The attitudes of nursing students towards nursing informatics can influence the acquisition of knowledge and subsequent application of knowledge in clinical practice. There is a perception among hospital administrators that beginning entry-level nurses are not fully prepared for their role in the current healthcare environment based on their limited knowledge of nursing informatics upon graduation (Miller, Stilemy, Matheny, Pope, McAtee, & Miller, 2014).

**Objectives**

The purpose of our study was to examine the attitudes of junior and senior undergraduate nursing students toward nursing informatics using the Technology Attitude Scale (TAS) and compare the differences in attitude scores between junior and senior level nursing students.

There is a difference in level of confidence in, benefits of, and positive attitudes towards technology between junior and senior level nursing students. There is a difference in level of confidence in, benefits of, and positive attitudes towards technology between junior and senior level nursing students.

**Methods**

Our study used a survey design that is cross-sectional. A convenience sample of 189 BSN students (n=116, 61.4% juniors; n=73, 38.6% seniors) from a Philadelphia, PA University were invited to complete the Technology Attitude Scale (TAS).

The TAS consisted of 15 items which measure 2 subscales that are Likert scaled. The scale included 1 as strongly disagree to 5 as strongly agree. The first subscale measured the confidence and benefits of using technology and the second subscale measured lack of self-efficacy in the use of technology.

Descriptive statistics were performed to examine the sample characteristics. The mean (SD) were reported for TAS and the two subscales. Each hypothesis was analyzed using the independent t-test. The level of significance used for hypothesis testing was set at 0.05.

**Hypotheses**

1. There is a difference in the total TAS score between junior and senior level nursing students.
2. There is a difference in level of confidence in, benefits of, and positive attitudes towards technology between junior and senior level nursing students.
3. There is a difference in level of self-efficacy and negative attitudes towards technology between junior and senior level nursing students.
4. There is a difference in the total TAS score between ESL and non-ESL students.
5. There is a difference in level of confidence in, benefits of, and positive attitudes towards technology between ESL students versus non-ESL students.
6. There is a difference in level of self-efficacy and negative attitudes towards technology between ESL students versus non-ESL students.

**Results**

No significant differences were found in the characteristics of the sample by age, gender, race, and ethnicity between junior and senior nursing students. More junior students had English as a second language than did senior students (p=0.02; Table 1). No significant differences were found between junior and senior students for the total TAS or for the confidence and benefits subscale. However, the self-efficacy subscale scores were significantly higher in juniors (M=4.16, SD=.57) than seniors (M=3.86, SD=.71; p=.002) indicating that the juniors students had a perception of self-efficacy and more positive attitudes toward technology than did seniors (Table 2). No differences were found in the total TAS score or in subscale 1 and subscale 2 scores between non-ESL and ESL students (Table 2).

**Limitations**

- Generalization of findings limited since participants were all part of one small, private Catholic University located in northeast section of Philadelphia, PA.
- Smaller sample size of Seniors (n=73) versus Juniors (n=116).
- Small sample size of ESL students (n=13) and self-reporting of what students considered to be ESL.

**Conclusions**

The junior nursing students were found to have a higher perception of self-efficacy and positive attitudes towards technology than did senior students. Junior nursing students may welcome more content related to nursing informatics early in the curriculum to maintain their higher self-efficacy and positive attitudes towards technology. Findings obtained in the study are being used to inform the appropriate inclusion of nursing informatics in our undergraduate program.

Further research is needed to explore what is necessary to develop a positive attitude among all nursing students as it relates to technology.

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