Learning clinical competencies: Self confidence in nurse practitioner students

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Self Confidence?

Yea, though I walk through the valley of the shadow of death, I will fear no evil - PS 23:4
Self Confidence and the Nurse Practitioner

• Nurse Practitioner students need to learn a range of new competencies as part of their education.
• Self confidence is essential to promote learning, however over-confidence can be as dangerous as under-confidence
• It would be useful therefore if teaching staff had a tool that would allow them to assess student self confidence in learning competencies.
• Leonard and Steele presented such a tool to NONPF in 2008; the East Carolina University Nurse Practitioner Self Efficacy Scale (NPSES)
Aims of the Study

• To assess whether the NPSES questionnaire could be understood and completed by UK students.
• To investigate the possibility of reducing the size of the questionnaire (51 items) to something much shorter.
• To identify those factors which students felt least confident about at the start of their clinical module(s).
• To identify those factors which students felt most confident about at the start of their clinical module(s).
• To investigate if there was any correlation between self-confidence scores and OSCE performance.
Outline of the Study

• The NPSES questionnaire was adapted to suit the UK, only minor changes were needed.
• Members of AANPE were circulated and asked if they would like to participate in a multi centred study 2008-09
• It was to be administered to students on NP programs at the start of their first clinical module. Completed questionnaires were to be returned to MW.
• Student results on their OSCEs were then subsequently to be returned to MW.
• Student anonymity was guaranteed
• University ethics committee consent was obtained
UK Survey

• Ten universities initially indicated interest however only 4 of them participated in the study and one of them failed to follow the research protocol so their questionnaires were set aside. This left 3 participating universities.

• A total of 54 completed and usable questionnaires were returned making a final response rate of 60%.

• 2 returned questionnaires were discarded as unusable.

• Data analysis was undertaken by the author using SPSSx software.
Results 1

- The scale had 51 items and students were asked to rate each item from 0-10 depending how confident they felt.
- Mean scores for each item could be calculated across all students.
- Mean scores per student on all items were also calculated.
- UK NP students were able to complete the questionnaire meaningfully suggesting that with minor amendments the US questionnaire is valid for use in the UK (face validity).
What Did Students Feel Least Confident About?

- Counsel on alternative and complementary therapies $3.72 \pm 1.66$
- Develop differential diagnoses $4.89 \pm 1.62$
- Employ screening and diagnostic strategies $4.91 \pm 1.43$
- Formulate a diagnosis $4.93 \pm 1.74$
- Select /recommend diagnostic & therapeutic intervention $4.93 \pm 1.59$
- Detect acute & chronic disease while attending to illness $4.96 \pm 1.65$
- Analyze data to determine health status $4.98 \pm 1.77$
### What Did Students Feel Most Confident About?

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintaining confidentiality &amp; privacy</td>
<td>8.79 ± 1.33</td>
</tr>
<tr>
<td>Respect the patient’s inherent worth and dignity</td>
<td>8.57 ± 1.35</td>
</tr>
<tr>
<td>Act ethically at all times</td>
<td>8.49 ± 2.01</td>
</tr>
<tr>
<td>Maintain professional boundaries with the patient</td>
<td>8.32 ± 1.40</td>
</tr>
<tr>
<td>Deliver safe care</td>
<td>7.89 ± 1.64</td>
</tr>
<tr>
<td>Practice within authorized scope of practice</td>
<td>7.83 ± 1.76</td>
</tr>
</tbody>
</table>
Slimming Down the Questionnaire

- Those items with the lowest standard deviation were systematically eliminated from the tool and the individual student score recalculated.
- This was carried out in a stepwise fashion and at each step the new score was correlated with the original full scale score.
- A final 17 item version of the questionnaire emerged which had a correlation coefficient of 0.94 when compared to the original full 51 item questionnaire.
- Internal reliability was then checked using Cronbach’s alpha technique; r=0.93
The Slimmed Down Questionnaire

3. Give instructive feedback to staff to ensure safe care practice
6. Provide health promotion services
9. Draw upon needs strengths & resources of the community to assist practice
10. Show critical thinking/ diagnostic reasoning skills in decision making
11. Obtain a health history from the patient
12. Perform a physical exam
15. Analyze data to determine health status
30. Use self reflection to further a therapeutic relationship
33. Create an effective learning environment for the patient
34. Design a personalized plan for living
42. Act ethically at all times
45. Practice within authorized scope of practice
46. Avoid personalized biases interfering in the delivery of care
48. Assist patients of diverse cultures to access quality care
49. Incorporate cultural preferences, values and health beliefs of patients into care
50. Assist patients and families to meet their spiritual needs
51. Incorporate the patient’s spiritual beliefs into care.
OSCE Correlation

- It was noted that the individual OSCE scores from the 3 different centres differed significantly:
  a) 87%
  b) 73%
  c) 57%

NB (a) was not an RCN accredited course.

- They could not therefore be pooled to create a homogenous data set and therefore correlation analysis with the pooled CASES scores was not attempted
Research Implications

• The slimmed down CASES tool is a valid tool for assessing the self confidence of NP students in learning new competencies. This could be a useful diagnostic tool at the start of NP programs.
• Students felt greatest anxiety about learning diagnostic techniques and initiating therapeutic interventions for which they were responsible
• Students felt most confident about core nursing competencies such as acting ethically, respecting the patient’s dignity and maintaining confidentiality.
• Future research on CASES as a predictor of OSCE performance requires a homogenous data set of OSCE scores (single centre longitudinal study?)