

Article

A Spirituality Mind-Body Wellness Center in a University Setting; A Pilot Service Assessment Study

Suza Scalora ^{1,*}, Micheline Anderson ¹, Abigail Crete ¹, Jennifer Drapkin ¹, Larissa Portnoff ², Aurélie Athan ² and Lisa Miller ¹

¹ Spirituality Mind Body Institute, Teachers College, Columbia University, New York, NY 10027, USA; mra2159@tc.columbia.edu (M.A.); ac4308@tc.columbia.edu (A.C.); jad214@tc.columbia.edu (J.D.); lfm14@tc.columbia.edu (L.M.)

² Department of Clinical Psychology, Teachers College, Columbia University, New York, NY 10027, USA; lcp2139@tc.columbia.edu (L.P.); ama81@tc.columbia.edu (A.A.)

* Correspondence: scs2199@tc.columbia.edu

Received: 8 June 2020; Accepted: 2 September 2020; Published: 11 September 2020



Abstract: Increasing rates of mental illness among college students over the past 10 years suggest a collective deficit in meaning and purpose unattended to by many university campuses. Psychopathology among young adult college students is associated with developmental tasks such as spiritual individuation, suggesting that interventions aimed at spiritual wellbeing may support the stated need for comprehensive mental health services. The aim of this pilot service assessment study is to investigate the feasibility, acceptability, and helpfulness of spiritually integrated programs at a Spirituality Mind Body (SMB) Wellness Center at a graduate-level academic institution. Wellness Center demographic and attendance data of $N = 305$ adult graduate students ($M = 27.7$ years, $SD = 6.05$) were used to assess acceptability and feasibility. To evaluate helpfulness, measures assessing symptoms of depression, anxiety, post-traumatic stress (PTS), spirituality, mindfulness, and psychological inflexibility were completed before and after eight-week programs on a subset of participants ($n = 141$). SMB users completed a total of 64% of sessions and reported significant pre/post gains in spirituality and mindfulness and decreases in psychological inflexibility, symptoms of depression and PTS. The preliminary findings of this open-trial are encouraging but inherently limited by the design; foremost, the results offer support for future research, which might draw on a larger sample and a study design involving a comparison group.

Keywords: spirituality; religiosity; positive psychology; college students; mental health; college student wellness; wellness intervention

1. Introduction

The Case for an On-Campus SMB Wellness Center

Evidence suggests there are growing rates of psychological distress and mental illness in post-secondary education, with the increase in demand for mental health services outpacing enrollment growth by five times (Center for Collegiate Mental Health 2016). With the ratio of counselors to students widening to 1 to 1737 (LeViness et al. 2017), service expansion has not kept pace with elevated rates of enrollment (20.14 million in 2018, up from 15.31 million in 2000; National Center for Education Statistics [NCES] 2019) and increases in prevalence rates of students with severe psychological problems, increasing the burden on campus counseling centers (Brunner et al. 2014). Additionally, non-clinical channels of support (e.g., campus faith-based groups or houses of worship) may be utilized less, as there has been a demographic shift from the majority of young adults identifying as religious to spiritual

or agnostic. These unmet needs place an unforeseen onus on students such that those who exhibit symptoms of psychopathology drop out of college at a rate three times higher than those without symptoms (Eisenberg et al. 2009). Further, increased dropout rates pose a severe financial penalty, as the U.S. spends nearly two billion dollars in state appropriations and state and federal grants on first-year students who do not return the following year (Schneider 2010). Most alarming, the consequences for students who do not receive support and remain in school may be steep, as 80–90% of students who die by suicide have not received services from college counseling centers (SafeColleges 2019).

With these financial and potentially fatal consequences in mind, collegiate wellness has become a focus of discussion among college leadership (Duffy et al. 2019; Rubley 2017). While the perceived sources of decreasing wellness among emerging adults range from screen time to pressure to achieve, some reports suggest a generational deficit in intrapersonal skills (e.g., reflection, awareness, and identity) (Schwartz et al. 2011), with ensuing difficulty in connection and commitment (Konrath et al. 2014; Turkle 2017; Twenge 2013a, 2013b). Traditionally, these awareness-driven skills have been developed through relationships, family, and faith-based settings, which cultivate a sense of connection with a higher power as well as with fellow humans (Boyatzis et al. 2006; Dollahite and Marks 2005; King and Roeser 2009; Larson et al. 2006; Robbins and Francis 2000). With decreased engagement in faith-based communities, some youth may lack the opportunity to develop inner awareness and the ability to experience deep interpersonal connection. Despite reporting expanded “social networks” compared to older adults, young adults report that they feel lonelier and more isolated than older cohorts (Child and Lawton 2019). This marked uptick in loneliness has been attributed to substantial decreases in face-to-face interactions seen among emerging adults over the past 50 years (Twenge et al. 2019). One existing means of providing potential community is offering on-campus group-based services to students that are designed to foster personal connection while developing and strengthening introspection and awareness. Thus, Spirituality Mind Body (SMB) wellness programs may function as an adjunct to services-as-usual to fill a gap in mental health and community-oriented services (e.g., religious community) for college students (Engel et al. 2007; Kettmann et al. 2007; LeViness et al. 2017; Xiao et al. 2017). To our knowledge, the current paper appears to be the first service assessment study of an SMB Wellness Center on a graduate campus offering spiritual wellness services.

A large body of research shows a process of spiritual development in late adolescence and emerging adulthood (Koenig 2012; Desrosiers et al. 2011; Poll and Smith 2003; Fowler 1981). If spiritual development is supported, many adolescents form a personal spiritual life that is highly protective against depression and substance use and abuse (Berry and York 2011; Cotton et al. 2005; Leigh et al. 2005; Rickhi et al. 2011; Wood and Hebert 2005). The cultural trend away from traditional houses of worship (Newport 2019; Wallace et al. 2003) may be associated with the concomitant increase in the prevalence of psychopathology on college campuses. For those students who do not join faith groups, or who may be spiritual but not religious (SBNR), agnostic, or struggling with personal spirituality and a subsequent sense of isolation, an alternative form of support for spiritual development may be an inclusive SMB wellness program. There is a need for novel service research on campus-based spiritually supportive wellness focused on improving student health and wellbeing. SMB integrated programs delivered via a Spiritual Wellness Center model may represent an accessible approach that is feasible, acceptable, and helpful to users from diverse backgrounds, religious affiliations, spiritual traditions, and non-religious perspectives. The long-term sustainability of SMB initiatives must be considered if these programs are to have an observable impact on college campuses.

2. Materials and Methods

Initial assessments were administered one week before the start of the SMB programs on the full sample ($N = 305$) to examine the feasibility and acceptability of eight-week SMB programs among student participants at an SMB Wellness Center within a graduate-level academic institution. Feasibility was operationalized by attendance rates of SMB programs. Attendance was measured by percentage of

sessions attended (0–100). Program acceptability was defined as how much the SMB Wellness Center sample represents the larger graduate student population. Representativeness conveys the extent to which the sample data accurately represents the demographic characteristics of the population. Post-test measures were conducted after the SMB programs concluded in the final four semesters ($n = 141$) of the study to assess helpfulness.

2.1. Recruitment

Information about the services offered in the SMB Wellness Center as well as the service assessment was disseminated through the community via marketing efforts to include: (1) tabling at student-oriented campus events such as student orientations and wellness fairs; and (2) flyer dissemination via student government, student affairs and activities communications and on campus-wide communication platforms (e.g., on approved bulletin e-boards). The institution's Internal Review Board approved all recruitment materials.

2.2. Inclusion Criteria

All SMB Wellness Center participants were offered the opportunity to participate in the assessment study. Interested group participants were eligible for the study if they were: (1) age 18 or older, (2) fluent in both spoken and written English, and (3) a member of the university community with an ID card issued by the university.

2.3. Exclusion Criteria

Participants completed pretest measures, including those measuring symptoms of depression, anxiety, and PTS. Exclusion criteria were a score of 20 or higher (clinical cut-off for severe depression) and an endorsement of the self-harm item on the PHQ-9 (PHQ-9; Kroenke et al. 2001). Participants meeting these criteria were referred to Public Safety if at imminent risk or the Vice Provost of Student Affairs if requiring non-imminent consultation.

2.4. Procedure

Participants in the study attended an orientation session at the SMB Wellness Center in which trained graduate research assistants introduced the purpose of the study and administered informed consent. Data collection was conducted before the attendance of sessions (pretest) to determine the profiles of users of the SMB Wellness Center and to assess the representativeness of the users of the larger university in each of the eight semesters (total $N = 305$) from Fall 2015 to Fall 2019.

In the final four semesters of the study, data were collected at pretest (T1) and again at the termination of SMB programs (T2), such that follow-up data exist on a subset of participants ($n = 141$) to assess patterns of use and potential helpfulness. Study completion was defined as having completed pretest and posttest measures.

2.5. Program Development and Services Offered

The SMB Wellness Center offered a diverse range of spiritually integrated wellness programs that were required to emphasize at least one of four domains of spiritually supported health and well-being frequently cited across the well-being literature: (1) Connection to the inner core, higher self or soul; (2) Connection to the sacred in others, or relational spirituality (Sandage and Harden 2011); (3) Connection directly to the Transcendent/Sacred (God, spirit, universe, the creator, or whatever the word used to express the ultimate loving, guiding life-force (Miller 2013)); and (4) Connection to the transcendent or sacred in environment/nature (Hungelmann et al. 1985; Burkhardt 1989; Chandler et al. 1992; Martsof and Mickley 1998; Como 2007; Fisher 2011). Programs were developed and delivered by doctoral and masters-level graduate students enrolled in SMB wellness practica and supervised by faculty who were spiritually-oriented, licensed clinical psychologists.

Over 90 graduate student providers were trained in a common structured delivery model that included three components: (a) 75% experiential (e.g., practice-based experience), (b) 15% process (e.g., journaling, dyadic and group sharing), and (c) 10% didactic (e.g., academic explanation of practices or theory supporting practices). SMB Wellness programs were conducted weekly for 90 min for eight weeks. Sessions were framed with 10 min grounding meditation practices at the beginning of each session.

Within the common structural method, the substance and approach of the programs were aimed at increasing spiritual awareness, self-reflection and social connection across a diverse range of experiential methods categorized by one or more of the following: (1) Mind–Body practices (integration of contemplative movement and physiologically based practices); (2) Contemplative practices (emphasizes meditation and spiritual awareness); (3) Creative practices (emphasizes the use of creativity and arts); (4) Identity/Self-Reflection practices (emphasizes the connection to and exploration of self). To date, 45 novel SMB programs have been offered to the university community (see Table 1).

Table 1. Categories and Titles of Previous SMB Wellness Center Programs.

Category	Workshop Titles
Mind-Body (e.g., an element of contemplative movement and physiologically based practices)	Yoga for a Healthy Sense of Self Tap In: Experience a Greater Sense of Wellbeing Change Your Thoughts, Change Your Life Move to Your Own Vibration Clear the Head, Ground the Body Laughter Yoga Club Keeping the “Essence” in Adolescence: Exploring Contemplative Techniques for Special Needs Children and their Practitioners Stress Reduction Through Yoga and Mindfulness Journey of the Heart: Techniques for a Self-Guided Experiential Shamanic Practice Yoga, the Chakras and Psychology Mind, Body and Spiritual Approach to Overcoming Culture Shock Awakening to the Innate Intelligence: A Roadmap to Realizing Your Highest Potential.
Contemplative Practice (Emphasizes meditation)	Finding the Non-Self Peaceful Performance Connecting to Consciousness Through Contemplative Practice Finding the Non-Self: Mindfulness, Meditation and Modern Science Connection in Contemplative Practice Embracing the Darkness and the Silent Alchemy of Your Dreams “GPS” – Navigating Tools for an Exceptional Life Mindfulness-Based Spiritual Emergence Mindfulness Meditation Series Exploring Contemplative Traditions: Practice and Science of Meditation Mindfulness Practices to Reduce Stress Women EmpowHERed: Fight Burnout Like a Girl
Creative (Emphasizes the use of creativity and arts)	Exploring the Self Through Creative Expression Fearless Flow Enchanting the Urban Jungle: Rituals for the Modern Manhattanite The Mindful Path to Creative Insight Activate Your Inner Compass Rewriting Your Story Through the Chakras Finding Your Power Through Creativity

Table 1. Cont.

Category	Workshop Titles
Identity/Self-Reflection (Emphasizes connection to and exploration of self)	Cultivating Your Inner Compass for Life
	Release Repeating Patterns and Creating the Life of Your Dreams
	The Art of Introspection: Building an Internal Telescope for Self-Discovery
	Soul Language: Explorations of the Feminine Spirit
	Love 365: Happiness from the Inside, Out
	Self-Care for the Minority Soul
	Empowered Introvert, Owning Your Inner Power
	True 2 U: Explorations of the Self
	Mindful Men
	Self-Care 101
	10 Weeks to Your Best Life
	The Art of Navigating Change: Keep Calm and Be
	Waves of Change: Cultivating Tools to Help with Transitions
	Release Repeating Patterns and Create the Life of Your Dreams

2.6. Project Ethics and Risk Management

The Institutional Review Board (IRB) approved research procedures, and all activities were in adherence to the IRB and the Public Code of Ethics of the American Public Health Association. All staff and affiliated program facilitators completed the Collaborative Institutional Training Initiative Program to work with Human Subjects Research, received Health Insurance Portability and Accountability Act (HIPAA) training, and were required to obtain appropriate liability insurance. Doctoral and masters-level graduate student program facilitators were educated on risk assessment, Title IX guidelines, and mandated reporting standards of the field.

2.7. Study Measures

2.7.1. Demographics

Demographic questions were asked of participants, including gender, age, marital status, annual income, nationality, self-rated physical health and race/ethnicity.

2.7.2. Religion/Spirituality (R/S) Measures

Personal importance of R/S. The personal importance of religion and spirituality was based on self-report items. Items were rated from the following choices: (“Very high”), (“High”), (“Moderately”), (“Low”) and (“Very low”) drawn from the SADS-L (Endicott and Spitzer 1978).

Religious affiliation. Religious affiliation was measured through one item in which participants selected one religion from a list of religions and denominations drawn from the SADS-L (Endicott and Spitzer 1978).

Personal spirituality. Spirituality was measured using the Spirituality Scale (SS; Delaney 2005), a 23-item scale that conceptualizes spirituality along dimensions of meaning and purpose, interconnectedness, inner resources and transcendence. Items are statements that participants rated on a 6-point Likert scale of agreement ranging from 1 (“Strongly disagree”) to 6 (“Strongly agree”). Total scores can range from a minimum of 23 to a maximum of 138, with higher scores indicating higher levels of spirituality.

2.7.3. Clinical Measures

Depression. Symptoms of depression were assessed using the Patient Health Questionnaire (PHQ-9) (Kroenke et al. 2001), a 9-item scale that reflects the severity of depressive symptoms and suicidal ideation over the past two weeks, often used in primary care and other medical settings.

Items describe symptoms of anhedonia (“Little interest or pleasure in doing things”), depressed mood (“Feeling down, depressed or hopeless”), and vegetative symptoms (“Feeling tired or having little energy”). Items are anchored on a Likert scale from 0 (“Not at all”) to 3 (“Nearly every day”). Research on the PHQ-9 suggests that the screener is sensitive and specific to moderate depression levels with a cut-off score of 10.

Anxiety. Anxiety symptoms were assessed using the Generalized Anxiety Questionnaire (GAD-7; Spitzer et al. 2006), a 7-item measure that assesses clinical symptoms of general anxiety over the past two weeks, such as nervousness (“Feeling nervous, anxious, or on edge”), excessive worry (“Not being able to stop or control worrying”) or irritability (“Becoming easily annoyed or irritable”). Items are anchored on a Likert scale from 0 (“Not at all”) to 3 (“Nearly every day”). GAD-7 has been validated and shown to be sensitive (>0.80) to moderate levels of generalized anxiety at a score of 10.

Post-traumatic stress. Symptoms of post-traumatic stress (PTS) were assessed using the PTSD Civilian Checklist (PCL-C; Weathers et al. 1993). The PCL-C asks about symptoms concerning generic “stressful experiences” and is indicated for use in the general population. Items assess clinical symptoms of PTSD, including emotional numbing (“Feeling emotionally numb or being unable to have loving feelings for those close to you?”), hypervigilance (“Being ‘super alert’ or ‘watchful on guard?’”), and intrusive thoughts related to stressful events (“Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?”). A total symptom severity score (range of 17 to 85) can be obtained by summing the scores from 17 items with response options ranging from 1 (“Not at all”) to 5 (“Extremely”). The current study used a cut-off score of 30 to identify students reporting elevated levels of PTS symptoms, following research indicating that 30 is the most specific and sensitive cut-off for an elevation for screening in a civilian population (Walker et al. 2002).

2.7.4. Psychological Variables

Psychological inflexibility. The Acceptance and Action Questionnaire (AAQ-II; Bond et al. 2011) was used to measure psychological inflexibility and experiential avoidance. The measure has good internal validity ($\alpha = 0.84$) and reliability (0.79–0.81) (Bond et al. 2011). The measure includes 7-items on a 7-point Likert scale, in which participants were asked to “Please rate how true each statement is for you” with answers ranging from 1 (“Never true”) to 7 (“Always true”) that are summed for a total score (range = 7–49). Higher scores indicate greater psychological inflexibility.

Mindfulness. The Freiburg Mindfulness Inventory (FMI; Walach et al. 2006) was used to measure reported states of mindfulness in participants. The measure includes 14 items on a Likert scale from 1 (“Rarely”) to 4 (“Almost always”) for a total sum score (range of 14 to 56) with higher scores indicating higher mindfulness. The FMI shows good internal validity ($\alpha = 0.86$).

2.8. Data Analysis

All data were analyzed using IBM SPSS Statistics (Version 25) predictive analytics software. Frequency counts of demographic variables and attendance were calculated to describe users and to estimate the feasibility and acceptability of SMB Wellness Center programs. Paired sample *t*-tests were conducted to examine pre/post-test changes in spiritual, psychological and clinical variables across the SMB wellness services provided. Chi-Square analyses and one-way ANOVAs were conducted in order to identify any differences at pretest between individuals who did and did not complete posttest measures across demographic, clinical and spiritual variables.

3. Results

The demographic characteristics of participants in the service assessment study of the SMB Wellness Center programs are presented in Table 2. Participants ($N = 305$) represented a range of ethnic backgrounds and religious orientations. The participants ranged from 18 to 59 years ($M = 27.7$ years), with 90.8% falling within the emerging or young adulthood age range (18–35 years). The overwhelming

majority of attendees were female (91.1%), and single (86.5%) as opposed to married, divorced or separated (see Table 2).

Table 2. Demographic Characteristics of Participants at Baseline—Across all Years.

Variable	<i>n</i>	%	N
Gender and Young Adult Status			
Female	278	91.1	/305
Nonbinary	1	0.3	/305
Young adult status (18–35)	268	90.8	/295
Annual Income (USD)			
<15 k	194	64.5	/301
>15 k	107	35.5	/301
Race			
White	97	31.9	/304
Asian	109	35.9	/304
Latinx	29	9.5	/304
Black	27	8.9	/304
Middle Eastern	3	1.0	/304
Pacific Islander	12	3.9	/304
Other/Multiracial	27	8.9	/304
Nationality			
Born in USA	160	52.5	/305
Marital Status			
Single	236	86.8	/272
Married	30	11	/272
Separated/Divorced	6	2.2	/272
Personal Importance of Religion			
Very High	11	8.3	/132
High	3	2.3	/132
Moderately	33	25	/132
Low	29	22	/132
Very Low	56	42.4	/132
Personal Importance of Spirituality			
Very High	49	36.8	/133
High	17	12.8	/133
Moderately	37	27.8	/133
Low	19	14.3	/133
Very Low	11	8.3	/133
Religious Denomination			
Protestant	36	18.8	/192
Catholic	14	7.3	/192
Jewish	7	3.6	/192
Buddhist	12	6.3	/192
Hindu	6	3.1	/192
Muslim	5	2.6	/192
Other	37	19.2	/192
None	75	39.1	/192

Table 2. Cont.

Variable	<i>n</i>	%	N
Self-Rated Physical Health			
1 (very poor)	4	3.3	/123
2	18	14.6	/123
3	47	38.2	/123
4	42	34.1	/123
5 (very good)	12	9.8	/123
Clinical Characteristics			
Moderate Depression ^{ab}	60	19.7	/305
Moderate Anxiety ^c	63	20.7	/304
Post-traumatic Stress ^d	112	48.5	/231

Note. Participants were, on average, 27.7 years old ($SD = 6.05$), ^a Scored 10 or higher on the Patient Health Questionnaire (PHQ-9), ^b Scored 9 or higher on an 8-item version of the PHQ-9, ^c Scored 10 or higher on the General Anxiety Disorder-7 Questionnaire (GAD-7), and ^d Scored 30 or higher on the Post-traumatic Checklist–Civilian version (PCL-C).

3.1. Representativeness and Uniqueness Compared with the University Community

Comparative demographic, clinical and health data were drawn from a contemporaneous survey of the larger university student population, via a self-report format that was emailed to enrolled students in the spring of 2018. Of note, the survey yielded an 18% response rate (5023 surveys emailed to the student community, 935 students responded ([American College Health Association–National College Health Assessment \(ACHA–NCHA\) 2018](#)). Rates from the SMB Wellness Center users and the university student body are compared here to show the representativeness of the overall student population and the unique differences between the two samples (see Table 3). Where university data was unavailable, data from national samples of graduate and undergraduate students are reported.

Table 3. Comparison of SMB Wellness Center Users to University Community.

Variable	SMB Wellness Center Users ^e %	University Community Sample ^f %
Gender		
Female	91.1	84.1
Nonbinary	0.3	1.2
Age		
18–20 years	1.0	0.1
21–24 years	37.6	31.2
25–29 years	36.3	38.3
30+ years	25.1	30.4
Race/Ethnicity		
White	31.9	48.2
Asian	35.9	28.8 ^a
Latinx/Hispanic	9.5	13.2
Black	8.9	7.8
Middle Eastern	1.0	N/A
Pacific Islander	3.9	0 ^a
Other/Multiracial	8.9	9.2
Clinical characteristics		
Moderate Depression ^{bc}	19.7	15.1
Moderate Anxiety ^d	20.7	22.1

^a University Community sample demographics grouped Asian and Pacific Islander together. ^b Scored 10 or higher on the Patient Health Questionnaire (PHQ-9). ^c Scored 9 or higher on an 8-item version of the PHQ-9. ^d Scored 10 or higher on the General Anxiety Disorder-7 Questionnaire (GAD-7). ^e $n = 141$. ^f $N = 983$.

3.1.1. Demographics

SMB Wellness Center users were similar in age compared to the broader university sample, with approximately two-thirds of SMB users and university students falling between the ages of 21 and 29. Wellness Center users tended to be female more than the broader community of students. Wellness Center users also included a smaller proportion of Caucasian and Latinx students with more Asian and Pacific Islander students, and similar rates of African American students and other/multiracial students compared with the university community. For a side-by-side comparison of demographics, see Table 3.

3.1.2. Spirituality/Religiosity

On ratings of the personal importance of spirituality and religion (see Table 1), 49.6% of SMB users rated the personal importance of spirituality to be either “High” (12.8%) or “Very high” (36.8%). On ratings of the personal importance of religion, 10.6% of SMB users rated the personal importance of religion to be “High” (2.3%) or “Very high” (8.3%). Notably, the rate of SMB users who reported the importance of religion as “High” or “Very high” was much lower in this study sample than that of national samples that report that between 51% and 53% of US adults consider religion to be “Very important” (Brenan 2018; Pew Research Center 2014), and the result was disparate from the data of a national sample of college students, 32% of whom identify as religious (Keysar 2013). However, while the rates of users in the SMB Wellness Center sample who consider personal importance of spirituality to be “High” or “Very high” (49.6%) are similar to the rates of US adults who consider religion to be “Very important” (51–53%), they are also much higher than the rates of young adults from a national sample of college students who identify themselves as spiritual (32%; Keysar 2013). Thus, SMB Wellness Center users are overly representative of individuals with a personal sense of spirituality, but less representative of religious groups within the university community. In this way, attendees of the SMB Wellness Center may reflect a shift in demographics from the community at large, which fills the needs of a growing spiritual population that has yet to be addressed within an academic setting.

3.1.3. Rates of Clinical Levels of Pathology

SMB users were also assessed for current symptoms of depression, anxiety and post-traumatic stress, and categorized as symptom positive based upon previously validated cut-offs of moderate pathology. The ACHA survey asked university students to report a diagnosis of or treatment for anxiety and depression over the past 12 months at the time of assessment (American College Health Association-National College Health Assessment (ACHA-NCHA) 2018). University students reported the diagnosis or treatment of anxiety over the last 12 months (22%) at a rate comparable to SMB user rates of clinical levels of moderate anxiety (20.7%). Notably, SMB users reported a higher rate of symptoms that meet the cut-off for moderate depression (19.7%) than students diagnosed or treated for depression in the past year (15.1%), as reported in the ACHA survey from the same university. Although the university survey did not assess diagnoses of PTSD, nearly half (48.5%) of SMB users had moderate or more severe levels of PTSD symptomatology, as compared with a third from a national sample of college freshmen (34.4%) that met criteria for probable PTSD diagnosis (Cusack et al. 2019).

3.2. Feasibility, Acceptability and Helpfulness

3.2.1. Attendance and Representativeness

Service delivery through the SMB Wellness Center appears to be feasible and acceptable, as evidenced by $N = 305$ SMB users across six semesters attending 64% of available sessions. On average, participants attended more than half of the available sessions, suggesting that spiritual wellness interventions may be acceptable and feasible in the university community. Additionally, SMB user data was representative of the larger community’s demographic data, evidencing that the delivery

model is both feasible in attracting diverse populations and provides programming that is acceptable and appropriate for individuals from a range of ethnicities, belief systems and across identities.

3.2.2. Changes in Spiritual and Clinical Variables

Changes in the level of personal spirituality and symptoms of pathology are shown in Table 4. Paired samples *t*-tests comparing self-report measures between T1 and T2 showed increases in the level of the chief target variable of personal spirituality ($t(113) = -4.08, p < 0.01$), as well as mindfulness ($t(130) = 4.28, p < 0.01$). A decrease was found in the pathogenic cognitive style of psychological inflexibility ($t(118) = 2.70, p = 0.01$). Decreases were found in the level of symptoms of depression ($t(141) = 2.47, p = 0.02$) and the level of symptoms of PTS ($t(111) = 4.17, p < 0.01$) (see Table 4).

Table 4. Clinical, Spiritual and Psychological outcomes for Fall 2016–Fall 2019 SMB Wellness Center.

Characteristic	Baseline M (SD)	Posttest M (SD)	Paired Samples t-Test		N
			<i>t</i>	<i>p</i>	
Clinical and Health					
PHQ-9	6.0 (4.3)	5.1 (3.9)	2.47	0.02 *	141
GAD-7	6.5 (5.1)	6.0 (4.8)	1.57	0.12	141
PCL-C	30.0 (10.9)	26.7 (9.2)	4.17	0.00 **	111
Spirituality					
Delaney	101.7 (18.4)	105.5 (17.4)	−4.08	0.00 **	113
Psychological					
Psychological Inflexibility ^a	18.7 (8.0)	17.2 (8.5)	2.70	0.01 *	118
Mindfulness ^b	35.8 (7.3)	38.0 (7.2)	4.28	0.00 **	130

^a Psychological Flexibility measured by Acceptance and Action Questionnaire. ^b Mindfulness measured by Freiburg's Mindfulness Inventory. * $p < 0.05$. ** $p < 0.01$.

3.2.3. Differences between Completers and Non-Completers

For demographic variables, no significant differences were found at baseline between completers ($n = 141$) and non-completers ($n = 89$) in terms of gender, income, race or religion. However, significant differences were found in terms of marital status, $\chi^2(3, N = 227) = 12.72, p = 0.005$, self-reported physical health, $\chi^2(4, N = 122) = 14.73, p = 0.005$, age, ($F(1, 223) = 7.00, p = 0.009$) and international status, $\chi^2(1, N = 229) = 4.501, p = 0.034$. Non-completers were older ($M = 28.4, SD = 6.52$) than completers ($M = 26.4, SD = 5.02$), were more likely to have been married (20.5%) than completers (9.4%), had lower self-reported health (32% rated their health 4 (good) or 5 (very good)) than completers (63.8% rated their health 4 (good) or 5 (very good)) and were more likely to be international students (59.1%) than completers (44.7%), these being variables potentially suggestive of barriers to access.

For clinical and spiritual variables, no baseline differences for non-completers were found in terms of anxiety, depression, spirituality or mindfulness. Significant differences were found for variables of posttraumatic stress ($F(1, 164) = 9.75, p = 0.002$) and psychological inflexibility ($F(1, 167) = 9.81, p = 0.002$), such that non-completers tended to have higher levels of symptoms of PTS ($M = 35.7, SD = 12.4$) than completers ($M = 29.8, SD = 10.8$), and greater psychological inflexibility ($M = 22.9, SD = 8.5$) than completers ($M = 18.7, SD = 8.0$).

4. Discussion

This pilot service assessment study examined the feasibility, acceptability and helpfulness of an SMB Wellness Center designed for a highly ethnically and religiously diverse university student community.

4.1. Profiles of Use

Representativeness, Feasibility and Acceptability

The data show that in a diverse urban university, an SMB Wellness Center designed to be ethnically and religiously inclusive indeed attracted a highly diverse group of students. We interpret the diversity of participants as showing the acceptability of the SMB Wellness Center as welcoming, universal, non-imposing, and independent of a specific faith tradition. In conjunction with self-reported lower rates of religiosity compared with national samples, it may be that on a university campus, SMB-integrated wellness programs attract a portion of the community that does not engage with or use on-campus religious and or mission-oriented social organizations for wellness purposes.

An SMB Wellness Center on a college campus appears to be attended by and accessible to the community at large, given that users from this study and national collegiate data are similar in terms of demographics and self-reports of symptoms of anxiety, depression and post-traumatic stress ([American College Health Association-National College Health Assessment \(ACHA-NCHA\) 2018](#); [Cusack et al. 2019](#)). Given the rates of mild to moderate psychopathology, there appears to be a portion of students who engage with SMB wellness but perhaps do not avail themselves of, or are not benefitting from, treatment delivered by a campus mental health clinic. This potentially identifies this type of approach as an adjunct to treatment-as-usual for students with mild to moderate rates of psychopathology.

Baseline differences between completers and non-completers: The findings suggest that students who engage for a full program in the SMB Wellness Center, as compared to those who drop out, tend to be younger, single, in better self-reported physical health, non-international, and carry greater psychological flexibility and lower levels of symptoms of psychopathology. For study non-completers, barriers to the usage of the SMB Wellness Center may include limited time due to familial obligations and physical health concerns. Cultural factors, such as cultural stigma against using SMB services and less acculturation to western norms of SMB engagement, also might be barriers against utilizing SMB Wellness Center services. From a lifespan perspective, program completers were significantly younger (late teens and early 20s), which may indicate that wellness center programming engages the developmental stage that is ripe for individuation and exploration. Non-completers as well may have preferred to commune with same-aged peers, experiencing similar life events such as establishing careers, getting married and starting families. Younger students (completers) may have been focused on developmental concerns of identity exploration, self-focus, spiritual individuation, possibilities, and transition into adult roles ([Arnett 2000, 2004](#)).

Changes in spiritual, psychological, and clinical variables: Participants in SMB wellness programs reported a modest but highly significant increase in personal spirituality, irrespective of religious or ethnic tradition. Research suggests that a chief task in young adulthood is to develop a personal spirituality, which often involves a relationship with a higher power, transcendence or some sense of ultimate reality ([Koenig 2012](#); [Desrosiers et al. 2011](#); [Poll and Smith 2003](#); [Fowler 1981](#)). Young adulthood has been described as a period of actively pursuing a higher purpose of existence and the search for self, often concomitant with the search for the transcendent ([Webber 2002](#)). In a national survey of more than 100,000 college students, 80% reported an interest in spirituality, and 76% reported an interest in the search for meaning or purpose in life. Approximately half, 47%, of those surveyed consider seeking spiritual growth opportunities as essential or very important ([Astin et al. 2005](#)). The observed increase in personal spirituality among the study sample suggests that SMB wellness programs in a university setting may potentiate this spiritual capacity in young adults. Given the range of traditions among the participants, and the diversity of SMB programming, it is noteworthy that the broadly positive effects of spiritual engagement were found to be impactful irrespective of the student's tradition or the specific orientation of the SMB program.

In addition to an increased felt sense of spiritual connection, data showed significant increases in mindfulness and psychological flexibility. Given that emerging adulthood is a time for exploration,

openness and individuation (Arnett 2009), the data suggest that these programs may allow for these developmental milestones to co-occur as part and parcel of a personal spiritual awakening. While a predisposition for this critical individuation period may be universal, it is possible that those who are given the opportunity to foster spiritual emergence, including via SMB wellness programming, indeed develop a spiritual foundation. Spiritual emergence may carry the secondary effects of increased mindfulness and expansion of cognitive repertoire, and therefore reduce the risk for psychopathology (Hofmann et al. 2010; Leahy et al. 2012).

Overall, our data on a university-based SMB Wellness Center show: (1) that SMB users show rates of psychopathology commensurate with rates of psychopathology found in nationally representative samples of university students; (2) SMB treatment may be associated with decreased rates of mild to moderate symptoms of depression and post-traumatic stress; and (3) concomitant with decreases in symptoms of psychopathology, we found increases in personal spiritual awareness, along with mindfulness and psychological flexibility.

Although the results indicated that specific aspects of psychopathology, particularly symptoms of depression and posttraumatic stress, may be improved via these SMB programs, it is important to note that these services do not replace clinical services for individuals who meet the criteria for psychiatric disorders. Instead, SMB-integrated programs may serve the following roles: (1) as an adjunct to treatment-as-usual on the college campus; (2) as a “soft landing” for distressed students; (3) as a stopgap in the ‘leaky pipeline’ between students and on-campus clinical support services via brief screening for psychopathology; and (4) as a place for spiritual individuation that is triggered by existential hunger, felt as depression, but not necessarily psychopathology (Miller 2013). It is essential to distinguish between recovery from psychopathology and SMB wellness, as it could be that students need both aspects to be treated, or both aspects treated at different moments in the process of young adult development.

Within this sample, an increase in a personal sense of spirituality was associated with a reduction in depressive symptoms among young adults. This is consistent with research at multiple levels of analysis, suggesting that existential questioning and the quest for meaning and purpose drive the protective relationship between a personal sense of spirituality and subthreshold symptoms of depression in late adolescence (Barton et al. 2017; Barton and Miller 2015; Miller 2013).

A large proportion of the participants in SMB wellness programming (48.5%) showed elevated scores on a screening measure of post-traumatic stress symptoms, and that these symptoms were overall significantly reduced following the delivery of SMB wellness programming. While we cannot argue a causal relationship, we note that this trend mirrors the reduction in symptoms of post-traumatic stress among civilians and military members who undergo spiritually-integrated interventions to address stress- and trauma-related symptomatology (Garland et al. 2007; Pearce et al. 2018). SMB wellness programming may help to foster the post-stress developmental process known as “post-traumatic growth,” with spiritual growth previously identified as a central element of this change (Schaefer et al. 2008; Tedeschi and Calhoun 1996).

Notably, there were no statistically or clinically significant reductions in symptoms of anxiety observed. Within the literature, there is weak and inconclusive evidence for the efficacy of R/S-based interventions for anxiety (Bonelli and Koenig 2013; Koenig 2009; Delaney et al. 2011).

4.2. *The Unique Role of SMB Wellness on a College Campus*

The clinical data from the SMB Wellness Center study highlight the need for SMB wellness programs on academic campuses, and the need for the continued assessment of both clinical symptoms and psycho-spiritual pathways and processes that may support wellness. Of significance is the comparatively elevated rate of clinically significant PTS symptoms among estimated users. Recent national data show that 70% of college students experience at least one potentially traumatic event (PTE) (Cusack et al. 2019), which may partially explain these rates. The rates of moderate levels of PTS symptomatology may characterize SMB users who, having been exposed to PTEs, are explicitly

seeking out SMB wellness services that hold the promise of improving health and wellbeing as an alternative to clinical services. Some college students may sense their own suffering and its resolution to be spiritual in nature, choosing to seek SMB programs. Further, from the perspective of increased access to services, amidst the national trend of distressed students and the prohibitive obstacles for many students that include long waitlists, mental health stigma, cost and cultural and/or religious considerations (Gallagher 2014), it appears that SMB wellness programs may function as a resource for spiritually interested individuals with PTS on a graduate campus.

To sum, SMB wellness services may meet the clear need for an array of accessible and acceptable spiritual wellness programs and interventions to promote overall wellbeing, renewal and individuation. The data suggest that psychopathology and wellness are not two ends of a wellness–pathology continuum. Instead, wellness is an adjunctive service to treatment for psychopathology; either or both can be used at different times for different purposes, with students sometimes sensing their own needs. SMB wellness provides an aggregate layer of growth, development and individuation that needs to occur independently of psychopathology treatment.

Consistent attendance and the apparent helpfulness of the SMB programs likely reflect a need that has yet to be fulfilled in the changing demographics among university students. A generational shift in the number of college students who identify as “spiritual, but not religious,” (32%; Keysar 2013) or having no religion (tripling from 10% in 1986 to 31% in 2016; Downey 2017) suggests that students may not find sanctuary in religious activities or institutions, leaving an unmet hunger for exploring spiritual connection and a spiritual sense of self (Cherry et al. 2001; Cunningham 2002; Fuller 2001; Overstreet 2010). However, unlike previously held beliefs that this shift away from religiosity translated into a shift towards secularism, this may represent a shift instead towards more individually held beliefs and behaviors akin to a personal sense of spiritual identity (Pargament et al. 2001; Jones et al. 2017). This identification of a personal and felt connection with the transcendent may be insufficient at times to confer protective benefits without regularly supported connection within a spiritual community (Good and Willoughby 2008; Malinakova et al. 2019). The possibility that spiritual community per se provides developmental support for spiritual individuation—a developmental task—was explored post hoc through interviews with SMB Wellness Center users. SMB users were asked to identify specific experiences with and perspectives on participating in programs. Themes among users were that the SMB Wellness Center provided community, connectedness, and a safe, nonjudgmental space to meet to build deep and meaningful relationships. For example, one user said:

“You feel the community, it’s not you alone struggling, fighting with your problems—everyone has their problems. We share together; we are here together, so I didn’t feel so lonely about everything happening in my life. I had a safe space to share my thoughts, and there is no judgment. I feel accepted by the atmosphere.”

Another user echoed a similar sentiment about the importance of the communal experience:

“The membership of the community in the programs, and being able to share in a different way than in the academic programs that are more striated . . . One of the nice things for me was seeing other people change in the program. It did have a positive effect on me.”

Indeed, campus religious organizations continue to support the spiritual individuation and development of some religious students. However, for a growing number of SBNR students, SMB wellness may offer support for individual spiritual individuation that has been largely unaddressed by campus life.

5. Limitations

Several limitations should be noted in this study. First, participants self-selected into the SMB Wellness Center, so the benefits derived from participation may or may not apply to non-seekers or the university population. The study identifies the type of student who seeks SMB programming,

and the related benefits derived for specifically that type of student. The diverse representation of ethnicities and religious/spiritual backgrounds among participants is similar to the institution's student population, suggesting potential generalization in terms of the acceptability of the SMB programming due to cultural inclusivity. Second, since this service assessment is a naturalistic study within an academic institution, the spiritual and wellness needs of students were prioritized. Thus, we used an uncontrolled design and cannot be certain that the study findings, namely increases in overall personal spirituality, mindfulness and psychological flexibility, and related decreases in levels of trauma-related stress and depressive symptoms, were associated with the SMB wellness programs per se, or other factors such as the passage of time or maturation. However, it is worth consideration that post-test measures were delivered during academic finals, a time usually marked with an increase in psychiatric symptoms as the semester continues; thus, the level of personal and clinical improvement might be underestimated (Andrews and Wilding 2004). Third, the study design maximized ecological validity by allowing users to select SMB programs based on personal preference and spiritual interest. The authors intended to create a service assessment of a naturalistic and diverse SMB center, of a kind that might be developed on fellow campuses. The spiritual wellness groups were deliberately varied in content, despite having a uniform structure and common themes of interconnection, spiritual emergence and SMB integration. Thus, we cannot hypothesize about fine-grain mechanisms of change in the outcomes of psychological and clinical self-report. That said, perhaps the most remarkable finding of this assessment study is that the fine-grain details of the SMB program are not meaningful to the overall broad findings of improvement in inner life and well-being. Finally, the definition of spirituality has been debated for decades by social scientists, if not centuries amongst academics; therefore, identifying what makes SMB programs "spiritual, defined here as a connection to the transcendent, may be different in the hands of another SMB program or university.

6. Conclusions

To our knowledge, no study has investigated the spiritual and psychological outcomes of attending SMB wellness programs in an inclusive, non-denominational university-based SMB Wellness Center. The current study provides a four-year pilot service assessment of the feasibility, accessibility, and helpfulness of SMB interventions offered by an SMB Wellness Center in a private urban university in the Northeast of the United States. Students who participated in SMB interventions demonstrated significant reductions in mild to moderate levels of symptoms of depression and post-traumatic stress, and increases in personal spirituality, mindfulness and psychological flexibility. Results imply that students who are hesitant to seek clinical services and lack social connection may find SMB wellness services useful in managing psychological distress and increasing social support, including those students who sense that their inner struggle and its pathway to resolution is spiritual in nature. SMB Wellness Centers may help students build inner resources and develop meaningful relationships within a spiritual community that otherwise does not exist on college campuses.

This pilot service assessment study provides the initial evidence that spiritually integrated programs at an SMB Wellness Center are feasible, acceptable, and helpful to an academic community, and when offered alongside other religious organizations, may answer a need that has evolved alongside changing demographic patterns. Future directions may include the expansion of SMB programs and an examination of the relationships between spiritual development, interpersonal relationships, and positive adjustment in university SMB wellness programs. Specifically, future studies should aim to compare participants with healthy controls as a means of making causal inferences related to SMB programming. The inclusion of more in-depth qualitative data may strengthen these inferences and provide insight into the elements of programming that are perceived as most helpful by participants.

Author Contributions: Conceptualization, S.S., M.A., A.A. and L.M.; Data curation, S.S., M.A., A.C., J.D. and L.P.; Formal analysis, S.S., M.A. and A.C.; Funding acquisition, S.S. and L.M.; Investigation, S.S., M.A., J.D. and L.P.; Methodology, S.S., M.A., L.P. and L.M.; Project administration, S.S., M.A., J.D. and L.P.; Validation, S.S., M.A. and A.C.; Visualization, S.S., M.A. and L.M.; Writing—original draft preparation, S.S., M.A. and L.P.; Resources, A.A.; Supervision, A.A. and L.M.; Writing—review and editing, A.A. and L.M.; All authors have read and agreed to the published version of the manuscript.

Funding: This research was funded by the Living Peace Foundation.

Acknowledgments: The authors wish to thank the Living Peace Foundation for the generous support of this study. Our gratitude to the many Masters-level students, who over several years have contributed to this study. We are thankful for the leadership of President Susan Fuhrman, James Gardner, Suzanne Jablonski, Thomas James, Joe Levine, and Althea L. Broomfield-Michel.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript, or in the decision to publish the results.

References

- American College Health Association-National College Health Assessment (ACHA-NCHA). 2018. Available online: https://acha.org/NCHA/NCHA_Home (accessed on 10 February 2020).
- Andrews, Bernice, and John M. Wilding. 2004. The relation of depression and anxiety to life-stress and achievement in students. *British Journal of Psychology* 95: 509–21. [\[CrossRef\]](#) [\[PubMed\]](#)
- Arnett, Jeffrey J. 2000. Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist* 55: 469–80. [\[CrossRef\]](#) [\[PubMed\]](#)
- Arnett, Jeffrey J. 2004. *Emerging Adulthood: The Winding Road from the Late Teens through the Twenties*. New York: Oxford University Press.
- Arnett, Jeffery J. 2009. A longer road to adulthood. *Family in Transition*, 3–26. [\[CrossRef\]](#)
- Astin, Alexander W., Helen S. Astin, Jennifer A. Lindholm, Alyssa N. Bryant, K. Szélenyi, and S. Calderone. 2005. *The Spiritual Life of College Students: A National Study of College Students' Search for Meaning and Purpose*. Los Angeles: UCLA Higher Education Research Institute.
- Barton, Yakov A., and Lisa Miller. 2015. Spirituality and positive psychology go hand in hand: An investigation of multiple empirically derived profiles and related protective benefits. *Journal of Religion and Health* 54: 829–43. [\[CrossRef\]](#) [\[PubMed\]](#)
- Barton, Yakov A., Samuel H. Barkin, and Lisa Miller. 2017. Deconstructing depression: A latent profile analysis of potential depressive subtypes in emerging adults. *Spirituality in Clinical Practice* 4: 1. [\[CrossRef\]](#)
- Berry, Devon M., and Kate York. 2011. Depression and religiosity and/or spirituality in college: A longitudinal survey of students in the USA. *Nursing and Health Sciences* 13: 76–83. [\[CrossRef\]](#)
- Bond, Frank W., Steven C. Hayes, Ruth A. Baer, Kenneth M. Carpenter, Nigel Guenole, Holly K. Orcutt, Tom Waltz, and Robert D. Zettle. 2011. Preliminary psychometric properties of the Acceptance and Action Questionnaire–II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy* 42: 676–88. [\[CrossRef\]](#)
- Bonelli, Raphael M., and Harold G. Koenig. 2013. Mental disorders, religion and spirituality 1990 to 2010: A systematic evidence-based review. *Journal of Religion and Health* 52: 657–73. [\[CrossRef\]](#)
- Boyatzis, Chris J., David C. Dollahite, and Loren D. Marks. 2006. The family as a context 2006. The family as a context for religious and Spiritual development in children and youth. In *Handbook of Spiritual Development in Childhood and Adolescence*. Newbury: SAGE Publications, pp. 297–309.
- Brenan, Megan. 2018. Religion Considered Important to 72% of Americans. Gallup. Available online: <https://news.gallup.com/poll/245651/religion-considered-important-americans.aspx> (accessed on 14 November 2019).
- Brunner, Jon L., David L. Wallace, Linda S. Reymann, Jes-James Sellers, and Adam G. McCabe. 2014. College counseling today: Contemporary students and how counseling centers meet their needs. *Journal of College Student Psychotherapy* 28: 257–324. [\[CrossRef\]](#)
- Burkhardt, Margaret A. 1989. Spirituality: An analysis of the concept. *Holistic Nursing Practice* 3: 69–77. [\[CrossRef\]](#)
- Center for Collegiate Mental Health. 2016. *2015 Annual Report of the Center for Collegiate Mental Health*. Available online: https://sites.psu.edu/ccmh/files/2017/10/2015_CCMH_Report_1-18-2015-yq3vik.pdf (accessed on 26 October 2019).

- Chandler, Cynthia K., Janice Miner Holden, and Cheryl A. Kolander. 1992. Counseling for spiritual wellness: Theory and practice. *Journal of Counseling and Development* 71: 168–75. [CrossRef]
- Cherry, Conrad, Betty A. De Berg, and Amanda Porterfiel. 2001. Religion on campus. *Liberal Education* 87: 6–14.
- Child, Stephanie T., and Leora Lawton. 2019. Loneliness and social isolation among young and late middle-age adults: Associations with personal networks and social participation. *Aging and Mental Health* 23: 196–204. [CrossRef]
- Como, June M. 2007. Spiritual practice: A literature review related to spiritual health and health outcomes. *Holistic Nursing Practice* 21: 224–36. [CrossRef] [PubMed]
- Cotton, Sian, Elizabeth Larkin, Andrea Hoopes, Barbara A. Cromer, and Susan L. Rosenthal. 2005. The impact of adolescent spirituality on depressive symptoms and health risk behaviors. *Journal of Adolescent Health* 36: 529. [CrossRef] [PubMed]
- Cunningham, Lawrence. 2002. Stairways to heaven: Some cautionary thoughts for those who say they are spiritual but not religious. *Notre Dame Magazine* 31: 25–29.
- Cusack, Shannon E., Terrell A. Hicks, Jessica Bourdon, Cristina M. Sheerin, Cassie M. Overstreet, Kenneth S. Kendler, Danielle M. Dick, and Ananda B. Amstadter. 2019. Prevalence and predictors of PTSD among a college sample. *Journal of American College Health* 67: 123–31. [CrossRef]
- Delaney, Colleen. 2005. The spirituality scale: Development and psychometric testing of a holistic instrument to assess the human spiritual dimension. *Journal of Holistic Nursing* 23: 145–67. [CrossRef]
- Delaney, Colleen, Cynthia Barrere, and Mary Helming. 2011. The influence of a spirituality-based intervention on quality of intervention on quality of life, depression, and anxiety in community-dwelling adults with cardiovascular disease: A pilot study. *Journal of Holistic Nursing* 29: 21–32. [CrossRef]
- Desrosiers, Alethea, Brien S. Kelley, and Lisa Miller. 2011. Parent and peer relationships and relational spirituality in adolescents and young adults. *Psychology of Religion and Spirituality* 3: 39. [CrossRef]
- Dollahite, David C., and Loren D. Marks. 2005. How highly religious families strive to fulfill sacred purposes. In *Sourcebook of Family Theory and Research*. Edited by V. Bengtson, A. Acock, K. Allen, P. Dillworth-Anderson and D. Klein. Thousand Oaks: Sage, pp. 533–41.
- Downey, Allen. 2017. College Freshmen Are Less Religious Than Ever. Available online: <https://blogs.scientificamerican.com/observations/college-freshmen-are-less-religious-than-ever/> (accessed on 11 January 2020).
- Duffy, Mary E., Jean M. Twenge, and Thomas E. Joiner. 2019. Trends in Mood and Anxiety Symptoms and Suicide-Related Outcomes Among U.S. Undergraduates. 2007–2018: Evidence from Two National Surveys. *Journal of Adolescent Health* 65: 590–98. [CrossRef]
- Eisenberg, Daniel, Marilyn F. Downs, Ezra Golberstein, and Kara Zivin. 2009. Stigma and help seeking for mental health among college students. *Medical Care Research and Review* 66: 522–41. [CrossRef] [PubMed]
- Endicott, Jean, and Robert L. Spitzer. 1978. A diagnostic interview: The schedule for affective disorders and schizophrenia. *Archives of General Psychiatry* 35: 837–44. [CrossRef] [PubMed]
- Engel, Mary Beth, Gina Insalaco, Helma D. Singaravelu, and Kristi Kennon. 2007. Programs and outreach for international students. In *A Handbook for Counseling International Students in the United States*. Washington, DC: American Counseling Association, pp. 311–16.
- Fisher, John. 2011. The four domains model: Connecting spirituality, health and well-being. *Religions* 2: 17–28. [CrossRef]
- Fowler, James W. 1981. *Stages of Faith: The Psychology of Human Development and the Quest for Meaning*. New York: Harper San Francisco.
- Fuller, Robert C. 2001. *Spiritual, But Not Religious: Understanding Unchurched America*. New York: Oxford University Press.
- Gallagher, Robert P. 2014. *National Survey of College Counseling Centers 2014*. Monograph Series Number 9V; Indianapolis: International Association of Counseling Services, Available online: http://d-scholarship.pitt.edu/28178/1/survey_2014.pdf (accessed on 14 January 2020).
- Garland, Sheila N., Linda E. Carlson, Sarah Cook, Laura Lansdell, and Michael Specia. 2007. A non-randomized comparison of mindfulness-based stress reduction and healing arts programs for facilitating post-traumatic growth and spirituality in cancer outpatients. *Supportive Care in Cancer* 15: 949–61. [CrossRef] [PubMed]
- Good, Marie, and Teena Willoughby. 2008. Adolescence as a sensitive period for spiritual development. *Child Development Perspectives* 2: 32–37. [CrossRef]

- Hofmann, Stefan G., Alice T. Sawyer, Ashley A. Witt, and Diana Oh. 2010. The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology* 78: 169. [CrossRef]
- Hungelmann, Joann, Eileen Kenkel-Rossi, Loretta Klassen, and Ruth M. Stollenwerk. 1985. Spiritual well-being in older adults: Harmonious interconnectedness. *Journal of Religion and Health* 24: 147–53. [CrossRef]
- Jones, Robert P., Daniel Cox, and Art Raney. 2017. Searching for Spirituality in the U.S.: A New Look at the Spiritual but Not Religious. PRRI. Available online: <https://www.prri.org/research/religiosity-and-spirituality-in-america/> (accessed on 26 October 2019).
- Kettmann, Julie D. Jenks, Eva G. Schoen, Joy E. Moel, Sam V. Cochran, Stefanie Teri Greenberg, and Julie M. Corkery. 2007. Increasing severity of psychopathology at counseling centers: A new look. *Professional Psychology: Research and Practice* 38: 523. [CrossRef]
- Keysar, Ariela. 2013. The Emergence of Three Distinct Worldviews among American College Students. *New England Journal of Higher Education*. Available online: <https://nebhe.org/journal/the-emergence-of-three-distinct-worldviews-among-american-college-students/> (accessed on 26 October 2019).
- King, Pamela Ebstye, and Robert W. Roeser. 2009. Religion and spirituality in adolescent development. *Handbook of adolescent psychology* 1: 435–78.
- Koenig, Harold G. 2009. Research on religion, spirituality, and mental health: A review. *The Canadian Journal of Psychiatry* 54: 283–91. [CrossRef] [PubMed]
- Koenig, Harold G. 2012. Religious versus conventional psychotherapy for major depression in patients with chronic medical illness: Rationale, methods, and preliminary results. *Depression Research and Treatment* 2012: 460419. [CrossRef]
- Konrath, Sara H., William J. Chopik, Courtney K. Hsing, and Ed O'Brien. 2014. Changes in adult attachment styles in American college students over time: A meta-analysis. *Personality and Social Psychology Review* 18: 326–48. [CrossRef] [PubMed]
- Kroenke, Kurt, Robert L. Spitzer, and Janet BW Williams. 2001. The PHQ-9: Validity of a brief depression severity measure. *Journal of General Internal Medicine* 16: 606–13. [CrossRef] [PubMed]
- Larson, Reed W., David M. Hansen, and Giovanni Moneta. 2006. Differing profiles of developmental experiences across types of organized youth activities. *Developmental Psychology* 42: 849. [CrossRef]
- Leahy, Robert L., Dennis D. Tirsch, and Poonam S. Melwani. 2012. Processes underlying depression: Risk aversion, emotional schemas, and psychological flexibility. *International Journal of Cognitive Therapy* 5: 362–79. [CrossRef]
- Leigh, Janis, Sarah Bowen, and G. Alan Marlatt. 2005. Spirituality, mindfulness and substance abuse. *Addictive Behaviors* 30: 1335–41. [CrossRef]
- LeViness, Peter, Carolyn Bershad, and Kim Gorman. 2017. *The Association for University and College Counseling Center Directors Annual Survey*. Available online: <https://www.aucccd.org/assets/documents/Governance/2017%20aucccd%20survey-public-apr26.pdf> (accessed on 28 October 2019).
- Malinakova, Klara, Jaroslava Kopcakova, Andrea Madarasova Geckova, Jitse P. van Dijk, Jana Furstova, Michal Kalman, Peter Tavel, and Sijmen A. Reijneveld. 2019. "I am spiritual, but not religious": Does one without the other protect against adolescent health risk behaviour? *International Journal of Public Health* 64: 115–24. [CrossRef]
- Martsof, Donna S., and Jacqueline R. Mickley. 1998. The concept of spirituality in nursing theories: Differing world-views and extent of focus. *Journal of Advanced Nursing* 27: 294–303. [CrossRef]
- Miller, Lisa. 2013. Spiritual awakening and depression in adolescents: A unified pathway or "two sides of the same coin". *Bulletin of the Menninger Clinic* 77: 332–48. [CrossRef]
- National Center for Education Statistics [NCES]. 2019. Institute of Education Sciences. Available online: https://nces.ed.gov/programs/digest/d17/tables/dt17_105.30.asp (accessed on 17 February 2020).
- Newport, Frank. 2019. Millennials' Religiosity Amidst the Rise of the Nones. Gallup. Available online: <https://news.gallup.com/opinion/polling-matters/267920/millennials-religiosity-amidst-rise-nones.aspx> (accessed on 17 January 2020).
- Overstreet, Dawn V. 2010. Spiritual vs. religious: Perspectives from today's undergraduate Catholics. *Catholic Education: A Journal of Inquiry and Practice* 14: 238. [CrossRef]

- Pargament, Kenneth I., Nalini Tarakeshwar, Christopher G. Ellison, and Keith M. Wulff. 2001. Religious coping among the religious: The relationships between religious coping and well-being in a national sample of Presbyterian clergy, elders, and members. *Journal for the Scientific Study of Religion* 40: 497–513. [CrossRef]
- Pearce, Michelle, Kerry Haynes, Natalia R. Rivera, and Harold G. Koenig. 2018. Spiritually integrated cognitive processing therapy: A new treatment for post-traumatic stress disorder that targets moral injury. *Global Advances in Health and Medicine*. [CrossRef]
- Pew Research Center. 2014. Importance of Religion in one's Life. Available online: <https://www.pewforum.org/religious-landscape-study/importance-of-religion-in-ones-life> (accessed on 14 November 2019).
- Poll, J. B., and T. B. Smith. 2003. The spiritual self: Toward a conceptualization of spiritual identity development. *Journal of Psychology and Theology* 31: 129–42. [CrossRef]
- Rickhi, Badri, Sabine Moritz, Robin Reesal, Tracy Jing Xu, Patti Paccagnan, Barbara Urbanska, Ming Fu Liu, Helen Ewing, John Toews, James Gordon, and et al. 2011. A spirituality teaching program for depression: A randomized controlled trial. *The International Journal of Psychiatry in Medicine* 42: 315–29. [CrossRef] [PubMed]
- Robbins, Mandy, and Leslie J. Francis. 2000. Religion, personality, and wellbeing: The relationship between church attendance and purpose in life. *Journal of Research on Christian Education* 9: 223–38. [CrossRef]
- Rubley, Julie Nicklin. 2017. *The Student-Centered University: Pressures and Challenges Faced by College Presidents and Student Affairs Leaders*. Washington, DC: The Chronicle of Higher Education, Available online: <http://results.chronicle.com/SCU-2017-O> (accessed on 20 November 2019).
- SafeColleges. 2019. Suicide Second Highest Cause of Death Among College Students. Available online: <https://www.safecolleges.com/suicide-second-highest-cause-of-death-among-college-students/#:~:text=Suicide%20is%20the%20second%20most,about%20seriously%20considering%20attempting%20suicide> (accessed on 26 February 2020).
- Sandage, Steven J., and Mark G. Harden. 2011. Relational spirituality, differentiation of self, and virtue as predictors of intercultural development. *Mental Health, Religion and Culture* 14: 819–38. [CrossRef]
- Schaefer, Frauke C., Dan G. Blazer, and Harold G. Koenig. 2008. Religious and spiritual factors and the consequences of trauma: A review and model of the interrelationship. *The International Journal of Psychiatry in Medicine* 38: 507–24. [CrossRef]
- Schneider, Mark. 2010. *Finishing the First Lap: The Cost of First Year Student Attrition in America's four Year Colleges and Universities*. Washington, DC: American Institutes for Research.
- Schwartz, Seth J., Wim Beyers, Koen Luyckx, Bart Soenens, Byron L. Zamboanga, Larry F. Forthun, Sam A. Hardy, Alexander T. Vazsonyi, Lindsay S. Ham, Su Yeong Kim, and et al. 2011. Examining the light and dark sides of emerging adults' identity: A study of identity status differences in positive and negative psychosocial functioning. *Journal of Youth and Adolescence* 40: 839–59. [CrossRef]
- Spitzer, Robert L., Kurt Kroenke, Janet BW Williams, and Bernd Löwe. 2006. A brief measure for assessing generalized anxiety disorder: The GAD-7. *Archives of Internal Medicine* 166: 1092–97. [CrossRef]
- Tedeschi, Richard G., and Lawrence G. Calhoun. 1996. The Posttraumatic Growth Inventory: Measuring the positive legacy of trauma. *Journal of Traumatic Stress* 9: 455–71. [CrossRef]
- Turkle, Sherry. 2017. *Alone Together: Why We Expect more from Technology and less from Each Other*. London: Hachette UK.
- Twenge, Jean M. 2013a. Does online social media lead to social connection or social disconnection? *Journal of College and Character* 14: 11–20. [CrossRef]
- Twenge, Jean M. 2013b. The evidence for generation me and against generation we. *Emerging Adulthood* 1: 11–16. [CrossRef]
- Twenge, Jean M., Brian H. Spitzberg, and W. Keith Campbell. 2019. Less in-person social interaction with peers among US adolescents in the 21st century and links to loneliness. *Journal of Social and Personal Relationships* 36: 1892–913. [CrossRef]
- Walach, Harald, Nina Buchheld, Valentin Bittenmüller, Norman Kleinknecht, and Stefan Schmidt. 2006. Measuring mindfulness—The Freiburg mindfulness inventory (FMI). *Personality and Individual Differences* 40: 1543–55. [CrossRef]
- Walker, Edward A., Elana Newman, Dorcas J. Dobie, Paul Ciechanowski, and Wayne Katon. 2002. Validation of the PTSD checklist in an HMO sample of women. *General Hospital Psychiatry* 24: 375–80. [CrossRef]

- Wallace, John M., Jr., Tyrone A. Forman, Cleopatra H. Caldwell, and Deborah S. Willis. 2003. Religion and American youth: Recent patterns, historical trends and sociodemographic correlates. *Youth & Society*, September 1.
- Weathers, Frank W., Brett T. Litz, Debra S. Herman, Jennifer A. Huska, and Terence M. Keane. 1993. The PTSD Checklist (PCL): Reliability, Validity, and Diagnostic Utility. Paper presented at the Annual Convention of the International Society for Traumatic Stress Studies, San Antonio, TX, USA, October 25.
- Webber, Ruth. 2002. Young people and their quest for meaning. *Youth Studies Australia* 21: 40–44.
- Wood, Ralph J., and Edward Hebert. 2005. The Relationship Between Spiritual Meaning and Purpose and Drug and Alcohol Use Among College Students. *American Journal of Health Studies* 20: 72–79.
- Xiao, Henry, Dever M. Carney, Soo Jeong Youn, Rebecca A. Janis, Louis G. Castonguay, Jeffrey A. Hayes, and Benjamin D. Locke. 2017. Are we in crisis? National mental health and treatment trends in college counseling centers. *Psychological Services* 14: 407. [[CrossRef](#)]



© 2020 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).