

Empowering the Next Generation: A Holistic Self-Care Course for Cultivating Resilience in Undergraduate Students

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Abstract

College students experience stressors that can impact grades, relationships, and health. These challenges can arise in online, hybrid, and in-person learning environments, and are often compounded by time pressures, social isolation, and the challenge of balancing responsibilities across work, school, family, and friendships. When students participate in structured education in self-care techniques, they can build resilience and effective coping strategies. An undergraduate asynchronous, online elective in holistic self-care was developed to promote student resilience and stress management. After receiving positive feedback over several terms, a concurrent mixed methods pre–post study was embedded in this course to evaluate the impact on student stress and resilience, as measured by the Perceived Stress Scale (PSS) and the 10-item Connor–Davidson Resilience Scale (CD-RISC-10). Open-ended questions in the post-course evaluations captured students' perspectives on the experience. The findings revealed that students who engaged in holistic self-care practices taught in the course reported lower stress, greater resilience, and an appreciation of strategies that support their overall well-being.

Keywords: College students, academic pressures, holistic self-care, stress management, resilience, mental health

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College students are beginning the next phase of their lives, one that is filled with new experiences and opportunities. This is an exciting and inspiring time of personal growth, but undergraduate students often face significant stress as they adjust to the new environment and the rigors of academic life, whether they are learning online, in hybrid formats, or on campus (Barbayannis et al., 2022). In addition to academic pressures, many college students are adapting to living away from family and friends for the first time (Kerr & Claybourn, 2023). They may also experience stress from financial obligations, interpersonal relationships, and post-college employment uncertainty (Dong et al., 2024). These stressors are compounded by social media, societal unrest, and anxiety about personal health and campus safety (Campbell et al., 2022).

There is convincing evidence that college students are experiencing more frequent and more severe mental health problems (Healthy Minds Network, 2023). Despite the high incidence of psychological distress and the clear need for support, college students often report feeling disconnected, potentially leading them to unhealthy coping mechanisms, such as substance use, high-risk behaviors, and social isolation and withdrawal (Dong et al., 2024; Nelson et al., 2021). These findings underscore the importance of formal initiatives to bolster student well-being. The aim of this study was to examine the impact of an online ten-week undergraduate holistic self-care course on students' perceived stress and resilience.

Background and Significance

Stress of Undergraduate Students

“Stress” is the body’s natural response to any real or perceived pressure that threatens the homeostatic state (Schneiderman et al., 2005). Threats, also known as “stressors”, can be physical, mental, or emotional in nature and cause a cascade of complex systemic changes. While the body is adept at overcoming occasional or short-term stressors, layered or ongoing stress can produce or worsen disease states, which includes mental health disorders.

Stressors pervade the college experience. Though each student has unique causes of and responses to stressors (Reddy et al., 2018), 87% of Gen Z (ages 18-23) college students shared that education was a significant source of stress (American Psychological Association [APA], 2020). Notably, there are unique pressures faced by today’s college students, including social media stressors, such as cyberbullying (Martínez-Monteagudo et al., 2020), the risk of behavioral addiction related to excessive smart device use (Li & Liu, 2021), and known and yet unidentified enduring effects of the COVID-19 pandemic (Brown et al., 2024). As high levels of stress during college may serve as a predictor of future mental health disorders (Barbayannis et al., 2022) and lower academic attainment (Kötter et al., 2017), educators should consider the following themes and findings that have emerged in the literature, as they are notable across undergraduate student demographics.

Undergraduates and Academic Stress

Academic stress, or a “psychological state resulting from continuous social and self-imposed pressure in a school environment that depletes the student’s psychological reserves” (Zhang et al., 2022, para. 3), is especially heightened during the first years of study (Trigueros et al., 2020). Academic stress is layered (Mofatteh, 2021) and can stem from external sources, including teacher-student dynamics (Trigueros et al., 2020); unexpected difficulties, such as technical issues (Islam & Rabbi, 2024); and peer and social pressures as students adjust to new cultures and communities. Academic stress is also shaped by internal factors, including feelings

of inadequacy, fear of failure, and personality traits such as dispositional optimism-pessimism (Chang, 1998). Outcomes such as homesickness, perceived discrimination, hate, or rejection may be more prevalent in international students (Li & Liu, 2021).

Academic stress can dominate other stressors, and the effects may lead to poorer mental and physical health outcomes (Barbayannis et al., 2022). High levels of academic stress have been associated with risky behaviors, such as increased substance intake (Nelson et al., 2021); including the use of “study drugs” (Valimohamed, 2019); risky sexual behaviors (Mehra et al., 2014); and neglect of other physical needs, such as sleep and proper nutrition (Pascoe et al., 2019). Across demographics (age, gender, race/ethnicity, academic year), a study of college students residing in the United States found an association between higher levels of perceived academic stress and worse overall mental well-being (Barbayannis et al., 2022). Untreated poor mental health can lead to distress and suicidal thoughts among students, negatively influence a student’s quality of life, affect relationships, and reduce academic performance and integrity (Mofatteh et al., 2021). The phenomenon may be cyclical as higher academic stress leads to worsened mental well-being, which has been shown to exacerbate academic stress.

Previous efforts to address academic stress among undergraduate students have often centered on providing information about stressors and introducing general stress management techniques. For instance, Hintz et al. (2014) demonstrated that targeted online training modules in stress management led to reductions in perceived stress, anxiety, and depression. Recognizing that knowledge alone may not be sufficient, Conley et al. (2015) emphasized the value of combining psychoeducational content with skills-based training and opportunities for practice to enhance students’ abilities to manage their mental health effectively.

A particularly compelling example is *The Power of Nursing* (PON), a course grounded in the Healer’s Art framework, which fosters self-care, resilience, and professional identity formation through experiential and reflective learning (Snow et al., 2024). Delivered in both in-person and online formats, PON promotes holistic values such as authenticity, empathy, and self-awareness, and has been associated with improved well-being and a stronger sense of connection among students (Snow et al., 2024). These interventions highlight the potential of structured, skills-based educational programs to reduce academic stress, enhance psychological flexibility, and promote resilience.

Impact of COVID-19 on Undergraduate Students

Current undergraduate students continue to face unique stressors related to learning in a post-pandemic era. The SARS-CoV-2 (COVID-19) pandemic impacted life ubiquitously (Onyeaka et al., 2021). Early data revealed that over a billion global learners were affected by abrupt school closures. For some students, stress was exacerbated by the additional burden of tackling dormitory housing displacement (Jackson & Johnson, 2020). Beyond academic, sports, and social disruptions (Serafini et al., 2020), formal institution closure orders brought about food insecurity (Onyeaka et al., 2021); abandoned or altered graduation ceremonies (Alter, 2020; Blythe et al., 2020); and lost internships and job opportunities (Lee et al., 2021). Since 2020, cohorts of learners faced financial uncertainty (Lee et al., 2021) and many were additionally impacted by the death of loved ones (ElTohamy et al., 2022).

College students continue to report remarkable increases in overall stress (Barbayannis et al., 2022), mental health diagnoses (Chirikov et al., 2020), and feelings of loneliness (Lee et al.,

2021), complicating academic performance since the pandemic (Hu et al., 2022; Zhang et al., 2025). Marginalized students, including low-income learners, Persons of Color, and those who identify as non-binary or transgender, were impacted to a greater degree across many measures, including financial access to college (Causey et al., 2021); academic stress (Barbayannis et al., 2022); and rates of depression and anxiety (Chirikov et al., 2020). Yet, hope remains.

Cultivating Student Resilience for College and Beyond

Resilience is “the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral flexibility and adjustment to external and internal demands” (American Psychological Association, 2018, para. 1). This process harnesses inner resources to counteract the impact of stressors for improved adaptation to adversity (Fullerton et al., 2021). Resilience is positively correlated with self-efficacy, effective coping skills, and psychological well-being, enabling people to bounce back and even thrive in challenging situations (Rees, 2015).

The college environment exposes students to intensifying academic demands, financial responsibilities, and social pressures as they navigate the novelty and stress of independent living. Higher levels of student resilience, however, are positively correlated with adaptability, goal attainment, subjective well-being, and stronger academic performance (Li et al., 2024). Resilience helps students to overcome academic setbacks, foster a growth mindset, and persevere when challenged (Fullerton et al., 2021). Resilience is also associated with self-regulation, a trait that is essential to maintaining motivation, setting realistic goals, and approaching learning strategically for greater academic success (Li et al., 2024).

Structured learning opportunities focused on self-care and resilience-building can foster coping skills and help students to effectively manage the stressors they confront in undergraduate education (Grimaldi, 2023). Consequently, universities are urged to promote student resilience and adaptability by developing programs that build psychological capacities, teach relaxation techniques, and share resources (Li et al., 2024). Higher education programs that cultivate resilience and stress management prepare the next generation with lifelong skills to address the complexities and challenges of life after graduation.

Holistic Self-Care Course: Course Description

Holistic Self-Care is a ten-week course that was initially developed for nursing students and later made available to all undergraduate students as an elective. This is the course in which the study took place. The fully asynchronous online format was designed to help reduce student stress and promote overall well-being. The course integrates didactic and experiential components to support a holistic, balanced student life. Its structure intentionally combines evidence-based learning with applied self-care practices to cultivate self-efficacy and strengthen the interconnected dimensions of mind, body, and spirit.

Didactic learning is beneficial for increasing knowledge and awareness; however, experiential learning is essential when affecting health behaviors (Villarroel et al., 2020). In experiential learning, students learn through “doing” and reflection, which can increase student autonomy and responsibility (Villarroel et al., 2020). The benefits of experiential learning include connecting content theory (didactic) and the experience (Villarroel et al., 2020). In this

case, the experience was holistic practice. In addition, experiential learning allows students to be personally involved in their learning process (Villarroel et al., 2020). Overall, it was intended that students would obtain a holistic self-care “toolkit” to use beyond university life.

There were typically multiple sections of the course offered each quarter, with approximately 25 students in each section. The course was organized into five modules, each two weeks in length, offered in a fully online format. Module topics included stress management, mindfulness and meditation, nutrition for self-care, spirituality and movement, self-efficacy, and a positive mindset. Each module consisted of a discussion board, an experiential journal, and a quiz. The instructors who taught the course were skilled in holistic practices, such as mindfulness, meditation, yoga, aromatherapy, and other complementary therapies. Various pedagogical approaches were utilized in the course to engage and support all learners. Modules focused on the broader topic of stress, and additional techniques were introduced throughout the course, such as aromatherapy. Students shared summaries from the pre-course self-assessments of perceived stress, resilience, and well-being in the first discussion board regardless of their participation in the study. A major experiential project required students to choose a holistic self-care practice, research the benefits, practice it, and share an in-depth reflection. They reflected on how their choice of, and length of practice affected them overall—mind, body, and spirit—including their overall stress levels. Students were given the autonomy to creatively present their project via a formal research paper, visual presentation with voiceover, or other media.

Theoretical Framework and Research Questions

To investigate the impact of this Holistic Self-Care course, a concurrent mixed methods study, informed by the Integrative Student Growth Model (ISGM), was designed. This model emphasizes the critical role of holism and self-care for student success. Holism in higher education is “the process of synergizing the totality of the student experience that is inclusive of mind, body, spirit, environment, and culture into both the learning environment and the teaching-learning process, to promote optimum academic performance, professional growth, and personal wellness” (Patestos et al., 2019, p. 88). With a focus on the whole student, this theoretical framework addresses the physical, emotional, social, and intellectual aspects of a student’s life.

The ISGM highlights the potential for student growth through practices that help students manage stress, maintain mental health, and build resilience (Patestos et al., 2019). This supportive learning environment encourages both academic and personal growth in a way that is holistic, inclusive, and interconnected (Kean University, 2018). The goal of the ISGM is to inspire students to thrive and adapt in a constantly changing world so they are able to “conquer the rigors of academic life while maintaining a healthy dose of self-care and professional growth” (Patestos et al., 2019, p. 88). Although literature on the ISGM is still emerging, its components align with well-established theoretical foundations that foster student stress reduction and holistic development, particularly in online and remote learning environments.

Positioned as the central framework for this study, the ISGM is illuminated by complementary theories that emphasize modeling, developmental growth, and connection. Bandura’s Social Learning Theory supports the ISGM’s focus on modeling and self-efficacy, suggesting that new behaviors are more likely to be learned and sustained when demonstrated by others and reinforced in supportive environments (Bandura, 1977; Parcel & Baranowski, 1981). Similarly, Benner’s Novice to Expert Theory aligns with the ISGM’s developmental perspective

by describing how learners progress from basic awareness to more integrated mastery through reflection, experience, and guided mentorship (Benner, 1982; Williams, 2023). As self-care is a learned competency, these perspectives reinforce the ISGM's emphasis on experiential learning and the gradual internalization of wellness practices over time.

Additionally, the Interactivity/Community-Process Model complements the ISGM by underscoring how connection, engagement, and community are critical to learning in online settings (Lear et al., 2010). This alignment extends the ISGM's holistic principles into virtual environments where distance, isolation, and stress can otherwise hinder student well-being. ISGM-guided strategies, such as faculty modeling, value-centered interaction, and intentional community-building, mirror the processes identified in the Interactivity/Community-Process Model and highlight the importance of active engagement and meaningful relationships in supporting growth.

Ultimately, the ISGM serves as an integrative framework that draws on established learning theories to support student development. In online learning environments where students often encounter increased stress, reduced interaction, and limited opportunities for personal connection, the ISGM's emphasis on modeling, engagement, and wellness becomes especially relevant. When instructors cultivate environments that promote timely and meaningful interaction, alongside personal growth, students experience greater engagement, motivation, and satisfaction (Martin & Bolliger, 2018; Dixson, 2015). In this way, the ISGM is not only a conceptual model but also a practical guide for strengthening self-care competencies in online learners. The Holistic Self-Care course embodies these principles in a structured approach and builds on this work to promote both academic success and personal well-being via virtual learning spaces.

Grounded in these theoretical perspectives, the present study applies the Integrative Student Growth Model (ISGM) to examine how online holistic self-care education influences student stress and resilience. Guided by this framework, the following research questions were developed to investigate changes in perceived stress, relationships between stress and resilience, and students' perceptions of their holistic self-care learning experience:

1. Are there significant differences in online undergraduate students' self-reported levels of perceived stress and resilience when comparing before and after completion of an online ten-week for-credit holistic self-care course?
2. Are undergraduate students' self-reported levels of perceived stress and resilience significantly related?
3. What are the perceptions of online undergraduate students who complete an online ten-week for-credit holistic self-care course?

Methods

Ethical Considerations

To adhere to ethical research conduct, before starting the study, the university's Institutional Review Board (IRB) approved the research. Although all students completed the same pre- and post-surveys as part of the course requirements, the researchers informed the students that participation in the study was voluntary and would not affect their final grades. Only one researcher, who was not the course instructor, had access to all the data. Before sharing the data with the other researchers, this researcher de-identified the data and removed any students who did not consent to participate.

Data Collection Procedures

This study used a concurrent mixed methods design, with quantitative and qualitative data collected through pre- and post-course administrations of a Qualtrics survey. At both the beginning and end of the course, all students completed the same set of scales: the Perceived Stress Scale (PSS) (Cohen et al., 1983; Cohen & Williamson, 1988) and the Connor-Davidson Resilience Scale (CD-RISC-10) (Campbell-Sills & Stein, 2007; Connor & Davidson, 2003). Although participation in the research study was voluntary, all students completed the scales and post-course reflections as part of the required course activities. Students who consented to participate allowed their de-identified data to be included in the research analysis, while those who did not consent still completed the same assessments for their personal learning and course reflection.

Measures of perceived well-being are significant as studies have shown a correlation between higher levels of perceived stress and adverse effects on physical health. A longitudinal study by Tawakol et al. (2017) found that increased activity in the amygdala, associated with perceived stress, robustly predicted cardiovascular events in individuals without known cardiovascular disease or active cancer. Similarly, a landmark study by Epel et al. (2004) demonstrated that perceived stress, rather than objective stress, significantly affects telomere length, a marker of cellular aging. In their study, mothers of chronically ill children with high perceived stress had shorter telomeres compared to those with lower perceived stress, despite both groups experiencing significant objective stress. These findings suggest that it is the perception of stress, rather than the stressor itself, that has a profound impact on health, highlighting the importance of measuring perceived well-being.

In addition to the standardized scales, the pre-course survey included demographic questions for students who consented to participate in the research study. The post-course administration of the survey also included additional open-ended questions to examine students' perceptions of the course. Students were encouraged to reflect on their experience in the course and what changes, if any, they experienced. Responses to these open-ended questions provided the qualitative data for the study. The open ended questions included:

In what ways has your experience of school-related stress changed since the start of the course?

Describe any self-care techniques (such as mindfulness, healthy eating, stress management, yoga, breathing exercises, and cultivation of a positive mindset) you felt were especially helpful in addressing your stress, resilience, and/or well-being.

What are your thoughts about continuing with personal self-care practices? What might that look like?

Perceived Stress Scale

The 10-question Perceived Stress Scale (PSS) was used to assess levels of perceived stress before and after the Holistic Self-Care course. Developed by Cohen et al. (1983), this scale measures the degree to which individuals perceive situations in their lives as stressful. It includes questions such as “In the last month, how often have you felt nervous and stressed?” Participants respond using a Likert scale, scoring each item from 0 (never) to 4 (very often). The PSS demonstrates excellent internal reliability and construct validity (Cohen et al., 1983). This scale is widely used in academic research to evaluate changes in perceived stress levels before and after self-care interventions (e.g., Carroll et al., 2024; Murphy, 2021). In this sample, the PSS demonstrated strong internal consistency (Cronbach’s $\alpha = .84$).

Connor-Davidson Resilience Scale

The 10-question Connor-Davidson Resilience Scale was used to measure resilience, one’s ability to cope with stress, with permission from the authors of the questionnaire. The original questionnaire had 25 items, each rated on a 5-point scale from 0 (not true at all) to 4 (true nearly all the time) (Connor & Davidson, 2003). The questionnaire was modified by Campbell-Sills and Stein (2007) to create a 10-question scale, which was used in this study. The scales have demonstrated good internal consistency and test-retest reliability (Campbell-Sills & Stein, 2007; Connor & Davidson, 2003). The CD-RISC-10 demonstrated excellent internal consistency in this sample (Cronbach’s $\alpha = .87$).

Study Sample

All students enrolled in the Holistic Self-Care course during the Winter 2023, Spring 2023, Summer 2023, and Fall 2023 quarters were invited to participate in the study. Out of the total 246 undergraduate students enrolled in the course throughout this timeframe, 109 consented to participate in the study, yielding a participation rate of 44%. Sixty percent of participants provided complete qualitative responses, while the remaining 40% partially completed these items. Table 1 presents the demographic information for the study sample. Of the 109 participants, 77% were female, and 61% were in their senior year. Eighty-three percent had little or moderate experience utilizing holistic self-care strategies; and over half (61%) never meditated.

Table 1*Demographic Information*

Gender	Number	Percentage
Male	22	20.18%
Female	84	77.06%
Non-Binary	1	0.92%
Prefer Not to Say	2	1.83%

Age	Number	Percentage
20-29	105	96.33%
30-39	2	1.83%
40-49	2	1.83%

Current Classification	Number	Percentage
Freshman	0	0.00%
Sophomore	18	16.51%
Junior	25	22.94%
Senior	66	60.55%

Level of Experience with Holistic Self-Care Strategies	Number	Percentage
No Experience	13	11.93%
A Little Experience	51	46.79%
Moderate Experience	40	36.70%
Very Experienced	5	4.59%

Meditation Frequency	Number	Percentage
Daily	1	0.92%
1-3 Times a Week	0	0.00%

4-6 Times a Week	14	12.84%
Intermittently	32	29.36%
Never	62	56.88%

Data Analysis

To gain a comprehensive understanding of the Holistic Self-Care course's impact on students, both quantitative and qualitative data were analyzed. All survey data was exported from Qualtrics to Excel, and pre- and post-survey responses were matched using university email addresses. After the data was matched, responses from students who did not consent to participate were removed, and all email addresses were deleted to de-identify the data. For the quantitative data analysis, SPSS statistical software was utilized for both descriptive and inferential statistics. Dependent paired t-tests and Pearson correlations were used to analyze the quantitative data.

For the qualitative data, a two-cycle coding approach was applied following Saldaña's (2021) coding framework. The first cycle used a combination of descriptive, emotion, and in-vivo coding techniques. Emotion coding was used to capture the emotions the participants were feeling and used codes like *stress*, *anxiety*, *confident*, and *calm*. Descriptive coding summarized the core topics of the participants' responses, with representative codes including *mindset shift*, *emotional recovery*, and *decreased anxiety*. Lastly, in vivo coding preserved participants' authentic voices by using exact words and phrases from their responses.

Subsequently, the codes were thoroughly examined to identify patterns, leading to the identification of themes. The initial coding was conducted by a researcher experienced in qualitative analysis, and to enhance credibility and dependability, the preliminary codes and emerging themes were reviewed collaboratively by the broader research team. After analyzing the quantitative and qualitative data separately, the results were merged. The quantitative data from pre- and post-surveys provided an overarching perspective, while the qualitative data obtained from open-ended survey questions offered insights into the quantitative findings. Triangulation of the data further supported the validity of the findings.

Results

Quantitative

To analyze the quantitative data, dependent paired t-tests and Pearson correlations were used. Ultimately, the results showed a statistically significant decrease in levels of perceived stress and a statistically significant increase in levels of resilience after the students completed the Holistic Self-Care course. Additionally, a statistically significant negative correlation between levels of perceived stress and resilience was found in both the pre- and post-surveys, indicating that students who experienced less perceived stress were more resilient.

Dependent Paired t-tests

Dependent paired t-tests were used to examine the impact of the course on self-reported levels of perceived stress (PSS) and resilience (CD-RISC-10). See Table 2 for dependent paired t-test values.

Table 2*Dependent Paired t-test Values*

	Mean	N	Std Dev	<i>dependent paired t-test</i>			
				t value	Df	Sig (two-tailed)	Cohen's <i>d</i>
Pre-PSS	21.62	109	6.12	7.975	108	<.001	0.76
Post-PSS	16.63	109	5.33				
Pre-CD-RISC 10	25.36	109	6.08	4.586	108	<.001	0.47
Post-CD-RISC 10	27.92	109	5.54				

For the Perceived Stress Scale (PSS), there are 10 Likert-style questions ranging from Never (0) to Very Often (4). The PSS score is obtained by reversing the scores for questions 4, 5, 7, and 8, then summing across all 10 items. Higher scores indicate higher levels of perceived stress. Levels of perceived stress after students completed the holistic self-care course ($M = 16.63$, $SD = 5.33$) were significantly lower compared with levels of perceived stress before students completed the holistic self-care course ($M = 21.62$, $SD = 6.12$); $t(108) = 7.975$, $p < .001$. This finding suggests that the practices within the Holistic Self-Care course helped students manage their stress more effectively, resulting in an overall reported reduction in perceived stress.

For the Connor-Davidson Resilience Scale (CD-RISC-10) there are 10 Likert-style questions ranging from 0 (*not true at all*) to 4 (*true nearly all of the time*). The score is obtained by summing across all items. Higher scores indicate higher levels of resilience. Levels of resilience after students completed the holistic self-care course ($M = 27.92$, $SD = 5.54$) were significantly higher compared with levels of resilience before students completed the holistic self-care course ($M = 25.36$, $SD = 6.08$); $t(108) = 4.586$, $p < .001$. This finding indicates that participation in the course was associated with an enhanced ability to recover from challenges, adapt more effectively to stressors, and build overall resilience.

Pearson Correlation To examine the relationship between perceived stress and resilience, Pearson correlations were used. The data revealed a statistically significant, negative relationship between levels of pre-survey perceived stress and resilience; $r(108) = -.692$, $p < .001$, two-tailed. Similar to the pre-survey, the post-survey data also revealed a statistically significant negative relationship between levels of pre-survey perceived stress and resilience; $r(108) = -.573$, $p < .001$, two-tailed. This negative relationship indicates that students with higher levels of perceived stress tended to report lower levels of resilience.

Qualitative

After analyzing the qualitative data, four themes emerged (1) Stress Management Techniques, (2) Mindset Shift, (3) Decreased Stress Levels, and (4) Increased Resilience. While several students acknowledged ongoing challenges and fluctuations in stress, the overall

consensus indicated that the holistic self-care course played a pivotal role in empowering students to navigate stress more effectively.

Stress Management Techniques

In the open-ended responses, the undergraduate students commented that as a result of the course, they identified ways to cope with their stress. Strategies mentioned included using essential oils, positive thinking, mindfulness, breathing techniques, and meditation. Additionally, students commented on the importance of taking breaks when stressed so they could engage in self-care techniques. Several of the comments that supported this theme include:

“I have found ways to cope with the stress and not let it get to me as much, such as using essential oils as room sprays.”

“I have found that taking a break with meditation is a good way to cope with school-related stress and help refocus myself to get the work done that I need in a less stressful way.”

“I step away from my work for a minute and focus on breathing.”

Decreased Stress

While some students commented that they still experienced quite a bit of stress, and other students mentioned that “school-related stress comes in waves,” overall students felt that the techniques they learned in the course helped them to lower their level of stress. Several of the comments that support this theme include:

“My stress level has gone down since starting the course.”

“I have been able to cope with stress better and manage it better.”

“I feel less stressed and more equipped to handle stress.”

Mindset Shift

Many students who commented that they felt less stressed at the end of the course attributed this positive effect to a shift in their mindset. Students shared how they were able to reframe their academic experience from striving for perfectionism to viewing learning as a journey with inevitable obstacles that they can overcome. Additionally, they learned to accept things they cannot control instead of ruminating on how they wish things were. Several comments that support this theme of a “mindset shift” include:

“I’ve learned to accept that all I can do is the best that I can do, and not become hung up on the little things.”

“I used to be very focused on whether I would get a good grade on an exam, presentation, or paper but now I know that as long as I tried my best, there is no reason to be sad about a bad grade. It can be disappointing but overall I know that on the next assignment, I will do better.”

“I try not to stress about the little things in school anymore. I have learned that I will be okay and get through every obstacle that comes my way in classes and clinicals, and that stressing about it just puts me through the experience twice.”

Increased Resilience

A final theme that emerged from the qualitative comments was “Increased Resilience”. Students acknowledged the inevitability of stress in their academic journey; however, they expressed the ability to now manage their reactions to stressful events through techniques acquired in the course. Students reported a quicker recovery from stressful experiences. This increased resilience translated into improved problem-solving skills and academic performance. The following comments highlight this theme:

“I think I have learned to overcome my stress and be more of a problem solver. I felt like, I got more intelligent, but in a way for problem solving.”

“Since the beginning of this course, my approach to school-related stress has undergone a positive transformation through the incorporation of holistic techniques. They have allowed me to effectively manage stress, leading to a noticeable reduction in overall stress levels and stay focused, particularly during demanding exam periods or high-stress weeks. Overall, this class has improved my academic experience and performance.”

“I am able to get myself centered quickly.”

Summary

In summary, the quantitative data revealed a negative correlation between levels of perceived stress and resilience, indicating that students with lower perceived stress demonstrated higher resilience. Dependent paired t-tests also showed a significant decrease in self-reported stress and a significant increase in resilience after completing the Holistic Self-Care course. These quantitative findings were reinforced by the qualitative data, in which students described learning and applying a range of self-care strategies they learned in the course, including meditation, mindfulness, breathing techniques, aromatherapy with essential oils, positive thinking, and taking restorative breaks. Although several students acknowledged ongoing challenges and fluctuations in stress, they reported that the course helped them manage stress more effectively. Many also noted that they were able to reframe their academic experience to focus more on the learning journey rather than solely on grades, which contributed to a more balanced academic perspective and improved problem-solving. Taken together, the integrated quantitative and qualitative data highlight the course’s multifaceted benefits in equipping students with practical self-care skills that enhanced resilience and support more effective navigation of perceived stress.

Discussion

Stress is pervasive across programs of study and continues to affect undergraduate students well beyond the academic setting (Karyotaki et al., 2020). With rising rates of mental health issues and increasing social and academic pressures (Dong et al., 2024), universities are called upon to support students in navigating higher education successfully (Brewster & Cox, 2022; Mintz, 2022). To that end, this study examined the impact of an online ten-week Holistic Self-Care course on students' perceived stress and resilience.

Study results affirm the value of the Integrative Student Growth Model (ISGM), which emphasizes holism and self-care as essential to student success (Patestos et al., 2019). Grounded in these principles, the course introduced practices designed to nurture the well-being of the whole person—mind, body, and spirit—through a combination of didactic and experiential learning. The modules included stress-management and self-care practices, such as breathing techniques, self-hand massage, brain breaks, and strategies for improved sleep and test anxiety; mindfulness and meditation practices; nutrition and its impact on overall health; movement and spirituality practices (e.g., yoga, tai chi); and strategies for a growth mindset, improved self-efficacy, and positive self-talk. The varied applications and practices aligned with the ISGM through the concepts of caring, holism, and diverse learning needs.

This intentional design of the course fostered a supportive online learning environment that encouraged consistent engagement in self-care practices, resulting in a reduction in perceived stress and an increase in resilience. Quantitative results revealed significant reductions in perceived stress and increases in resilience, while qualitative findings highlighted improved coping, greater self-awareness, and more positive outlooks. The quantitative data also demonstrated a clear inverse relationship between stress and resilience, consistent with previous research showing that as resilience strengthens, perceived stress tends to decrease (Rees, 2015; Li et al., 2024). This reinforces the complementary nature of these constructs within the ISGM framework, in which enhanced coping and adaptive capacity serve as buffers against stress. Students described using new strategies to manage challenges, indicating that the learning extended beyond the course into their daily lives. Together, these patterns illustrate the ISGM's central idea that caring for the whole person fosters both academic and personal growth.

Another key insight from the qualitative data was that students connected with different techniques based on their personal preferences and needs. Offering multiple strategies supported autonomy, inclusivity, and engagement, hallmarks of the ISGM's holistic and individualized approach. Providing opportunities for choice allowed students to build personalized self-care toolkits that reflected their own values and circumstances which students described as helping them cope more effectively, feel less stressed, and recover more quickly when stress arose. As such, no single practice can fully explain the observed reductions in stress or increases in resilience. Rather, the improvements may result from a synergistic effect, in which the combination of diverse self-care practices, breathing techniques, mindfulness, movement, nutrition, and reflective exercises worked collectively to reinforce well-being. This synergy likely emerged through students' individualized engagement with the practices most meaningful to them, aligning with the ISGM's emphasis on autonomy, holism, and the integration of mind, body, and spirit.

Beyond individual outcomes, the findings align with current research on post-pandemic student well-being. College students continue to report increased stress, loneliness, and academic pressures (Barbayannis et al., 2022; Zhang et al., 2025). The ability of students in this study to develop greater resilience and manage stress more effectively suggests that structured, skills-based courses can help address these ongoing challenges. As students learn to use holistic self-care practices, they strengthen their capacity to adapt, which may positively influence their mental health, academic persistence, and overall life satisfaction.

Collectively, the results contribute to the growing evidence that structured self-care education can enhance stress management, coping skills, and resilience among undergraduate students (Boardman et al., 2016; Heath et al., 2020). Integrating similar holistic self-care courses into undergraduate curricula may strengthen student well-being, improve academic outcomes, and equip learners with skills that extend far beyond the classroom.

Limitations and Future Directions

This study demonstrates the feasibility and promise of delivering holistic self-care education online to reduce stress and support resilience; however, several limitations should be acknowledged. Because this was not an experimental design, causation cannot be attributed to the course itself. Without random assignment or a control group, alternative explanations for the observed effects are possible. Participation was also voluntary, with only 44% of enrolled students completing both pre- and post-assessments. While this raises the possibility of selection bias, no data were collected on nonparticipants, so the extent of its influence is unknown. The reliance on self-reported measures may introduce response bias and limit the ability to verify behavioral changes objectively. In addition, the participant group was predominantly female and composed largely of upper-level students, which restricts the generalizability of the findings and underscores the need for replication with more diverse and first-year student populations. Variability in the course delivery across instructors may have also influenced the consistency of the learning experience. Furthermore, post-assessments were collected near or during Finals Week—a time typically associated with heightened stress—which may have affected the results. Finally, the absence of long-term follow-up prevents assessment of whether benefits were sustained over time.

Future studies should aim to include greater demographic and academic diversity, incorporate objective outcome measures, maintain consistency in instructional delivery, and examine the long-term durability of outcomes. Research comparing results across different academic terms and institutions could also provide valuable insight into how timing, setting, and context influence the effectiveness of holistic self-care education in higher education.

Conclusion and Recommendations

The online course evaluated in this study used an asynchronous format to connect students, instructors, and content in meaningful ways, reducing barriers of time and distance. Across ten weeks of holistic self-care practice, students reported lower perceived stress and greater resilience. These variables were inversely correlated, indicating that students who demonstrated higher resilience tended to report lower perceived stress. This relationship underscores the interdependence of stress regulation and resilience-building and suggests that strengthening one capacity may reinforce the other. Students' qualitative reflections illustrated

how these shifts translated into daily life, describing greater self-awareness, more adaptive coping, and practical strategies for managing academic and personal challenges.

These findings indicate that structured holistic self-care education can support student well-being and persistence. As stress and burnout continue to affect college populations, integrating evidence-informed self-care within the curriculum offers a practical pathway for cultivating self-awareness, emotional balance, and healthy coping. Purposeful inclusion of these opportunities can strengthen students' capacity to navigate demands during college and beyond.

The results should be interpreted in light of the study's limitations. Future research should standardize core instructional elements, recruit more diverse samples across class years and demographics, and add objective and longitudinal measures to assess the durability of effects. Replication across institutions and academic disciplines may clarify contextual influences and inform best practices in holistic self-care education.

Overall, this study affirms that universities share responsibility for whole-person development alongside academic achievement. Providing structured, accessible opportunities to learn and practice holistic self-care can prepare students to meet complex demands with skill and confidence. Embedding holistic self-care within higher education can help institutions create learning environments that empower students to flourish personally, academically, and professionally.

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