Student Nurses Academic Performance- Multidimensional Constructs

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ABSTRACT
The success of any educational institution is measured by its academic performance or how well students meet the standards set out. This study aimed to determine the factors affecting the academic performance of second and third year student nurses in Saudi Arabia. Academic success is important because it is strongly linked to the positive outcomes we value... Academic success is important because working people will need higher levels of education to tackle the technologically demanding occupations of the future. This study may benefit the students by allowing them to understand better the factors that can affect their academic performance. A quantitative descriptive design was utilized. Self-reporting course survey questionnaire was the main method used for data gathering. Average weighted mean and proportions were used to determine the level of impact of the different factors affecting student nurses' academic performance. The items on "What happened during the course" found to be of high impact. Meanwhile few items in the same category fell in the low range and rated related to their grading as moderate. In the aspect of course evaluation, the first item on "what I learnt in this course is important and will be useful to me" was determined to have the greatest impact among the course related items. Among the five domains, the item related to their overall evaluation "Satisfied with the quality of the course" fall behind the teacher related factors. Based from the findings, it was concluded that several factors pose high impact on the academic performance of student nurses, with teacher related factors topping the list.

KEYWORDS: Academic performance, Lecturer Student Relationship, Instructors knowledge and availability, Self-esteem, Domains of evaluation Checklist

Introduction:
Students are key assets of universities. The students' performance plays an important role in producing best quality graduates, who will become great leaders and manpower for the country's economic and social development. Thus, students have to put the greatest effort in their study to obtain good grades and to prepare themselves for future opportunities in their career at the same time to fulfill the employer's demand. Student's nurses identified some factors that could improve the academic performance of students. Chief among them were parental involvement in education; good nurse educator-student relationship; academic support services offered by teachers; use of information and communication technologies for learning, coupled with adequate learning facilities (library, computer laboratory and classroom space); availability of qualified nurse educators; and utilization of effective and evidence-based teaching strategies. (Makhosazane B.Dube and Puseletso RMlotshwa. 2018). Environments which are supportive, collective and cooperative may increase engagement of nursing students which lead to improved readiness for clinical training. (Sajid et al. 2013)

Significance of the study:
The result of this study may benefit the students by allowing them to understand better the factors that can affect their academic performance. They may be able to improve their academic performance with the finding that is established by this study. For the teachers, this study may help them to recognize problems encountered by the student that may pose and effect in their performance. They may find alternative actions on how to handle their students. For the
school administrators, they may be able to promote thinking skills assessment in their school, letting their teachers understand the influences of their student's preferred learning style that will promote adequate learning opportunities and effective instructions. Hence this study aims at investigating the impact of academic performances with regard to five major domains of teaching learning aspects.

**Literature Review:**
According to available literature, there are some impediments to academic performance by students. They include excessive homework assignments for the students, poor facilities, inadequate provision of basic needs by parents and inappropriate student perceptions (Dinkpa & Ilnegbu 2013), poor teaching (Manson 2014), misunderstanding of academic questions (Bradbury & Miller 2011) and time constraints when students have to read the questions, translate it into the home language and then choose the correct answer (Dooley 2010) are some more. In contrast, lecturer-student relationships (Nyadanu et al. 2015), a cohesive school atmosphere (Chowa et al. 2015), a welcoming atmosphere (Courtney-Pratt et al. 2011) and students with higher-level entry qualifications (McCarey, Barr & Rattray 2007) are some predictors of students' good academic performance. Moreover, a proper clinical education and an appropriate learning environment (Severinsson & Sand 2010) can lead to an adequate clinical performance.

**Method:**
A quantitative design, namely a survey, was used to determine the perceptions of enrolled student nurses on factors influencing their academic performance in a nursing school in Makkah.

**Participants:**
The target population was enrolled student nurses in nursing school in Saudi Arabia. Respondents included second and second-year enrolled nursing students at a nursing training institution who had registered for the nursing course. A convenient sampling was decided upon. The sample size was calculated using a computer program known as Raosoft sample calculator, employing the following parameters to ensure representativeness: margin of error of 5%, confidence level of 95%, a response rate of 50% and a population of 142 as sample size. The setting was selected for its easy access by the researcher.

**Data Collection:**
The course evaluation questionnaire is composed of four general title of start of the course, during the course, evaluation of the course, over all evaluation, and an open-ended question soliciting any additional comments.

Hypothesis: It was hypothesized that the academic performance of students would be improved if the aforementioned four factors were properly addressed and monitored. The researcher's contribution to this study was to describe the four factors believed to influence' academic performance. The questionnaire uses a 5-point likert Scale ranging from Strongly Disagree to Strongly agree.. Each question has an open-end component that probes for comments relevant to a specific question. Respondents were requested to sign a declaration form as soon as they agreed to participate in the study. The researcher explained to them how to complete the questionnaire to avoid wastage, errors and spoiled questionnaires. Thereafter, the questionnaires were distributed by the researcher herself to the student in the classroom at the school twice over a period of 1 week to a group of second and third year students at the end of the semester. The main question was to self-grade question about their own assessment of their motivation on a scale graded from 0 to 5, were 0 was not motivated at all and 5 was highly motivated. This rating scale has labeled ends, which specify the opposite extremes of a continuum. A rating scale with odd numbers is recommended to allow for a neural midpoint, which is why "3" point was chosen in this study. Thereafter followed an open-ended question asking which factors exerted an influence on their motivation. Roseberg self-esteem scale (SLES), containing items to elicit information from the respondents was used to compare academic performance with self-esteem.

**Research Questions:**
1. What is the level of impact of the different factors on the academic performance of student nurses?
2. Which indicator among each of the five factors has the highest impact on student nurses’ academic performance?
3. Which set of factors has the greatest effect on the academic performance of Second and Third year student nurse?
4. What is the level of correlation between self-esteem and academic performance of the students?

**Data Analysis:**
The data were captured on spreadsheets after having been gathered and examined for completeness. The questionnaires were coded, computed and analyzed using latest version of Statistical Package for Social Science (SPSS), Version 23. The statistical calculations included frequency counts, percentages, mean value and standard deviation. To compare the graded motivation between the semesters the non-parametric Kruskal-Walls test was used. Data were further analyzed according to their motivating score value <3 and >3 as well as the extreme values of a 0 or 5 score. The reliability of this instrument accurate reflects the true score of the attribute investigated. The open-ended questions in the questionnaire were inductively analyzed in a systematic way that lead to the drawing of inferences. The process used when analyzing the data was similar to content analysis.

**Results & Discussion:**
Categories occurred in the data are summarized in Table 1. Category is measured as a positive valued category as well as a negative valued category. Each individual could answer more than one reason for their graded motivation score. This inductive analysis of the individual's explanation of motivation has been linked to her degree of motivation. During analyzing phase, the analysis were performed separately by the two researchers and thereafter compared. The level of agreement between the two co-examiners was about 95% and points of disagreement were resolved through discussion. The road to a bachelor's degree in nursing might be filled with both possibilities and obstacles. How nursing students, who complete their nursing education, motivated towards their studies at different semesters are being studied here (through course evaluation survey among second and third year) towards achieving active learning goals, performance goals, ability-linked goals and normative goals and that outcome goals (wanting a good grade).
Categories Emerged from the Analyzed Data:

| Categories Emerged | Positive Value Motivation Score above 3 | Negative Value Motivation Score Below 3 |
|--------------------|----------------------------------------|-----------------------------------------|
| The course outline was made clear to them. | The knowledge and skills with regard to the course was designed to facilitate constructive learning. | Doesn’t facilitate constructive learning experience. |
| Faculty office hours and reference material were made clear to them. | Able to supervise even the most challenging students and the reference materials were supportive. | Reference materials and the faculty office hours were not sufficient. |
| My instructor(s) were fully committed to the delivery of the course. | Very engaged teachers. | Not engaged. |
| The resources I needed in this course (textbooks, library, computers etc.) | A stimulating organization of the program is noticed. | Was not noticed. |
| The amount of work I had to do in this course was reasonable for the credit hours allocated. | Having a positive attitude towards the studies. | Having negative attitude towards studies. |
| Grading of my tests and assignment in this course was fair and reasonable. | Having a positive attitude about grading of test and assignment. | Having negative attitude. |
| This course helped me develop my skills in working as a member of a team. | Achieving a good study results. | Not achieving a good study result. |

When analyzing the explanation from all the students’ scoring of the 0 – 5 scale, the data were analyzed into two parts; motivation score ≤ 3 and motivation score ≥ 3 define as low and high motivation respectively and this is shown in the above table. Statements made by second year when justifying low motivation were in most cases; with regard to the Instructors and resources, while the statement made by third years justified high motivation for the same categories. The outstanding statement for a high motivation score was that the course helped them to develop their skills in working as a member of a team. At the same time several students found the organization of the program stimulating and they had a positive attitude to the studies. Significantly more explanations were used to a high motivation score (≥3) compared to explanations for a low motivation score (≤3). The mean score differed significantly between semesters at the p value p<0.1. The standard deviation for the score value varied from .26 - .63. The mean motivation score over all semesters was 3.16 & 3.27 second year and third year respectively (ranked between 0-5) and differed significantly during their semester with a tendency to lower score in the beginning of the semester, later in their fifth semester, students were found to be with high motivation. Grading the motivation score to a maximum of 5 was not given by any student in second year and third year. The main reasons for that were the students longing for working in the nursing profession followed by student’s negative attitude to their studies in their first and second level courses. The lowest grading score, 0 was also not given by any student. The specific explanation given by them was that their interest towards nursing profession has been developed from low to high when they are promoted to their next level of courses.

Summary of the Set of Factors Affecting the Academic Performance of Second & Third Year Nursing Students:

| Questions | Mean | 2nd Year N-102 | 3rd Year N-40 |
|-----------|------|----------------|--------------|
| Questions about the start of the course | | | |
| 1. The Course outline (including the knowledge and skills the course was designed to develop) was made clear to me. | 3.46 | 3.4 |
| 2. The things I had to do succeed in the course, including assessment tasks and criteria for assessment, were made clear to me | 3.57 | 3.3 |
| 3. Sources of help for me during the course including faculty office hours and reference material were made clear to me. | 3.10 | 3.1 |
| Questions about what happened during the course | | | |
| 4. The conduct of the course and the things I was asked to do were consistent with the course outline | 3.23 | 3.4 |
| 5. My instructor(s) were fully committed to the delivery of the course. (Eg. Classes started on time, instructor always present, material well prepared, etc.) | 3.49 | 3.9 |
| 6. My instructor(s) had thorough knowledge of the content of the course. | 3.34 | 4.1 |
| 7. My instructor(s) were available during office hours to help me. | 3.79 | 3.8 |
| 8. My instructor(s) were enthusiastic about what they were teaching | 2.67 | 3.9 |
| 9. My instructor(s) cared about my progress and were helpful to me. | 2.90 | 2.9 |
| 10. Course materials were of up to date and useful. (Texts, handouts, references etc.) | 2.93 | 2.8 |
Findings from the study revealed that a good and supportive relationship between faculty members and fostered better academic performance among students of third year with the mean grade point 3.72 (SD=.222), which is significantly higher than second year students' perception. Faculty office hours and the resources at department were utilized more effectively by the third year nursing students concurred with the suggestion that academic support services (Faculty office hours, resources and start of the course with course outline) offered by teachers helped to improve their academic performance. Similar to these finding, Cooper (2010:23) noted that one strategy for increasing student persistence and both academic and clinical performance outcomes lies in the area of student support services. These types of services are a standard feature at most higher education institutions and therefore play a role in promoting successful outcomes for nursing college students. There had been 14 objects in second year and 18 objects in third year scored 3.1-3.5 which indicated positive aspect, student reported that teaching is often stimulating and they are clear about the learning objectives of course, additionally their instructors have good communication skills and were well prepared for their teaching.

Overall, positive learning outcomes in terms of student achievements are ensured through the availability of properly trained teachers, suitable learning resources and an appropriate learning environment. In relation to the item needing improvement, this study showed that 10 items in second year and 8 items in third year needed improvement as statements made by students were low motivation in few items, which may be due to the complex academic tasks, experiencing clinical encounter with patient which cause stress to students. However according to literature, teaching strategies that have stronger focus on evidence-based and student-centered learning enhance academic performance and clinical competence of students. For instance, problem-based learning and case-based learning put a stronger focus on evidence-based and student-centered learning that will potentially enhance academic performance and clinical competence of students (Murphy et al. 2010). However, traditional teaching approaches that focus mainly on information-giving activities in the classroom, firmly controlled by the teacher, do not promote realistic academic performance (Chilembo & Bruce 2015:55; Van Zyl 2014:20).

Conclusion:

The study revealed that among the major category five domains, the item related to their overall evaluation “Satisfied with the quality of the course” fall behind the teacher related factors. Based from the findings, it was concluded that several factors pose high impact on the academic performance of student nurses, with teacher related factors topping the list. There was little interaction between lecturers and students resulting in the average relationship, the prevailing relationship was not stronger enough to influence high academic and high level attainment but rather encouraged high self-esteem which in turn motivated high level academic development (p<0.01) significantly. The perceptions of their learning environment were “more positive than negative” with the significant difference between second and third year group of students.

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