Purpose

- To evaluate the impact of didactic and simulation-based learning on the capacity of nurse practitioner students to screen for adolescent depression utilizing the Patient Health Questionnaire for Adolescents (PHQ-A).
- To improve ARNP student self-perceived knowledge and confidence level in screening for adolescent depression.
- To promote the survival, health, and well-being of children and adolescents through prevention and the expeditious recognition of depressive symptoms.

Background

- Globally, depression is the third leading cause of illness and disability in young people aged 10-19 years old (WHO, 2014).
- In the United States alone, an estimated three million adolescents aged 12 to 17 had at least one major depressive episode in the past year (National Institute of Mental Health, 2017).
- Suicide was listed as the third leading cause of death among individuals aged 10 to 19, and second leading cause of death among individuals aged 15 to 29 in 2017 (NIMH, 2018).
- Since 2009, the United States Preventative Service Task Force (USPSTF) has recommended screening for Major Depressive Disorder (MDD) in adolescents aged 12 to 18.

Methods

**Project design:** A didactic and simulation-based learning evaluation comparing self-perceived knowledge and confidence level pre- and post-intervention.

**Setting:** This quality improvement project was conducted at the University of South Florida College of Nursing.

**Sample:** Participants recruited for the intervention included first-year ARNP students enrolled in the Advanced Diagnostics NGR6064C course scheduled January 8th, 2018 to May 4th, 2018. Of the 62 individuals enrolled in the course, only 37 attended the didactic section and completed the pre-survey questionnaire, and 34 individuals completed the post-didactic questionnaire. On the day of the simulation, the 37 students who participated in the didactic portion met criteria to participate in the simulation, and all 37 students elected to complete the post-simulation questionnaire.

Results

**Demographic Results**

<table>
<thead>
<tr>
<th>Age Group (%)</th>
<th>21-29 (73%)</th>
<th>30-39 (19%)</th>
<th>40-49 (8%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Concentration (%)</td>
<td>BS-MN (43.2%)</td>
<td>BS-DNP (46.5%)</td>
<td>BS-PhD (8.2%)</td>
</tr>
<tr>
<td>Experience (%)</td>
<td>Mental Health (16.2%)</td>
<td>Pediatrics (18.9%)</td>
<td>None (64.9%)</td>
</tr>
<tr>
<td>PHQ-A Familiarity (%)</td>
<td>Yes (35.1%)</td>
<td>No (64.9%)</td>
<td></td>
</tr>
</tbody>
</table>

**Pre Simulation**

<table>
<thead>
<tr>
<th>Measure</th>
<th>MD</th>
<th>Std. Error</th>
<th>95% CI LL</th>
<th>95% CI UL</th>
<th>t</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Didactic/Post Didactic</td>
<td>0.265</td>
<td>1.264</td>
<td>1.264</td>
<td>1.264</td>
<td>0.111</td>
<td>0.001</td>
</tr>
</tbody>
</table>

**Post Simulation**

<table>
<thead>
<tr>
<th>Measure</th>
<th>MD</th>
<th>Std. Error</th>
<th>95% CI LL</th>
<th>95% CI UL</th>
<th>t</th>
<th>Sig (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre Didactic/Post Didactic</td>
<td>3.190</td>
<td>1.264</td>
<td>1.264</td>
<td>1.264</td>
<td>0.111</td>
<td>0.001</td>
</tr>
</tbody>
</table>

**Discussion**

- Results of the project illustrate that a simulation experience, in addition to a didactic presentation, is a simple, yet impactful means of increasing provider knowledge and confidence level in mental health education.
- There was a significant increase in self-reported confidence level between baseline scores (M=2.41) and post-simulation survey scores (M=4.70) with a mean difference of 2.267 points; (p < .001)
- There was a significant increase in understanding of the PHQ-A tool between baseline scores (M=3.19) and post-simulation survey scores (M=4.97) with a mean difference of 1.784 points; (p < .001)
- In conclusion, this project affirmed the hypothesis that simulation in mental health education, in addition to didactic-based education, is an efficient means of increasing knowledge and confidence level in screening for depression.

Limitations

- Many students attended the simulation experience but did not attend the lecture, resulting in data that could not be used to support the intervention.
- Identifiers were not used in the collection of the data.

Acknowledgements

Many thanks to Dr. Sharlene Smith (project faculty supervisor) and Dr. Elizabeth Remo-Platt for their unwavering support throughout this project. To Dr. Debra Friedrich and Dr. Melanie Michaels for their guidance and mentorship throughout this program.