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Measuring Sojourner Adjustment among American students studying abroad

Eric R. Pedersen, M.A.¹, Clayton Neighbors, Ph.D.², Mary E. Larimer, Ph.D.³, and Christine M. Lee, Ph.D.³

¹ Department of Psychology, University of Washington

² Department of Psychology, University of Houston

³ Department of Psychiatry and Behavioral Sciences, University of Washington

Abstract

The literature on “Sojourner Adjustment,” a term expanding on the acculturation concept to apply to groups residing temporarily in foreign environments, suggests that engagement, participation, and temporary integration into the host culture may contribute to less psychological and sociocultural difficulty while abroad. The present study was designed to establish a brief multi-component measure of Sojourner Adjustment (the Sojourner Adjustment Measure; SAM) to be used in work with populations residing temporarily in foreign environments (e.g., international students, foreign aid workers). Using exploratory and confirmatory factor analyses on a sample of 248 American study abroad college students, we established a 24-item measure of Sojourner Adjustment composed of four positive factors (social interaction with host nationals, cultural understanding and participation, language development and use, host culture identification) and two negative factors (social interaction with co-nationals, homesickness/feeling out of place). Preliminary convergent validity was examined through correlations with established measures of acculturation. Further research with the SAM is encouraged to explore the relevance of this measure with other groups of sojourners (e.g., foreign aid workers, international businessmen, military personnel) and to determine how SAM factors relate to psychological well-being, health behaviors, and risk behaviors abroad among these diverse groups.

Keywords

Sojourner Adjustment; international students; acculturation

1. INTRODUCTION

An increasing number of individuals are establishing temporary residencies in foreign countries. Groups included in this unique category of temporary residents include international students, sojourners/travelers, foreign aid workers, organizational and self-initiated expatriates, and military personnel. It is estimated that approximately 5.25 million

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Correspondence concerning this article should be addressed to Eric R. Pedersen, Department of Psychology, University of Washington, Center for the Study of Health & Risk Behaviors, 1100 NE 45th St, Suite 300, Box 354944, Seattle, WA 98195. epeder@uw.edu.

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Americans are currently living overseas (Association of Americans Resident Overseas, 2009), not including military personnel. The Department of Defense (2009) estimates there are an additional 1.5 million active duty military personnel, of whom approximately 300,000 are serving abroad. Nearly 8,000 Americans are currently serving in the Peace Corps (Peace Corps, 2009) and 11,500 are serving in Foreign Service (United States [U.S.] Department of State, 2009). Despite the large and diverse groups of American individuals living or traveling abroad for temporary periods, little is known about how these individuals successfully or unsuccessfully adapt to life in a foreign environment.

1.1 The concepts of Acculturation and Sojourner Adjustment

Adaptation to life in a foreign environment can perhaps best be conceptualized through the use of the term “acculturation.” Berry (1997; 2003) and other researchers (Searle & Ward, 1990; Ward & Rana-Deuba, 1999) suggest that individuals with integration (i.e., strive to both maintain their home culture and to increase intergroup relations) or assimilation (i.e., value positive relations and place more emphasis on connecting with the host culture but are not as concerned with retaining their own cultural heritage) attitudes are at the least risk for sociocultural and psychological adjustment difficulties during temporary residencies in foreign countries. Those who separate themselves from the foreign environment (i.e., place more emphasis on the country of origin) or who do not connect with either the home or the host country (i.e., marginalization) are at the most risk for acculturative stress (Berry, 1998; Berry & Sam, 1997), such that difficulties with the acculturation process leads to marked reductions in physical and mental health.

Acculturation research primarily applies to individuals establishing permanent (or at least long-term) residencies in foreign environments (e.g., immigrants, refugees) and the concept may not fully apply to individuals living temporarily in foreign environments. Full acculturation may not occur due to the expectation of limited time living in the environment and limited functional importance of integrating fully into the culture. Thus, the concept of “Sojourner Adjustment” has been applied to these populations and defined as “the psychological adjustment of relatively short-term visitors to new cultures where permanent settlement is not the purpose of the sojourn” (Church, 1982, p. 540). The Sojourner Adjustment construct emerged out of theories of “culture shock” (Oberg, 1960), in which individuals experience difficulties adapting to cultures that are different from their own. As in acculturative stress, culture shock is manifested as anxiety, sadness, rejection of the host culture, and social isolation. Research has confirmed a similar pattern of adaptation specifically for foreign students and sojourners living temporarily abroad (Brien & David, 1971; Church, 1982); in particular, travelers who experienced the most differentiation between their home and host cultures were more likely to experience difficulty adapting to the host culture. Among students living abroad, separation of the home and host cultures (i.e., cultural distance) was found to be related to social difficulty (Furnham & Bochner, 1982), and cultural distance, unsatisfying relations with host country nationals, and poor language proficiency predicted social difficulty and reduced sociocultural adjustment among international students (Ward & Kennedy, 1993a). Thus, risk factors for poor adjustment abroad include unsatisfying relations with host country nationals, weak host country identification while abroad, and poor language proficiency, while protective factors included a strong host country identification and quantity of interactions with host nationals (Ward & Kennedy, 1993a; 1994; Ward & Rana-Deuba, 1999; 2000; Ward & Searle, 1991).

1.2 Measuring Sojourner Adjustment

Despite the importance of Sojourner Adjustment on psychological outcomes, there have been no established measures of this concept. Acculturation research has been criticized for a lack of adequate measurement. One-dimensional or demographic measures of

acculturation (e.g., length of time living in the U.S., language proficiency) may be biased or flawed (Hunt, Schneider, & Comer, 2004); thus, Berry (1980; 2003) and others (e.g., Ryder, Alden, & Paulhus, 2000; Salant & Lauderdale, 2003) have argued that acculturation should be conceptualized on multidimensional scales that include both home and host cultural identification. Similar methodological issues plague research examining the Sojourner Adjustment concept. In fact, Church (1982) argues that Sojourner Adjustment is a diverse and abstract construct limited in its measurement by the use of single concepts (e.g., time spent in the foreign environment, language proficiency). Thus, the present study was designed to develop the Sojourner Adjustment Measure (SAM) to operationalize the concept into multiple measurable behavioral components of sociocultural and psychological adjustment. Based on review of the literature on Sojourner Adjustment and acculturation, we hypothesized four positive Sojourner Adjustment factors: (1) social interaction with host nationals, (2) cultural understanding and participation, (3) language development and use, and (4) host culture identification; and two negative Sojourner Adjustment factors: (5) social interaction with co-nationals, and (6) homesickness/feeling out of place.

1.2.1 Social interaction with host nationals—It has long been agreed that quantity of interactions with host country nationals is necessary for positive Sojourner Adjustment (Brien & David, 1971; Chapdelaine & Alexitch, 2004; Klineberg & Hull, 1979). Church (1982) states that interaction with host nationals may be the most essential component of adjustment while abroad and both quantity (Arends-Tóth & Van de Vijver, 2006; Ward & Kennedy, 1993a) and quality (Stone Feinstein & Ward, 1990; Ward & Rana-Deuba, 2000) of interpersonal contact has been found to contribute to positive psychological adjustment. Unsatisfying relations with host nationals associates with reduced sociocultural adjustment for foreign students (Ward & Kennedy, 1993b). While American students studying abroad reported more desire for contact with host nationals than they actually achieved (Pitts, 2009), those who made active attempts to socialize and connect with host nationals (e.g., by living with a host family, by going out and meeting local people) reported greater immersion into the culture and satisfaction with the cultural experience abroad (Monalco, 2002).

1.2.2 Cultural understanding and participation—Cultural understanding and participation refers to the degree of active attempts to appreciate and engage oneself in the cultural experience while abroad. Nash (1976) found that Americans studying abroad in France who admitted to acting more “like a Frenchmen” reported significantly increased interest in international affairs. For American study abroad students, greater interaction with the foreign environment is suggested to associate with enhanced development and personal growth (Kauffmann, Martin, Weaver, & Weaver, 1992). One study found goals of enhanced cultural competency prior to departure were related to increased global understanding and cross-cultural skill development after study abroad trips (Kitsantas, 2004).

1.2.3 Language development and use—This factor refers to one’s active attempts to learn the local language (or dialect/idioms in countries where the individual is fluent in the local language) and one’s use of the local language during interactions with others. Kim (1977; 2001) and Berry (2003) maintain that language acquisition is an essential component of both short-term adjustment and long-term acculturation. Understanding and use of the host country’s language is without a doubt associated with the amount and quality of interactions with host country nationals (Church, 1982; Gullahorn & Gullahorn, 1966; Pitts, 2009). American students who have difficulty with language development and use may seek out American peers, which may lead to less engagement in the cultural experience (Citron, 1996). Language barriers are among the most prognostic issues for difficulty with adjustment for international students (Church, 1982; Dillion, 1993; Heikinheimo & Shute, 1986).

1.2.4 Host culture identification—As foreign students adapt to life in another country, they are faced with many opportunities to either integrate into or separate from the host culture. Feelings of difficulty acculturating into the host country may lead to differentiation from the host culture and a strong identity as “a foreigner” rather than as a temporary member of the host country. Experiences of differentiation between the home and host culture may be marked by feeling of exclusion from the culture, unexpected cultural differences, loss of familiarity, and self-identity confusion (Mumford, 1998; Taft, 1977), while identification with the host culture may lead to increased interest in international affairs (Nash, 1976). Lower identification with the host culture has been predicted by higher amount of time spent with members of one’s own home ethnic group among longer-term sojourners (Nesdale & Mak, 2000). In addition, research with foreign study abroad students suggests that cultural identity may be an important predictor of sociocultural adjustment (Ward & Kennedy, 1993a; Ward & Searle, 1991). Assimilation into the host culture is a major protective factor against immigrant adjustment and Sojourner Adjustment difficulty while separation of the home and host cultures may lead to increased risk for adjustment difficulty and risky behavior (Berry, 1997; 2003; Ward & Rana-Deuba, 1999).

1.2.5 Social interaction with co-nationals—This component relates to the quantity (e.g., time spent with peers) and quality (e.g., developing strong relationships/friendships) of interactions with peers from the country of origin. Research is mixed on the impact of positive relations with co-nationals on Sojourner Adjustment. While other co-nationals may provide familiarity and social support within the foreign environment (Berry & Sam, 1997; Furham & Alibhai, 1985; Ward & Kennedy, 1993a; Ward & Rana-Deuba, 2000), qualitative and quantitative research with American study abroad students suggests that spending the majority of time with American peers hinders one’s cultural experience and is related to greater feelings of homesickness and less engagement into the culture. Students living abroad who reported spending the majority of their time with co-nationals described the feeling of being a tourist in the host country rather than a temporary member of the culture (Citron, 1996). As American study abroad students leave for trips with high expectations of social interaction with local people (Pitts, 2009), spending more time with Americans may be a by-product of failed attempts to communicate or connect with host country nationals. Students’ predeparture goals of social gathering (e.g., desire to be with friends that were completing the program) did not correlate with enhanced cultural competence during trips (Kitsantis, 2004). Thus, social interaction with co-nationals is conceptualized as a negative component of Sojourner Adjustment, related to the separation acculturation style suggested by Berry (1980; 2003).

1.2.6 Homesickness/feeling out of place—This negative Sojourner Adjustment factor relates to the affective difficulties (e.g., feelings of anxiety or depression) one experiences while attempting to adjust into the host culture. Difficulties manifested as homesickness and loneliness have been linked with limited social contact with host country nationals (Hull, 1978) and loneliness in particular has been linked to poor Sojourner Adjustment (Klineberg & Hull, 1979; Stone-Feinstein & Ward, 1990; Ward & Rana-Deuba, 2000). Taft (1977) suggests that feelings of rejection from the host culture (e.g., wishing to escape, straining to adapt, and homesickness) may lead to difficulties adjusting. Feelings of anxiety, loneliness, and depression (termed “culture shock” by Oberg [1960]) may be similar to acculturative stress (Berry, 1974), which is manifested through loss of familiar social support, homesickness, decreased self-esteem, and language barriers (Mori, 2000; Pederson, 1995; Poyrazli, Arbona, Nora, McPherson, & Pisecco, 2002). These negative mood experiences have been linked to reduced adjustment while abroad for international students (Klineberg & Hull, 1979; Stone-Feinstein & Ward, 1990; Ward & Rana-Deuba, 2000). Perceived cultural

distance has also been linked to homesickness and less psychological adjustment among exchange students in Russia (Suanet & VandeVijver, 2009).

1.3 Examining Sojourner Adjustment among American study abroad students

In an effort to create a measure of the six hypothesized Sojourner Adjustment factors, we utilized a sample of American college students studying abroad. Approximately one quarter of one million American college students study in foreign countries annually, and this number is increasing at a steady rate each year (International Institute of Education, 2009). Study abroad students are an appropriate population for a preliminary examination of the concept of Sojourner Adjustment. Despite multiple important differences between American study abroad students and other groups temporarily residing in foreign countries, study abroad students are like other groups such as military personnel, non-U.S. foreign students, and expatriates in that they live temporarily in a foreign environment and a substantial portion of these groups are composed of young adults. While matched developmentally, study abroad students generally know ahead of time where they will study abroad and for how long they will be abroad, making measurement fairly standardized for periods between one month and one year. Finally, the majority of prior research with Sojourner Adjustment examines the concept with student populations.

1.5 CALCULATION: The present study

The purpose of the current research was to develop and psychometrically evaluate a new measure of Sojourner Adjustment utilizing a sample of American students studying abroad. Based on the literature reviewed above, we hypothesized four positive Sojourner Adjustment factors: (1) social interaction with host nationals, (2) cultural understanding and participation, (3) language development and use, and (4) host culture identification; and two negative Sojourner Adjustment factors: (5) social interaction with co-nationals, and (6) homesickness/feeling out of place. Using established measures of acculturation, we examined the hypothesized relationships between obtained positive and negative Sojourner Adjustment factors and provided preliminary support for convergent validity. Acculturation orientations of assimilation, integration, and identification with the host culture were hypothesized to relate to positive Sojourner Adjustment factors, while separation from the host culture, marginalization, and identification with the home culture were hypothesized to converge with the negative Sojourner Adjustment factors.

2. METHOD

2.1 Participants

The sample consisted of 248 American college students from a Northwestern university who had recently completed study abroad trips. These students were part of a larger longitudinal study documenting drinking behavior of college students studying in foreign countries. Participants in the study were recruited from the university's Global Affairs Office and were assigned a PIN code to ensure confidentiality of responses. Participants were entered into a drawing for one of three \$100 gift cards for completing the study. Mean age of the participants was 21.97 ($SD = 3.60$) years old. The majority of the sample were female (81%) and Caucasian/White (69%), with 19% identifying ethnicity as Asian or Pacific Islander, 6% as "mixed ethnicity," 2% as African American or Black, 2% as Native American or Alaska Native, and 2% as "other ethnicity." Participants reported a mean trip length of 12.40 ($SD = 8.30$) weeks abroad. Sixty-one percent of students studies in European countries (e.g., United Kingdom, Italy, France), with 16% studying in Asian countries (e.g., Japan, China), 12% studying in Latin American countries (e.g., Chile, Ecuador), 2% studying in Australia and New Zealand, and 12% studying in regions in Africa and the Middle East.

2.2 Design and Procedure

Approximately four weeks after returning to the U.S. from study abroad trips, participants read a Human Subjects Review Board-approved online consent form and filled out an online survey. After completing items assessing age, sex, ethnicity, and length of study abroad trip, participants completed 50 items assessing the six hypothesized Sojourner Adjustment factors. An initial pool of 50 items was generated following a review of the literature (e.g., Berry, 2003; Church, 1982; Ward & Kennedy, 1993a; 1994) and discussions with study abroad students and international programs staff. Items were designed to examine sociocultural (e.g., host and co-national relations, language) and psychological adjustment (e.g., mood states, homesickness) as conceptualized in prior research. Items reflected the following constructs: (1) social interaction with host nationals (e.g., “socialized a good deal with local people from my host country”), (2) cultural understanding and participation (e.g., “enhanced my understanding of my host country’s culture”), (3) language development and use (e.g., “increased my understanding of my host country’s language [or dialect/idioms]”), (4) host culture identification (e.g., “subscribed to the values of my host country”), (5) social interaction with co-nationals (e.g., “had meaningful social interactions with Americans”), and (6) homesickness/feeling out of place (e.g., “felt out of place in my host country”). Between seven and nine items were hypothesized to reflect each one of the six factors. This “Sojourner Adjustment Measure” (SAM) prompted participants with “Considering your entire trip abroad, please indicate how much you agree with each of the following statements. During my time abroad I...” and rated each item on a scale from “1 = strongly disagree” to “7 = strongly agree.”

2.3 Acculturation

To explore preliminary convergent validity among hypothesized SAM factors and established assessments, two measures of acculturation were included in the online survey. The Vancouver Index of Acculturation (VIA; Ryder, Alden, & Paulhus, 2000) was modified to reflect the degree to which participants agreed with 10 sets of two similar items assessing both identification with the “host culture of the study abroad program” and “mainstream American culture.” For example, two items appeared as, “I often participate in my host country’s cultural traditions” and “I often participate in mainstream American cultural traditions.” Agreement with each item was rated from “1 = strongly disagree” to “9 = strongly agree.” The mean of 10 items assessing host culture identification was obtained to yield a host culture composite score, while the mean of the 10 items assessing American culture identification reflected a home culture identification composite. Internal reliability was adequate for host and home culture identification ($\alpha = 0.87$ for both).

In addition, participants completed a modified Acculturation, Habits, and Interests Multicultural Scale for Adolescents (AHIMSA; Unger et al., 2002). The AHIMSA was designed to measure Berry’s (1998) four acculturation styles of integration, assimilation, separation, and marginalization. Eight items were included with the prompt “Consider how you felt during your time abroad” and participants chose response options of “United States,” “My host country,” “Both,” and “Neither.” Example items include “I was most comfortable being with people from...” and “The people I fit in with best were from...” The scale yields a composite score between zero and eight for each acculturation style matching with each response option (United States = separation, Host country = assimilation, Both = integration, and Neither = marginalization).

3. RESULTS

3.1 Measurement development

3.1.1 Preliminary analysis—An exploratory factor analysis (EFA) was conducted as a first step largely to evaluate our overall conceptualization and to determine items to be included in the final scale. A review of the scree plot and the Eigenvalues suggested a six factor solution comparable to the constructs identified from discussion with students and our review of the literature. Each of the six factors had Eigenvalues over 2 and accounted for at least 4% of the variance. In combination, the six factors accounted for 52.05% of the variance. Items were trimmed based on factor loadings to create the final scale of 24 items. The four items with the highest factor loadings from the EFA for each factor were included in a confirmatory analysis.

3.1.2 Confirmatory factor analysis—A confirmatory factor analysis (CFA) of the 24 items was conducted using full information maximum likelihood (Bollen, 1989; Kline, 2005). Missing data were minimal and data were assumed to be missing at random (no more than six participants were missing data on any single item; about .01%). Data were analyzed with LISREL 8.8, which allows for categorical data to be treated as such. Thus, we first attained the polychoric correlations between the 24 ordinal items (response options ranged from 1 to 7 for each item) and analyzed this correlation matrix in LISREL. We specified six latent factors and each factor had four indicators. Each indicator was attributed only to a single factor, with one item for each factor fixed to equal one. Correlations among indicators and errors were all specified as zero, and factors were specified as correlated with all other factors. This model provided a relatively adequate fit to the data, as evidence by several fit indices: $\chi^2 (237) = 783.08, p = .000, \chi^2/df = 3.30$, Non-normed Fit Index (NNFI) = .87, Comparative Fit Index (CFI) = .87, Root Mean Squared Error of Approximation (RMSEA) = .097, and Standardized Root Mean Square Residual (SRMSR) = 0.081. The fit indices were generally at or slightly below recommended “rule of thumb” cut-off values for appropriate fit (Hu & Bentler, 1999; Kline, 2005) and given the theoretical rationale underlying the construction of these factors, the model appeared to adequately represent our hypothesized constructs. This model fit significantly better than an independence model suggesting no associations among items, $\chi^2_{diff} (39) = 5672.27, p < .001$.

Items appeared to adequately reflect the factor they were hypothesized to load onto. Standardized factor loadings ranged from .46 to .95. All items and factor loadings for the final model (standardized, unstandardized and standard errors) are presented in Table 1. All loadings had z-scores that were significantly different from zero, with values ranging between 5.54 and 20.86 ($p < .001$). Scale reliability coefficients (alphas) for each subscale were as follows: social interaction with host nationals ($\alpha = .90$), (2) cultural understanding and participation ($\alpha = .84$), (3) language development and use ($\alpha = .86$), (4) host culture identification ($\alpha = .67$), (5) social interaction with co-nationals ($\alpha = .85$), and (6) homesickness/feeling out of place ($\alpha = .70$).

Table 2 presents correlations among factors, as well as means and standard deviations. Positive Sojourner Adjustment factors were all significantly positively correlated with each other, while negative Sojourner Adjustment factors were significantly positively correlated with each other. Correlations between positive and negative factors were generally uncorrelated or reflected significant negative relationships with each other.

3.2 Preliminary examination of convergent validity

3.2.1 Association with acculturation—No established validated measures of Sojourner Adjustment exist, and although the Sojourner Adjustment and acculturation constructs are

unique due to their use with different populations, they are conceptually similar. Thus, we evaluated the convergent validity of the SAM in comparison to the modified VIA and the AHIMSA. Table 3 displays the correlations between the six SAM factors and these established measures of acculturation. Means and standard deviations are also included. The four positive SAM factors positively and significantly associated with the host culture identification dimension of the VIA, with the homesickness/feeling out of place factor of the SAM showing an inverse relationship with this VIA dimension. Social interaction with co-nationals was positively and significantly related to the home culture identification dimension of the VIA as were each of the positive Sojourner Adjustment factors, albeit to a lower degree than the correlations with the host culture identification. For the AHIMSA, there were significant negative relationships with the separation dimension for all four positive Sojourner Adjustment factors, as well as positive relationships between separation and the two negative Sojourner Adjustment factors. Positive correlations existed between the positive Sojourner Adjustment factors and the integration and assimilation styles, with negative or near zero relationships between these acculturation styles and the negative Sojourner Adjustment factors. Finally, less language development and use, less social interaction with host nationals, and less social interaction with co-nationals associated with a marginalization acculturation style.

4. DISCUSSION

This study was designed to develop a theoretically-driven and brief measure of the psychological concept of Sojourner Adjustment (Church, 1982) and to provide a preliminary examination of convergent validity of this measure with established measures of acculturation modified for short-term visitors to foreign environments. Twenty-four items reflecting six hypothesized factors of (1) social interaction with host nationals, (2) cultural understanding and participation, (3) language development and use, (4) host culture identification, (5) social interaction with co-nationals, and (6) homesickness/feeling out of place were specified with four items each based on a preliminary exploratory factor analysis with a sample of American study abroad students. In a confirmatory factor analysis, the six factor model fit the data relatively well and factor loadings of items reflected moderate to strong support that each item reflected the factor it was hypothesized to associate with.

Regarding preliminary convergent validity analyses, factors indicating positive or negative aspects of Sojourner Adjustment appeared to match with hypothesized directional relationships with established acculturation measures. For example, positive Sojourner Adjustment factors were more strongly associated with host culture identification than with home culture identification, and a marginalization acculturation style (which indicates limited engagement in both home and host cultures; Berry & Sam, 1997) displayed a negative relationship with social interaction with both home and host nationals. The moderate positive correlations between positive Sojourner Adjustment factors and home culture identification from the VIA was similar to those between the four factors and the assimilation acculturation style from the AHIMSA, suggesting that students abroad did not abandon connection to the home culture; rather they may have temporarily adopted a stronger connection to the host culture. This makes intuitive sense given students' eventual return to the home culture after several weeks abroad. Full "acculturation" rather than adjustment into the host culture would likely make return to the U.S. more difficult (e.g., "reverse culture shock," Martin, 1986; 1984); although this idea would need to be evaluated with longitudinal designs.

In addition, we conceptualized social interaction with co-nationals as a "negative factor" of Sojourner Adjustment due to findings that spending more time with home country nationals may lead to less satisfying and less culturally engaging experiences (Citron, 1996; Kitsantas,

2004; Pitts, 2009). The positive correlation between social interaction with co-nationals and the homesickness/feeling out of place factor (conceptualized as negative adjustment) provides empirical support for this theorized classification. The near zero correlation between social interaction with nationals and social interaction with co-nationals suggests that spending time with Americans may be independent of the development of social relationships with local people; an unsatisfying effect of traveling in large groups of co-nationals as reported in prior work (Lewin, 2009). Social interaction with co-nationals was significantly correlated with our hypothesized measure of psychological adjustment (homesickness/feeling out of place), however, Ward and Kennedy (1994) suggest that spending time with co-nationals associated with less psychological adjustment problems (e.g., depression). While differences may be due to sample disparity (i.e., American students versus organization staff members from New Zealand), we acknowledge that more research with this factor is necessary to determine if spending time with other co-nationals is either a product of adjustment difficulties (e.g., spending time with Americans because one feels out of place in the country, has trouble with the local language, and/or has difficulty forming relationships with local people) or a precursor to potential difficulties and negative health reactions (e.g., one spends all their time with Americans and make minimal efforts to engage the culture; one spends the majority of time socializing with other Americans in bars and clubs). It is also possible this factor could be a risk or protective factor depending on a multitude of covariates including but not limited to host country, type of sojourner (e.g., student, aid worker), perceived beliefs about Americans by the host nationals and perceived beliefs about host nationals by sojourners, and actual behaviors regarding acceptance and kindness in response to social interaction attempts by the sojourner.

4. 1 Limitations

Limitations regarding the sample used and the method of analyses exist in the present study. First, this new measure of Sojourner Adjustment was developed to examine the concept among groups living temporarily in foreign environments, and while practical and appropriate, research with college students studying abroad may not be generalizable to other groups that may benefit from using a measure of adjustment such as this (e.g., Peace Corps and foreign aid workers, military personnel, expatriates, international businessman). Likewise, the original 50 items were generated from this population of American students at one university and while most students travelled to different locations overseas, the items generated may not represent other students' experiences or those of non-student populations. The study design was cross-sectional and based on retrospective reports of behavior recalled approximately one month after students returned from their trips. It should also be noted that the use of EFA and CFA on the same sample is not ideal, due to the reliance on chance variation in the former method compounded by the latter (Kline, 2005). However, it was agreed before analyses that only the most highly loaded 4 items from each of the hypothesized scales would be included in the CFA. Also, using the same sample for both analyses was chosen in order to have an adequate sample-to-item ratio.

Further research establishing the six factor model using these 24 items with other groups is a necessary next step. Items established with the group of American students abroad may not translate to other groups; notably, Sojourner Adjustment may manifest quite differently for young military personnel abroad. It is unlikely that social interaction with host nationals, for example, would present highly for individuals in combat arenas. Therefore specific research with active duty military could establish if this measure is appropriate for use with this population or if the factors need to be reconsidered. Focus groups with recently discharged soldiers and officers could help establish what items may be included on a measure of psychological and sociocultural adjustment for use with this population. Understanding how military personnel adjust abroad may be important to understand how and why risky

behaviors (e.g., substance abuse) and mental illness can develop. In addition, we hypothesized only one factor specifically directed at measuring psychological adjustment (e.g., depression, anxiety, culture shock). Included in the initial item pool were items related to mood states, culture shock, and feeling out of place. Our exploratory analysis did not yield a seventh or eighth meaningful factor separating mood states from culture shock/homesickness, and feeling out of place; thus yielding a single inclusive psychological adjustment factor. It is possible this Sojourner Adjustment factor could separate out into different factors of psychological adjustment for other diverse groups.

5. CONCLUSION

In conclusion, the six factor Sojourner Adjustment Measure (SAM) was established as a brief measure of the psychological concept of Sojourner Adjustment (Church, 1982). Preliminary reliability and validity of the measure was examined. Further research with this measure is encouraged; especially to examine how Sojourner Adjustment can impact psychological health (e.g., depression, well-being, self-esteem), sociocultural difficulties (negative incidents with local people, language barriers), and health behaviors (diet, alcohol use) among the diverse and expanding numbers of individuals living temporarily abroad both from the U.S. and other countries.

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Highlights

The Sojourner Adjustment Measure assessed adjustment of American sojourners abroad.

Factor analyses helped establish the 24-item measure.

The measure had adequate reliability and convergent validity.

It can be used to examine psychological and sociocultural adjustment in sojourners.

Table 1
Regression estimates for the 24 Sojourner Adjustment Measure (SAM) items

Considering your entire trip abroad, please indicate how much you agree with each of the following statements. "During my time abroad I..."

Item	Factor	Estimates
		Standardized/Unstandardized (SE)
19 Had meaningful social interactions with local people	1	0.90/1.03 (0.05)
18 Had deep and meaningful conversations with local people	1	0.90/1.03 (0.05)
11 Socialized a good deal with local people from my host country	1	0.87/1.00
4 Spent a good amount of time meeting and conversing with local people	1	0.84/0.96 (0.06)
8 Gained insight into the culture of my host country	2	0.91/1.00
6 Enhanced my understanding of my host country's culture	2	0.89/0.98 (0.05)
7 Actively tried to learn more about local customs and traditions in my host country	2	0.88/0.97 (0.05)
10 Developed my own perspective of my host country	2	0.58/0.64 (0.06)
22 Learned about the local language by communicating with local people in my host country's language (or dialect/idioms)	3	0.95/1.22 (0.07)
21 Used my host country's language (or dialect/idioms) to communicate with local people	3	0.92/1.18 (0.07)
14 Increased my understanding of my host country's language (or dialect/idioms)	3	0.78/1.00
23 Had long conversations with local people using my host country's language (or dialect/idioms)	3	0.76/0.98 (0.08)
13 Subscribed to the values of my host country	4	0.75/1.23 (0.17)
17 Felt like once I returned home I would maintain some of the cultural-specific practices and values I learned by living in my host country	4	0.63/1.05 (0.15)
15 Behaved in ways that are typical of members of my host country	4	0.61/1.00
24 Subscribed to the religious and/or political beliefs of my host country	4	0.46/0.75 (0.14)
12 Socialized a good deal with other Americans	5	0.94/1.00
5 Spent a good amount of time meeting and conversing with Americans	5	0.86/0.91 (0.05)
20 Had meaningful social interactions with Americans	5	0.81/0.87 (0.05)
16 Actively tried to make American acquaintances	5	0.59/0.63 (0.06)
3 Felt sad or depressed about being far from home	6	0.86/1.51 (0.19)
9 Felt anxious or nervous about being far from home	6	0.67/1.17 (0.15)
2 Felt out of place in my host country	6	0.59/1.03 (0.15)
1 Missed my family and friends back home	6	0.57/1.00

Note. *Factor 1* = social interaction with host nationals, *Factor 2* = cultural understanding and participation, *Factor 3* = language development and use, *Factor 4* = host culture identification, *Factor 5* = social interaction with co-nationals, *Factor 6* = homesickness/feeling out of place.

Each item was rated from "1 = strongly disagree" to "7 = strongly agree."

All *z*-scores for unstandardized estimates are greater than 5.54 ($p < .001$).

Table 2
Correlation matrix, means, and standard deviations for the six Sojourner Adjustment factors

	1	2	3	4	5	6
1. Social interaction with host nationals	--					
2. Cultural understanding and participation	0.51*	--				
3. Language development and use	0.42*	0.28*	--			
4. Host culture identification	0.24*	0.18*	0.29*	--		
5. Social interaction with co-nationals	-0.06	0.03	0.05*	-0.02	--	
6. Homesickness/feeling out of place	-0.19*	-0.15*	-0.02	-0.11	0.18*	--
<i>Mean</i>	5.47	6.29	5.36	4.55	4.89	3.77
<i>Standard deviation</i>	1.37	0.68	1.37	1.01	1.40	1.20

Note:

* $p < .05$

Table 3
Correlations between Sojourner Adjustment Measure factors and acculturation scales

SAM Factor	AHIMSA					
	VIA			AHIMSA		
	Host culture identification	Home culture identification	Integration	Assimilation	Separation	Marginalization
1 Social interaction with host nationals	0.45*	0.13*	0.36*	0.28*	-0.44*	-0.14*
2 Cultural understanding and participation	0.22*	0.16*	0.24*	0.11	-0.24*	-0.09
3 Language development and use	0.36*	0.13*	0.21*	0.25*	-0.26*	-0.18*
4 Host culture identification	0.53*	0.13*	0.17*	0.14*	-0.18*	-0.11
5 Social interaction with co-nationals	-0.02	0.35*	0.00	-0.29*	0.32*	-0.20*
6 Homesickness/feeling out of place	-0.27*	-0.01	-0.09	-0.16*	0.24*	-0.06
<i>Mean (Standard deviation)</i>	6.53 (1.23)	6.93 (1.09)	2.88 (1.76)	1.52 (1.36)	2.91 (1.56)	0.63 (1.14)

Note:

* $p < .05$.

SAM = Sojourner Adjustment Measure; VIA = Vancouver Index of Acculturation; AHIMSA = The Acculturation, Habits, and Interests Multicultural Scale for Adolescents