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Sense of community as a mediator between study abroad experiences and perceived well-being

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Abstract

This study examined the nature and extent of the relationship between studying abroad, sense of community, and well-being. Participants completed a demographic questionnaire, the Sense of Community Index, and the Perceived Wellness Scale via an online survey emailed to juniors and seniors ($n = 267$) at a university in southern California. The results of the study suggested: 1) sense of community and well-being are significantly related ($r = .35, p < .001$), 2) those who study abroad ($n = 149$) differ significantly from those who do not study abroad ($n = 118$) on sense of community ($p < .001, d = .52$) and well-being ($p = .03, d = .27$), and 3) sense of community is a mediator of the relationship between study abroad experience and well-being. These findings have important implications for institutes seeking to promote well-being. Future directions and limitations are further discussed.

Keywords: sense of community, study abroad, international program, well-being

Sense of Community as a Mediator Between Study Abroad Experiences and Perceived Well-Being

As the world has become more globalized, the opportunity to study abroad has become readily available to students. The U.S. Department of State (2018) reports 325,339 U.S. students studied abroad in the 2015- 2016 academic year, an increase of four percent compared to the previous year. According to the same source, the most popular destinations for studying abroad included the United Kingdom, Italy, and Spain, among others. The popularity of participating in study abroad programs may be attributed to the various opportunities it provides for skill development, which are highly valued in an increasingly globalized market. These opportunities include enhancing foreign language proficiency, fostering cultural adeptness, vocational development, and promoting greater well-being. Due to its growing popularity, there is a need for more research to examine the psychological benefits and consequences of studying abroad, a demand the present research aims to meet.

Benefits of Study Abroad Experiences

Research indicates there are many cultural benefits of studying abroad. Walsh and Walsh (2018) examined benefits of abroad experiences and discovered many common themes by interviewing eight students who had previously studied abroad. Results suggested that language proficiency and cultural competency were common themes among the students. Earlier research conducted by Ingraham and Peterson (2004) surveyed about 2,500 students before and after their study abroad experience. Their findings indicate that respondents reported a greater sense of intercultural growth and language learning in their analysis of pre- and post-measures. Similarly, Dwyer and Peters (2004), who examined alumni across all International Education of Students (IES) study abroad programs from the years 1950 to 1999, reported 82% of 3,400 respondents

surveyed reported that their time studying abroad aided in their understanding of the world around them.

Study abroad seems to also have an influence on one's career development. Several studies indicate that undergraduate students who studied abroad reported a better understanding of their career path when compared to before they studied abroad, and after a significant portion of time had elapsed since their time abroad (Dwyer, 2004; Dwyer & Peters, 2004; Ingraham & Peterson, 2004). Participation in a study abroad program can also aid in students' understanding of their life purpose. Miller-Perrin and Thompson (2010) found sense of life purpose and commitment to serving others increased in a sample of 300 first year students over a four-year time span for those who studied abroad compared to those who did not study abroad.

Additionally, other studies have identified intrapersonal benefits, such as personal growth and confidence (Ingraham & Peterson, 2004; Walsh & Walsh, 2018). Dwyer and Peters (2004) reported that 96% of 3,400 IES alumni who responded to a survey claimed that their abroad experience increased their confidence. Miller-Perrin and Thompson (2010) examined changes in faith before and after studying abroad in their undergraduate sample and found that students who studied abroad experienced an increase in the application of their faith in their daily life compared to students who did not study abroad. Research has also suggested that students experience interpersonal benefits from studying abroad. Walsh and Walsh (2018) found in their sample of students who had studied abroad that they frequently mentioned friendship and group cohesion as a positive aspect of their experience.

Researchers have examined the various benefits of participating in a study abroad program, but there has been no research to examine the relationship between studying abroad and overall well-being. There is limited research examining social benefits of studying abroad. In

a study by Walsh and Walsh (2018), five out of eight participants claimed that both friendships and group cohesion abroad were both positive parts of their time in their international program. However, there is a lack quantitative research on abroad experiences, specifically on group cohesion and sense of community.

Sense of Community and Well-Being in Study Abroad Programs

As suggested by Walsh and Walsh (2018), students who have studied abroad report a sense of group cohesion and friendship as a benefit. Miller-Perrin and Thompson (2010) speculated that sense of community is a variable that might explain differences in the acquisition of benefits between students who study abroad and students who do not study abroad. As defined by McMillan and Chavis (1986), sense of community is an experience that persons have a place in a community, matter to others, and feel their needs will be met through others. This theory of sense of community highlights four different important aspects that make up one's sense of community, including membership (i.e., personal investment, sense of belonging), influence within a group, fulfillment of needs, and shared emotional connection.

Being that sense of community is a possible benefit of study abroad experiences, it is reasonable to speculate that well-being is another possible benefit of studying abroad, as researchers have suggested there is a significant relationship between sense of community and well-being (Coulombe & Krzensi, 2018; Davidson & Cotter, 1991; Pretty et al., 1996). While well-being can be understood in many different ways, Adams and colleagues (2000) define perceived well-being as a sense one is living with that allows growth in their emotional, intellectual, physical, psychological, social, and spiritual experience. Furthermore, Davidson and Cotter (1991) found that sense of community and subjective well-being were positively correlated in a study among South Carolina and Alabama residents. Past researchers have

indicated a cross-sectional relationship between well-being and sense of community among a sample of 491 adults from Quebec, the strongest relationship found was between sense of community and social well-being (Coulombe & Krzensni, 2018). Pretty and colleagues (1996) suggested a similar relationship between well-being and sense of community; however, their sample was composed of adolescent between the ages of 13 to 18 years old, a demographic characteristic that differs from the other studies.

Regarding the direction of the relationship between sense of community and well-being, Prati and others (2016) indicated that there is a reciprocal relationship, meaning that both sense of community and well-being can function as predictors for one another. Secondly, there are theories of well-being that identify a social aspect to well-being, such as social well-being. Therefore, based on past research and the theory of well-being, it is reasonable to speculate that well-being is a possible benefit of study abroad experiences.

Students Not in Study Abroad

There are many reasons why students might not decide to choose study abroad. Stroud (2010) surveyed 2,258 students and found that females are about twice as likely to study abroad as males, while plans to pursue a graduate degree and intended major or professional careers (e.g., engineering, architecture, medicine) were related to not studying abroad. Simon and Ainsworth (2012) examined a mix of nationally drawn quantitative data from 8,882 students and found that White and Asian students were more likely to study abroad than their Black and Hispanic peers. In addition, family and peer social networks, socioeconomic status (SES), cultural interest, cultural capital, and other various factors were related to one's ability to study abroad (Simon & Ainsworth, 2012). These results indicate that various factors, such as gender, race, major, SES, and graduate school plans may impact whether one participates in a study

abroad program or not; however, there has been little research to examine how these variables relate to one's decision to study abroad.

While there is a gap in research regarding the sense of community and well-being of students who either are not able or choose not to participate in a study abroad program, there has also been no past research to examine whether those who study abroad differ from those who do not study abroad on sense of community and perceived well-being. Given the benefits of studying abroad, it can be inferred that students who study abroad will differ on the variables of sense of community from those who do not study abroad. However, with McMillan and Chavis' (1986) definition of sense of community, there is no reason to posit that sense of community is a benefit that applies only to students who study abroad, or that students who do not study abroad would be unable to develop a sense of community. In addition, given the strong quantitative connection between sense of community and well-being, it seems that it may be possible that those who do not study abroad but participate in campus activities that promote sense of community may have equally high levels of well-being (Coulombe & Krzensi, 2018; Davidson & Cotter, 1991; Pretty et al., 1996). Thus, sense of community, derived from a community experience either abroad or on campus, could mediate the relationship between study abroad experiences and well-being.

The Current Study

The purpose of the current study is to examine the relationship between study abroad status (those who study abroad versus those who do not), sense of community, and well-being using an online survey. More extensive research is needed to quantitatively study various factors, including gender, race, undergraduate major, socioeconomic status, and graduate school plans, and how they might impact whether one participates in a study abroad program or not. Based on

previous literature, we hypothesize that 1) participants who report a higher sense of community will also report greater well-being regardless of whether they study abroad, 2) there will be a quantitative difference between students who study abroad and those who do not on the variables of sense of community and well-being, 3) we will also conduct exploratory analyses to examine the difference between study abroad groups on the different dimensions of well-being, and 4) sense of community will mediate the relationship between study abroad experiences and well-being.

Method

Participants

An online survey was sent via email to 1,914 juniors and seniors from a private, Christian, liberal arts university in California, approved by the university's institutional review board. The response sample included 279 participants for a response rate of 15%. Six participants were excluded from the analyses, as they failed to answer the validity question correctly, while six other participants were excluded due to their status as outliers. For the purposes of this study, outliers were defined as any participant whose scores were 2.5 standard deviations above or below the mean score. The final sample therefore included 267 participants and was comprised of 67% females and 31% males, with 0.7% identifying as gender non-conforming. The sample composition was 53% juniors and 47% seniors. Participants ranged in age from 18-51 years old ($M = 20.73$). The sample was primarily White (55%), but also included those who identify as mixed race (18%), Asian Americans (14%), Hispanics or Latinos/Latinas (6%), African Americans (4%), those who did not identify with any of the races listed (2%), Middle Easterners/North Africans (1%), and Pacific Islanders (0.4%). Regarding socioeconomic status, the sample contained primarily students whose parents' net household income was

between \$45,000 and \$139,999 (29%), however, responses ranged from less than \$20,000 to \$200,000 or above.

Materials

Demographic Questionnaire

The demographic questionnaire included items that assessed participants' basic demographic information, including gender, age, race, socioeconomic status, and year in school. To assess gender, race, and socioeconomic status, questions were forced-choice items and participants were able to choose from a variety of alternative responses. When assessing age, participants were instructed to write in their responses.

Participants' study abroad experiences were also assessed. Participants were asked whether they participated in a study abroad program. To assess study abroad status, participants chose between two options, which indicated that they either studied abroad or did not study abroad. Being that the majority of students studied abroad during their sophomore year, the survey was designed to assess participants' state during their second year of university. Based on responses to this question, two groups were formed: Study Abroad Group ($n = 149$) and No Study Abroad Group ($n = 118$). The demographic questionnaire also included the following question to assess while also acting as an attention check, "What is the third word in this question?" Participants had four choices to choose from: "the," "third," "in," and "question" with the correct answer being "the." Participants' data was only included if they responded accurately to this question.

Perceived Well-Being

To assess well-being, participants were administered a modified version of the Perceived Wellness Scale (PWS) created by Adams and colleagues (1997). The scale questions were modified to allow participants to answer retrospectively regarding their well-being during the year that they studied abroad (e.g., “I rarely counted on good things happening to me.”). The scale instructions were also modified to achieve the same purpose (e.g., “Before you complete this section of the survey, take a moment to think back to your second year at Pepperdine and try as best you can to reflect on how you felt during that time of your life. As you move through each question, keep at the forefront your state of mind during your second year as you answer each question in this section.”). The PWS contains 36 items that assess six different dimensions of well-being including Emotional Centeredness (e.g., “In general, I feel confident about my abilities.”), Intellectual Stimulation (e.g., “In the past, I have generally found intellectual challenges to be vital to my overall well-being.”), Physical Resilience (e.g., “I expect to always be physically healthy.”), Psychological Optimism (e.g., “In the past, I have expected the best.”), Social Connectedness (e.g., “My friends will be there for me when I need help.”), and Spiritual Life Purpose (e.g., “I believe there is a real purpose for my life.”). The 36 items are all rated on a six-point Likert scale ranging from 1 (*Very strongly disagree*) to 6 (*Very strongly disagree*). A total of 15 items are reverse scored. A total composite score is calculated by summing all responses (PWS Total). Subscale scores for each of the six subscales are calculated by summing responses to each of the six items for each dimension including Emotional Centeredness ($\alpha = .97$), Intellectual Stimulation ($\alpha = .98$), Physical Resilience ($\alpha = .98$), Psychological Optimism ($\alpha = .98$), Social Connectedness ($\alpha = .97$), and Spiritual Life Purpose ($\alpha = .98$). Scores for PWS Total range from 36-216 and each subscale scores range from 6-36, with higher scores

suggesting greater perceived well-being. Previous researchers (e.g., Adams et al., 2000) have indicated a very high internal reliability for the PWS ($\alpha = .91$). The current study measured internal reliability for the sample using Cronbach's alpha for PWS Total ($\alpha = .99$).

Sense of Community

A modified version of the Sense of Community Index (SCI) created by Chavis and others (1986) was used to assess participants' sense of community. The SCI items were modified to allow for the participants to answer retrospectively by rewording the questions in the past tense. Being that the SCI was developed to assess sense of community within an urban neighborhood, questions were reworded to fit the context of a study using college students as participants (e.g., "I felt at home in my international/on campus residency."). This modification of the SCI was necessary for the purposes of the study, as participants were required to reflect on their time studying abroad or living on campus in the past. Further, the questions needed to match the environment of the participants, which were campus residencies, as opposed to urban neighborhoods. The scale instructions were also modified to promote students to answer the questions retrospectively (e.g., "Before you complete this section of the survey, take a moment to think back to your second year at Pepperdine and try as best you can to reflect on how you felt during that time of your life. As you move through each question, keep at the forefront your state of mind during your second year as you answer each question in this section."). Again, this modification was due to participants' need to recall their time abroad or their time on campus during their sophomore year of college. While participants were asked to reflect about experiences which occurred potentially two years before this study was conducted, research has indicated that retrospection is a reliable and valid methodology for collecting data, so long as the measure itself is reliable and valid (Miller et al., 1997). The SCI contains 12 true/false items that

include four subscales that measure four different theoretical dimensions of the sense of community theory set out by McMillan and Chavis (1986). The four subscales include Membership (“I feel at home on this block.”), Influence (“I have no influence over what this block is like.”), Fulfillment of Needs (“I think my block is a good place for me to live.”), and Shared Emotional Experience (“I expect to live on this block a long time.”). A total score (SCI Total) is calculated by summing all responses, with responses of “true” being represented as a 1 and responses of “false” represented as a 0. Scores range 0-12 with higher scores suggesting a greater sense of community. The SCI has been found to have a good internal reliability ($\alpha = .80$) (Chipuer & Pretty, 1999). The current study measured internal reliability using Cronbach’s alpha was ($\alpha = .84$).

Procedure

A convenience sample was obtained throughout Fall 2020 by recruiting all juniors and seniors attending the university through an email containing a link to an online self-report survey. The survey asked participants to reflect on how they felt their sophomore year of college, whether they studied abroad or not. Following the original email invitation, three survey reminders were emailed one week apart to increase participation. Students completed the demographic questionnaire first; the order of the measures was randomized with some of the participants receiving the PWS first, followed by the SCI, and other participants receiving the SCI first, followed by the PWS. The survey took approximately 15-20 minutes to complete. Students who participated were entered into a raffle for a \$100 Amazon gift card.

Results

Preliminary Analyses

First, descriptive statistics and reliability scores were calculated for the SCI ($M = 9.27$, $SD = 2.62$; skew = -0.95, kurtosis = 0.05) and the PWS ($M = 152.13$, $SD = 23.62$; skew = -0.34, kurtosis = -0.02).

Next, separate Chi-Square tests were conducted between Study Abroad status and various demographic variables which previous research has shown to significantly correlate with study abroad status. Results indicated that there were no significant relationships between whether one studies abroad and gender ($\chi^2 (3, N = 273) = 2.55, p = .47$), race ($\chi^2 (8, N = 273) = 9.42, p = .31$), undergraduate major ($\chi^2 (28, N = 273) = 24.83, p = .64$), and socioeconomic status ($\chi^2 (7, N = 273) = 3.84, p = .80$). Thus, these were not controlled for in subsequent analyses.

Study abroad programs prematurely ended due to the COVID-19 pandemic for the juniors in the sample. Therefore, two independent sample t tests were performed between juniors and seniors on their SCI and PWS total scores to determine whether the outbreak of COVID-19 affected juniors' scores who might have been sent home early due to the pandemic. Results showed that juniors and seniors did not significantly differ on PWS total scores ($t (264) = 0.28, p = .34$). In addition, juniors and seniors did not differ significantly on SCI total scores ($t (264) = -0.05, p = .96$). Therefore, juniors and seniors were combined in subsequent analyses.

Relationship Between Study Abroad, Sense of Community, and Well-Being

A Pearson product-moment correlation was conducted to examine the extent of the relationship between SCI total scores and PWS total scores. The results indicated that SCI total scores and PWS total scores were significantly positively correlated ($r (265) = .35, p < .001$).

Two independent samples t tests were performed between the Study Abroad and No Study Abroad groups on both SCI total scores and PWS total scores to examine score differences

between study abroad groups (see Table 1). Regarding SCI total scores, the difference between the mean scores for Study Abroad and No Study Abroad was statistically significant ($t(264) = 4.13, p < .001, d = .52$), with the Study Abroad group ($M = 9.86, SD = 2.30$) scored higher than the No Study Abroad group ($M = 8.53, SD = 2.82$). The difference between PWS total scores for Study Abroad and No Study Abroad groups were also statistically significant ($t(264) = 2.15, p = .03, d = .27$), with the Study Abroad group ($M = 154.95, SD = 20.89$) scoring higher than the No Study Abroad group ($M = 148.58, SD = 26.32$).

Six separate independent samples t tests were conducted to examine whether those who study abroad differ from those who do not on different dimensions of well-being, using the PWS subscale scores (see Table 1). Statistically significant differences were observed for one subscale. The difference between means on the Intellectual Stimulation subscale were statistically significant ($t(265) = 2.03, p = .04, d = .25$) with the Study Abroad group ($M = 27.18, SD = 4.19$) scoring higher than the No Study Abroad group ($M = 26.09, SD = 4.53$). Marginally statistically significant differences were observed for two subscales. The difference between means on the Spiritual Life Purpose subscale approached significance ($t(265) = 1.85, p = .07, d = .23$), with the Study Abroad group ($M = 25.32, SD = 5.90$) scoring higher than the No Study Abroad group ($M = 23.94, SD = 6.20$). The difference between means on the Social Connectedness subscale also approached significance ($t(265) = 1.70, p = .09, d = .21$), with the Study Abroad group ($M = 27.41, SD = 4.54$) scoring higher than the No Study Abroad group ($M = 26.39, SD = 5.27$). No statistically significant differences were observed on any of the remaining subscales.

Finally, a mediation analysis was conducted to examine the nature of the relationship between sense of community, well-being, and studying abroad. First, a simple regression was

conducted between Study Abroad group status and PWS total scores and indicated that study abroad status was a significant predictor of PWS total scores ($F(1, 265) = 4.86, p = .03, R^2 = .02, SEE = 23.45$). Next, a simple regression was conducted between Study Abroad group status and SCI total scores, which indicated that study abroad status was a significant predictor of SCI total scores ($F(1, 265) = 17.86, p < .001, R^2 = .06, SEE = 2.54$). Finally, a multiple regression was conducted with Study Abroad group status and SCI total scores as predictors of PWS total scores. The results demonstrated that study abroad status and SCI total scores were statistically significant predictors of PWS total scores ($F(2, 264) = 18.35, p < .001, R^2_{Adj} = .12$). However, while SCI total scores aided in the prediction ($\beta = .33, t = 5.59, p < .001$), study abroad status did not aid in the prediction ($\beta = -.05, t = -0.85, p = .40$). Thus, the results indicate that SCI total scores mediates the relationship between Study Abroad group status and PWS total scores. Standardized coefficients and p values are presented in Figure 1.

Discussion

The present study aimed to examine the relationship between study abroad status, sense of community, and well-being. The results of the present study suggest that sense of community and well-being were significantly, positively correlated, such that those who had a greater sense of community also had a greater sense of well-being, supporting our first hypothesis. These findings are consistent with previous researchers (Coulombe & Krzensi, 2018; Davidson & Cotter, 1991; Pretty et al., 1996) that have also found a relationship between sense of community and well-being. Our second hypothesis was also confirmed. The results indicated that those who study abroad differ significantly from those who do not study abroad in both sense of community and well-being. Students who studied abroad had significantly higher levels of sense of community and well-being compared to students who did not study abroad. Thus, study abroad

programs provided students with a greater sense of community when compared to students who remained on campus, which was further related to the greater well-being among students who studied abroad. This supports previous findings which indicated that sense of community was a benefit of studying abroad (Walsh & Walsh, 2018).

Next, we explored whether different dimensions of well-being varied based on participation in study abroad experiences. Our findings indicated that, while those who studied abroad did not differ from those who do not study abroad on emotional well-being, psychological well-being, or physical well-being, those who studied abroad reported greater intellectual well-being compared to those who did not study abroad. Students who studied abroad reported a greater sense of intellectual well-being, or intellectual stimulation including seeking out activities that are challenging or cause them to think and reason and being less content with how much information they processed during a given day. This finding suggests that studying abroad is positively associated with intellectual wellness. Perhaps exposure to a different culture or a foreign language stimulates intellectual development and, thus, promotes intellectual fulfillment. While universities often promote study abroad programs as cultural experiences, these findings indicate that universities could market study abroad programs for intellectual fulfillment as well.

Scores on social well-being and spiritual well-being were marginally significantly different between study abroad groups, however, the pattern of results suggested higher scores on these dimensions for those who studied abroad compared to those who did not. In terms of social well-being, students who studied abroad reported feeling able to ask advice of a friend and felt supported by family. In terms of spiritual well-being, students who studied abroad reported feeling a general sense of life purpose and a greater sense of life meaning. These trends are

consistent with the finding that those who studied abroad experienced a greater sense of community and general well-being. That these differences did not reach statistical significance may be due to our relatively small sample size.

Finally, our last hypothesis was confirmed by the mediation analysis. Study abroad experience was initially a significant predictor of well-being. Yet when analyzed with sense of community, study abroad experience no longer significantly predicted well-being, with sense of community remaining a significant predictor of well-being. The results therefore indicated that sense of community completely mediated the relationship between study abroad experiences and well-being. This suggests that the impact of study abroad experiences on well-being can be explained by sense of community. Though causation cannot be assumed, the results of the mediation analysis can be interpreted as such: study abroad experiences foster sense of community, and sense of community fosters well-being. Study abroad experiences also promote well-being, but primarily through its contribution to a sense of community. In other words, while study abroad experiences might affect one's well-being, the bulk of that effect is a result of sense of community. All in all, the findings of this study indicate that it would be worthwhile for universities to consider sense of community as a potential point of intervention for promoting well-being among students. Since much of the effect that study abroad experiences have on well-being is due to sense of community, universities can focus on promoting a sense of community among students, whether abroad or not, in order to foster well-being.

Limitations and Future Directions

There are several limitations to the present study which future researchers can improve upon. First, past research that was used in the literature review and informed our hypotheses contained a limited sample of only eight participants (Walsh & Walsh, 2018). Thus, the findings

in this paper are not as generalizable to the public. Second, the current study had a limited response rate of only 15%; a possible explanation is that students were not willing to dedicate time to the study, as the incentive was not worth their time. Also, students might have simply missed the email, as it was not related to their academic or extracurricular life. However, based on the demographics of the current sample, the sample still accurately represented the demographic makeup of the university population.

Third, the sample for the current study was demographically non-diverse. Future researchers should collect a random sample of students from various ethnic/racial and socioeconomic backgrounds. In addition, samples should be drawn from multiple different universities that include a variety of study abroad program models. The model used by the university attended by the current sample primarily includes shared suites and apartments with common living spaces. Alternative program models might affect student's sense of community, as living with other students affect sense of community compared with other housing models, such as home stays. Thus, future studies should investigate various factors among different study abroad program models that contribute to enhancing a sense of community.

Fourth, different measures should be used by future researchers to determine whether the results of the present study are replicable with other measures of sense of community and well-being and are replicable more broadly. Further, it might be that broader measures of wellness that assess different dimensions of well-being are needed. For example, a well-being measure that includes financial well-being or occupational well-being could be important to broaden understanding. Similarly, future research could include broader measures of sense of community. For instance, measures that use broader definitions of sense of community (i.e., different dimensions of sense of community, such as one's role within the community) could further our

understanding. Therefore, a more diverse range of measures should be utilized. Additionally, researchers should consider collecting data over an extended period of time. Potentially, researchers could conduct a more methodologically rigorous longitudinal study that examines changes over time and whether sense of community is a long-term benefit of studying abroad.

During Spring 2020 various abroad programs were canceled due to the COVID-19 pandemic, causing many students to be sent home earlier than expected. This means that time abroad varied more among the participants than expected and participants also likely experienced greater amounts of stress between their sophomore year and when the study was conducted. Lastly, future researchers should investigate what experiences students who do not study abroad lack compared to those who do study abroad. Also, the relationship between study abroad experiences and well-being should be further assessed, specifically possible explanatory variables that could account for additional variance in predicting well-being. Our mediation model only included study abroad experiences and sense of community and accounted for only about 12% of the variance in well-being. Other variables that might affect well-being include physical activities, personal religious experiences, and challenging psychological experiences, which develop one's character, such as failing to meet personal goals or encountering diverse viewpoints. Given the lack of research regarding this topic, the present study fills a missing gap in this field, providing a foundation for future studies.

Implications

The findings of the current study have a myriad of implications, especially for any institution that hopes to promote well-being. Regarding the findings of hypothesis one, institutions that seek to promote wellness can implement programs or activities that promote sense of community among individuals. For example, a university might set up community

building activities for students on campus, such as planned weekend trips for classes, inter-club activities, and off-campus activities in which students can interact with the local community. Additionally, universities should creatively promote such programs to make a wider range of students more aware of them. Further, universities should work to establish unique student communities. This could be accomplished in a variety of different ways. For instance, universities could create cohort groups based on majors or extracurricular interests; these cohorts could take the same classes, live together in designated housing, or participate in extracurricular activities together.

To promote a sense of community between students and faculty, universities could create programs that seek to promote one-on-one interactions with professors to nurture relationships. For example, a university could implement a program in which students are connected to faculty members with similar interests through interest surveys or self-selection. Such programs could encourage the faculty-student pairs to share informal meals together, participate in academic activities in which they both enjoy (e.g., book readings and discussion), or mutually support each other in extracurricular activities. Universities could create similar programs focused on nurturing academic mentorships. Students could be connected with a professor who shares academic interests through their major or by choosing a faculty member with which the student is familiar. This mentorship program could help students discern what they are interested in academically, allow professors to work with students on academic projects outside of class, or create meetings for students to discuss academic goals with their mentor. Such programs would not only help students develop a sense of community with their peers, but also develop a sense of community with faculty.

There are many implications of the results of hypothesis two. First, since the students who studied abroad had a greater sense of community and well-being, these findings suggest universities try to promote participation in an international program, as studying abroad is associated with significant benefits. Secondly, because students who do not study abroad have a diminished sense of community and well-being, this suggests that there is some experience or experiences that those who do not study abroad are missing. Universities could examine the specific experiences associated with studying abroad that contribute to sense of well-being and community and attempt to translate those experiences into on-campus experiences. Thus, a university, which seeks to promote well-being among students, can allow easier access and promote attendance in study abroad programs but also establish on-campus programs which promote sense of community among students who do not study abroad to promote their well-being. In conclusion, based on our findings, universities who seek to promote well-being among students would do well to support and promote study abroad programs and bolster community on campus.

References

- Adams, T., Bezner, J., & Steinhardt, M. (1997). The conceptualization and measurement of perceived wellness: Integrating balance across and within dimensions. *American Journal of health promotion, 11*(3), 208-218. <https://doi.org/10.4278/0890-1171-11.3.208>
- Adams, T. B., Bezner, J. R., Drabbs, M. E., Zambarano, R. J., & Steinhardt, M. A. (2000). Conceptualization and measurement of the spiritual and psychological dimensions of wellness in a college population. *Journal of American College Health, 48*(4), 165-173. <https://doi.org/10.1080/07448480009595692>
- Chavis, D.M., Hogge, J.H., McMillan, D.W., & Wandersman, A. (1986). Sense of community through Brunswick's lens: A first look. *Journal of Community Psychology, 14*(1), 24-40. [https://doi.org/10.1002/1520-6629\(198601\)14:1<24:AID-JCOP2290140104>3.0.CO;2-P](https://doi.org/10.1002/1520-6629(198601)14:1<24:AID-JCOP2290140104>3.0.CO;2-P)
- Chipuer, H. M., & Pretty, G. M. (1999). A review of the sense of community index: Current uses, factor structure, reliability, and further development. *Journal of Community Psychology, 27*(6), 643-658. [https://doi.org/10.1002/\(SICI\)1520-6629\(199911\)27:6<643:AID-JCOP2>3.0.CO;2-B](https://doi.org/10.1002/(SICI)1520-6629(199911)27:6<643:AID-JCOP2>3.0.CO;2-B)
- Coulombe, S., & Krzesni, D. A. (2014). Associations between sense of community and wellbeing: A comprehensive variable and person-centered exploration. *Journal of Community Psychology, 47*(5), 1246. <https://doi.org/10.1002/jcop.22186>
- Davidson, W. B., & Cotter P. R. (1991). The relationship between sense of community and subjective well-being: A first look. *Journal of Community Psychology, 19*, 246-253. [https://doi.org/10.1002/1520-6629\(199107\)19:3<246:AID-JCOP2290190308>3.0.CO;2-L](https://doi.org/10.1002/1520-6629(199107)19:3<246:AID-JCOP2290190308>3.0.CO;2-L)

- Dwyer, M. M. (2004). More is better: The impact of study abroad program duration. *The Interdisciplinary Journal of Study Abroad*, *10*(1) 151-164.
<https://doi.org/10.36366/frontiers.v10i1.139>
- Dwyer, M. M., & Peters, C. K. (2004). The benefits of study abroad. *Transitions Abroad*, *37*(5), 56-58. Retrieved from
https://www.transitionsabroad.com/publications/magazine/0403/benefits_study_abroad.shtml
- Ingraham, E. C., & Peterson D. L. (2004). Assessing the impact of study abroad on student learning at Michigan state university. *The Interdisciplinary Journal of Study Abroad*, *10*(1) 83-100. <https://doi.org/10.36366/frontiers.v10i1.134>
- McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of Community Psychology*, *14*(1), 6-23. [https://doi.org/10.1002/1520-6629\(198601\)14:1<6:AID-JCOP2290140103>3.0.CO;2-I](https://doi.org/10.1002/1520-6629(198601)14:1<6:AID-JCOP2290140103>3.0.CO;2-I)
- Miller, C. C., Cardinal, L. B., & Glick, W. H. (1997). Retrospective reports in organizational research: A reexamination of recent evidence. *Academy of management journal*, *40*(1), 189-204. <https://doi.org/10.5465/257026>
- Miller-Perrin, C., & Thompson, D. (2010). The development of vocational calling, identity, and faith in college students: A preliminary study of the impact of study abroad. *19*(1), 87-104. <https://doi.org/10.36366/frontiers.v19i1.275>
- Prati, G., Albanesi, C., & Pietrantoni, L. (2016). The reciprocal relationship between sense of community and social well-being: A cross-lagged panel analysis. *Social Indicators Research*, *127*(3), 1321-1332. <https://doi.org/10.1007/s11205-015-1012-8>

- Pretty, G. M., Conroy, C., Dugay, J., Fowler, K., & Williams, D. (1996). Sense of community and its relevance to adolescents of all ages. *Journal of Community Psychology, 24*(4), 365-379. [https://doi.org/10.1002/\(SICI\)1520-6629\(199610\)24:4<365:AID-JCOP6>3.0.CO;2-T](https://doi.org/10.1002/(SICI)1520-6629(199610)24:4<365:AID-JCOP6>3.0.CO;2-T)
- Simon, J., & Ainsworth, J. W. (2012). Race and socioeconomic status differences in study abroad participation: The role of habitus, social networks, and cultural capital. *International Scholarly Research Notices, 2012*. doi:10.5402/2012/413896
- Stroud, A. H. (2010). Who plans (not) to study abroad? An examination of U.S. student intent. *Journal of Studies in International Education, 14*(5), 491-507. <https://doi.org/10.1177/1028315309357942>
- U. S. Department of State. (2018). *The value of study abroad: study abroad data*. USA Study Abroad. <https://studyabroad.state.gov/value-study-abroad/study-abroad-data>
- Walsh, R., & Walsh, M. (2018). In their own words: American students' perspectives on study abroad experiences. *The Humanistic Psychologist, 46*(2), 129-146. <https://doi.org/10.1037/hum0000083>

Appendix A

Table 1

Results of t tests Comparing Study Abroad Groups on Sense of Community and Perceived Wellness

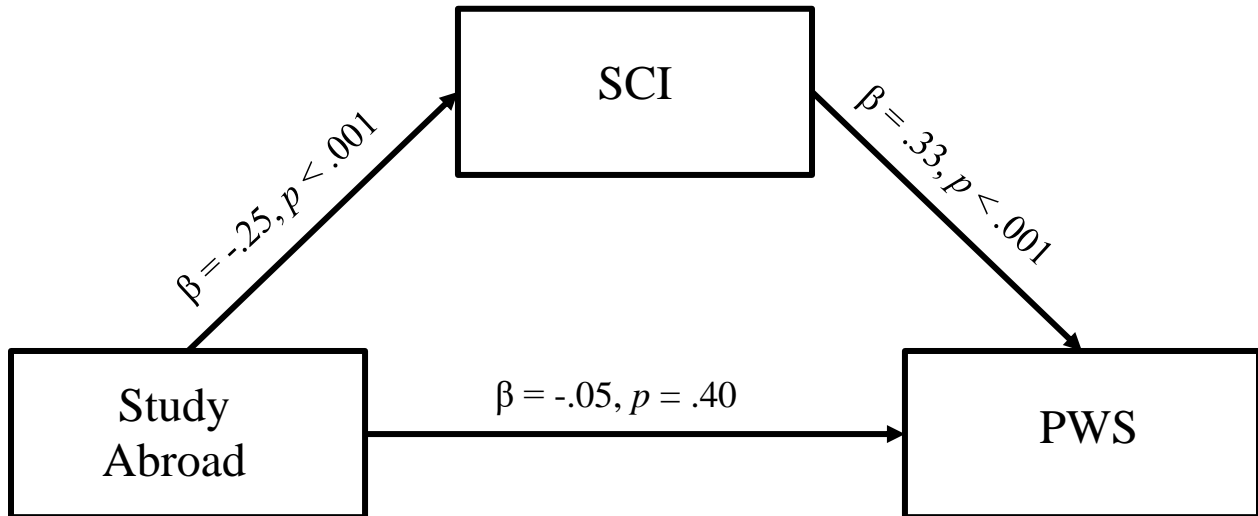
Measure	Study Abroad (<i>n</i> = 149)		No Study Abroad (<i>n</i> = 118)		<i>t</i>	<i>df</i>	<i>p</i>	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
SCI Total	9.86	2.30	8.53	2.82	4.13	265	<.001*	.52
PWS Total	154.95	20.89	148.58	26.32	2.15	265	.03*	.27
EC	23.19	5.79	22.22	6.16	1.32	265	.19	.16
PO	25.46	5.02	24.44	5.96	1.52	265	.13	.19
PR	26.39	5.04	25.49	6.06	1.29	265	.19	.16
SLP	25.32	5.90	23.94	6.20	1.85	265	.07	.23
SC	27.41	4.54	26.39	5.27	1.70	265	.09	.21
IS	27.18	4.19	26.09	4.53	2.03	265	.04*	.25

Note. **p* < .05. SCI = Sense of community index; PWS = Perceived wellness scale; EC = Emotional centeredness; PO = Psychological optimism; PR = Physical resilience; SLP = Spiritual life purpose; SC = Social connectedness; IS = Intellectual stimulation.

Appendix B

Figure 1

Mediation Model of SCI, Study Abroad, and PWS



Note. Mediation model examining the possible mediation effect of Sense of Community Index total scores on the relationship between whether one studies abroad and Perceived Wellness Scale total scores.