

NURSING STUDENTS' CHARACTERISTICS PREDICT USEFULNESS OF ONLINE INTERACTIVE CASE STUDIES



Background

Preparing students for their first clinical practicum is essential in undergraduate nursing courses. Selecting effective teaching and learning methods taking into consideration student diversity has been shown to impact positively on the student experience (Koch et al., 2015).

Aim

The study examined the influence of three interactive case studies (ICS) developed for nursing students. In particular, the study sought to examine the profile of students who benefited most from these interactive case studies.

Method

Using a descriptive survey design, the study measured the self-efficacy, task value (Pintrich et al., 1991), English language usage (Salamonson et al., 2014), and age of first year nursing students in Semester 2 of a 3-year program. Students' Grade Point Average (GPA) was also collected at the end of the semester. Usefulness of the interactive case studies (ICS) was assessed using a 10-item investigator developed scale (Cronbach's alpha: 0.97).

This study was approved by the University Human Ethics Committee. A *p* value of < 0.05 was considered as statistically significant.

Surgical Admission

Ward tour

Ward orientation

This is an introduction to the healthcare environment. It is important for nurses to be familiar with their environment.

There are a range of activities to be completed to assist in familiarising you with the ward environment. To move through these activities click the icons at the bottom of the page. It is recommended that you keep notes of various patient information presented.

Watch the welcome video on the right and then click on the 'start orientation' button to begin your tour (click on each room to enter).



Results

In total, 717 first year nursing students completed the survey and provided consent for their completed survey to be linked to University administrative data.

Characteristics	<i>n</i> = 717
Age, mean [median] in years, <i>SD</i> (Range: 18 to 59)	25.4 [23] (7.5)
Sex, female, <i>n</i> (%)	586 (82)
Language usage (English only), <i>n</i> (%)	192 (27)
First-in-family, <i>n</i> (%)	293 (41)
Paid work engagement, <i>n</i> (%)	506 (71)
○ Type of paid work: nursing-related, <i>n</i> (%)	297 (59)
Grade Point Average (GPA), mean [median], <i>SD</i> (Range: 0 to 7)	4.3 [4.3] (1.4)
Self-efficacy, mean [median], <i>SD</i> (Range: 12 to 56)	44.2 [45] (7.5)
Task value, mean [median], <i>SD</i> (Range: 6 to 42)	34.9 [36] (6.8)
Usefulness of ICS, mean [median], <i>SD</i> (Range: 10 to 70)	55.6 [58] (11.5)

Table 1. Sample characteristics of Year 1 students

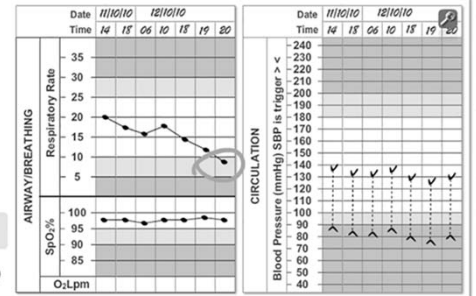
Results

Post-operative Care

Recovery issues

Immediate post-operative period

Select the value of concern on one of the charts shown to the right.



Predictors of usefulness: Interactive Case Studies

Logistic regression analysis revealed that respondents who benefited most from ICS were more likely to: i) be non-school leavers; ii) use other than the English language; iii) have low GPA; iv) have high self-efficacy; and v) have high task-value (Table 2).

Variables	Beta	SE	Adjusted odds ratio (95% CI)	<i>P</i> value
Usefulness of Interactive Case Studies				
○ Non-school leavers (Age: ≥ 20 years)	0.650	0.274	1.915 (1.120 – 3.275)	0.018
○ Language usage: Other than English	0.939	0.248	2.557 (1.573 – 4.159)	< 0.001
○ High self-efficacy (> 45) score	0.984	0.224	2.676 (1.724 – 4.156)	< 0.001
○ High task-value (> 36) score	1.786	0.227	5.964 (3.823 – 9.303)	< 0.001
○ Low Grade Point Average (≤ 4.3)	0.466	0.225	1.594 (1.025 – 2.479)	0.038
Nagelkerke's $R^2 = 0.375$ Hosmer-Lemeshow goodness-of-fit for the model, chi-square = 7.336, 8 <i>df</i> (<i>p</i> = 0.501)				

Table 2. Predictors of usefulness: Interactive case studies

Discussion and Impact

Students who benefited most from using the ICS in preparing them for their first clinical placement experience were those who were more engaged and motivated as reflected by their high task-value and self-efficacy.

This study also indicated that those who were more likely to need additional preparatory support for clinical placement (e.g. non-school leavers, non-native English speakers, lower GPA), were also those who reported the usefulness of the ICS, indicating targeted resource development design that matched students' needs promoted a more positive learning experience, and may also improve academic and clinical performance.

References

- Koch, J., Everett, B., Phillips, J., & Davidson, P. M. (2015). Is there a relationship between the diversity characteristics of nursing students and their clinical placement experiences? A literature review. *Collegian*, 22, 307-318. doi:org/10.1016/j.collegn.2014.03.007
- Pintrich, P. R., Smith, D. A., Garcia, T., & McKeachie, W. J. (1991). *A manual for the use of the Motivated Strategies for Learning Questionnaire (MSLQ)*. Retrieved from <http://files.eric.ed.gov/fulltext/ED338122.pdf>
- Salamonson, Y., Glew, P., & Everett, B. (2014, November 17-19). Development and psychometric testing of the 11-item English language usage scale (ELUS-11). Paper presented at 2nd International Conference on Nursing & Healthcare, Chicago, USA. *Journal of Nursing & Care*, 3, 147. doi:10.4172/2167-1168.S1.007