The Psychosocial Health of Accelerated Online Pre-Nursing Students. Why Should It Matter?

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Research Objective

To describe relationships among stress, resilience, self-compassion, anxiety, depression, and self-assessments of well-being in pre-nursing (PN) students preparing to apply to a large, public, accelerated-online prelicensure Bachelor of Science in Nursing program in the southwestern US using the lens of the Social Determinants of Learning (SDOL™) framework.

Background

PN students are individuals who have not begun formal nursing education programs or clinical courses. They may be traditional first-time freshman, transfer students, and / or second-degree holders.[1]

Research with pre-nursing (PN) students is scant and primarily focuses on:
- Academic factors predictive of success.[2,3]
- Factors that facilitate or hinder PN student transition into a nursing program.[4]
- Reflections on PN course content.[5-7]
- Stress, resilience, & persistence during COVID-19.[1]
- Qualitative exploration of PN experiences.[8,9]

The SDOL™ framework is composed of 6 domains, including psychosocial health, which are theorized to influence nursing student diversity, equity, inclusion and predictors of retention.[10]

Stress and resilience are key variables within psychosocial health domain of the SDOL™ framework.[10]

Methods

- Observational cross-sectional design.
- IRB-approved survey-based study.
- Data collected January – May 2022
- Psychosocial health variables measured included stress (PSS-4), depression (PHQ-9), anxiety (GAD-7), resilience (BRS), and self-compassion (SCS-SF).
- PN students' perceptions of well-being (stress management skills, current physical health, happiness, and satisfaction with life) were measured using visual analog scales.

Relationships Among Study Variables

	Perceived Stress Scale (PSS-4)	Patient Health Questionnaire (PHQ-9)	Generalized Anxiety Disorder (GAD-7)	Self-Compassion Survey (SCS-SF)	Stress Management Skills (SM)	Physical Health Rating (PH)	Level of Happiness (LH)	Satisfaction with Life (SL)
Brief Resilience Scale (BRS)	-.445**	-.390**	-.385**	.545**	.564**	.311**	.508**	.529**
Perceived Stress Scale (PSS-4)	-	.476**	.496**	-474**	-.439**	-.256**	-.454**	-.482**

** Spearman's rho correlations significant at the 0.001 level (2 tailed)

Results

- Study participants ($N = 174$) were mostly female (88%), employed (83%), possessed a previous non-nursing degree (69%), and were racially and ethnically diverse.

- Some participants reported high levels of stress (45%) and at least moderate levels of anxiety (14%) and depression (17%).

- Higher stress levels were positively associated with higher levels of depression and anxiety ($p < .001$), and negatively associated with resilience, self-compassion, and self-assessments of well-being ($p < .001$).

- Most of the participants (91%) reported normal to high levels of resilience.

- Higher levels of resilience were positively associated with higher levels of self-compassion and with positive perceptions of all four self-assessment of well-being variables ($p < .001$).

Discussion and Implications

- PN students possess psychosocial strengths and encounter psychosocial challenges prior to entering nursing programs.

- Understanding the presence of and relationships among stress, resilience, and other variables that describe mental health and well-being in PN students is key to implementing evidence-based interventions that can support their future persistence and success.

- Nursing programs can prioritize learner well-being in PN students by providing and encouraging the use of evidence-based tools to support mental health and manage stress as they prepare for admission to upper-division nursing courses.

Acknowledgements

References

Influencing Pre-Nursing Student Well-Being Through a Five-Week Online Intervention. A Pilot Study.

Leslie A. Jennings, PhD(c), MSN/Ed., RN, CNE and Regina W. Urban, PhD, RN, NPD-BC, CNE

Purpose Statement

The purpose of this study was to test a well-being intervention utilized in an Introduction to Nursing Course with pre-nursing students as they prepared for admission to an accelerated online BSN program.

Background

- Increasing the number of nursing students is one solution to meeting the increased demand for nurses.

- Pre-nursing students who are motivated to become nurses enter college and every year some of those same students withdraw or fail from pre-nursing courses before they even start a formal nursing program.

- Limited quantitative research on pre-nursing students focuses on admission criteria[1], curriculum content[2-5], and some psychological characteristics[6]. Qualitative research focus on caring perspectives[7], study habits[8], cultural reflections[9], and PN student's lived experiences [10-11].

- Research on student well-being, self-care, and academic strategies in pre-nursing courses will offer much needed insight into what interventions might be useful to improve these student outcomes, supporting a more seamless progression to a formal nursing program.

- Pre-nursing students use a variety of time management, study techniques, wellness, and self-care strategies as they are working through the required courses prior to starting a formal nursing program.

- These under-researched factors in this unique population are important to student persistence and success.

Design and Methods

- A prospective cohort pre-test / post-test design was utilized.

- Using convenience sampling, accelerated online (AO) pre-nursing students from a large public university were recruited for study participation during Spring 2022.

- Pre-nursing students are defined as those who have not yet begun formal training, including clinicals or enrollment in upper division nursing courses. Participants were over the age of 18 and were taking an online Introduction to Nursing course.

- Using an online survey, time management, study skills, wellness and self-care strategies were measured using visual analog scales. Stress was measured using the four-item Perceived Stress Scale (PSS-4). Self-compassion was measured using both the number of mindfulness minutes per week as well as the 12 item Self Compassion Scale, Short Form (SCS-SF).

Results

- Study participants (N = 87) were mostly female (86%), employed (85%) working on average 36.9 (11.9) hours a week, possessed a previous non-nursing degree (77%), and were racially and ethnically diverse.

- Significant differences were noted in participants' self-ratings of select time management and study skills.

- Stress levels did not change, but participants' ratings of their stress-management skills improved significantly.

- No significant differences were observed in sleep hours, exercise or mindfulness time, or self-compassion scores.

Differences in Pre- and Post Course Variables

Study Variable N = 87	Pre-Course Self Rating Average (SD) range	Post-Course Self Rating Average (SD) range	Difference *
Module 1: Time Management and Study Skills			
TM: E-mail	8.40 (2.0) 1 - 10	8.99 (1.6) 2 - 10	p = .002*
TM: Calendar	7.25 (2.7) 1 - 10	7.85 (2.3) 1 - 10	p = .024*
TM: Goals	7.62 (2.4) 2 - 10	8.13 (2.0) 3 - 10	p = .018*
SS: 5-Day	6.26 (3.0) 1 - 10	7.01 (2.7) 2 - 10	p = .030*
SS: Test Taking	6.88 (2.6) 1 - 10	7.76 (2.1) 2 - 10	p = .002*
Module 2: Wellness and Self-care Strategies			
Sleep Hours per night	6.39 (1.1) 4 - 8	6.48 (1.0) 4 - 8	p = .357
Exercise Minutes per week (cardio / weight training)	127.95 (124.6) 0 – 420	103.26 (112.6) 0 – 420	p = .078
PSS-4	5.9 (2.9) 0 – 12	5.4 (3.1) 0 - 12	p = .068
Current stress management skills	63.42 (26.7) 2 - 100	72.20 (22.7) 8 - 100	p < .001*
Module 3 & 4: Self-Compassion			
Mindfulness Minutes per week	44.28 (80.6) 0 – 420 n = 64	43.14 (53.3) 0 – 300 n = 66	p = .130
SCS-SF	3.29 (0.52) 2.17 – 4.33	3.27 (0.54) 1.75 – 4.58	p = .628

* Study alpha = 0.05; Wilcoxon Signed Ranks Test Performed

Implications and Conclusion

- Pre-nursing students are a vital and under-studied component of the nursing student pipeline that is necessary to meet the ongoing demand for nurses in the U.S.

- It may be possible to add to or enhance pre-nursing students' time management, study, and stress management skills in a 5-week course, while wellness and self-care strategies may be more challenging to influence.

- Raising students' awareness and introducing the concepts of mindfulness and self-compassion can promote well-being in these students.

- Engaging in specific course-based content designed to promote learner well-being may also help to support the future well-being of these students as they enter nursing school.

- Future research is warranted to determine if evidence-based, program-specific interventions targeting resilience and/or supporting stress reduction can influence learner well-being, increase student retention, and promote academic persistence.

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References

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