



Exploring the implications of a self-care assignment to foster undergraduate nursing student mental health: Findings from a survey research study

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ABSTRACT

Background: Nursing students experience numerous personal, academic, and practice-related stressors, impacting their mental health. Nursing programs often contribute to student stress and should incorporate strategies to support students' mental health. Self-care has the potential to enhance students' ability to manage current stressors and to build capacity for addressing future stress and burnout; however, the concept has been limitedly integrated into nursing education.

Objectives: To examine students' responses to a self-care assignment integrated into core nursing coursework.

Design: Cross-sectional study using an online survey.

Settings: An accelerated two-year undergraduate nursing program in Western Canada.

Participants: Undergraduate nursing students in first- and second-year of a two-year program.

Methods: A 16-question survey, including closed- and open-ended response fields was developed by the research team. Survey questions were grounded in Bloom's Cognitive, Psychomotor, and Affective learning domains to comprehensively examine the impact of the assignment on students' learning and self-care capacity.

Results: 89 participants completed the survey (49% response rate). Participants' increase in self-care practices pre- and post-assignment was statistically significant ($p = 0.023$). Results further demonstrate that students' knowledge of self-care and capacity to identify and manage stressors were enhanced. Participants reported that overall the assignment supported their well-being. However, some participants described that aspects of the assignment detracted from well-being, including challenges with grading and feelings of guilt when not practicing self-care.

Conclusions: A self-care assignment is an effective strategy for nursing educators to foster students' capacity to cope with stressors.

1. Background

The mental health of undergraduate university students is a challenge and important consideration for both students and educators (Blanco et al., 2008; Laidlaw et al., 2016; Lipson et al., 2016). Mental health is defined by the World Health Organization (2014) as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.” Mental health is therefore not simply the absence of mental illness, but a holistic concept encompassing well-being, coping, and resilience. Globally, 35% of university students experience a mental disorder (Auerbach et al., 2018); further, up to two-thirds of students may experience challenges to optimal mental health such as stress and anxiety

(Bayram and Bilgel, 2008; Iqbal et al., 2015). Though some undergraduate students may draw on formal resources such as counselling to manage mental health challenges, many utilize informal supports (such as friends or family), do not seek any form of support, or utilize potentially harmful strategies – such as heavy alcohol use – to manage distress (Reeve et al., 2013). Such responses can contribute to a further decline in mental health, and difficulty coping with academic and personal challenges (Goodwin et al., 2016).

Nursing students experience many of the same stressors as their non-nursing undergraduate peers, including financial strain and heavy academic workloads (Richardson et al., 2017). In addition, they may also experience further mental health challenges related to the clinical setting: for example, uncertainty in new practice settings, the emotional toll of caring for ill patients and their families, fear of making clinical

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errors, and burnout resulting from accumulation of stressors (Chernomas and Shapiro, 2013; Pulido-Martos et al., 2012; Rudman and Gustavsson, 2012). Though these stressors may personally impact students and affect academic performance, nursing students often perceive that they do not have enough time or resources to adequately manage the stressors they are experiencing (Galvin et al., 2015). Accessible on-campus mental health resources for students are often limited, particularly those that address nursing students' unique stressors and needs (Sontag-Padilla et al., 2016).

In response to increased awareness of the stressors experienced by nursing students, nursing educators have explored opportunities for integrating stress management into the classroom setting (McConville et al., 2017). Research demonstrates the effectiveness of techniques such as in-class relaxation training, meditation, and mindfulness exercises for improving students' mental health, including reducing stress, anxiety, and symptoms of depression (Burger and Lockhart, 2017; van der Riet et al., 2015). A recent systematic review illustrated that nursing educators are drawing on a variety of approaches to address students' stress and anxiety, integrating a myriad of strategies into the classroom such as: art therapy, biofeedback-assisted relaxation, pet therapy, guided imagery, co-meditation, aromatherapy, mindfulness, deep breathing, and cognitive behavioural therapy (Turner and McCarthy, 2017). However, none of these approaches involve facilitating students in identifying their own strategies for supporting their well-being, which may contribute to the identification of more sustainable and tailored approaches.

In contrast to a single-strategy approach to stress management, self-care is a concept that may encompass a wide range of activities and practices undertaken to reduce stress, promote well-being, and cope with challenges (Richards, 2013). Learning and practicing self-care not only supports the management of current stressors, but also builds resilience for coping with future stressors (Blum, 2014; Skovholt and Trotter-Mathison, 2011). In health disciplines outside of nursing, such as counselling, social work, and psychology, self-care has been integrated into course curricula to promote coping and build students' resilience to stressors (e.g. Myers et al., 2012; Napoli and Bonifas, 2011; Schure et al., 2008; Shapiro et al., 2007). However, the integration of self-care into nursing education is relatively recent and under-researched. Hensel and colleagues (2012) designed and implemented an art therapy classroom activity to enhance nursing students' self-care; however, while students found this activity to be a positive experience, the intervention was not intended to enhance students' broader knowledge of self-care or foster their uptake of self-care activities following the activity. We were only able to identify one instance in the literature in which self-care as a concept, encompassing a variety of strategies, was integrated into the nursing classroom: Stark et al. (2005) explored the impact of a lifestyle self-care plan into a core nursing course. Students recorded their self-care goals and intended strategies, then used 2 h of clinical practice time each week to independently engage in self-care activities. Following the completion of the plan, students' Health-Promoting Lifestyle scale scores demonstrated significant improvements in health responsibility, physical activity, nutrition, and stress management, demonstrating the effectiveness of the classroom activity across multiple domains of well-being. However, the authors did not collect data on students' perceptions of the self-care activity, including impact on knowledge or skills related to self-care, or intentions to continue self-care practices. Self-care in nursing education remains under-developed, and as a result, students and educators have limited access to resources for building students' capacity for managing stressors during the educational process and beyond.

While nursing students experience particular stressors in the context of their educational preparation, research indicates that nurses working in clinical practice after graduation frequently experience stress, anxiety, and burnout (Hegney et al., 2013). As such, pedagogical strategies are needed that support nursing students' well-being during nursing education, and also, support capacity for coping with stress in the

long-term, in preparation for their nursing careers. To address this gap, members of our research team have been involved in developing and refining a self-care assignment (henceforth referred to as the 'assignment'). Jenkins originally conceived the assignment in 2008 and has incorporated it into undergraduate mental health nursing courses over the last several years. More recently, this assignment has also been utilized by co-authors Slemmon, O'Flynn-Magee, and Mahy, both in mental health courses, and in a first-semester foundational nursing course that aligned self-care with fitness to practice (British Columbia College of Nursing Professionals, 2018). In this paper, we describe the assignment in detail, and present data from a survey exploring undergraduate nursing students' perceptions of the impact of completing this assignment. Through quantitative and qualitative data obtained through the survey, as well as our own pedagogical reflections, we demonstrate the positive impact of including self-care content in coursework, and offer guidance to educators for incorporating self-care into nursing curriculum.

1.1. The self-care assignment

The foundational structure of the assignment consists of either an academic paper or a creative project exploring the stressors students experience in the context of their nursing education. This assignment is embedded into one of the core courses within the Bachelor of Science in Nursing (BSN) program. The assignment does not constitute additional workload for the students, in that it is a part of the formalized assessment for the course. Students receive credit for the assignment as a portion of their overall course grade. Students are not required to share private or highly personal information, but are prompted to identify and examine experiences, challenges, or situations in their lives that may cause distress or feelings of anxiety. Students then develop an evidence-based 'toolkit' of resources that they could draw on to foster their mental health. They are asked to identify both existing self-care strategies, as well as new activities that they want to further explore. Students incorporate research or theoretical evidence that supports their selected self-care strategies, and reflect on implications of utilizing these strategies for their mental health, both for the remainder of their nursing program and future nursing practice.

The assignment includes a written component and an optional creative component, which is highly encouraged. In one iteration of the assignment for a BSN mental health course, a creative component was required. Creative submissions were diverse, and included videos, scrapbooks, journals, art, and poetry. For students who choose not to complete a creative component, the written form of the assignment is similar to an academic paper with personal written reflection. Students who complete a creative component are required to also submit a written reflection to accompany the creative work and to describe the evidence base for their selected self-care strategies.

2. Methods

2.1. Recruitment and sample

The assignment was used as an evaluative component in two different BSN courses in Western Canada from January 2016–December 2017. This program is accelerated, with students completing the BSN in twenty months. The 2016 cohort completed the assignment in an upper-year Mental Health course, while the 2017 cohort completed the assignment in their first-term Foundations course. The impact and efficacy of the assignment for supporting students' well-being was evaluated through a 16-item online survey administered to both cohorts (see Appendix 1: Self-Care Survey Questions). All students who had completed the assignment were invited to participate in the study. Participants were recruited through an email sent to all undergraduate students, flyers posted throughout the school, and in-class announcements. Students were given dedicated class time to voluntarily

complete the survey, facilitated by course instructors. None of the members of the research team were course instructors at the time of data collection. Ethics approval was obtained from the Research Ethics Board at the authors' institution. Participants optionally entered their names through the survey into two draws for a \$50 gift card (identifying information recorded separately from survey results) to acknowledge their contributions of time.

2.2. Data collection and analysis

Survey data were collected from January–March 2018. The 16-question online survey created by the research team (see Appendix for full list of questions) was designed to capture students' perspectives on their knowledge gains and integration of self-care principles, management of stressors, and the efficacy of the assignment for supporting well-being. Items were created in reflection of Bloom's (1956) learning domains – Cognitive, Psychomotor, and Affective – as different and complementary processes for how students integrate and subsequently utilize core concepts. While traditional pedagogical approaches typically privilege cognitive learning, such as didactic lecturing, Bloom's learning domains recognize learning as a holistic process that may shape not only students' knowledge, but also their actions, beliefs, and values. The purpose of the assignment was to improve both students' knowledge regarding the concept of self-care, and also their utilization of self-care practices as a stress management strategy. Therefore, this assignment encompassed all of the Cognitive (knowledge), Psychomotor (action and behaviour), and Affective (belief in the value of self-care) domains. The effectiveness of the assignment for engaging the learning domains was evaluated through the survey, with 3–4 questions reflecting each domain. For example, Cognitive questions included “To what degree did completing the self-care assignment enhance your knowledge of the evidence for self-care activities?”; Psychomotor questions included “To what degree did this assignment facilitate your capacity to manage your stressors?”; and Affective questions included “To what degree did this assignment enhance the value you place on self-care?”. Open-ended questions at the end of the survey gave participants the opportunity to reflect on the impact and challenges of the assignment. Quantitative data were analyzed using SPSS, and qualitative data from the open-ended questions were analyzed in Microsoft Word.

3. Results

Study participants included 89 BSN students who completed the assignment in a Foundations ($n = 57$) or Mental Health ($n = 32$) course, for a total response rate of 49%. Table 1 provides an overview of demographic information from the study sample.

Table 1
Participant demographics ($N = 89$).

Characteristic	N	%
Gender		
Female	78	88%
Male	8	9%
Genderqueer	3	3%
Age		
18–22	12	13%
23–27	54	61%
28–33	19	21%
34–39	3	3%
45+	1	1%
Highest level of prior education		
Partial undergraduate/college degree	8	9%
Completed undergraduate/college degree	69	78%
Graduate degree	12	13%

3.1. Engagement in self-care practices

Students were asked to rate on a 0–10 scale, their engagement in self-care practices prior to completing the assignment, and maintenance of self-care practices after completing the assignment. A paired samples *t*-test was conducted to compare self-care practices prior to ($M = 6.6$, $SD = 1.9$) and following the assignment ($M = 7.1$, $SD = 1.8$), and demonstrated a statistically significant change in degree of engagement: $t(88) = 2.3$, $p = 0.023$. This significant result is supported by qualitative data from open-ended survey questions. Students reflected that the assignment illustrated the importance of self-care, which resulted in a change in behaviours: “It put an emphasis on self-care and now I feel more justified in taking ‘self-care days’ and treating myself occasionally.” Another student echoed feeling that the assignment justified self-care practices, stating, it “helped reduce any feelings of guilt I had when taking a break and engaging in self-care activities, as these aren't just indulgences but important parts of finding a school-life balance”.

Quantitative data demonstrates that the mean engagement in self-care practices was already relatively high (average of 6.6 on a 10 point scale) even prior to the assignment, though qualitative data suggests that students benefit from class content that encouraged personal reflection on their current activities, and helped reframe hobbies and interests as self-care. As one student reflected,

It helped me view some of the things I already did, but never really considered as self-care tools. For instance, I go to the gym to stay fit, but when I considered going to the gym as self-care, it changed its meaning for me and I've become more motivated to go.

Most students in their survey comments reflected on the personal impact of the assignment on their individual practices, and some further spoke to a collective impact on the student cohort. One respondent stated that the assignment “created a ‘culture of self-care’” that “normalized” self-care activities, with students sharing stories of spending social time with friends or engaging in hobbies to support their personal well-being. Engaging in self-care supported students in many aspects of their mental health, including managing stress, preserving time for fun and enjoyment among the demands of the nursing program, and maintaining relationships with friends and family. Further, some students reflected on the necessity of self-care for addressing mental health challenges in the program. One student stated that they maintain many of the self-care activities developed through the assignment, and reflected,

I make an effort to perform these activities on a regular basis and especially during periods of stress. I have very high anxiety and can easily spiral into extended periods of debilitating panic. I have found my self-care activities to be extremely supportive of my mental wellness and instrumental in the prevention [of] this anxiety spiral.

In this way, the assignment supported students in coping with academic and clinical demands of the nursing program, and also provided students with useable strategies to address underlying mental health challenges that may become exacerbated by stressors.

3.2. Knowledge and capacity

Survey questions examined the impact of the assignment on students' learning about self-care and translation of their knowledge into capacity, with students rating their knowledge and capacity on a 5-point Likert scale from *Not at All* to *Extremely*. 49% of students responded that the assignment Extremely or Very Much enhanced their knowledge of the evidence for self-care activities, and a further 33% responded Moderately (combined total 82%). Student responses demonstrated that the assignment facilitated capacity to *identify* stressors: Extremely/Very Much (49%); Moderately (36%) (combined total = 76%). Fewer students reported that the assignment facilitated capacity to *manage* stressors: Extremely/Very Much (35%); Moderately

(37%) (combined total = 72%).

Overall, quantitative data suggest that for most students, the assignment supported Cognitive learning about self-care and recognizing stressors as well as Psychomotor capacity for using self-care to cope with stress. Qualitative data support these findings and illustrate the impact of students' knowledge and capacity gains on their mental health. One student reflected that the assignment “helped me recognize my triggers”, and another described that the assignment “opened my eyes to the different stressors that I am dealing with that I did not realize before I started the assignment.” While the quantitative data indicate that more students experienced enhanced capacity to *identify* stressors compared to *managing* them, the qualitative data illustrate the connection between recognizing stress and using self-care to address it. For example, one student stated that the assignment “helped me identify my stressors, which was useful in communicating with my support people for what I was struggling with.” Other students reflected that learning about a range of self-care activities supported their ability to choose an appropriate strategy when experiencing stress. Gaining knowledge about the evidence-base for self-care practices further facilitated students' capacity for engaging in self-care, and justified the importance of self-care, particularly in the context of a profession that was identified as contributing to “physical, mental and emotional challenges”.

Some students reflected that they already had a high degree of knowledge of self-care and capacity for coping with stressors, and therefore did not feel that the assignment “offered anything new”. However, students with previous knowledge and capacity reflected that the assignment still contributed to their learning through the Affective domain. One student described, “I already knew what my stressors were, what self-care strategies I ‘should’ be utilizing, and the scientific evidence behind them. This assignment did somewhat strengthen my belief in the importance of self-care and that I should really keep trying to practice it.” Conversely, other students reflected that prior to the assignment, they had developed their Affective belief in the importance of self-care, but lacked knowledge and capacity, which the assignment helped develop. As one student stated, “although I've always known that self-care was important, I've struggled in the past to utilize self-care activities as I never knew what to do with the time I had.”

3.3. Student well-being

Survey questions assessed the degree to which the assignment *supported* and *detracted* from student well-being, using a 5-point Likert scale. Forty-three percent of students stated that the assignment Extremely/Very Much supported their well-being, with a further 29% reporting that it Moderately supported well-being (combined total = 72%). While 60% of students stated that the assignment did Not at All detract from well-being, 4% reported that it Extremely/Very Much detracted. Importantly, 21% stated that the assignment Moderately detracted from their well-being.

Qualitative responses were analyzed to develop an understanding of the ways in which the assignment negatively impacted well-being. Firstly, students reported concerns with the grading of the assignment, reflecting “it's hard to have personal choices and experiences graded!” Students who received lower grades articulated that they felt their marks devalued their efforts of engaging in self-care practices – one student described having received an unsatisfactory grade and reflected that they focused “too much on actually enjoying self-care activities” rather than the assignment criteria. Another student similarly felt that grades did not reflect students' actual engagement with self-care, describing that some students who received high marks described activities in their assignment that they had not actually practiced. This student, who described extensively engaging in self-care stated that “this put a sour taste in my mouth, and I haven't really revisited my assignment since, or used it the way I was planning to.” Additionally, some students reported that while the assignment helped justify self-

care practices, it also contributed to feelings of guilt when *not* engaging in self-care. As one student described,

I found that this assignment made me feel guilty somewhat for not engaging in more self-care to maintain my mental and physical well-being, but I just got too bogged down to do it to the extent that I would have liked.

Lastly, students reported that the assignment added to their workload, and felt like “an added stressor” or “just ‘something to get done’”. Despite the detractors from student well-being, many participants also reported that the assignment enhanced well-being through directly supporting students in taking time to engage in self-care practices. One student reflected that they “appreciated the opportunity to invest in my own well-being through participation in this assignment. It changed the focus from something that ‘had to be done for school’ to ‘something that was going to help me cope’ with school.” Many participants similarly echoed that the assignment helped them recognize stressors or “triggers” related to their nursing program and cope with these stressors through specific, individualized activities.

4. Discussion

Stress and anxiety have been recognized as detractors from nursing students' mental health, yet there is limited evidence guiding educators in integrating mental health interventions into nursing programs. It is imperative that nursing education both respond to students' mental health challenges and support students in developing strategies to promote their mental health to cope with stressors associated with nursing school and their future nursing careers. An additional ethical imperative for nursing education leaders is to critically analyze the organizational and structural conditions that make it challenging for students to manage their stressors, and play an active role in creating them. This study illustrates that a self-care assignment can benefit students through fostering their engagement in self-care practices, further developing their knowledge and capacity for self-care, and enhancing their well-being.

Our data demonstrate that integrating self-care into nursing curriculum can enhance students' capacity for engaging in self-care practices, with a positive impact on their ability to cope with stressors. Nursing students' experiences of stress, anxiety, and poor mental health have been well-documented in the literature (Pulido-Martos et al., 2012; Richardson et al., 2017), and burnout during nursing education is associated with anxiety, reduced ability to cope with clinical stressors, and increased attrition in the nursing workforce after graduation (Rella et al., 2008; Rudman and Gustavsson, 2012). Increasingly, nursing educators are recognizing that traditional didactic approaches to teaching students about stress and burnout are insufficient, and are developing interventions that directly address student stress and mental health challenges (McConville et al., 2017). This assignment is unique among these interventions in facilitating students' recognition of specific stressors and development of strategies to cope with stressors. This tailored approach can help students address mental health challenges that they may experience during the nursing program and also issues of burnout and stress in clinical practice post-graduation (Henry, 2014).

Within the assignment, students were asked to articulate and practice their own tailored self-care strategies. This approach was intended to support students in aligning the assignment to their interests and their self-knowledge of ‘what works’, and thus enhance integration of classroom content into actual behaviours. However, an unintended consequence of the assignment was that some students interpreted the grading as a devaluation of their chosen self-care practices, though that was not the evaluative intent. Further, students expressed feelings of guilt in not engaging in what they interpreted as sufficient self-care practice. While integrating self-care content into nursing curriculum can send an important message that student mental health is an important issue, educators must also use caution in placing responsibility

for addressing mental health concerns solely on students or evaluate students' chosen self-care practices. In the broader literature, the concept of self-care references patients managing their own health conditions, and has been critiqued as reflecting an individualistic approach to health that directs responsibility for health solely on the individual and away from the formalized health care system (Lupton, 2013). Similarly, while focusing on self-care as a strategy for addressing nursing student mental health can support the tailoring of coping strategies to individual needs, it risks framing mental health as a personal rather than structural issue. Re-framing mental health as a structural issue involves not only strengthening availability and accessibility of mental health supports, but also supporting mental health broadly by recognizing and mitigating potential threats to students' mental health, including financial stressors and heavy workloads. While centralized supports such as counselling services help support students who identify a mental health challenge and actively seek support, educators must also promote mental health and coping students for all students in advance of mental health becoming a clinical concern.

Integrating self-care into course curriculum is an important step toward recognizing the responsibility of educators in supporting student mental health; however, assignment in isolation is inadequate to address the magnitude of stressors students experience in meeting academic and clinical expectations. To establish structural supports for students' mental health, we recommend that nursing programs thread self-care content throughout course curricula – ideally in at least one course per semester. While this may not necessarily take the form of a self-care assignment, interventions such as short self-care exercises at the beginning of class, lunchtime self-care activities, or facilitated opportunities for students to share and debrief academic and clinical challenges can all help foster a “culture of self-care” that participants in this study described as valuable. Such initiatives can support students' mental health during their nursing education, and have implications for how nurses' mental health is supported when in the workforce. Situating responsibility for mental health supports as structural as well as individual can meaningfully shift the way that burnout and attrition are conceptualized in health care settings, and foster a more holistic understanding of nurses' fitness to practice.

5. Conclusions

As well as building knowledge and skill and fostering professional development, nursing educators have an ethical responsibility to support students' health and well-being and respond to mental health challenges arising from academic, clinical, and personal stressors. This study illustrates that a self-care assignment that fosters students' capacity to identify and address stressors through self-care practices can have a positive impact on students' engagement in self-care and on their overall well-being. Participant responses to the assignment demonstrate that although the exercise held many benefits, there were some key areas in which the assignment detracted from well-being, including in assigning grades and in creating an expectation of setting personal time aside for self-care, which contributed to feelings of guilt. To address these concerns, educators may consider alternative grading systems (such as participation marks) and can ensure that self-care is threaded throughout program coursework and extra-curricular activities to facilitate opportunities for self-care within busy and challenging programs.

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Ethical approval

University of British Columbia, Behavioural Research Ethics Board (H17-03534).

Declaration of Competing Interest

None declared.

Appendix 1. Self-Care Survey Questions

1. To what degree did completing the self care assignment enhance your knowledge of the importance of self care?
2. To what degree did completing the self care assignment enhance your knowledge of the range of self care activities available?
3. To what degree did completing the self care assignment enhance your knowledge of the evidence for self care activities?
4. To what degree did this assignment facilitate your capacity to identify your stressors?
5. To what degree did this assignment facilitate your capacity to manage your stressors?
6. To what degree did you engage in self care practices prior to the self care assignment?
7. To what degree did you engage in self care practices as a part of completing the assignment?
8. To what degree have you maintained self care practices following completing the assignment?
9. To what degree did this assignment enhance the value you place on self care?
10. To what degree did this self care assignment support your well-being during the term in which you completed the assignment?
11. To what degree did completing this assignment detract from your well-being?
12. To what degree have you incorporated learning from this assignment in your clinical nursing practice with patients?
13. To what degree have you incorporated learning from this assignment to support your “fitness to practice”?
14. Please describe the ways in which this assignment was meaningful to you?
15. Please describe any challenges you encountered in completing this assignment:
16. What could be done in the nursing program to help support your ongoing commitment to self care?

References

- Auerbach, R.P., Mortier, P., Bruffaerts, R., Alonso, J., Benjet, C., Cuijpers, P., ... WHO WHM-ICS Collaborators, 2018. WHO world mental health surveys international college student project: prevalence and distribution of mental disorders. *J. Abnorm. Psychol.* <https://doi.org/10.1037/abn0000362>.
- Bayram, N., Bilgel, N., 2008. The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Soc. Psychiatry Psychiatr. Epidemiol.* 43, 667–672. <https://doi.org/10.1007/s00127-008-0345-x>.
- Blanco, C., Okuda, M., Wright, C., Hansin, D.S., Grant, B.F., Liu, S.-M., Olfson, M., 2008. Mental health of college students and their non-college attending peers: results from the National Epidemiologic Study on Alcohol and Related Conditions. *Arch. Gen. Psychiatry* 65 (12), 1429–1437. <https://doi.org/10.1001/archpsyc.65.12.1429>.
- Bloom, B.S., 1956. *Taxonomy of Educational Objectives: The Classification of Educational Goals*. Longman, White Plains, NY.
- Blum, C., 2014. Practicing self-care for nurses: a nursing program initiative. *Online J. Issues Nurs.* 19 (3). <https://doi.org/10.3912/OJIN.Vol19No03Man03>. Manuscript 3.
- British Columbia College of Nursing Professionals, 2018. Professional Standards for Registered Nurses and Nurse Practitioners. Author, Vancouver Retrieved 10 December 2018 from. https://www.bccnp.ca/Standards/RN_NP/ProfessionalStandards/Pages/Default.aspx.
- Burger, K.G., Lockhart, J.S., 2017. Meditation's effect on attentional efficiency, stress, and mindfulness characteristics of nursing students. *J. Nurs. Educ.* 56 (7), 430–434. <https://doi.org/10.3928/01484834-20170619-08>.
- Chernomas, W.M., Shapiro, C., 2013. Stress, depression, and anxiety among undergraduate nursing students. *Int. J. Nurs. Educ. Scholarsh.* 10 (1), 1–12. <https://doi.org/10.1515/ijnes-2012-0032>.

- Galvin, J., Suominen, E., Morgan, C., O'Connell, E.J., Smith, A.P., 2015. Mental health nursing students' experiences of stress during training: a thematic analysis of qualitative interviews. *J. Psychiatr. Ment. Health Nurs.* 22, 773–783. <https://doi.org/10.1111/jpm.12273>.
- Goodwin, J., Behan, L., Kelly, P., McCarthy, K., Horgan, A., 2016. Help-seeking behaviors and mental well-being of first year undergraduate university students. *Psychiatry Res.* 246, 129–135. <https://doi.org/10.1016/j.psychres.2016.09.015>.
- Hegney, D.G., Craigie, M., Hemsworth, D., Osseiran-Moisson, R., Aoun, S., Francis, K., Drury, V., 2013. Compassion satisfaction, compassion fatigue, anxiety, depression and stress in registered nurses in Australia: study 1 results. *J. Nurs. Manag.* 1–13. <https://doi.org/10.1111/jonm.12160>.
- Henry, B.J., 2014. Nursing burnout interventions: what is being done? *Clin. J. Oncol. Nurs.* 18 (2), 211–214. <https://doi.org/10.1188/14.CJON.211-214>.
- Hensel, D., Bradburn, T.C., Kelly, A., Manahan, L., Merriman, H., Metzinger, F., Moore, H., 2012. Student impressions of an art therapy class. *Journal of Holistic Nursing* 30 (4), 264–269. <https://doi.org/10.1177/0898010112455947>.
- Iqbal, S., Gupta, S., Venkatarao, E., 2015. Stress, anxiety & depression among medical undergraduate students & their socio-demographic correlates. *Indian J. Med. Res.* 141 (3), 354–357.
- Laidlaw, A., McLellan, J., Ozakinci, G., 2016. Understanding undergraduate student perceptions of mental health, mental wellbeing and help seeking behaviour. *Stud. High. Educ.* (12), 2156–2168.
- Lipson, S.K., Zhou, S., Wagner III, B., Beck, K., Eisenberg, D., 2016. Major differences: variations in undergraduate and graduate student mental health and treatment utilization across academic disciplines. *J. Coll. Stud. Psychother.* 30 (1), 23–41. <https://doi.org/10.1080/03075079.2015.1026890>.
- Lupton, D., 2013. The digitally engaged patient: self-monitoring and self-care in the digital health era. *Soc. Theory Health* 11 (3), 256–270. <https://doi.org/10.1057/sth.2013.10>.
- McConville, J., McAleer, R., Hahne, A., 2017. Mindfulness training for health profession students – the effect of mindfulness training on psychological well-being, learning and clinical performance of health professional students: a systematic review of randomized and non-randomized controlled trials. *Explore* 13, 26–45. <https://doi.org/10.1016/j.explore.2016.10.002>.
- Myers, S.B., Sweeney, A.C., Popick, V., Wesley, K., Bordfeld, A., Fingerhut, R., 2012. Self-care practices and perceived stress levels among psychology graduate students. *Train. Educ. Prof. Psychol.* 6 (1), 55–66. <https://doi.org/10.1037/a0026534>.
- Napoli, M., Bonifas, R., 2011. From theory toward empathic self-care: Creating a mindful classroom for social work students. *Soc. Work. Educ.* 6, 635–649. <https://doi.org/10.1080/02615479.2011.586560>.
- Pulido-Martos, M., Augusto-Landa, J.M., Lopez-Zafra, E., 2012. Sources of stress in nursing students: a systematic review of quantitative studies. *Int. Nurs. Rev.* 59, 15–25. <https://doi.org/10.1111/j.1466-7657.2011.00939.x>.
- Rella, S., Winwood, P.C., Lushington, K., 2008. When does nursing burnout begin? An investigation of the fatigue experience of Australian nursing students. *J. Nurs. Manag.* 17, 886–897. <https://doi.org/10.1111/j.1365-2834.2008.00883.x>.
- Reeve, K.L., Shumaker, C.J., Yearwood, E.L., Crowell, N.A., Riley, J.B., 2013. Perceived stress and social support in undergraduate nursing students' educational experiences. *Nurse Educ. Today* 33 (4), 419–424. <https://doi.org/10.1016/j.nedt.2012.11.009>.
- Richards, K., 2013. Self-care is a lifelong journey. *Nurs. Econ.* 31 (4), 198–202.
- Richardson, T., Elliott, P., Roberts, R., Jansen, M., 2017. A longitudinal study of financial difficulties and mental health in a national sample of British undergraduate students. *Community Ment. Health J.* 53, 344–352. <https://doi.org/10.1007/s10597-016-0052-0>.
- van der Riet, P., Rossiter, R., Kirby, D., Dluzewska, T., Harmon, C., 2015. Piloting a stress management and mindfulness program for undergraduate nursing students: student feedback and lessons learned. *Nurse Educ. Today* 35, 44–49. <https://doi.org/10.1016/j.nedt.2014.05.003>.
- Rudman, A., Gustavsson, J.P., 2012. Burnout during nursing education predicts lower occupational preparedness and future clinical performance: a longitudinal study. *Int. J. Nurs. Stud.* 49 (8), 988–1001. <https://doi.org/10.1016/j.ijnurstu.2012.03.010>.
- Schure, M.B., Christopher, J., Christopher, S., 2008. Mind-body medicine and the art of self-care: Teaching mindfulness to counseling students through yoga, meditation, and qigong. *J. Couns. Dev.* 86 (1), 47–56. <https://doi.org/10.1002/j.1556-6678.2008.tb00625.x>.
- Shapiro, S.L., Brown, K.W., Biegel, G.M., 2007. Teaching self-care to caregivers: Effects of mindfulness-based stress reduction on the mental health of therapists in training. *Train. Educ. Prof. Psychol.* 1 (2), 105–115. <https://doi.org/10.1037/1931-3918.1.2.105>.
- Skovholt, T.M., Trotter-Mathison, M., 2011. *The Resilient Practitioner: Burnout Prevention and Self-Care Strategies for Counselors, Therapists, and Health Professionals*. Taylor and Francis Group, New York.
- Sontag-Padilla, L., Woodbridge, M.W., Mendelsohn, J., D'Arnico, E.J., Osilla, K.C., Jaycox, L.H., ... Stein, B.D., 2016. Factors affecting mental health service utilization among California public college and university students. *Psychiatr. Serv.* 67 (8), 890–897. <https://doi.org/10.1176/appi.ps.201500307>.
- Stark, M.A., Manning-Walsh, J., Vliem, S., 2005. Caring for self while learning to care for others: A challenge for nursing students. *J. Nurs. Educ.* 44 (6), 266–270.
- Turner, K., McCarthy, V.L., 2017. Stress and anxiety among nursing students: A review of intervention strategies in literature between 2009 and 2015. *Nurse Educ. Pract.* 22, 21–29. <https://doi.org/10.1016/j.nepr.2016.11.002>.