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Developing Students' Well-Being Through Integrative, Experiential Learning Courses

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This study examined the effects of experiential learning courses on the well-being of undergraduate students (n = 76, 77.6% female, 67.1% White). A repeated-measures design was used to compare changes in resilience, mindfulness, emotional reappraisal, and social connectedness across three different course formats. All students saw increases in mindfulness; social connectedness was particularly sensitive to the course format. Through integrating academic and experiential learning, students can experience steady increases in multiple components of well-being.

College is a time of both growth and stress: There are opportunities to succeed academically but also temptations that may lead to poor physical, mental, and emotional health outcomes (Ridner, Newton, Staten, Crawford, & Hall, 2016). The well-being of students—not just their academic achievement—is central to students' lifelong success (Checkoway, 2011; Moses, Bradley, & O'Callaghan, 2016; Rockenbach, Mayhew, Davidson, Ofstein, & Clark Bush, 2015). Supporting students' well-being matters because it aligns with the promise of higher education to promote holistic student development (Evans, Forney, Guido, Patton, & Renn, 2009; Pascarella & Terenzini, 2005). The undergraduate years, in particular, present a ripe opportunity to support student learning and development (Astin, Astin, & Lindholm, 2011; Bowman, 2010; Lounsbury, Fisher, Levy, & Welsh, 2009); it involves the integration of academic, behavioral, psychological, social, and emotional aspects of campus life to help students complete their educational and personal goals (Frost, Strom, Downey, Schultz, & Holland, 2010; Kuh, 2009; Whitt et al., 2008). Many studies have already investigated interventions related to undergraduate students' behavioral health outcomes (Ridner et al., 2016). Our study does not negate the importance of health behaviors to students' well-being but rather attends to students' psychological, social, and emotional experiences as these domains are documented to have an impact on college and post-college life satisfaction (Astin et al., 2011).

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Student Well-Being: A Positive Psychology Approach

Enhancing students' psychological, social, and emotional competencies is an essential element of positive psychology and has been linked to better learning outcomes (Lopez & Louis, 2009; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). A positive psychology approach to student well-being differs from other models of wellness by focusing on optimizing psychological functioning and experiences, rather than eliminating dysfunction (Keyes, 2007; Varlotta & Oliaro, 2011); rather than fixating on physical and mental health problems, positive psychology encourages researchers and practitioners to identify ways to build human strengths, virtues, and meaning and purpose in life (Seligman & Csikszentmihalyi, 2000). In higher education, scholars found that undergraduate students' character strengths (Lounsbury et al., 2009; Soria & Stubblefield, 2015) and psychological well-being (Bowman, 2010) are associated with a greater sense of belonging, retention, and academic success. Given the promise of a positive psychology approach in higher education to support holistic student development (Mather, 2010), the goal of this study was to design and evaluate an integrated, classroom-based intervention to enhance the psychological, social, and emotional well-being of undergraduate students beyond the first year. The intervention draws from key tenets of positive psychology and high-impact practices (Seifert, Gillig, Hanson, Pascarella, & Blaich, 2014) to examine the kinds of curricular and cocurricular practices that are most likely to contribute to students' well-being.

Current Practices to Support Students' Well-Being

Most common in the literature are practices focused on improving students' capacity to manage and cope with stress. There are robust connections between stress and psychological distress (Deckro et al., 2002; Houghton, Wu, Godwin, Neck, & Manz, 2011). Common approaches to reducing stress and promoting coping strategies in college students include cognitive behavioral training (Church, De Asis, & Brooks, 2012; Deckro et al., 2002; Regehr, Glancy, & Pitts, 2013) and mindfulness training (Regehr et al., 2013). Appearing often in the literature is the use of mindfulness-based stress reduction (MBSR) programs (Bergen-Cico, Possemato, & Cheon, 2013; Carmody & Baer, 2009; Shapiro, Oman, Thoresen, Plante, & Finders, 2008). This approach utilizes a structured group program, where participants engage in different forms of mindfulness practices such as meditation, mindful awareness, and yoga (Grossman, Niemann, Schmidt, & Walach, 2004). Other strategies include somatic practices (Caldwell, Harrison, Adams, Quin, & Greeson, 2010) and daily mindfulness practices or meditation (Sears & Kraus, 2009; Thompson & Waltz, 2008). Across the studies, meditation-based intervention approaches (including MBSR) are associated consistently with lower stress, anxiety, and depression, and better mood.

Where stress reduction and mindfulness interventions often focus on psychological and emotional well-being domains, interventions that focus on supporting the transition to college address social well-being. Social isolation and anxiety are common concerns among college students (Davies et al., 2000) and, yet, social belongingness is an important predictor of academic and personal success (Mattanah, Brooks, Brand, Quimby, & Ayers, 2012). To facilitate the college transition, universities have created college transition programs ranging from orientations and first-year experiences to interventions for targeted populations of students who may be more at-risk for maladjustment in college, such as first-generation students (Dennis, Phinney, & Chuateco, 2005; Robbins, Oh, Le, & Button, 2009). College can be a stressful time where students may experience disruptions in their social networks, along with psychological and

emotional health, but increasing students' social connections enhanced academic success (Mattanah et al., 2010, 2012; Robbins et al., 2009).

Research on and practices to support college students' stress, emotional health, and mindfulness builds a solid foundation for understanding how to cultivate resilience and academic success. However, approaches that integrate techniques and practices to promote multiple dimensions of students' well-being are limited (Moses et al., 2016). For instance, stress reduction and/or mindfulness-based interventions often focus on reducing psychological problems such as anxiety and depression (Church et al., 2012; Deckro et al., 2002; Regehr et al., 2013). Most interventions are administered in group settings, and specific aspects of the social context or dynamics are often excluded as an outcome of interest. Conversely, interventions targeting college students' social support focus primarily on academic performance, persistence, and retention and do not consider psychological health outcomes (Mattanah et al., 2012; Robbins et al., 2009). Clear overlaps exist between the various domains of well-being (Checkoway, 2011), which makes it crucial to create an integrated approach and determine whether there are differential effects of an integrated intervention on undergraduate students' well-being.

Integrated, Experiential Learning and Students' Well-Being

Supporting multiple domains of students' well-being may be best facilitated by integrating students' curricular and cocurricular experiences. Effective partnerships between academic affairs (curriular) and student affairs (extra/cocurriular) foster "seamless learning opportunities, enviornments, and experiences for students and encourage pedagogical innovation and experimentation" (Whitt et al., 2008, p. 240). When academic and student affairs professionals collaboarate effectively, there are increased opportunities for participation in high-impact practices in and out of the classroom that support holistic student development (Kezar, 2003; Kuh, 2009). We extend this argument to envision ways that curricular and cocurricular experiences can support psychological, social, and emotional domains of student well-being.

Our study recognizes the promise of high-impact practices as pathways to student success; in particular, the role of experiential learning in promoting academic and personal development (Kilgo, Sheets, & Pascarella, 2014; Kuh, 2008). Kilgo et al. (2014) noted the consistently significant effect of active and collaborative learning on students' learning such as critical thinking, intercultural effectiveness, and socially responsible leadership. Active, collaborative, and experiential learning is a pedagogical approach that emphasizes the process of learning and engagement with ideas, differences, and interpersonal relationships (Kolb & Kolb, 2005); compared to traditional classroom environments, the experiential learning space is more dynamic and student-centered and helps to "channel student effort toward more productive activities and deepen learning" (Kuh, 2009, p. 688). Experiential learning environments are optimally positioned to create opportunities for collaboration between academic (curricular) and student (cocurricular) affairs work to support student development and success (Cho & Sriram, 2016; Kezar, 2003).

With curriular/cocurricular programs and experiential learning in mind, we created three different learning experiences to determine what format offers the most meaningful and impactful experience on students' well-being outcomes. Most interventions to develop students' self-care practices or inner life are either highly structured and outside the norm of students' daily experiences (Moses et al., 2016) or relegated to extra/cocurricular programming outlets (Rockenbach et al., 2015). Holistic student development may be best supported through experiential learning that combines curricular and cocurricular experiences. We developed our experiential approach and field research with the goal of developing everyday well-being practices .

Method

The authors received approval to conduct this research from the human subjects institutional review board at the large, mid-Atlantic, public university where the study was conducted. Informed consent was obtained from each participant prior to their involvement in the data collection processes. Phase 1 (pilot study) was conducted during the 2013 Spring semester. Phase 2 (with two teaching formats for comparison) was conducted during the 2014 Spring semester.

Participants & Procedures

Our study employed a repeated-measures research design to assess the potential benefits of an experiential learning academic course about student well-being. Phase 1 was conducted as a pilot study. For comparative purposes, Phase 2 included a revised version of the pilot study and had the additional feature of a parallel academic experience with a different group of students, also focused on well-being, but with a more traditional learning approach.

For Phase 1, participants were 28 students enrolled in a 3-credit course entitled "Cultivating the Spirit: Practices to Support Student Well-Being." The course was designed to have 80% experiential learning and 20% traditional academic study of scholarly material. The salient experiential learning features of this course were:

1. An intensive in-class learning period that included five consecutive, 8-hour days before the start of the regular academic calendar for the Spring semester. These days comprised mostly all experiential learning exercises around expanding self-awareness, identifying personal strengths and core values, learning a variety of mindfulness and meditation practices, and developing a personal practices plan for enhanced well-being.

2. Electronic means of providing social support to each other in small groups of four throughout the semester (e.g., online group blog, text-messaging each other with reminders about well-being practices).

3. A mid-semester classroom meeting for 160 minutes involving check-ins, sharing, and group reflection about the application of well-being practices in daily life situations.

4. An end-of-semester classroom meeting for 160 minutes similar to the mid-semester meeting.

The primary academic feature of this course was contained in a sequence of seven follow-up online learning modules to be completed once each two-week period during the semester. These modules gave students a chance to explore published research findings about the science of well-being. Data collection was completed on four occasions: T1 = the first hour of the first day of class; T2 = the final hour of the last day of the intensive period, T3 = the final hour of the mid-semester classroom session; and T4 = the last hour of the classroom session at the end of the semester.

Based on course evaluations and initial feedback from Phase 1, adjustments were made to the course-delivery format, and the revised version was offered again for Spring semester in 2014 for Phase 2. Most notable among the alterations were:

1. A shortening of the opening intensive in-class learning period, both in the number of days (from 5 consecutive days back to 4) and the length of each day (from 8 hours back to 5).

2. An increase in the number of in-person class meetings during the semester. Faculty and students met every third Friday of the semester for 160 minutes.

3. The addition of a single, mid-semester, one-on-one mentoring session for 45 to 60 minutes for each student with the course instructor.

Twenty-two (*n* = 22) students participated in the revised offering of the 3-credit course with the same title. The timing for data collection was identical to the approach used in Phase 1.

Additionally, as part of Phase 2, a comparison group of 26 participants were students in the course "Consciousness, Meaning and Life-Purpose." It met semester-long, once a week, for 160 minutes and employed primarily a traditional academic format with scholarly readings, classroom lectures, quizzes, and essays. The experiential learning aspects of this course involved small-group work in class and application exercises outside of the classroom focused on enhancing personal well-being. Data collection was completed on four occasions: T1 = the first day of class; T2 = the fourth weekly classroom session, T3 = the seventh classroom session; and T4 = the fourteenth classroom session at the end of the semester.

Because these were elective courses open to all students, the participants in this study represent a diverse cross-section of undergraduate students (see Table 1 for participant demographic profiles for the different groups). For both Phase 1 and Phase 2, students were recruited through normal means (i.e., online academic catalog) plus a one-page flyer that was distributed to students who had previously indicated an interest in positive psychology, mindfulness, and consciousness studies. Participation in the study was voluntary and not associated with successful completion of the course; students did not receive any incentives to participate beyond the university credit they received for completing the course. Only one student across the three classes opted out of the study resulting in a 98.7% response rate.

Table 1

Student Demographic Profiles Across All Groups

	Phase 1 (*n* = 28)		Phase 2 (*n* = 22)		Course-Only (*n* = 26)	
	%	Mean (SD)	%	Mean (SD)	%	Mean (SD)
Age		25.11 (7.70)		24.59 (7.44)		22.42 (4.75)
Sex						
Male	28.60		22.70		7.7	
Female	71.40		68.20		92.3	
Race						
White	64.30		68.20		69.20	
Black	14.30		0.00		0.00	
Hispanic	3.60		9.10		7.70	
Asian Pacific Islander	10.70		4.50		11.50	
Mixed & Other	7.10		13.60		3.80	

Note. Total percentages for sex and race do not equal 100% because there were some students who did not select an identifier for the category.

Measures

Resilience. Resilience was measured using the 25-item resilience scale, (Neill & Dias, 2001). Participants responded on a 7-point Likert scale (1 = *strongly disagree*, 7 = *strongly agree*) to items such as "I feel that I can handle many things at a time" and "I am able to depend on myself more than anyone else." We created a composite by summing across the 25 items with higher scores representing higher resilience. Cronbach's alpha for the scale ranged from 0.89 to 0.92 for the Phase 1 group, 0.82 to 0.92 for the Phase 2 group, and 0.89 to 0.93 for the Phase 2 course-only group across the semester.

Mindfulness. Mindfulness was measured using the 14-item Freiburg Mindfulness Scale (Walach, Buchheld, Buttenmüller, Kleinknecht, & Schmidt, 2006). Participants responded on a 4-point Likert scale (1 = *rarely*, 4 = *almost always*) to items such as "I am open to the experience of the present moment" and "I watch my feelings without getting lost in them." We created a composite by summing across the 14 items with higher scores representing a greater sense of mindfulness. Cronbach's alpha for the scale ranged from 0.83 to 0.89 for the Phase 1 group, 0.64 to 0.87 for the Phase 2 group, and 0.82 to 0.88 for the Phase 2 course-only group across the semester.

Emotional Reappraisal. Emotional reappraisal was measured from the 10-item Emotion Regulation Questionnaire (Gross & John, 2003). Participants responded on a 7-point Likert Scale (1 = *strongly disagree*, 7 = *strongly agree*) to all 10-items, which included statements such as "I control my emotions by changing the way I think about the situation I am in," and "I control my emotions by not expressing them." The first quoted statement reflects items on the Emotional Reappraisal subscale, whereas the second quoted statement reflects items on the Emotional Suppression subscale. We used the Emotional Reappraisal subscale as it better reflects the positive capacity to disengage from reactive emotions and voluntarily select healthy emotional responses. We created a composite by summing across the 6-items corresponding to the Emotional Reappraisal subscale with higher scores representing higher emotional reappraisal. Cronbach's alpha for the scale ranged from 0.89 to 0.92 for the Phase 1 group, 0.71 to 0.92 for the Phase 2 group, and 0.89 to 0.93 for the Phase 2 course-only group across the semester.

Social Connectedness. Social Connectedness was measured using the 8-item social connectedness scale (Lee & Robbins, 1995). Participants responded on a 7-Point Likert Scale (1 = *strongly disagree*, 7 = *strongly agree*) to items such as "I have no sense of togetherness with my peers" and "I feel disconnected from the world around me." We created a composite by reverse coding and then summing across the 8 items with higher scores representing a greater sense of social connectedness. Cronbach's alpha for the scale ranged from 0.94 to 0.98 for the Phase 1 group, 0.89 to 0.94 for the Phase 2 group, and 0.95 to 0.98 for the Phase 2 course-only group across the semester.

Results

A total of 76 students participated in the research study (Phase 1 *n* = 28, Phase 2 *n* = 22, Course-Only *n* = 26). Combining across the three groups, 77.6% of the participants were female and 19.7% were male; 2 students chose not to disclose their sex. A majority (67.1%) of the participants were White, 9.2% were Asian Pacific Islander, 6.6% were Hispanic, 5.3% were Black, 7.8% were multiracial, and 3 students chose not to select their race/ethnicity. On average, the participants were 24.04 years old (SD = 6.77, Range = 19–50 years). One-way ANOVA and chi-square tests found no significant differences in the demographic profiles across the groups.

Table 2

Total and Group Means for Student Well-Being Outcomes

	Total (all groups combined)				Phase 1		Phase 2		Course-Only		
	Mean	**SD**	**Min**	**Max**	**Mean**	**SD**	**Mean**	**SD**	**Mean**	**SD**	**F, *p* < F**
Resilience											
Time 1	136.11	17.96	85.00	171.00	141.21	16.15	133.41	19.65	132.88	17.74	1.84
Time 2	138.87	16.93	89.00	174.00	144.50	14.62	138.09	13.54	133.46	20.21	3.06
Time 3	141.98	17.27	85.00	173.00	146.28	17.83	141.45	16.26	137.77	17.02	1.68
Time 4	143.57	18.50	81.00	174.00	145.36	19.21	149.71	11.76	136.69	20.49	3.28*
F, *p* < F	12.19***				1.98		11.95***		3.77*		
Mindfulness											
Time 1	37.59	7.66	16.00	53.00	39.89	7.28	36.36	7.70	36.15	7.73	2.06
Time 2	40.66	7.19	21.00	56.00	44.04	6.77	40.77	4.98	36.92	7.58	7.80**
Time 3	41.20	7.42	22.00	56.00	42.82	7.51	42.18	7.14	38.62	7.13	2.53
Time 4	42.15	8.23	21.00	56.00	42.54	8.23	46.10	4.77	38.54	9.08	5.55**
F, *p* < F	15.52***				4.51**		15.44***		3.64*		
Emotional Reappraisal											
Time 1	31.33	6.48	9.00	42.00	33.00	6.19	32.23	5.14	28.77	7.21	3.37*
Time 2	32.53	6.49	12.00	42.00	34.75	5.10	33.45	5.73	29.35	7.33	5.61**
Time 3	33.17	6.75	9.00	42.00	34.61	6.36	33.82	6.33	31.08	7.23	2.04
Time 4	33.35	6.38	13.00	42.00	33.96	6.47	35.90	5.60	30.62	6.04	4.61*
F, *p* < F	4.86**				1.89		3.03*		2.24		
Social Connectedness											
Time 1	41.33	11.84	12.00	56.00	41.75	12.32	40.27	10.99	41.77	12.39	0.12
Time 2	43.28	12.48	14.00	56.00	44.75	13.02	41.77	10.77	42.96	13.49	0.36
Time 3	44.92	11.40	8.00	56.00	43.82	11.90	45.59	10.40	45.54	12.01	0.20
Time 4	43.79	13.19	8.00	56.00	43.04	12.52	46.14	12.82	42.62	14.41	0.49
F, *p* < F	4.26*				1.68		2.23		3.78*		

Note. *** *p* < 0.001, ** *p* < 0.01, * *p* < 0.05

Results for one-way ANOVA tests (rows) and repeated measures ANOVA tests (columns) on each outcome are presented in Table 2. These ANOVA tests provide an initial assessment of changes over time in resilience, mindfulness, emotional reappraisal, and social connectedness and the differences across groups on these four outcomes. Overall, when collapsing across groups, there were statistically significant changes in the outcomes over time; the changes were generally an increasing trend. With the exception of social connectedness, there were significant differences among the groups at Time 4.

For the Phase 1 group, the repeated measures ANOVA showed a significant quadratic effect for mindfulness only (F = 9.63, p = 0.004). Post-hoc tests using the Bonferroni correction revealed

that Time 1 reports of mindfulness were significantly less ($p < 0.001$) than Time 2, with no significant pairwise differences among the other time points. This suggests that the most significant change occurred between the beginning and immediate ending of the five-day in-class experience, and the effects somewhat diminished over the course of the semester. Students in the other two groups (Phase 2 and Course-Only) had more statistically significant mean differences across the four outcomes.

For the Phase 2 group, three out of the four outcomes had significantly different means over time. A significant linear trend was revealed for resilience ($F = 25.10$, $p < 0.001$), mindfulness ($F = 31.43$, $p < 0.001$), and emotional reappraisal ($F = 7.21$, $p < 0.01$). For resilience, post-hoc tests revealed that the Time 4 mean was significantly greater than Time 1, 2, and 3. Similar pairwise differences were found for mindfulness. For emotional reappraisal, only the Time 4 mean was significantly greater than the Time 1 mean ($p = 0.02$). These results suggest that students experienced a steady increase in all components of their well-being over the course of the class.

Students in the course-only group reported statistically significant differences in means over time for all outcomes except emotional reappraisal. Significant linear trends were found for resilience ($F = 7.63$, $p = 0.01$) and mindfulness ($F = 5.87$, $p = 0.02$), but post-hoc tests revealed no significant pairwise comparisons for resilience and mindfulness. Social connectedness demonstrated significant quadratic ($F = 9.23$, $p = 0.01$) and cubic ($F = 4.72$, $p = 0.04$) effects; Time 1 reports of social connectedness were significantly higher than Time 3 ($p = 0.01$).

Following these findings, we tested linear mixed models on each outcome to determine the between-group and within-subject effects simultaneously (Table 3). Linear mixed models also allow for better handling of unbalanced designs, missing data, and repeated measures data (Raudenbush & Bryk, 2002; Shapiro et al., 2008). Using G*Power post-hoc analyses, we determined that with four measurement points, three groups of participants (total sample size $n = 76$), our study achieved > 0.90 power to detect a small effect size ($d = 0.20$). There were significant group main effects for mindfulness and emotional reappraisal, indicating that the means for mindfulness and emotional appraisal among the three groups, across time, were different. There was a significant main effect of time for mindfulness and social connectedness, indicating that

Table 3

Summary of Linear Mixed Models for Student Well-Being Outcomes

	df	Resilience F	Mindfulness F	Emotional Reappraisal F	Social Connectedness F
Intercept	1	4,900.49***	2,967.28***	2,748.15***	1,185.12***
Group	2	1.91	3.85*	4.48*	0.04
Time	3	2.62	7.13***	0.14	4.33**
Group*Time	6	0.34	1.66	0.43	3.10**
−2 Restricted Log Likelihood		2,437.71	1,953.37	1,846.06	2,032.81
Akaike's Information Criterion (AIC)		2,441.71	1,957.37	1,850.06	2,036.81
Schwarz's Bayesian Criterion (BIC)		2,449.07	1,964.72	1,857.42	2,044.15

Note. Restricted maximum likelihood estimation with an auto-regressive variance-covariance structure was used in the analyses. All parameters are estimated as fixed-effects.

groups experienced marked changes in mindfulness and social connectedness over time. There was one statistically significant group*time interaction effect for social connectedness. The interaction effect suggests that the groups are changing over time, but in different ways. As the cell means in Table 2 show, the Phase 1 group exhibited a quadratic trend in their social connectedness means, while the Phase 2 group showed a steady increase over time; the change in social connectedness for the course-only group was more cubic in nature.

Discussion

The purpose of our study was to implement and assess a multi-faceted intervention to support undergraduate students' well-being. We focused on four aspects of well-being for which there are reliable metrics: resilience, emotional reappraisal, mindfulness, and social connectedness. Overall there are promising findings, especially regarding the potential to enhance mindfulness, resilience, and social connectedness in undergraduate students through a course that explicitly deals with the academic *and* experiential dimensions of the science of well-being. The Phase 2 intervention format in particular appears to be associated with a sustained improvement in student well-being across the months of the semester. The findings are mixed and less robust regarding the impact on emotional regulation. Although the study cannot ascertain which elements within the multi-faceted intervention were most significant, a holistic understanding provides a good start to understanding what works for students' well-being.

The results in regard to social connectedness warrant further attention. Since social support is often cited as a key element in the promotion of personal well-being and academic success in college students (Tinto, 1998), the difference between results from Phase 1 and Phase 2 seem particularly noteworthy. For Phase 1, the overall face-to-face classroom time was almost completely invested in a five-day, eight-hour daily learning intensive. But over the entire semester, there was a significant quadratic effect, with measures of social connectedness peaking at the end of the five-day intensive and diminishing over the weeks of the semester thereafter. The adjustments made in the course formatting for Phase 2 invested less time in the opening learning intensive and redistributed face-to-face classroom learning across the entire semester – with measures for social connectedness showing a steady, linear, increase over time. This suggests that in the design of courses that hope to have a positive impact on measures of student well-being, there is a delicate balance to be ascertained. The extra time daily and the extra day of the opening course intensive for Phase 1 may be more likely to produce sustained increases in resilience and mindfulness. But it appears to come at the expense of sustainable improvements in students' experiences of social connectedness that were found with the format of Phase 2, spreading out face-to-face classroom meetings across the full semester.

Our findings confirm and expand upon previous literature. Our results are similar to the outcomes yielded by cognitive behavioral therapy or structured group mindfulness-based stress reduction programs (Carmody & Baer, 2009; Shapiro et al., 2008; Thompson & Waltz, 2008), which found that engaging in daily mindfulness practices increases students' psychological well-being. Our study is distinct in that it incorporates both mindfulness and cognitive behavioral therapy approaches (Bergen-Cico et al., 2013; Deckro et al., 2002) with peer and instructor social support (Mattanah et al., 2010, 2012) to actively engage undergraduate students in developing a well-being practice. These two orientations have been studied separately and we have evidence to suggest that an integrative approach helps students cultivate intra- and inter-personal qualities that facilitate resilience. Our results also suggest that these outcomes can be (re)produced in more natural educational settings, such as an academic classroom. This has important implications for

institutions of higher education looking to improve the well-being of all students and not just those identified as at-risk for poor mental health outcomes.

Implications

Well-being is a difficult term to define, and creates a challenge for any higher education institution willing to embrace a broad mission around this concept. Some institutions have used well-being to mean "human welfare," including issues of safety and basic needs. Other institutions use the term as an expanded sense of "wellness," to include students' physical, mental, emotional, and spiritual health needs. Fewer still are universities that embrace a holistic, integrated, meaning of well-being. The large mid-Atlantic university where this study was conducted has included a vision to become a well-being university in its 10-year strategic plan. The "Well-Being University" Initiative emphasizes the process of creating enhanced levels of well-being across a range of domains (physical, purpose, social, community, psychological and financial) through an integration of curricular, cocurricular, and extracurricular opportunities for students.

Findings from this study have already helped to shape aspects of student affairs work at the institution, particularly in three areas: within student housing, offerings by peer education, and a campus-wide commitment to well-being as one of the four key domains of a cocurricular platform for student engagement. A "living learning community" within one residence hall is entitled "mindful living" and now includes many learning experiences from the academic course used in the research study; there are plans to expand some of these trainings to other residence hall floors on campus. Additionally, a student organization called the Well-Being Team has developed a variety of short (30 to 60 minute) workshop experiences that are offered as peer education to classroom setting and other student organization meetings. These workshop topics replicate several subjects from the course used in the research study, including the themes of gratitude, resilience, and mindfulness practices. Efforts are also being made to ensure that the Well-Being Initiative and opportunities are accessible to diverse student populations. One approach has been to position much of the material about well-being practices into contexts that readily gain students' attention. For example, one student organization created a workshop about dealing with the stresses created by the financial demands of being a university student. Alongside the expected advice regarding budgeting and long-term planning, the workshop included basic training with mindfulness, as well as simple practices from yoga. Another approach embedded well-being principles and practices into general education courses. For example, a first-year interpersonal communication course, which is taken by three-fourths of the incoming students at this university, includes explicit study of the role of social support in cultivating well-being. Another newly approved general education course is entitled "Stress and Well-Being," and incorporates many of the practices from the courses used in this study.

A key principle for creating and sustaining academic (curricular) and student affairs (extra-/cocurricular) collaborations is an institutional culture that articulates and supports a shared vision (Cho & Sriram, 2016; Kezar, 2003; Whitt et al., 2008). The "Well-Being University" Initiative illustrates how institutional values and goals around well-being can help to establish well-being practices across academic and student affairs work. As more institutions embrace the idea of well-being for its students, a necessary starting point will be to engage stakeholders across campus, such as student affairs professionals, faculty, administrators and students, to build a strong institutional culture around well-being. Subsequently, more research will be needed to evaluate how these institutional ideals translate to curricular efforts and then student outcomes for diverse student populations.

Limitations

In creating curricular and cocurricular experiences that can promote student well-being, further research is needed to ascertain the degree to which actual student engagement in the activities is a variable for enhanced well-being. Anecdotal reports from students in the current study suggest that there was variability among students regarding just how seriously they applied their daily, personal well-being practices. The variability in students' engagement could contribute to the variability in Cronbach's alphas across the four-time points and the mixed findings around emotion regulation; at each data collection point, students may not have understood the questions or were not mindful when completing the instruments. However, as a whole, these instruments did meet sufficient alpha levels (< 0.80) and are used repeatedly in the well-being literature.

Research found that precollege attributes explain much of the variance in collegiate outcomes (Bowman, 2010; Seifert et al., 2014); thus, self-selection issues must also be considered when interpreting the results. To account for self-selection, there is a need to extend this type of research to be more inclusive of a wide variety of students. This study was primarily made up of White, female, liberal arts students and research suggested that different approaches are more inviting to male students (Davies et al., 2000). Increasing exposure for male students to these well-being practices ideas can be achieved by more intentional outreach to faculty teaching courses that have a high proportion of men. For example, at the large public university used for this study, two sessions about well-being practices were added to a week-long summer intensive for incoming first-year STEM students, the majority of whom were men. Beyond gender, it is important to ensure that traditionally underrepresented students such as students of Color, first-generation students, and low-income students have equitable access to the well-being opportunities. This is particularly important given that these students typically benefit the most from high-impact practices but report having less exposure to them (Kuh, 2008). At the institution used for this study, many sections of a one-credit first-year course about university life have added curriculum elements that introduce mindfulness, stress-management, resiliency training, and emotional regulation. Those classes have demographics that closely resemble the overall diversity of the university. While increasing participant inclusivity might decrease the internal validity of the research design, having a more diverse sample would allow for better understanding of the curriculum and effects in a more natural educational environment (i.e., classroom), as opposed to a counseling or health clinic setting.

Future research should also utilize randomized control trials or other experimental methods to determine true causal relationships between specific curricular components and students' well-being outcomes. As noted, our study investigated the effect of the intervention as a whole and did not conduct experimental procedures to examine the effects of specific components of the intervention. Consequently, we cannot parse out potential effects of self-selection, social desirability, or student precollege attributes that could very well change how the intervention influences student well-being. These confounds and the quasi-experimental nature of this study require caution with regards to the interpretation of the Bonferroni adjusted post-hoc findings as well as the mixed findings regarding emotion regulation. Researchers and practitioners are recognizing the increasing importance of experimental research in higher education to evaluate the rate of return on interventions (e.g., Bastedo & Bowman, 2017; Castleman & Page, 2016); well-being interventions present prime opportunities for more experimental methods.

Conclusion

The well-being of undergraduate students, to include domains outside of physical wellness, is being increasingly recognized for contributing to college success and life satisfaction. Based on this study, interventions that integrate mindfulness practices, character development, social support, and academic content around positive psychology adopt a strengths-based, rather than deficit-view, of student success and allow students to develop every day, holistic well-being practices.

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