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Exploring Nursing Students' Resilience and Spirituality in an End-of-Life Care Simulation



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Background of the Problem

- The literature is insufficient in exploring the relationship between undergraduate nursing students' resilience and spirituality. This insufficiency is particularly evident in simulation research. Researchers examined changes in resilience and spirituality in nursing students participating in a critical care end-of-life care simulation.



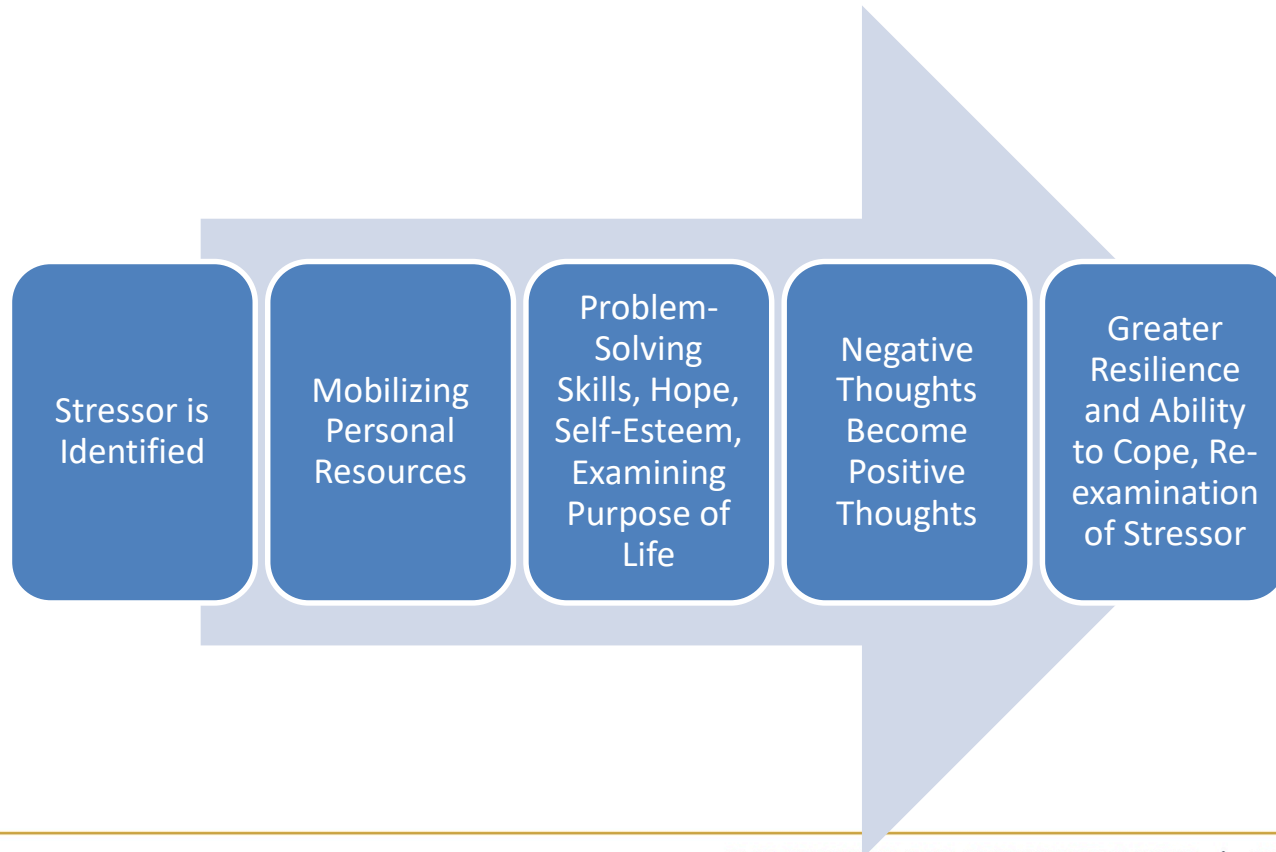
Literature Review

- End-of-Life Care (EoL) in Nursing Education
 - Encouraged by Robert Wood Johnson Foundation and the American Association of Colleges of Nursing (2016)
 - Students and new graduate nurses experience anxiety, fear, and burnout due to lack of preparation with EoL
(Allen, 2018; Caton & Klemm, 2006; Gillian, Parameter, Van der Riet, & Jeong, 2013, Holms, Milligan, & Kydd, 2014; Kopp & Hanson, 2012, Kwekkeoom, Vahl, & Eland, 2005; Leighton & Dubas, 2009; Sampail, Comasetto, Faro, Santos, & Monteiro, 2015)
- Spirituality and Resilience in Nursing
 - Burnout in health professionals has led to decrease in resilience and spirituality (McGarry, Girdler, McDonald, Valentine, lee, & Blair, 2013; Mealer, Jones, Newmann, McFann, Rothbaum, & Moss, 2012)

Theoretical Framework

- Theory of Transformative Coping

(Corry, Lewssi, & Mallett, 2014; Corry, Mallett, Lewis, Abdel-Khalek, 2013)



Problem and Purpose Statements

- Problem Statement
 - Limited research is available that explores the relationship between spirituality and resilience in undergraduate nursing students participating in an EoL simulation.
- Purpose Statement
 - The purpose of this quasi-experimental and correlational study is to explore whether or not the theory of transformative coping is applicable to nursing students overcoming challenges while tending to the holistic needs of a simulated dying patient

Research Questions

1. Is there a statistically significant difference in undergraduate nursing students' resilience scores before and after participating in a holistic, critical care end-of-life care simulation?
2. Is there a statistically significant difference in undergraduate nursing students' spirituality scores before and after participating in a holistic, critical care end-of-life care simulation?
3. Is there a correlation between resilience and spirituality scores in undergraduate nursing students participating in a holistic, critical care end-of-life care simulated patient?

Methods

- Quantitative research, incorporating quasi-experimental and correlational study design
- 48 undergraduate, senior nursing students in their final week of an 8 week critical care nursing course
- Convenience sample
- IRB approval was secured
- Students were given prep work before start of simulation
- 10 minute pre-brief, surveys, 30 minute simulation, surveys, 30 minute debrief

Instruments

- **Resilience Scale** (Wagnild, 2016)
 - 24 questions, Likert scale
 - Cronbach's alpha coefficient: 0.85 to 0.94
 - Internal consistency ranging 0.91 to 0.94
 - Construct and content validity
- **Spiritual Intelligence Self-Report Inventory (SISRI-24)** (King & DeCicco, 2009)
 - 24 questions, Likert scale
 - Cronbach's alpha coefficient: 0.92
 - Construct validity
 - Test-retest reliability: $r=0.89$ ($p<0.001$)



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Administering Morphine Sulfate IV Push via Central Line

Simulation Scenario

- High-fidelity mannequin dressed as an elderly female, placed on multiple vasopressors, Amiodarone, IV fluids, a blood transfusion, and a Morphine Sulfate PCA per subclavian TLC, right arterial line
- Patient moaned in pain, no family at bedside, nursing students had to provide comfort using non-pharmacological techniques and IV push Morphine
- Students had to identify various cardiac arrhythmias
- Communicate to physician when patient went into asystole and provided post-mortem care

Results

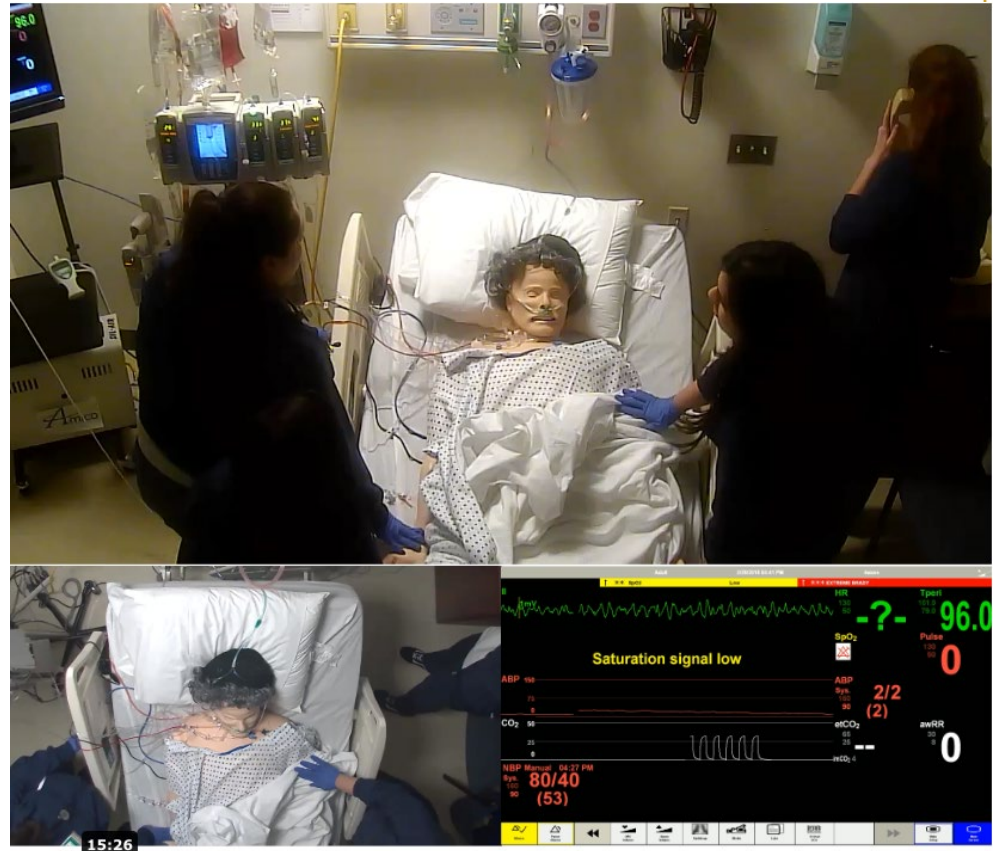
- Weak, positive correlation between pre-simulation scores of resilience and spirituality, $r=0.482$, $n=48$, $p=0.001$ (two-tailed).
- Moderate, positive correlation between post-simulation scores of resilience and spirituality, $r=0.530$, $n=48$, $p=0.000$ (two-tailed).

Table 1. Changes in Resilience and Spirituality Scores (n=48)

	Pre-Intervention Score	Post-Intervention Score	95% Confidence Interval	Change in Mean Score Percentage	p
Resilience	M=139.02 (SD=14.07)	M=142.27 (SD=15.22)	1.07 to 5.43	2.34%	$t(47)=2.99$, $p=0.004$ (two-tailed)
Spirituality	M=62.44 (SD=13.28)	M=67.00 (SD=13.45)	2.91 to 6.22	7.30%	$t(47)=5.554$, $p=0.000$ (two-tailed)

Recommendations for Future Research

- Multi-site and across various levels of undergraduate nursing students
- Qualitative research
- Examine impact of debriefing
- Does age of the patient matter?



Conclusion

- This study began to address a recommendation made by Shores (2010): nurse educators should have greater awareness of nursing students' spiritual perspectives to link theory and practice
- Provide more opportunities in undergraduate nursing that place demands on students to be resilient
 - Nearly 20% leave of new grads leave within first year (Robert Wood Johnson Foundation, 2014; American Association of Colleges of Nursing, 2016)



References

- Allen, M.L., (2018) Examining nursing students' stress in an end-of-life care simulation. *Clinical Simulation in Nursing*. 14(1): 21-28. DOI: 10.1016/j.ecns.2017.10.006
- Allen M., Emlund, M., Kozdronkiewicz, M., et.al. (2018) Exploring the Relationship between Nursing Students' Resilience and Spirituality in a Critical Care, End-Of-Life Care Simulation. *Palliat Med Care* 5(2): 1-6.
- American Association of Colleges of Nursing. (2016) CARES: Competencies and recommendations for educating undergraduate nursing students preparing nurses to care for the seriously ill and their families.
- American Association of Colleges of Nursing. (2016). ELNEC fact sheet.
- Caton, A.P., Klemm, P. (2006) Introduction of novice oncology nurses to end-of-life care. *Clinical Journal of Oncology Nursing*. 10(5):605- 608. DOI: 10.1188/06.CJON.604-608
- Corry, D.A., Mallett, J., Lewis, C.A., Abdel-Khalek, A.M. (2013). The creativity-spirituality construct and its role in transformative coping. *Mental Health, Religion & Culture*.16(10):979-990. DOI: 10.1080/13674676.2013.834492
- Corry, D.S., Lewis, C.A., Mallett, J. (2014) Harnessing the mental health benefits of the creativity-spirituality construct: Introducing the Theory of Transformative Coping. *Journal of Spirituality in Mental Health*. 16(2):89-110. DOI: 10.1080/19349637.2014.896854
- Gillan, P.C., Parameter, G., Van der Riet, P.J, Jeong, S. (2013) The experience of end of life care simulation at a rural Australian university. *Nurse Education Today*. 33(11):1435-1439. DOI: 10.1016/j. nedt.2012.11.015
- Holms, N., Milligan, S., Kydd, A. (2014) A study of the lived experiences of registered nurses who have provided end-of-life care within an intensive care unit. *Int J Palliat Nurs*. 20(11):549-556. DOI: 10.12968/ijpn.2014.20.11.549.
- King, D.B., DeCicco, T.L. (2009) A viable model and self-report measure of spiritual intelligence. *International Journal of Transpersonal Studies*. 28(1):68-85.
- Kopp, W., Hanson M.A. (2012). High-fidelity and gaming simulations enhance nursing education in end-of-life care. *Clinical Simulation in Nursing*. 8(3): e97-e102. DOI: 10.1016/j.ecns.2010.07.005
- Kwekkeboom, K.L., Vahl, C., Eland, J. (2005). Companionship and education: A nursing student experience in palliative care. *J Nurs Educ*. 2005; 44(4):169-176.
- Leighton, K., Dubas, J. (2009) Simulated death: An innovative approach to teaching end-of-life care. *Clinical Simulation in Nursing*. 5(6): e223-e230.
- McGarry, S., Girdler, S., McDonald, A., Valentine, J., Lee, S.L., Blair, E., et al. (2013). Pediatrics health-care professionals: relationships between psychological distress, resilience and coping skills. *Journal of Pediatrics and Child Health*. 49(9):725-732. DOI: 10.1111/ jpc.12260
- Mealer, M., Jones, J., Newman, J., McFann, K.K., Rothbaum, B., Moss, M. (2012) The presence of resilience is associated with a healthier psychological profile in intensive care unit (ICU) nurses: results of a national survey. *Int J Nurs Stud*. 49(3):292-299. DOI: 10.1016/j. ijnurstu.2011.09.015.
- Robert Wood Johnson Foundation. (2014). Nearly one in five new nurses leave first job within a year, according to survey of newly-licensed registered nurses.
- Sampaio, A.V., Comassetto, I., Faro, A., Santos, R.M., Monteiro, F.S. (2015). The experience of nursing students facing death and dying. *Investigacion & Educacion en Enfermeria*. 33(3):305-314. DOI: 10.17533/ udea.iee.v33n2a13
- Wagnild, G. (2016). The Resilience Scale user's guide for the U.S. English version of the Resilience Scale and the 14-Item Resilience Scale (RS-14) [User's guide]. Worden, MT: Resilience Center.