

**NURSING AND RADIOGRAPHY STUDENTS' PERCEPTIONS OF THEIR LEARNING CLIMATE AT THE SCHOOL OF NURSING, UNIVERSITY OF NAMIBIA****Small L. F., Pretorius L.\*, Kuugongelwa S., Brinkmann C., Bampton E. L. Anyolo E., Haoses Gorases, L. and Amakali K.**

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**ABSTRACT**

An effective learning climate is described as being humanistic, authentic, supportive and caring. Both the nurse educators and the institution alike therefore have a key responsibility to provide a caring environment that offers optimal learning opportunities for their students. Nevertheless, in biannual student forums anecdotal comments from the students, sometimes emotion laden and without specific detail, challenges have been identified regarding the learning climate. It was thus evident that problems relating to the learning climate existed among students and that these problems needed to be investigated and documented. The aim of this study was to explore the perceptions of Nursing and Radiography students about their learning climate during the course of their studies at the School of Nursing on the Windhoek campus of the University of Namibia. A quantitative, descriptive and analytical study was conducted during October 2013. The population included all the Nursing and Radiography students enrolled for that academic year at the School of Nursing. A questionnaire that focused on various aspects of the learning climate and support was used after pilot test. Ethical considerations were adhered to. Six of the eleven items discussed obtained a median score of less than 2.5 out of a possible 5, which is regarded as less than average. Suitable recommendations were subsequently submitted.

**KEYWORDS:** Nursing and Radiography students' perception, learning climate, University of Namibia.**1. INTRODUCTION**

The concept of a learning climate entails a number of aspects that may influence the learning and the performance of the student. One of these aspects includes the learning environment of the student, namely, the classroom, the library, accommodation, transport and means of support for example with regard to the purchasing of books (Hughes & Quinn, 2013). An effective learning climate is also described as being humanistic, authentic, supportive and caring. The students' perspectives or opinions regarding the learning climate and other aspects of support are greatly valued by the training institution. It could be argued that if the students' learning climate were lacking in such aspects, the students would find it difficult to achieve their full potential. Nurse educators have a key responsibility in this regard to provide a caring environment that offers optimal learning opportunities (Meyer & Van Niekerk, 2013).

Students who enter the field of Nursing and Radiography come from diverse backgrounds in terms of education and socio-economic circumstances (Bruce, Klopper, & Mellish, 2011).

As a result of this diversity, students pursuing their studies at academic institutions also have different learning needs to be accommodated in a climate that is conducive to learning. There are several factors concerning the learning climate that play a crucial role in the students' learning and performance. These factors are interlinked and may be referred to as contributing factors. They include vis-a vis: accommodation, transport, finances, textbooks and library conditions. This study therefore focuses on the perceptions students have of their learning climate, with specific reference to the support systems and the caring attitude displayed by lecturers in the School of Nursing. The intention is also to facilitate the provision of applicable support systems to address shortcomings in the learning climate of students in the School.

**2. PROBLEM STATEMENT**

Student learning and performance could be negatively influenced by a non-conducive learning climate and the absence of support systems. A climate that is conducive to learning includes the availability of classrooms, a place to study and library services, proper accommodation and reliable transport to and from class, as well as the financial security to buy textbooks and the basic necessities. Support from lecturers also influences

the students' perception to their own theoretical and practical performance.

These factors became the focal points of discussions during biannual student forums. Anecdotal comments from the students, sometimes emotion laden and without specific detail about learning climate were voiced. It was evident that students had a problem regarding their learning climate and that this problem should be investigated and documented. Moreover, the findings of the same study on the students' perception of their well-being indicated that the students have low level of perceived well-being, irrespective of their study programme and levels of studies (Small, Pretorius, Walters, et. al, 2016).

Prior to this research, no data existed in the School of Nursing at local institution on how students perceived their learning climate or on other factors that influence their academic and practical performance. Without specific data relating to these issues, it is not possible to develop interventions to strengthen the learning climate or to render the support required in the School of Nursing.

### 3. PURPOSE OF THE STUDY

The purpose of the study was to explore the perceptions of Nursing and Radiography students about their learning climate during their course of study at the University of Namibia, School of Nursing on the Windhoek campus.

#### 3.1 Significance of the study

The results obtained from this study could sensitise the School of Nursing to the experiences of Nursing and Radiography students with regard to their study and learning environment, which could in turn have a direct influence on the total welfare of the students. It would further enable the School to address some of the challenges that fall within the mandate of the school and, for the School to make recommendations to the respective departments. As the learning climate has a direct influence on students' academic performance it is envisaged that through proper liaison and communication with all concerned, an improvement in the learning climate will also result in an overall improvement in academic performance by the students.

### 4. METHODOLOGY

A quantitative, descriptive and analytical study was conducted during October 2013, among Nursing and Radiography students registered for their respective courses at the University of Namibia, School of Nursing on the Windhoek campus. The population included all the Nursing and Radiography students enrolled in the School of Nursing for the 2013 academic year. No sampling was done, and the instrument was distributed to 403 undergraduate and post-graduate students. A response rate of 95% (N = 383) was obtained.

A questionnaire that focused on various aspects of the learning climate and support (accommodation, transport, study environment, theoretical and practical performance, support provided by lecturers, financial security, challenges related to textbooks, aspects of the library and recreational facilities) was used. This instrument was adapted from an instrument designed by the University of Michigan (2015) as well as from the one used by Erwee (2013) at the University of Namibia. The adaptations that were implemented focused on the learning climate and relevant support. The instrument was assessed during three meetings held with six Nursing and Radiography lecturers. This assessment was necessary to accommodate the adaptations that were made to the original instrument and consensus was subsequently obtained with regard to face and content validity.

The questionnaire was pilot-tested in September 2013 on five postgraduate students who completed the questionnaire and confirmed their understanding thereof. On the basis of this, no changes were deemed to be necessary. These five questionnaires were not included in the final analysis.

Ethical considerations were adhered to. Confidentiality and anonymity were assured as no names were attached to the questionnaires. No physical or psychological harm was caused. Participation was voluntary and informed verbal consent was obtained.

#### 4.1 Data analysis

The data obtained from this research study were analysed with the assistance of a statistician at the University of Namibia who used SPSS for the data analysis. Both descriptive and analytical analyses were conducted. As part of the descriptive analysis, the data were categorised on an ordinal scale ranging from 1 to 5, where one was the least positive and 5 the most positive perception. The analysis focused on the median obtained and the Pearson correlation coefficient was used to correlate the findings with academic year, study programme and gender. Table 1 presents the summary of the findings.

**Table 1: Summary of findings that were statistically significant.**

| Learning climate and support items with statistically significant findings |                 | Pearson's chi-square | Level of significance   |
|--|-----------------|----------------------|-------------------------|
| Accommodation  | Gender          | 11.393               | p = 0.022               |
|  | Study programme | 41.134               | p < 0.0001              |
| Transport  | Study programme | 35.903               | p < 0.0001              |
| Study environment  | Study programme | 36.878               | p < 0.0001<br>p = 0.027 |
|  | Study year      | 28.633               | p = 0.027               |
| Practical performance  | Study year      | 27.372               | p = 0.038               |
| Faculty support  | Study programme | 42.510               | p < 0.0001              |
|  | Study year      | 37.645               | p = 0.002               |
| Financial security   | Study year      | 39.583               | p < 0.0001              |

## 5. DISCUSSION OF THE FINDINGS

This discussion addresses the perceptions of students about the learning climate and their support needs. The various items are discussed separately, focusing specifically on the items where statistical significance was found (see Table 1).

**Item 1** dealt with the perceptions regarding accommodation. In this item, a median score of **2.27** out of a maximum score of 5 was obtained. This low score might relate to the principle that the function of a tertiary education institution such as the University of Namibia is to educate and not to provide accommodation (Hangula, 2015). The students' perceptions about their accommodation may be influenced by the fact that some students provide accommodation for fellow students illegally in existing hostels, and students from remote areas have to stay with family members in houses that are already too small.

A statistically significant difference was found between males and females regarding experiences with their accommodation. Significantly, more females than males rated their accommodation as being satisfactory and acceptable (p = 0.022). A possible explanation for this could be that female living quarters and hostels are better maintained and, in the Namibian context, females workers are responsible for the cleaning and maintenance of living quarters.

A statistically significant difference was also found between the two nursing programmes (BNSc and the Diploma in Nursing Science), and students from the Bachelor of Radiography (BRad) programme. The BRad students reported being significantly more satisfied with their accommodation than students from the two nursing programmes (p = 0.000). There are fewer students enrolled in the Radiography course than in the Nursing course and therefore as a group they are more likely to obtain hostel accommodation (School of Nursing, 2013a). Furthermore, the findings about students' perception of their wellbeing from the same study (Small, Pretorius, Walters, et al., 2016) indicated that unlike the Bachelor of Nursing students, Radiography students have good financial support system and as a result they can afford proper accommodation.

**Item 2** dealt with perceptions regarding transport. In this item a median score of **1.97** out of a maximum score of 5 was obtained. This low score may be linked to the low perception score for accommodation. Owing to the limited number of students that can be accommodated at the hostels on the main campus of the University of Namibia, students have to travel from their private accommodation to the campus. In addition, taxis are not readily available or leave their passengers waiting for long periods until the taxi is full to capacity before they depart to destinations. No statistically significant difference was found between males and females regarding experiences relating to transport (p = 0.118).

A statistically significant difference was, however, found between the nursing (BNSc.) and the radiography (BRad) students. The BRad students reported being significantly more satisfied with their transport arrangements than students from the two nursing programmes. (p = 0.000). No statistically significant difference was found between the different academic year groups regarding experiences relating to transport (p = 0.545).

**Item 3** investigated the perceptions or experiences of students regarding their study environment. In this study, the study environment included the physical surroundings and the structure used for study. completions of assignments were also assessed. In this item a median score of **2.39** out of a maximum score of 5 was obtained. This score indicates a less than favourable study environment. No statistically significant difference was found between males and females regarding experiences relating to their study environment (p = 0.738). However, a statistically significant difference was found between the nursing and radiography students. The latter reported being significantly more satisfied with their study climate than students from the two nursing programmes (p = 0.001). There are far fewer radiography students than the nursing students. Therefore, the former can be accommodated in smaller study venues, for example the hospital.

A statistically significant difference was also found between the third and fourth-year students when compared with the first-year students. The third and

fourth years were significantly more satisfied with their study environment than the first-year students ( $p = 0.027$ ). A possible explanation is that the third and fourth-year students have put their own support systems in place and have also established an acceptable study environment.

**Item 4** explored the students' *perceptions of their own theoretical academic performance*. A median score of **3.36** out of a maximum score of 5 was obtained. No statistically significant difference was found between gender, study programme and academic year. It would therefore seem that the students in general perceived their academic performance to be above average. This is supported by the School of Nursing examination results, where an average pass rate of over 80% is achieved in most of the subjects (School of Nursing, 2013b).

**Item 5** explored the students' *perception of their own practical performance*. In this item a median score of **3.63** out of a maximum score of 5 was obtained. In this case a statistically significant difference between the fourth-year students and years one, two and three was found. More fourth-year students than those in the other years perceived their practical performance to be satisfactory ( $p = 0.038$ ). This is in line with Benner's model of skills acquisition, in terms of which the first-year students are regarded as novice and the third and fourth year students can be regarded as advanced beginners with some reaching the competent level (Hughes & Quinn, 2013).

**Item 6** dealt with *students' experiences regarding lecturer/faculty support*. A median score of 3.47 out of a maximum score of 5 was obtained. A statistically significant difference was found between the experiences of the BNSc students and the Diploma in Nursing Science students. The Diploma in Nursing Science and the BRad students reported the lecturers/faculty being significantly more supportive than did the BNSc students ( $p = 0.001$ ), while the first-year students gave their experiences relating to lecturers a significantly higher rating than the other groups, thus experiencing them as very supportive ( $p = 0.002$ ). The student-lecturer ratio for students enrolled in both the BRad programme and the Diploma in Nursing and Midwifery programme is lower than in the BNSc programme. This may account for the more satisfactory perception regarding faculty and lecturer support by the respective groups (School of Nursing, 2013a).

In **Item 7** students expressed *perceptions regarding their own financial security*. A median score of **2.62** out of a maximum score of 5 was obtained. No statistically significant difference was found between males and females regarding perceptions of their own financial security ( $p = 0.801$ ). However, as in the findings about perceived wellbeing from the same study (Small, Pretorius, Walters, et al., 2016), a statistically significant difference was found between the different study

programmes. The Diploma in Nursing students indicated that they were significantly more financially secure than did the BNSc students ( $p = 0.00$ ). The students in the Diploma in Nursing and Midwifery course are qualified nurses with a previous sub-professional position in the Ministry of Health and Social Services. They are granted fully paid study leave for the duration of their studies (MoHSS, 2012)

**Item 8** addressed experiences *relating to textbook challenges*. A median score of **2.41** out of a maximum score of 5 was obtained. No statistically significant difference was found between gender, study programmes and academic year. The majority of textbooks prescribed for students enrolled in the School of Nursing are ordered and purchased from the USA. Owing to the current exchange rate, books have become very expensive and can barely be afforded by the students. At the time of this study, the exchange rate between the Namibian dollar and the US dollar was about 13:1.

In **items 9 and 10** participants were asked to indicate their *experiences regarding the library, that is, the study areas and computer availability*. A median score of **2.75** and **2.35** respectively, was obtained out of a maximum score of 5. No statistically significant difference was found between gender, study programmes and academic year. Fifty per cent of the three study programmes discussed here are comprised of a clinical load which takes place off campus where there is no possibility of using the library facilities (School of Nursing, 2013c).

In **Item 11** participants indicated their *experiences regarding recreational facilities*. A median score of **1.99** out of a maximum score of 5 was obtained. No statistically significant difference was found between gender, study programmes and academic year. As in the previous discussion, 50% of the student's time is spent at the clinical facilities and so they are not able to participate in recreational activities on campus (School of Nursing, 2013c).

## 6. CONCLUSION

Six out of the eleven items discussed obtained a median score of less than 2.5 out of a possible 5, which is regarded as lower than average. These six were accommodation, transport, study environment, textbooks, computer availability and recreational activities. According to the findings of this study, the factors that contribute to a climate that is conducive to learning are lacking and, according to the literature, these are important for a positive learning climate (Hughes & Quinn, 2013).

## 7. RECOMMENDATIONS

The factors that contribute to a learning climate which were surveyed by this study are external to the School of Nursing and therefore the school has limited control over them. However, the School of Nursing could submit recommendations with regard to accommodation and

finances to the Ministry of Health and Social Services. It is recommended that the Ministry look into the possibility of making more living quarters available for accommodation of nursing students, as well as making provision for monthly allowances to be paid to student nurses.

The remaining factors that were identified as being below average are all related to financial security (which has been discussed above) and requirements relating to the study programme, which cannot be amended.

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#### CONTRIBUTIONS

All the researchers made an equally valuable contribution to the writing of this article.

#### COMPETING INTEREST

The researchers declare that they have no financial or personal interest which may have influenced them inappropriately in the writing of this paper.

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