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Nursing Student Self-Efficacy in Clinical Skills, Levels of Anxiety, and Utilization of Alternative Education Experiences During the COVID-19 Pandemic

David S. Hart
UNH

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Background

Self-efficacy in nursing students' ability to perform skills and assessments can translate to successful nursing care experiences (George et al., 2020).

The COVID-19 pandemic caused a drastic change in nursing students' trajectory of their undergraduate studies, as clinical rotations had been modified to an e-learning method (García-Gonzalez et al., 2021).

Sudden shifts in clinical format caused increased anxiety levels, especially for seniors as they enter a workforce with high turnover and burnout rates (García-Gonzalez et al., 2021).

The purpose of this study is to gain greater insight into nursing students' experiences during the COVID-19 pandemic, and how changes in clinical format impacted anxiety levels and their self-efficacy to perform nursing tasks.

Aims

Determine whether nursing students' self-efficacy in skills were related to number of clinical hours substituted by alternative educational experiences (telenursing, modules, online simulations, etc.).

Determine whether nursing students' anxiety levels were related to number of clinical hours substituted by alternative educational experiences.

Methods

Descriptive, quantitative study utilizing two evidence-based and research supported scales:

1. Clinical Skills Self-Efficacy Scale (CSES)
2. General Anxiety Disorder-7 (GAD-7)

52 participants met the inclusion criteria. All were juniors and seniors enrolled in the University of New Hampshire Nursing Department.

Correlations and t-tests were calculated based on type of data.



Results

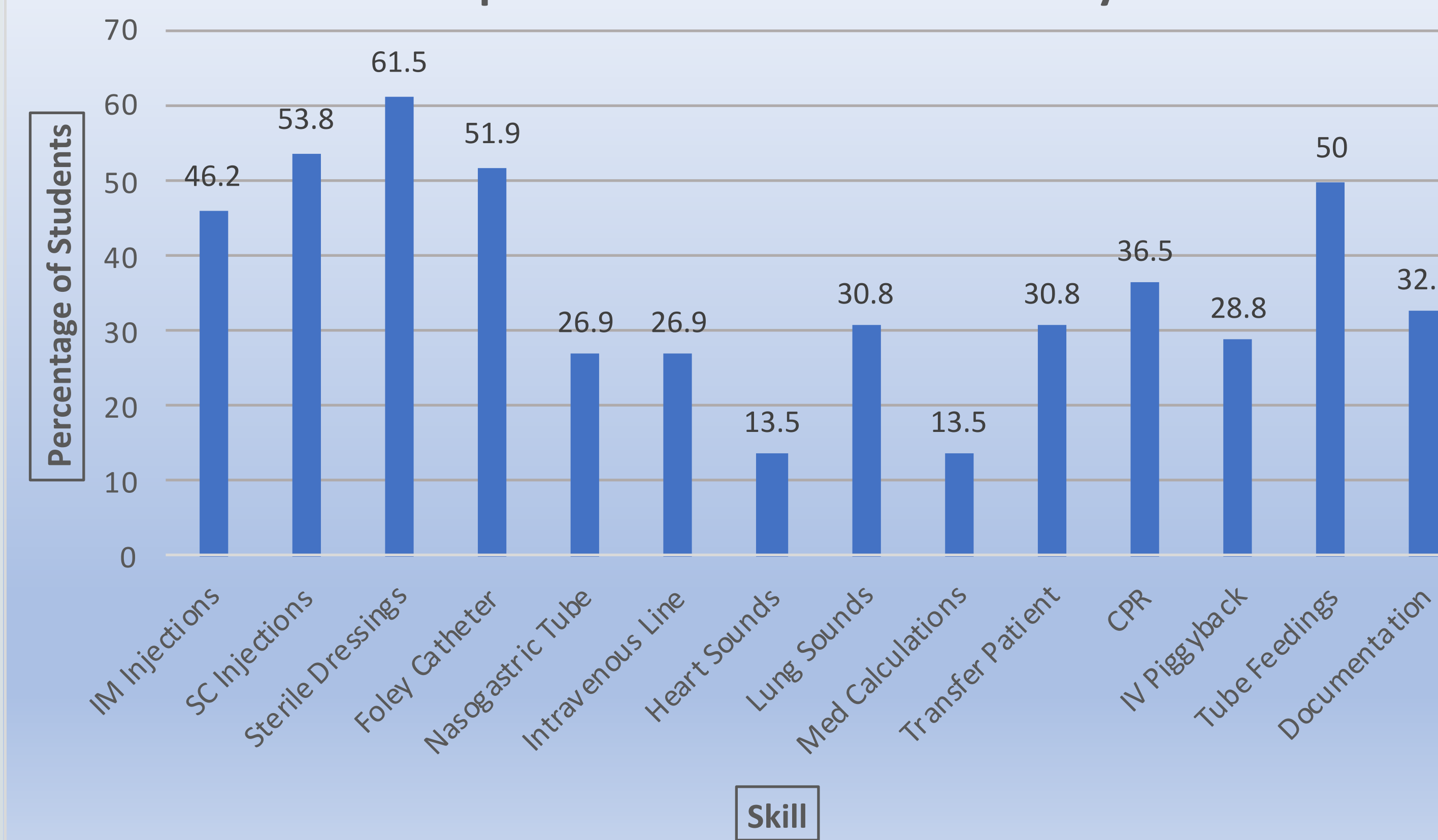
There was an increase between mean pre-COVID and during COVID anxiety levels ($t(49)=6.075$, $p<0.001$). However, there was no correlation between alternative educational experiences and mean anxiety levels.

There was no correlation between mean self-efficacy in skills and total hours substituted by alternative educational experiences ($p=0.276$).

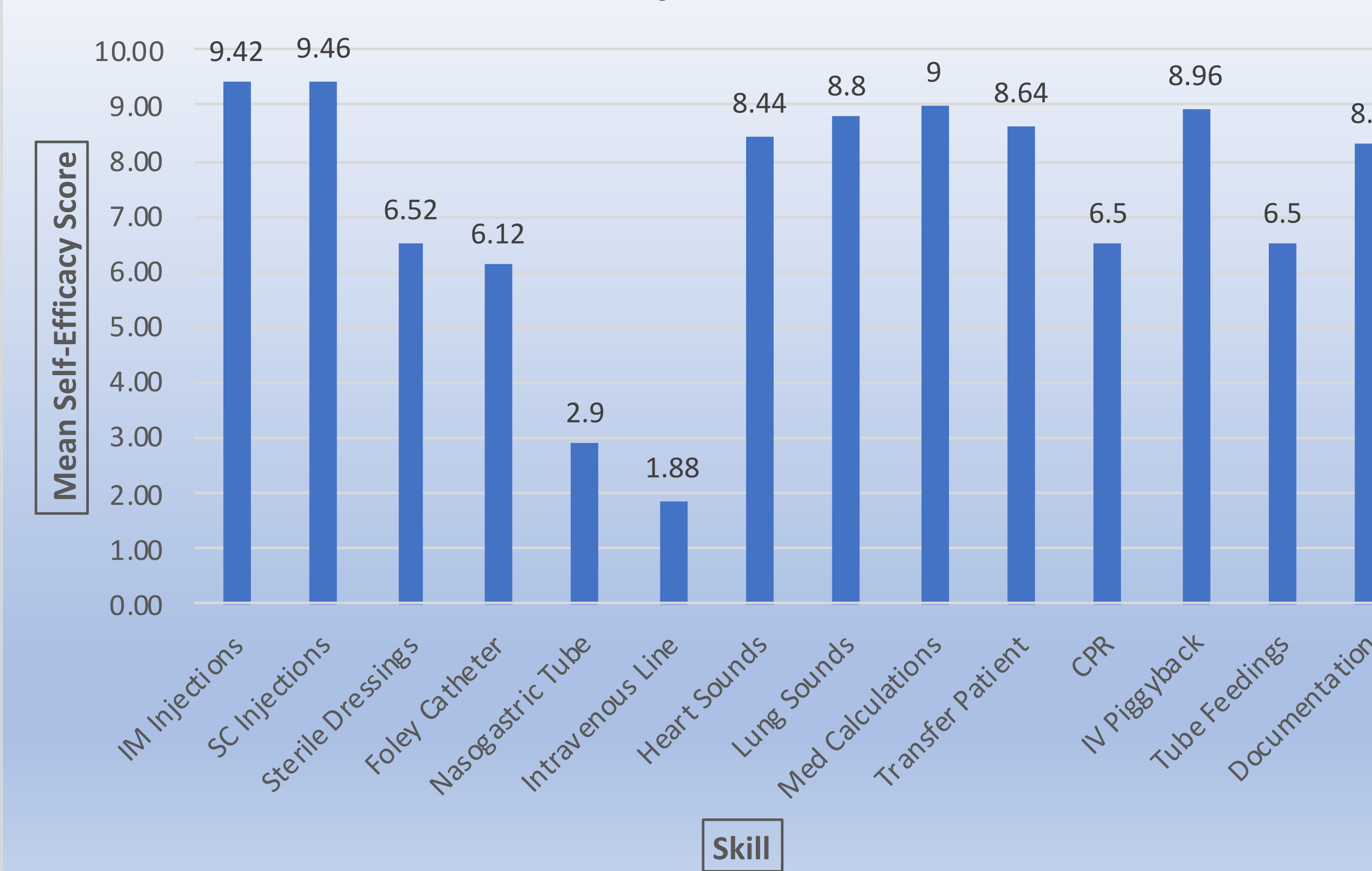
Only confidence in listening to lung sounds was correlated with the number of clinical hours substituted by alternative educational experiences ($r = -.30$, $p<0.05$). The other 13 skills were not related.

Pre-COVID and during COVID anxiety levels had no correlation with mean self-efficacy skill scores ($p=0.19$; $p=0.61$).

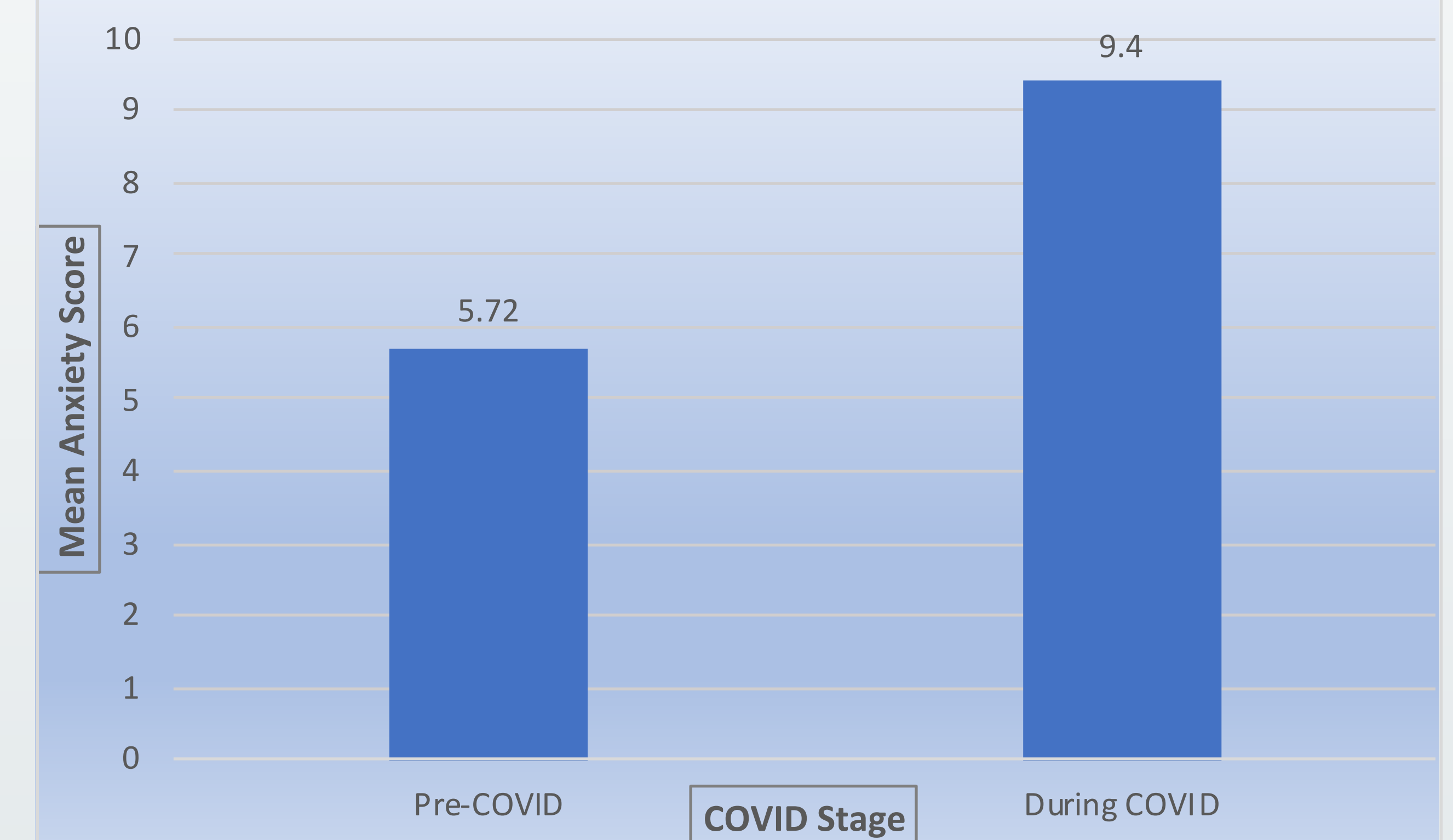
Percentage of Students Declaring that COVID-19 had an Impact on Their Skill Self-Efficacy



Mean Self-Efficacy Scores of 14-Item CSES



Comparing Pre-COVID and During COVID Mean Anxiety Scores



Discussion

There was a significant increase in anxiety of nursing students from pre-COVID to during COVID.

Starting an intravenous line had the lowest self-efficacy score, which students related to online learning and a change in curriculum due to the COVID-19 pandemic.

Although there was no statistical correlation between nursing students' mean self-efficacy of skills and number of hours substituted, students reported self-efficacy scores were lower for more complex skills (ex. NG tube placement, sterile dressing, intravenous lines, CPR).

The limitations of the study include having a small sample size and only including students from one nursing program.

Conclusion

The findings from this study indicate that nursing students have had an increased anxiety response to the COVID-19 pandemic.

Surprisingly, the foundational skill of listening to lung sounds had a correlation with the implementation of alternative educational experiences. Mean skill self-efficacy was reported at 7.24.

Overall, the COVID-19 pandemic has affected nursing students and more research should be collected regarding the effects this pandemic has had on mental health and nursing skills.

References

- García-González, J., Ruqiong, W., Alarcon-Rodriguez, R., Requena-Mullor, M., Ding, C., Ventura-Miranda, M. I. (2021). Analysis of anxiety levels of nursing students because of e-learning during the COVID-19 pandemic. *Healthcare* 9, no. 3: 252. <https://doi.org/10.3390/healthcare9030252>
- George, T. P., DeCristofaro, C., & Murphy, P. F. (2020). Self-efficacy and concerns of nursing students regarding clinical experiences. *Nurse education today*, 90, 104401. Advance online publication. <https://doi.org/10.1016/j.nedt.2020.104401>