

An Overlooked Factor? How Religion and Spirituality
Influence Students' Perception of the Campus Environment

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Abstract

Postsecondary institutions are frequently forced to respond to discriminatory acts, including those against religious minorities. Such actions can create the perception of a hostile campus for students, which impinges on their learning and development. Research on the campus environment has traditionally focused on race and sex but has largely neglected other important aspects of students' identities like religion and spirituality. In this study, we investigated how the religious/spiritual aspects of the campus environment influenced students' perceptions of the overall campus environment using data from a multi-institutional sample of first-year and senior undergraduates. Our multivariate results show that the religious/spiritual dimensions of the campus environment account for a significant proportion of the variance in students' campus environmental perceptions.

Keywords: Religion, Spirituality, Campus Environment, Higher Education

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College campuses across the nation are experiencing an increase in incidents of discrimination and violence toward underrepresented populations. While discrimination has occurred against a variety of groups, religious minorities, particularly Jewish and Muslim faith groups, have become particularly vulnerable to these hate crimes as incidents are reported from across the country (Bauer-Wolf, 2017; Bishop, 2015; Dreid, 2016; Flaherty, 2016; Siddiqi, 2016). In light of these events, scholars and practitioners alike need to understand how students experience the religious and spiritual environment of college campuses. Decades of research have demonstrated how a positive campus environment leads to learning gains for students, and a hostile or discriminatory campus environment can prevent learning (Mayhew et al., 2016). While much of the existing campus environment research has focused on underrepresented racial/ethnic minorities and women in STEM disciplines, few have investigated the role religion and spirituality play in students' perception of the campus environment. This lack of research is surprising due to the vital role religion has in the identity development of young adults (Furrow, King, & White, 2004; King, 2003). This study contributes to this understanding by exploring students' perception of the spiritual and religious environment of today's college campuses

Campus environment research in the last twenty years has exposed the different experiences of students from different racial, ethnic, gender, and sexual identities (Hurtado & Harper, 2007; Mayhew et al. 2016). These studies focus on "measuring students' attitudes, perceptions, observations, or interactions within the racial environment of their institutions at a particular point in time" (Jayakumar & Museus, 2012, p. 5). The campus environment has become of increasing importance due to the diversification of the college students.

The religious and spiritual experiences of today's students add nuance to the exploration of campus environments. Despite the increasing number of students who identify with no specific religious tradition, college students held high levels of interest and involvement in matters related to spirituality and religious commitment (Higher Education Research Institute [HERI], 2004, 2005). The subject of spirituality and religion holds an important place in the lives of college students and has an essential impact on students' well-being (HERI, 2005; Small & Bowman, 2011). Neglecting this aspect of students' identity development and the influence the campus environment has on their development runs contrary to the most closely held traditions and assumptions of the student affairs profession (Love & Talbot, 2009).

Literature Review

In recent years, research focusing on the role of spirituality and religion among college students has become more common. Scholars have explored the concept of spiritual growth for students (Bowman & Small 2010, 2012, 2013; Cole & Ahmadi, 2010; Paredes-Collins, 2014; Small & Bowman, 2011), along with the influence of institution type (Gonyea & Kuh, 2006; Morris, Smith, & Cejda, 2003; Patten & Rice, 2009; Speers, 2008). More recently, research has emerged on the influence of religion and spirituality on-campus environment (Bowman & Toms Smedley, 2013; Mayhew, Bowman, & Rockenbach, 2014; Rockenbach & Mayhew, 2014; Rockenbach, Mayhew, & Bowman, 2015). However, Bowman and Smedley (2013) point out that "to date, little research has explored the link between religious affiliation and other important outcomes, such as university satisfaction" (p. 748).

In 2011, the Campus Religious and Spiritual Climate Survey (CRSCS) was launched to "assess dimensions of campus climate pertaining to religious and worldview pluralism" (Rockenbach, Mayhew, & Bowman, 2015). Research using the CRSCS has uncovered several

vital facets of influence on campus climate related to spirituality and student satisfaction (Rockenbach & Mayhew, 2014; Rockenbach, Mayhew, & Bowman, 2015). Racial factors were found to influence students' perception of campus climate as related to religious plurality (Rockenbach & Mayhew, 2014). Asian American and African American students viewed the campus environment more negatively than their Caucasian peers; however, due to the correlation between race and religion, it can be challenging to disentangle these factors. Students' satisfaction with the campus climate was "generally consistent across worldview subgroups," a surprising finding to the CRSCS research team (Rockenbach & Mayhew, 2014). In a further exploration of the CRSCS data, Rockenbach, Mayhew, and Bowman (2015) found a negative perception of the campus climate for students who identified as atheist relative to the religious majority students. Additionally, they found that students who identified as agnostic, religious majority, and religious minority also identified a similar lack of campus inclusivity for non-religious students (Rockenbach, Mayhew, & Bowman, 2015).

In the successor to the CRSCS, results from the Interfaith Diversity Experiences and Attitudes Longitudinal Survey (IDEALS) indicate that overt tensions over religion are not frequent on college campuses (Rockenbach, Mayhew, Correia-Harker, Dahl, Morin, & Associates, 2017). Instead, students with minority world views feel pressure to assimilate into the dominant worldviews (e.g., religious, political), as students tend to self-segregate by worldviews. IDEALS estimates that about a quarter of students experienced some sort of religious-based discrimination, and the source of the discrimination was generally from peers (Rockenbach et al., 2017). The IDEALS team has also found that the religious and spiritual campus climate is also critical to diverse friendship formation (Rockenbach, Hudson, Mayhew, Correia-Harker, Morin, & Associates, 2019). Simply, friendships are a product of the

environment, and an environment with inter-group hostilities will inhibit friendships across social groups.

An important concept potentially embedded in students' perception of campus religious/spiritual climate is that of Christian privilege. The influence of Christianity, particularly Protestant Christianity, is deeply seated within the structures of U.S. higher education (Geiger, 2015; Rudolph, 1962). To "uphold orthodox Puritanism," the earliest foundations of higher education in the United States, the Colonial colleges, grounded their identities in Protestant Christianity (Geiger, 2015, p. 1). These colleges were charged with the responsibility to educate ministers and the Colonial political elite (Geiger, 2015). Although today, only a small portion of college students attended private, religiously affiliated institutions (O'Shaughnessy, 2011), HERI (2005) found that seventy-four percent of college students identified with a form of Christianity, ten percent identified with a non-Christian religion, and seventeen percent identified with no religion. While Christianity remains the dominant religious demographic among college students, an increasing proportion of students do not identify with Christianity.

Compared to other forms of privilege, Christian privilege has not been as extensively researched in the context of higher education (Patten & Rice, 2009; Bowman & Smedley, 2013). Defined as "the conscious and subconscious advantages often afforded to the Christian faith in America's colleges and universities" (Seifert, 2007, p. 11), Christian privilege is engrained in the formal and informal structures of colleges and universities (Seifert, 2007). Examples abound in the physical structures found on many campuses like chapels, cafeteria food options, and academic calendars (Bowman & Smedley, 2013; Seifert, 2007). However, not all students identify with and receive benefits from the majority culture. The incongruity between students' faith values and the dominant institutional culture may be alienating to students with minority

faith views. However, little research to date has explored the relationship between religion and the campus environment. In this study, we seek to contribute to the burgeoning research in this area by investigating the relationships between students' perceptions of the campus environment, their religious views, and perceptions of the religious/spirituality campus environment.

Theoretical Framework

In exploring the relationship between campus environment and religious/spiritual diversity within U.S. higher education, the work of Hurtado, Milem, Clayton-Pederson, and Allen (1999) provides a useful theoretical framework for the various factors that shape campus climate. Hurtado and colleagues' (1999) framework is based on a wide array of research on campus racial/ethnic diversity and focuses on "improving the climate for diversity on campuses" (p. 1). The complexity of factors that shape the campus climate is the strength of this framework. Hurtado and colleagues (1999) engage the racial/ethnic diversity on college campuses by exploring four distinct institutional dynamics, these dynamics include: 1) historical legacy, 2) structural diversity, 3) psychological climate, and 4) behavioral dimensions. This framework not only assists campuses in understanding and improving the racial/ethnic diversity on campus, but also provides a useful framework in which to explore the influence of religious/spiritual diversity on perceptions of campus climate. While this theoretical framework was formed from research on racial/ethnic diversity, the applicability for religious minority students is evident. As college campuses in the U.S. become more religiously diverse, campuses must address these issues.

Research Questions

Guided by the aforementioned theory, we investigated the following research questions:

1. To what extent do undergraduate students feel uncomfortable at their postsecondary institutions due to their religious or spiritual beliefs?

2. How do students' perceptions of the campus religious/spiritual climate relate to their overall perception of the campus environment?

Methods

Data

Our data were derived from the 2016 administration of the National Student Survey of Engagement (NSSE). NSSE is a large, multi-institutional student survey focusing on students' participation in educationally beneficial activities and the perception of the campus climate, among other topics. The survey is annually administered to first-year and senior students attending bachelor's-granting institutions throughout North America. We focused our analyses on respondents that attended 38 U.S. institutions that received a supplemental set of items focusing on religious/spirituality campus climate that was appended to the end of the core NSSE instrument. Institutions were randomly selected to receive additional questions from a pool of NSSE participants who did not elect to append two additional item sets from the core survey. A total of 4,495 first-year and 6,670 senior students responded to the supplemental item set. The response rate for both the first-year and senior samples was 21%.

The respondents attended a diverse mix of institutions. About 40% of the sample attended an institution that awarded doctoral degrees, another 40% attended master's-granting institutions, while the remaining proportion attended baccalaureate colleges. Sixty percent of the respondents attended public institutions, 25% were enrolled at a Christian-affiliated institution, with the remaining proportion attending a non-sectarian institution (our sample did not include any institutions affiliated with a non-Christian religion). About 8% of the sample attended an institution with an undergraduate enrollment less than 1,000, 45% attended an institution with an undergraduate enrollment between 1,000 and 4,999 students, 9% attended institutions with

enrollments between 5,000 and 9,999 students, while 38% attended an institution with an enrollment of 10,000 or more.

Roughly 70% of the respondents were female. Most of the students were enrolled full-time. About 10% were members of a fraternity or sorority. Roughly two-thirds of the sample was White, while African Americans and Latina/os, each comprised 11% of the sample. About 4% of the respondents were Asian or a Pacific Islander, and 4% were international. The remaining students were Native American, multi-racial, or of an unknown race. Sixty-two percent of the sample was Christian, 5% of a non-Christian world faith (e.g., Jewish, Islamic, Hindu, Humanist), and 21% were unaffiliated with a religion or an atheist. About 11% of the sample preferred not to provide their religious/spirituality identity. These groupings were inspired by the Pew Research Center's (2015) Religious Landscape Study.

The primary survey items of interest were derived from the set of items about students' spirituality experiences appended to the core NSSE instrument (see Appendix A). The bulk of the questions ask students to state their level of agreement with statements inquiring about respect for individuals of different faiths, comfort with discussing religion and spiritual beliefs, and religious accommodations, and sense of belonging (e.g., "The students at my institution are respectful of people of different religious or spiritual beliefs", "I feel comfortable discussing my religious or spiritual beliefs during class", "I feel like I do not belong at my institution due to my religious or spiritual beliefs"). Additionally, the questions ask about participation in spirituality-based extracurricular activities, frequency of experiencing religious intolerance, and students' religious or spiritual identity. The religious/spiritual identity question included 28 possible response options; therefore, we recoded this variable into four categories: Christian, non-Christian world faith, the unaffiliated, and prefer not to respond.

In addition to the spirituality items, we utilized data from the core NSSE instrument. We used two of NSSE's aggregate measures as our proxies for the perception of the campus environment: Quality of Interactions and Supportive Environment. Information on the validity and reliability of the campus environment measures is available from NSSE's (n.d.)

Psychometric Portfolio. We used data on a variety of student characteristics captured on the survey to control for other factors related to perceptions of the campus environment in our multivariate analyses. The variables utilized included on-campus residency, greek-life participation, age, race, ethnicity and national origin, first-generation status, educational aspirations, transfer status, grades, and major field. Data on students' sex, class standing, and enrollment intensity were provided by the respondents' institutions and also used as control variables.

Analyses

To answer our first research question, which inquiries about to what extent do students feel uncomfortable about their spiritual/religious beliefs, we investigated descriptive statistics for selected items from the spirituality appended item set. This included examining the frequency distributions for the selected items.

Next, we investigated the relationship between students' perception of the religious/spirituality environment and the overall campus environment. We began these analyses by conducting an exploratory factor analysis on the spirituality item set to identify latent constructs related to the spiritual environment. The exploratory factor analysis utilized polychoric correlations due to the ordinal nature of the items (Holgado-Tello, Chacón-Moscoso, Barbero-García, & Vila-Abad, 2010). We extracted two factors, as suggested by an analysis of the scree plot: respect for beliefs and expression of beliefs. The factor loadings were rotated

using oblimin rotation to allow for the factors to be correlated to each other. The rotated factor loadings are displayed in Table 1. The results were nearly identical for both the first-year and senior samples.

--Insert Table 1 About Here--

To create the composite variables representing the two latent constructs identified from the factor analysis, respect for beliefs and expression of beliefs, we averaged the items with a rotated factor loading greater than .40. To estimate the reliability of the composite variables, we calculated Cronbach's α coefficient. The reliability of respect for beliefs was .87 for both the first-year and senior samples. The reliability of expression of beliefs was .79 for the first-year sample and .81 for the senior sample. These reliability coefficients all exceeded the generally accepted standards for reliability in social science research.

Next, we examined the bivariate correlations between our dependent variables and the two religious/spirituality campus climate variables: respect for beliefs and expression of beliefs. The dependent variables were NSSE's Quality of Interactions and Supportive Environment composite variables, which we used as proxies for the overall campus environment. After investigating the bivariate correlations, we created two fixed-effects regression models for each of the dependent variables. The first model contained a number of control variables like students' sex, religion, and race. The second model added the two spirituality campus climate variables identified via the factor analysis. We estimated the two separate models to investigate the change in variance explained in the dependent variables after adding the spirituality campus climate variables. We repeated these procedures for the first-year and senior samples independently. We also utilized institution-specific fixed effects to account for institutional differences. The intra-class correlation coefficients for the dependent variables ranged from .02 to .09. Finally, we

standardized the dependent variables and the religious/spirituality campus climate variables to have a mean of 0 and standard deviation of 1. The standardization of these variables allows identifying the clinical significance of the results.

Limitations

Our data was limited to first-year and seniors attending selected bachelor's-granting institutions that chose to participate in NSSE. Therefore, our sample may not be generalizable to the broader undergraduate population and may suffer from self-selection bias at the institution level. Additionally, our data was generally self-reported by students, which may be prone to error. Our results should be viewed correlational, not causal, as we cannot experimentally alter the religious campus climate. Additionally, as an initial inquiry into this topic, we did not investigate if the relationships vary by non-aggregated religious identities. Therefore, the results may be different for students with minority faith views.

Results

We began our analyses by examining the frequencies of the items from the religious/spirituality campus climate additional items. Table 2 contains the frequency distribution for these items. About three out of four students believed that students at their institution were respectful of people with different religious or spiritual beliefs. Roughly eight in ten students believed the same about their instructors and staff at their institutions. About 60% of students felt comfortable expressing their religious or spirituality identity during class; however, the respondents were slightly more likely to feel comfortable expressing their identity on campus. Few students disagreed that instructors provided accommodations for religious holidays and observances. About one in ten students felt like they did not belong due to their religious or spiritual beliefs. A third of the respondents believed the religious or spiritual culture positively

influenced their learning and development at their campus. About one in four students reported experiencing religious intolerance at least once in the past year.

--Insert Table 2 About Here--

Next, we examined the bivariate correlation between the respect for beliefs, expression of beliefs, Quality of Interactions, and Supportive Environment composite variables. For first-year students, the correlations between respect for beliefs with Quality of Interactions and Supportive Environment were .37 and .38, respectively. The correlations between expression of beliefs and Quality of Interactions and Supportive Environment were .37 and .41, respectively, for first-year students. Among seniors, the correlations between respect for beliefs with Quality of Interactions and Supportive Environment were .38 and .37, respectively. The correlations for expression of beliefs were .37 and .40 for Quality of Interactions and Supportive Environment, respectively. All of the correlations were significant at $p < .001$.

--Insert Table 3 About Here--

After examining the correlation coefficients, we estimated a series of fixed-effects multiple regressions that predicted our Quality of Interactions and Supportive Environment measures. Table 3 contains the results for Quality of Interactions. Model 1 contains the estimated coefficients without controlling for respect for beliefs and expression of beliefs, while the second model added these variables. Unless otherwise indicated, the results discussed refer to model 2 and control for other factors. The final regression models accounted for about 20% of the variance in Quality of Interactions for both the first-year and senior samples. As model 1, only accounted for about 5% of the variance for both samples, the inclusion of the religious/spirituality campus climate variables improved the predictive power of the regression model substantially. A standard deviation (SD) change in respect for beliefs was estimated to

produce .22 ($p < .001$) or .24 ($p < .001$) of an SD change in quality of interactions for first-year and senior students, respectively. A similar finding occurred for expression of beliefs as a SD change was associated with a .23 SD increase in quality of interactions for first-year students ($p < .001$) and a .20 increase for seniors ($p < .001$). Religion was not significantly related to Quality of Interactions after controlling for respect for and expression of beliefs, for first-year students. However, students who preferred not to state their religious or spiritual identity had slightly poorer quality of interactions than their Christian peers ($p < .05$). On-campus residents reported more positive interactions than their peers who lived off-campus (FY: $p < .01$; SR: $p < .05$). However, age was positively correlated with better quality of interactions (FY: $p < .01$; SR: $p < .001$). Students who aspired to earn a doctoral or professional degree reported more positive interactions with other students, faculty, and staff than students who aspired to earn a bachelor's degree (FY: $p < .05$; SR: $p < .01$). Students who earned grades lower than As on average reported poorer interactions ($p < .001$). Compared to social science majors, the only significant difference observed was for senior communications majors, which had more positive interactions on average ($p < .05$). We did not observe significant relationships at the $p < .05$ level for the variables not mentioned (see Table 3).

--Insert Table 4 About Here--

Table 4 presents the results for the models predicting Supportive Environment. Like the results for Quality of Interactions, unless otherwise indicated, the results discussed refer to model 2 and control for other factors. The R^2 for model 2 was .22 and .21 for first-year and senior students, respectively. The amount of variance explained increased by about 15 percentage points after including respect for beliefs and expression of beliefs, indicating that the inclusion of these variables greatly improved the predictive power of the model. Both respect for beliefs and

expression of beliefs were positively correlated with Supportive Environment. An SD increase in respect for beliefs was correlated with about a fifth of an SD increase in Supportive Environment ($p < .001$). An SD change in expression of beliefs was modeled to be associated with a .29 and .27 SD increase in Supportive Environment for first-year and senior students ($p < .001$), respectively. For first-year students, members of a non-Christian world faith perceived a less supportive environment compared to their Christian peers ($p < .05$). For seniors, students who choose prefer not to respond reported a less supportive campus environment compared to Christians ($p < .05$). Males perceived a less supportive environment than females ($p < .01$). Age was negatively correlated with perceptions of the campus environment for both first-year ($p < .001$) and senior ($p < .05$) students. After controlling for other factors, Hispanic and Latina/o first-year students perceived a more supportive campus environment than their White, first-year peers ($p < .05$). Among seniors, international students reported a more supportive environment than White seniors ($p < .05$). Among first-year students, first-generation students perceived a more supportive environment than their peers who had a parent who earned a college degree ($p < .05$). Seniors who aspired to earn a doctoral or professional degree perceived a more supportive campus environment compared to seniors aspiring to earn a Bachelor's degree ($p < .01$). Among seniors, transfer students were more likely to report a negative campus environment than their peers who did not transfer ($p < .001$). Students who earned grades lower than mostly As reported a less supportive campus environment (FY: $p < .001$; SR: $p < .05$). Compared to social science majors, seniors majoring in engineering perceived a less supportive campus environment ($p < .01$). Among first-year students, students majoring in the health professions reported a more supportive campus environment compared to social science majors ($p < .05$). Among seniors, students who were enrolled full time perceived a more supportive environment than students

attending on a part-time basis ($p < .001$). Significant differences at $p < .05$ were not observed by on-campus residency or greek-life membership for the first-year and senior samples. For the remainder of the variables not mentioned (see Table 4), we did not observe a significant relationship with supportive environment at the $p < .05$ level.

Discussion

Colleges have been dealing with an increase in discriminatory incidents against minority students, including religious minorities (Bauer-Wolf, 2017; Bishop, 2015; Dreid, 2016; Flaherty, 2016; Siddiqi, 2016). These incidents are troublesome as negative perceptions of the campus environment can hurt students' learning and development (Mayhew et al., 2016). While much of this research has examined the experiences of racial/ethnic minorities and women, considerably less attention has examined the role religion plays in how students perceive the campus environment. Consequently, in this study, we examined student perceptions of the religious/spiritual campus climate and investigated how students' perception of the religious/spiritual climate impacts their perception of the overall institutional campus environment.

Using a unique, multi-institutional dataset containing first-year and senior undergraduates at both public and private colleges, we began our analyses by examining the descriptive frequencies for items that examined how students perceived the religious/spiritual aspects of the campus climate. These results indicate that most students believed that students, faculty, and staff at their institution were respectful of their religious/spiritual beliefs and felt comfortable expressing their religious/spiritual beliefs. However, about a quarter of students reported experiencing religious intolerance at least once during the past year.

We then investigated the relationship between students' perceptions of the campus environment and the religious/spiritual dimensions of the campus climate. Through a factor analysis, we identified two components of the religious/spirituality campus climate: respect for beliefs and expression of beliefs. After controlling for other factors, we found that these two components account for a substantial proportion of the overall variation in the campus environment. We estimated that an SD change in respect for beliefs would result in about a .20 SD change in Quality of Interactions and Supportive Environment. Similarly, an SD change in expression of beliefs would be expected to increase Quality of Interactions by .20 SDs and Supportive Environment by .27 to .29 SDs. When combined, we would expect an SD change in our two religious campus climate measures to move the average student from the 50th to about the 70th percentile in their perception of the campus environment.

Typically overlooked in higher education research, our results suggest that religious/spiritual factors are an important component of the overall campus environment. Overall, students who believed that their beliefs were respected and felt comfortable expressing their religious/spiritual beliefs also expressed higher agreement with their campus being a supportive environment and having higher quality of interaction. These initial findings point to the importance of the religious/spiritual climate on today's college campuses.

While finding that the religious/spiritual climate impacts students' perceptions of overall campus environment, we found that particular religious or spiritual identities generally did not have a significant impact on students' perception of campus environment after controlling for other factors. First-year students who were members of a non-Christian, world faith showed a slightly negative perception of the supportive environment as compared to their Christian peers. Additionally, senior students who preferred not to respond to the religious identity question

showed a slightly significant negative perception of the supportive environment and quality of interaction, our campus environment proxies, as compared to their Christian peers. As we did not observe substantial differences, these results suggest that members of minority faith groups do not necessarily have negative perceptions of the campus environment. Rather, the experiences of students appear to play a more important role in determining students' perceptions of the campus environment, in the religious/spiritual dimensions. These findings indicate that institutions can take actionable steps to improve the overall campus environment by ensuring that all students feel that their religion and/or spirituality identity is respected and feel comfortable expressing their spiritual views.

Other factors like race and gender have often been pointed to as having a significant impact on the overall satisfaction of students with their campus environments (Hurtado & Harper, 2007). However, this study does not comport with these results. Male first-year and senior students perceived a less supportive environment as compared to their female counterparts when respect for beliefs and expression of beliefs were included in the model. Race also did not appear to play a significant role in students' perceptions of a supportive campus environment or quality of interactions. Only senior international students and first-year Hispanic/Latino students perceived a less supportive environment than their White peers when the respect for beliefs and expression of beliefs factors were included in the model. A possible rationale for the lack of differences by sex and race/ethnicity may be due to our inclusion of religion and the spirituality campus environment variables. Simply, religious views, sex, and race are correlated and religion has not been a focus of much of the campus environment literature. We strongly encourage future research on the campus environment to incorporate religious identity into their research designs to confirm or refute this important finding.

Other factors found to influence students' level of agreement included their enrollment status, as full-time seniors perceived a more supportive environment than part-time seniors. Academic achievement also appeared to negatively impact the level of agreement in supportive environment and quality of interactions between students who reported receiving mostly As and those who reported receiving mostly Bs and mostly Cs and lower. These additional findings offer some interesting insights into the experience of students and offer researchers and practitioners additional areas to consider when exploring students' experience of campus environments.

Implications for Practice and Future Research

This study found that religion and spirituality influences today's college campus environment. Coupled with the increase in incidents of discrimination and violence towards individuals who identify with non-Christian religions and spiritualities, college campuses must address the issue of religious pluralism and tolerance. The main implication for practice from the findings is that the negative relationship between minority religions and perceptions of the campus environment can be largely negated by ensuring that faculty, staff, and students respect students' religious views and ensuring that students feel comfortable expressing their religious views. Consequently, institutions should be viewed as active agents in helping to ensure a positive experience for religious minority students.

Researchers from the Interfaith Diversity Experiences & Attitudes Longitudinal Survey (IDEALS) team have recently identified a number of best practices to improve interfaith learning and development (Rockenbach et al., 2018). Students develop appreciative attitudes in "safe" and "brave" where students can discuss risky issues in a supportive space. Interfaith learning is also effective through orientation programming or minors like interfaith studies. Additionally, informal experiences in and outside of the classroom, like discussing different perspectives in

class and attending an interfaith vigil, can improve pluralistic attitudes. Faculty also have an important role in developing appreciative attitudes by engaging in challenging conversations with students. As a variety of effective practices can positively influence pluralistic attitudes, institutions and administrators can select which types of programs are the most suitable for the needs of their campus.

While our results indicate that institutions can improve the campus environment for religious minority students through dialog and respecting others' viewpoints, our descriptive results suggest about a quarter of students experienced intolerance related to their religious or spiritual views at least once within the past year. This indicates that religious intolerance is not uncommon during college. Additionally, about one in ten students feel uncomfortable expressing their beliefs in class or on campus. Given the large proportion of students experiencing acts of religious intolerance and who feel uncomfortable expressing their views, it is clear that institutions, faculty, and student affairs professionals must take affirmative steps to increase students' acceptance of their peers with different faith views. However, an important caveat is that few students believe that they do not belong at their institution due to their religious or spiritual beliefs indicating that much work has already been to help students feel accepted on campus.

Due to the relative lack of research on the religious/spiritual dimensions of the campus climate, many future research opportunities exist. Most research in this area has aggregated various religions and faith groups together, due to the large numbers of religions and rarity of some faith groups. However, it is unclear if these results would persist if the world faiths grouping was disaggregated to specific religions like Judaism and Islam. Another unanswered question is if the relationship between the religious dimensions of the campus environment and

the overall campus environment is mediated or moderated by students' religious identity. A finding from this study, deserving more attention is that our results do not comport with previous research on the campus environment for racial/ethnic minorities. Did the inclusion of religious identity and/or the religious campus environment into our regression model change the estimated effects of the coefficients? Additionally, our results highlight the important nature of religion in how students perceive the campus environment. However, religion and spirituality are frequently overlooked in the higher education research on the campus environment and climate. Consequently, it is likely that much of the campus environmental research is subject to omitted variable bias and researchers should make a determined effort to collect data on students' spirituality.

Conclusion

Incidents of discrimination, intolerance, and violence towards religious minority students have been reported all across the county. This study explored students' perception of campus environment as related to spiritual and religious identities. We found that while often ignored in the literature about campus environment, spirituality and religion do influence students' perception of campus environment and their overall satisfaction with their college environment. These results show that college administrators must understand and address the religious and spiritual elements within their campus environment. Through further research and campus educational engagements, college campuses can move in a positive direction in developing a more tolerant and pluralistic campus that addresses the spiritual and religious developmental needs of all of their students.

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Table 1

Rotated factor loadings

	First-Year		Senior	
	Respect for beliefs	Expression of beliefs	Respect for beliefs	Expression of beliefs
The students at my institution are respectful of people of different religious or spiritual beliefs	.64	.20	.68	.16
Instructors at my institution are respectful of people of different religious or spiritual beliefs	.98	-.04	.93	-.01
Staff and administrators at my institution are respectful of people of different religious or spiritual beliefs	.93	.00	.97	-.04
I feel comfortable discussing my religious or spiritual beliefs during class	.01	.90	.03	.91
I feel comfortable expressing my religious or spiritual identity on campus	-.01	.95	-.02	.94
Instructors provide accommodations for religious holidays and observances of various religious traditions	.25	.45	.26	.42
I feel like I do not belong at my institution due to my religious or spiritual beliefs (reverse coded)	.33	.00	.35	-.04
My learning and development has been positively influenced by the religious or spiritual culture at my campus	-.02	.58	-.04	.61

Table 2

Religious/spirituality campus climate frequency distributions by class

		First-year	Senior
		%	%
The students at my institution are respectful of people of different religious or spiritual beliefs	Strongly disagree	2	2
	Disagree	5	6
	Neither agree nor disagree	18	20
	Agree	48	47
	Strongly agree	27	25
Instructors at my institution are respectful of people of different religious or spiritual beliefs	Strongly disagree	1	1
	Disagree	2	2
	Neither agree nor disagree	14	15
	Agree	48	47
	Strongly agree	36	35
Staff and administrators at my institution are respectful of people of different religious or spiritual beliefs	Strongly disagree	1	1
	Disagree	2	2
	Neither agree nor disagree	14	17
	Agree	48	47
	Strongly agree	36	33
I feel comfortable discussing my religious or spiritual beliefs during class	Strongly disagree	3	4
	Disagree	9	10
	Neither agree nor disagree	25	27
	Agree	36	33
	Strongly agree	27	25
I feel comfortable expressing my religious or spiritual identity on campus	Strongly disagree	2	3
	Disagree	6	7
	Neither agree nor disagree	21	26
	Agree	41	37
	Strongly agree	30	27

Table 2 (continued)

		First-year	Senior
		%	%
Instructors provide accommodations for religious holidays and observances of various religious traditions	Strongly disagree	2	3
	Disagree	6	7
	Neither agree nor disagree	40	42
	Agree	32	30
	Strongly agree	20	18
I feel like I do not belong at my institution due to my religious or spiritual beliefs	Strongly disagree	44	45
	Disagree	28	27
	Neither agree nor disagree	16	17
	Agree	7	6
	Strongly agree	5	4
My learning and development has been positively influenced by the religious or spiritual culture at my campus	Strongly disagree	7	9
	Disagree	11	11
	Neither agree nor disagree	46	49
	Agree	22	19
	Strongly agree	14	13
During the current school year, how many times have you experienced religious intolerance?	Never	73	76
	1–3 times	18	17
	4–6 times	5	4
	7–9 times	1	1
	10 or more times	3	2

Table 3

Fixed-effect estimates of Quality of Interactions

	First-Year		Senior	
	Model 1	Model 2	Model 1	Model 2
	Coef.	Coef.	Coef.	Coef.
Religion (Ref: Christian)				
World faith	-0.09	-0.02	-0.06	0.00
Unaffiliated	-0.09 *	0.00	-0.11 **	-0.04
Prefer not to respond	-0.08	0.00	-0.22 ***	-0.08 *
Male	0.06	0.04	-0.02	-0.03
On-campus resident	0.14 ***	0.12 **	0.06	0.08 *
Greek-life member	0.02	-0.02	-0.02	-0.01
Age (10 years)	0.10 *	0.11 **	0.19 ***	0.17 ***
Race/ethnicity (Ref: White)				
Asian/Pacific Isl.	-0.07	-0.10	0.02	0.00
Black	-0.07	-0.03	0.05	0.00
Hispanic/Latina/o	-0.07	-0.09	0.08	0.05
International	0.02	-0.05	-0.01	-0.11
Other	-0.12	-0.08	0.06	0.10
First-generation	0.02	-0.01	0.02	0.00
Educational aspirations (Ref: Bachelor's)				
Some college	-0.05	0.02	-0.03	-0.02
Master's	0.01	0.00	0.05	0.05
Doctoral/professional	0.10 *	0.11 *	0.11 **	0.11 **
Transfer student	0.01	0.00	0.05	0.04
Grades (Ref: Mostly As)				
Mostly Bs	-0.16 ***	-0.12 ***	-0.16 ***	-0.11 ***
Mostly Cs or lower	-0.35 ***	-0.27 ***	-0.40 ***	-0.30 ***
Major field (Ref: Social Science)				
Arts & Humanities	0.07	0.11	0.00	0.02
Biological Sciences	0.01	0.04	-0.03	-0.01
Physical Sciences	-0.04	0.01	0.08	0.05
Business	0.05	0.04	0.05	0.03
Communications	0.09	0.10	0.17 *	0.14 *
Education	0.07	0.07	0.05	0.05
Engineering	0.06	0.05	0.00	0.02
Health Professions	0.04	0.05	0.02	-0.03
Social Service Prof.	0.09	0.08	0.12	0.09
All Other	0.19 *	0.15	-0.05	-0.07
Undecided	-0.21	-0.08	-0.37	-0.29

	First-Year		Senior	
	Model 1	Model 2	Model 1	Model 2
	Coef.	Coef.	Coef.	Coef.
Full-time	-0.13	-0.10	0.08 *	0.06
Respect for beliefs		0.22 ***		0.24 ***
Expression of beliefs		0.23 ***		0.20 ***
Constant	-0.10	-0.17	-0.56 ***	-0.52 ***
R^2	.04	.19	.06	.21

Notes: Models include institution-specific fixed effects

* $p < .05$, ** $p < .01$, *** $p < .001$

Table 4

Fixed-effect estimates of Supportive Environment

	First-Year		Senior	
	Model 1	Model 2	Model 1	Model 2
	Coef.	Coef.	Coef.	Coef.
Religion (Ref: Christian)				
World faith	-0.24 **	-0.16 *	-0.06	0.01
Unaffiliated	-0.10 *	0.01	-0.13 ***	-0.05
Prefer not to respond	-0.11 *	0.00	-0.25 ***	-0.09 *
Male	-0.08 *	-0.10 **	-0.08 **	-0.08 **
On-campus resident	0.06	0.04	0.02	0.04
Greek-life member	0.03	-0.02	0.02	0.03
Age (10 years)	-0.16 ***	-0.14 ***	-0.02	-0.03 *
Race/ethnicity (Ref: White)				
Asian/Pacific Isl.	0.08	0.07	0.10	0.07
Black	0.02	0.05	0.16 **	0.08
Hispanic/Latina/o	0.14 **	0.12 *	0.08	0.06
International	0.20 **	0.12	0.25 ***	0.13 *
Other	-0.11	-0.08	0.07	0.10
First-generation	0.10 **	0.06 *	0.01	-0.01
Educational aspirations (Ref: Bachelor's)				
Some college	-0.19 **	-0.12	-0.07	-0.07
Master's	0.02	0.00	0.02	0.02
Doctoral/professional	0.07	0.07	0.08 *	0.09 **
Transfer student	-0.08	-0.08	-0.12 ***	-0.12 ***
Grades (Ref: Mostly As)				
Mostly Bs	-0.16 ***	-0.13 ***	-0.12 ***	-0.07 **
Mostly Cs or lower	-0.29 ***	-0.21 ***	-0.23 ***	-0.12 *
Major field (Ref: Social Science)				
Arts & Humanities	0.02	0.07	-0.08	-0.05
Biological Sciences	0.01	0.05	-0.14 *	-0.10
Physical Sciences	-0.11	-0.04	-0.08	-0.10
Business	0.09	0.07	-0.04	-0.05
Communications	0.04	0.06	-0.02	-0.05
Education	0.03	0.03	-0.10	-0.10
Engineering	-0.06	-0.06	-0.22 **	-0.18 **
Health Professions	0.13 *	0.14 *	-0.05	-0.09
Social Service Prof.	0.12	0.12	0.05	0.03
All Other	0.08	0.03	-0.02	-0.04
Undecided	-0.18	-0.04	-0.25	-0.22

	First-Year		Senior	
	Model 1	Model 2	Model 1	Model 2
	Coef.	Coef.	Coef.	Coef.
Full-time	-0.10	-0.07	0.16 ***	0.13 ***
Respect for beliefs		0.19 ***		0.20 ***
Expression of beliefs		0.29 ***		0.27 ***
Constant	0.42 **	0.32 *	0.12	0.13
R^2	.04	.22	.05	.21

Notes: Models include institution-specific fixed effects

* $p < .05$, ** $p < .01$, *** $p < .001$

Appendix A

Items in the religious/spirituality campus climate set

Introductory text: We want to know religious and spirituality climate of your institution. By “*religious or spiritual beliefs*”, we mean both formal and informal religious beliefs and the lack of spiritual beliefs (atheism).

1. Please indicate your agreement with the following statements:
Response options: 5=Strongly agree, 4=Agree, 3=Neither agree nor disagree, 2=Disagree, 1=Strongly disagree
 - a. The students at my institution are respectful of people of different religious or spiritual beliefs.
 - b. Instructors at my institution are respectful of people of different religious or spiritual beliefs.
 - c. Staff and administrators at my institution are respectful of people of different religious or spiritual beliefs.
 - d. I feel comfortable discussing my religious or spiritual beliefs during class.
 - e. I feel comfortable expressing my religious or spiritual identity on campus.
 - f. Instructors provide accommodations for religious holidays and observances of various religious traditions.
 - g. I feel like I do not belong at my institution due to my religious or spiritual beliefs.
 - h. My learning and development has been positively influenced by the religious or spiritual culture at my campus.
2. During the current school year, about how often have you participated in religious or spirituality-based extracurricular activities?
Response options: 4=Very Often, 3=Often, 2=Sometimes, 1=Never
3. During the current school year, how many times have you experienced religious intolerance?
Response options: 0=Never, 2=1-3 times, 5=4-6 times, 8=7-9 times, 12=10 or more times
4. What is your current religious or spirituality identity?
Note: 28 options recoded to 1=Christian, 2=non-Christian, world faith, 3=Unaffiliated, 4=Prefer not to respond