum, dropping, or not improving.)*	
Q2: What problems do you experience that might be interfering with your studies?	**A2:** *(Staff member to delineate possible factors for poor performance such as attendance, lack of concentration, motivation, finances, emotional matters.)*	
Q3: How do you study (methods)?	**A3:** *(Staff member to state whether study methods are good or bad.)*	
3. **Concluding Remarks**	**Student's Plan of Action**	**Comments by Staff Member**
Since you now know the reasons why your performance is not satisfactory, what are you going to do to improve your performance? *(Provide necessary advice and guidance to the student on the plan of action.)*	1. 2. 3. 4. 5.	*(Staff member to state what the School of Pharmacy can possibly do to assist the student.)*
4. **Staff Member**	**Signature:**	**Date:**
Full Name: **1.** **2.**		