The Power of Psychological Capital in Nursing Students Participating in a Renal Health Literacy Simulation

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Background

- Specific to renal disease patients, decreased health literacy is common; these low levels are tied to an increase risk of morbidity and mortality (Ricardo et al., 2014).
- An essential tool of the nursing curriculum, simulation provides students and educators an opportunity to practice and enhance patient relationships, utilize clinical judgement, and foster critical thinking (Kelly et al., 2016).
- Spence, Laschinger and Fida (2014) found a lack of psychological capital is correlated with a decrease in workplace engagement increase in stress, and burnout in new graduate nurses.

Purpose

- Recognizing the need to evaluate the effects of stress and psychological capital on future healthcare providers, a renal health literacy simulation was implemented to provide nursing students an opportunity to practice a variety of complex concepts: chronic kidney disease, low health literacy, and patient education.
- The researchers then sought to understand if there is a statistically significant difference in psychological capital (hope, self- efficacy, resilience, and optimism) and perceived psychological stress in the students through measurement at there points throughout the complex simulation experience.

Materials and Methods

- Utilizing Luthans' framework of psychological capital (2014), the positive psychological approach emphasizes the foundational components of psychological capital.
- 41 Junior-level nursing students completed the simulation in the Borra College of Health Science Simulation Lab. A standardized patient was used in the simulation: a middle-aged Caucasian male with poor health literacy.
- The 10-question Perceived Stress Scale (PSS10) and the 24-question PsyCap were utilized as assessment tools in this quantitative, repeated measures study.
- The plus-delta model – a standardized debriefing tool (Allen et al., 2018)– was implemented for a 20-minute debriefing and included the input of the standardized patient.

Figure 1. Progression of Simulation and Research Experience.

Results

Figure 2. Changes from Time 1 to Time 2 to Time 3 (n=40).

Concept	Time 1 M (SD) (pre-simulation)	Time 2 M (SD) (post-simulation/pre-debrief)	Time 3 M (SD) (post-debrief)	P-value
Perceived Stress	18.90 (6.35)	19.68 (6.71)	19.10 (6.41)	0.18
Psychological Capital	108.45 (11.00)	106.43 (16.82)	112.18 (15.63)	0.000**

Figure 3. Psychological Capital Subcategories (Hope, Efficacy, Resilience, and Optimism) for Nursing Students throughout the simulation (n=40).

Concept	Time 1 M (SD)	Time 2 (SD)	Time 3 M (SD)	P-value
Hope	28.70 (4.00)	27.78 (5.54)	29.38 (4.43)	0.003*
Efficacy	26.20 (4.35)	25.93 (6.01)	27.98 (5.46)	0.000**
Resilience	26.65 (3.08)	25.90 (4.62)	27.50 (4.19)	0.047*
Optimism	26.68 (3.72)	26.78 (3.98)	27.35 (4.20)	0.267

*p<0.05 **p<0.001

Photo 1 & 2. Students interacting with standardize patient.

Implications

- Student psychological capital increased specifically in the areas of hope, efficacy, and resilience from Time 1 to Time 3.
- These changes indicate the significance of a health literacy simulation and its debriefing correlated with psychological capital in the following manner:
  - A positive change in **hope** increases the student's ability to identify, clarify, and pursue the way to success.
  - A positive change in **efficacy** increases the student's ability to believe and have confidence in their role as a nurse.
  - A positive change in **resilience** increases the student's ability to recover from adversity.

Discussion

- There is a need for future complex simulations in nursing school curriculum. Specific to the low health literate population, this is essential.
- Additionally, future opportunities are warranted to increase awareness of the importance of positive psychological capital for the individual student, as well as the effect nursing educators can have on future nurses and the future of healthcare.

References

- References upon request