

# E-Learning in Nursing: Effectiveness of Shadow Health Pharmacology

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## BACKGROUND

➤Background: Shadow Health Pharmacology is one type of the digital clinical experiences. It is an online interactive learning tool that enables nursing students to interact with virtual patients using a computer with online access.

➤Aims:

1. Investigate nursing students' perceptions about the effectiveness of using Shadow Health pharmacology.
2. Evaluate the effectiveness of Shadow Health Pharmacology in improving students' success.
3. Investigate if it improved students' critical thinking, oral, and written communication skills.

## METHODS

- Mixed Methods Research
- Ethical Considerations: IRB obtained from the targeted university.

### Sample

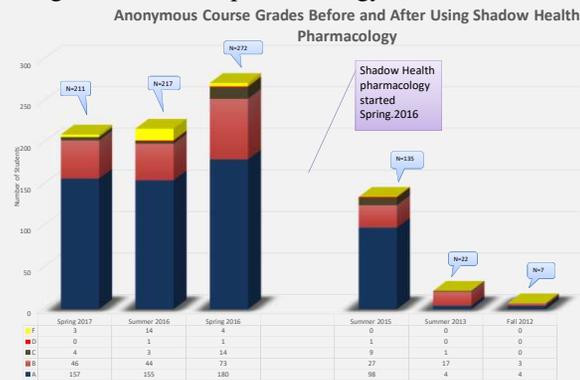
Convenience sample included students who took the targeted pharmacology course in 2016 in 2 course holdings for total of 300 student in RN-BSN program, only 51 of them took the survey.

**Instrument:** Researcher developed survey with demographic section, 32 Likert type questions, and 4 open ended questions.

**Procedure:** Students were assigned to a virtual patient's cases synchronized with the online theoretical content, and by the end of each semester the students were given a survey.

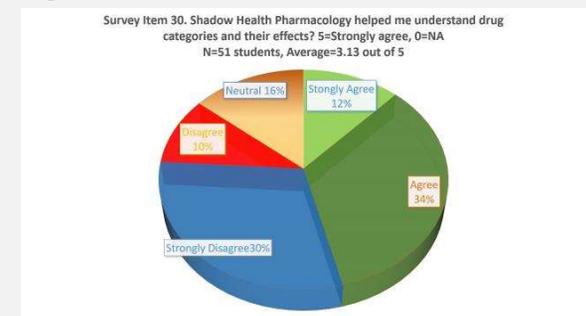
## RESULTS

- Descriptive statistics of student's anonymous final course grade is reported for years before versus after using shadow health pharmacology as follows:

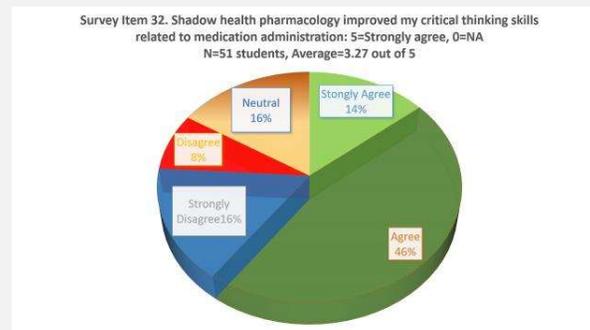


## RESULTS

- 43.1% (n=22) strongly agreed/agreed that it improved their critical thinking, 9.8% (n=5) of students strongly agreed that it improved their written communication skills, however 3.9% (n=2) strongly agreed that it improved their oral communication.



- Quantitative findings reflected that 27.4% (n=14) of students reported that Shadow Health Pharmacology was effective in improving their nursing learning experience.



## Qualitative Feedback

**Student#29:** "Shadow Health Pharmacology course was a great tool for me to practice and learn how to safely administer medications to my patients".

**Student #15:** "Great tool, able to use unhurried, in a safe environment with references to assist".

**Student# 13:** "I am sorry to say I like this program then I don't, probably because it was time consuming"

**Student#11:** "I would add an option for speaking volume and speed. The narrator was too slow in talking".

## CONCLUSION

In general the findings of this study reflected that Nursing students supported the use of Shadow Health Pharmacology.