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BRIEF REPORT

Cross-Cultural Validity of the Self-Stigma of Seeking Help (SSOSH) Scale: Examination Across Six Nations

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David L. Vogel, Patrick Ian Armstrong, Pei-Chun Tsai, Nathaniel G. Wade, and Joseph H. Hammer
Iowa State University

Georgios Efstathiou
National and Kapodistrian University of Athens

Elizabeth Holtham
Nottingham Trent University

Elli Kouvaraki
National and Kapodistrian University of Athens

Hsin-Ya Liao
Chinese University of Hong Kong

Zipora Shechtman
Haifa University

Nursel Topkaya
Dumlupınar University

Researchers have found that the stigma associated with seeking therapy—particularly self-stigma—can inhibit the use of psychological services. Yet, most of the research on self-stigma has been conducted in the United States. This is a considerable limitation, as the role of self-stigma in the help-seeking process may vary across cultural groups. However, to examine cross-cultural variations, researchers must first develop culturally valid scales. Therefore, this study examined scale validity and reliability of the widely used Self-Stigma of Seeking Help scale (SSOSH; Vogel, Wade, & Haake, 2006) across samples from 6 different countries (England, Greece, Israel, Taiwan, Turkey, and the United States). Specifically, we used a confirmatory factor analysis framework to conduct measurement invariance analysis and latent mean comparisons of the SSOSH across the 6 sampled countries. Overall, the results suggested that the SSOSH has a similar univariate structure across countries and is sufficiently invariant across countries to be used to explore cultural differences in the way that self-stigma relates to help-seeking behavior.

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Keywords: self-stigma, stigma, help seeking, cross-cultural, reliability, validity

Self-stigma has been indicated as a considerable deterrent to receiving quality mental health care (Vogel, Wade, & Haake, 2006). In the literature, self-stigma is defined as the reduction in a person's self-esteem or sense of self-worth due to the perception held by the individual that he or she is socially unacceptable (Vogel, Wade, & Hackler, 2007). Self-stigma is thought to occur when people experiencing a mental illness or considering seeking psychological help self-label as someone who is socially unacceptable (i.e., someone needing psychological services is weak) and in doing so internalize stereotypes, apply negative public attitudes to themselves, and suffer diminished self-esteem and self-efficacy (Corrigan & Shapiro, 2010). Research has shown that individuals who experience self-stigma suffer from lowered self-esteem (Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001) and increased depression (Manos, Rusch, Kanter, & Clifford, 2009). In turn, researchers have noted that individuals who self-stigmatize have

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David L. Vogel, Patrick Ian Armstrong, Pei-Chun Tsai, Nathaniel G. Wade, and Joseph H. Hammer, Department of Psychology, Iowa State University; Georgios Efstathiou, Department of Psychology, National and Kapodistrian University of Athens, Athens, Greece; Elizabeth Holtham, Department of Psychology, Nottingham Trent University, Nottingham, England; Elli Kouvaraki, Department of Psychology, National and Kapodistrian University of Athens; Hsin-Ya Liao, Department of Xxxxxxxx, Chinese University of Hong Kong, Hong Kong; Zipora Shechtman, Department of Counseling and Human Development, Haifa University, Haifa, Israel; Nursel Topkaya, Department of Educational Sciences, Dumlupınar University, Kütahya, Turkey.

The data from Turkey was presented at the 11th National Congress of Counseling and Guidance, İzmir, Turkey.

Correspondence concerning this article should be addressed to David L. Vogel, Department of Psychology, Iowa State University, W112 Lagomarcino Hall, Ames, IA 50011. E-mail: dvogel@iastate.edu

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more negative attitudes toward and less intentions to seek psychological services for many different forms of therapy, including individual counseling (Conner et al., 2010; Vogel et al., 2007) career counseling (Ludwikowski, Vogel, & Armstrong, 2009), and group counseling (Vogel, Shechtman, & Wade, 2010). Those who endorse greater self-stigma are also less willing to return for subsequent sessions even after an initial visit (Wade, Post, Cornish, Vogel, & Tucker, 2011) and have lower treatment compliance (Fung, Tsang, & Corrigan, 2008).

Despite these important findings regarding self-stigma, much of this research has been conducted only in the United States. This is a considerable limitation, as self-stigma has been implicated in avoidance of psychological services for individuals from different backgrounds and nationalities (e.g., Shechtman, Vogel, & Maman, 2010). Although stigma may be present in most cultures, it may take different forms depending upon cultural norms (Coker, 2005). As such, in order to examine potential differences across cultural groups, one must have culturally valid measurement tools. In the *Handbook of Counseling Psychology*, Miller and Sheu (2008) suggested that researchers must examine their measures with diverse samples to determine which aspects of the measures have universal utility and which are applicable to only certain groups. Without such examinations, it is unknown how applicable the results of any particular cross-cultural study would be, as the results could be due to true differences in the constructs of interest or due to measurement error based on changes in the psychometric properties of the measures when used with groups on which they were not normed. Therefore, this study examined the cross-cultural invariance of the psychometrics of the widely used Self-Stigma of Seeking Help (SSOSH) scale across samples from six different countries: England, Greece, Israel, Taiwan, Turkey, and the United States.

The SSOSH is a 10-item scale designed "to assess concerns about the loss in self-esteem a person would feel if they decided to seek help from a psychologist or other mental health professional" (Vogel et al., 2006, p. 326). The scale has been shown to have a unidimensional factor structure and adequate reliability among samples drawn from various U.S. populations. For example, internal consistency estimates have been reported for general samples of college students (.79–.92; Bathje & Pryor, 2011; Shepherd & Rickard, 2012; Vogel et al., 2006, 2007), military personnel (.89; Skopp et al., 2012), and community samples (.81–.91; Hammer & Vogel, 2010; Wester, Arndt, Sedivy, & Arndt, 2010), as well as a Middle Eastern American sample (.79; Soheilian & Inman, 2009) and samples of African American (.84), Asian American (.85), Latino American (.89), heterosexual (.90), and gay (.85; Vogel, Heimerdinger-Edwards, Hammer, & Hubbard, 2011) men. Test–retest reliability estimates in college populations have been reported to be .72 (Vogel et al., 2006). The SSOSH also uniquely predicts attitudes toward ($r = -.65$) and intent to seek ($r = -.37$; Vogel et al., 2007) psychological help. In the original development sample, the SSOSH was also found to differentiate between those who sought psychological services and those who did not across a 2-month period (Vogel et al., 2006). However, whereas the psychometric properties of the SSOSH have been researched in the context of U.S. samples, little is known about the psychometric properties of the scale with samples drawn from countries other than the United States.

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To address this limitation, we used a confirmatory factor analysis (CFA) framework to conduct measurement invariance (MI) analysis (also called factorial invariance analysis or multiple-group invariance analysis; Miller & Sheu, 2008) of model fit and factor loadings within samples from six different countries. MI analysis has been proposed by counseling researchers as a way to examine measurement equivalence across different groups (Dimitrov, 2010; Miller & Sheu, 2008), yet this analysis unfortunately remains rare in the counseling literature. However, studies examining vocational constructs (Hu, Pellegrini, & Scandura, 2011), depression (Wu, 2010), and measurement of stress reactivity (Schlotz, Yim, Zoccola, Jansen, & Schulz, 2011) have used this methodology. Without knowledge of the measurement equivalence of a scale, counseling psychologists cannot be certain that studies aimed at understanding help-seeking decisions across different countries are culturally sensitive.

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Method

Participants and Procedures

We used archival data independently collected as part of six separate studies investigating stigma and help seeking in England, Greece, Israel, Taiwan, Turkey, and the United Stated. The results from the samples are currently unpublished (see Shechtman et al., 2010, for the one exception for the Israeli data).[1] In all cases, a university's Institutional Review Board approved the data collection procedures before data collection began. The scale was translated into the native language of each country so that all participants could complete the scale in their own language. In each case, at least two translators, bilingual in English and their native language, translated and back-translated the scale (one of the translators was always one of the authors of the current article). The translators discussed items that showed semantic differences, and decisions regarding wording choices were made by consensus. Last, a separate expert faculty member in psychology and/or education checked the translated version of the SSOSH and revised the wordings where needed to ensure readability.

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The following are sample characteristics by group: England: Participants ($N = 450$) ranged in age from 18 to 64 ($M = 36.13$, $SD = 11.22$). The sample was 63% female and 37% male. Greece: Participants ($N = 1,376$) ranged in age from 18 to 30 ($M = 21.25$, $SD = 1.94$). The sample was 63% female and 33% male (4% did not report their sex). Israel: Participants ($N = 299$) ranged in age from 18 to 42 ($M = 24.04$, $SD = 3.86$). The sample was 49% female and 51% male. Taiwan: Participants ($N = 299$) ranged in age from 18 to 29 ($M = 20.15$, $SD = 1.50$). The sample was 66% female and 34% male. Turkey: Participants ($N = 506$) ranged in age from 18 to 42 ($M = 21.40$, $SD = 2.39$). The sample was 66% female and 33% male (1% did not report their sex). United States: Participants ($N = 655$) ranged in age from 18 to 35 ($M = 19.35$, $SD = 1.75$). The sample was 56% female and 43% male (1% did not report their sex).

[1] The data from Turkey has also been presented at the National Congress of Counseling and Guidance, İzmir, Turkey (Topkaya, 2011).

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Measures

Self-Stigma. Self-stigma was assessed using the Self-Stigma of Seeking Help scale (SSOSH; Vogel et al., 2006). The SSOSH is a 10-item scale measuring how much participants feel their self-esteem would be threatened by seeking counseling (see Appendix for scale items). Responses are on a 5-point scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Five items are reverse-scored so that higher scores indicate greater self-stigma. The evidence of the SSOSH's reliability and validity was previously discussed in the introduction section.

Results

Descriptive Statistics and Meta-Analytic Alpha Reliability Comparisons

Table 1 shows means, standard deviations, and alpha reliability estimates for each sample. As can be seen in the table, all groups had adequate internal reliability estimates for research purposes with a 10-item scale (see Ponterotto & Ruckdeschel, 2007). Furthermore, using the varying coefficient equation developed by Bonett (2010), we calculated the 95% confidence interval for the alpha reliability coefficient of each sample as well as the meta-analytic reliability across samples (see Table 1). Using this calculation, the alpha reliability estimate was .83, with 95% confidence intervals between .82 and .84.

Measurement Invariance

To examine the measurement invariance (MI) of the SSOSH across countries, we used the sequential constraint imposition approach as described by Dimitrov (2010). Specifically, employing the full-information maximum likelihood estimation in LISREL 8.8, we examined the three most frequently assessed forms of MI (configural invariance, metric invariance, and scalar invariance) using multiple-group confirmatory factor analysis (Miller & Sheu, 2008). This approach produces a series of nested models that can be compared to examine whether configural, metric, and scalar invariances are present across samples. Researchers have recently suggested that the best way to compare MI models is to examine changes in specific model fit indices (Cheung & Lau, 2012; Meade, Johnson, & Braddy, 2008). For example, Meade et al. (2008) suggested that changes in fit indices, such as the comparative fit index (CFI), are less sensitive to issues such as (a) sample size and (b) number of indicators and suggested a cutoff of ≤–.002 for the ΔCFI for programs such as LISREL that use the normal theory weighted least squares chi-square (Jöreskog, Sörbom, du Toit, & du Toit, 1999). However, because these model fit criteria are sensitive to increasing model complexity (Meade et al., 2008) and, therefore, may not be as accurate when more than two groups are added to the model, in the subsequent MI analyses we used the ΔCFI ≤–.002 criteria to compare the U.S. sample to that of each of the other countries.

Configural invariance. Configural invariance is present when the overall fit of the model for each country is present (i.e., the item factor loadings all significantly load on the hypothesized factor [a single factor in the case of SSOSH]) and the overall pattern of factor loadings are similar (i.e., the multiple-group model fits the data). Model fit indices reported separately for each country are presented in Table 2. Each country's model fit the data, and the item loadings were all significant at $p < .001$ for each sample (see Table 3 for item loadings). Furthermore, the multiple-group models comparing each of the countries to the U.S. sample each showed an overall acceptable fit to the data (see Table 4 for the full invariance testing results and Table 5 for a summary of the ΔCFI model results). Thus, configural invariance was supported, suggesting that a univariate construct provides an acceptable fit within each country.

Metric invariance. Metric invariance is present when the specific item factor loadings are similar across groups. To examine the degree of metric invariance present, we compared a fully invariant model, where each model factor path was set to be equal across groups, to the previous configural model, where all the paths were allowed to freely estimate across the different groups (see Tables 4 and 5). The results showed that England and Taiwan both were fully invariant with the U.S. sample (i.e., all of the items loaded similarly). In contrast, Greece, Israel, and Turkey showed ΔCFIs > –.002, and thus full metric invariance was not supported. To examine if partial metric variance was supported, we relaxed the constraints in the models where the MIs and xxxx xxxx xxxx (EPCs) were substantial (see MacCallum, Roznowski, & Necowitz, 1992) in a sequential fashion (Dimitrov, 2010). This led to freeing of one item for Israel (Item 7), as well as two items for Greece (Items 7 and 8) and Turkey (Items 5 and 7), before the comparison of these partially invariant models (see Tables 4 and 5) with the original configural model showed no difference in the model fit (ΔCFI ≤ –.002). Therefore, metric invariance was supported, with the majority of items (80%–100% of the items per group) showing invariant factor loadings (see Steenkamp & Baumgartner, 1998). As such, the scales seem to be largely measuring the same construct, allowing for examination of relationships between the SSOSH and other meaningful factors within countries.

One problem with the above multiple-group invariance testing is that it can be sample-specific, and it does not provide confidence intervals to understand the true possible range of factor loadings across groups. Therefore, we conducted a bootstrap procedure to create more stable means and confidence intervals around the mean. The first step in the bootstrap procedure was to create 1,000 bootstrap samples from the original data sets for each country (i.e., 1,000 samples for England, 1,000 samples for Greece, etc.) by random sampling with replacement. The second step was to run the factor model 1,000 times with these bootstrap samples to yield 1,000 estimations of each factor path coefficient. The final step

Table 1
Means, Standard Deviations, and Internal Consistencies for Variables by Demographic Group

	Self-stigma			
Country	*N*	*M*	*SD*	α [95% CI]
England	450	26.21	7.99	.89 [.87, .90]
Greece	1,376	25.72	5.99	.77 [.75, .79]
Israel	299	24.70	6.65	.80 [.76, .83]
Taiwan	299	24.29	5.93	.84 [.81, .87]
Turkey	506	23.10	6.16	.82 [.80, .84]
United States	655	27.13	6.64	.88 [.87, .89]

Note. CI = confidence interval.

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Table 2
Fit Indices of the Confirmatory Factor Analysis Results of the SSOSH Across Cultures

Country	Scaled χ^2	CFI	RMSEA [95% CI]	SRMR
England	109.34***	.98	.069 [.054, .084]	.051
Greece	297.78***	.95	.074 [.066, .082]	.058
Israel	87.95***	.96	.071 [.053, .090]	.055
Taiwan	81.05***	.98	.066 [.048, .085]	.049
Turkey	99.84***	.98	.061 [.047, .075]	.048
United States	79.79***	.99	.044 [.031, .057]	.037

Note. SSOSH = Self-Stigma of Seeking Help; CFI = comparative fit index; RMSEA = root-mean-square error of approximation; CI = confidence interval; SRMR = standardized root-mean residual.
*** $p < .001$.

was to use LISREL's saved output of the 1,000 estimations of each factor path coefficient to calculate the mean and 95% CI of the factor coefficient. The means and 95% CIs are reported in Table 3.

Scalar invariance. The above analyses suggest that the SSOSH is largely conceptualized similarly within different countries. However, it has also been suggested that to examine mean differences between groups, scalar invariance should also be present (Miller & Sheu, 2008). Scalar invariance is present when a sufficient number of item intercepts are similar across groups. (i.e., Steenkamp & Baumgartner, 1998, have suggested that at least two invariant items per factor are needed for meaningful comparisons to be made). To examine if scalar invariance was present, we compared a fully invariant model, where each item intercept (full invariance) was set to be equal across models, to the previous nested metric models (see Tables 4 and 5). The results showed that none of the countries were fully invariant compared to the U.S. sample (i.e., ΔCFIs $> -.002$), and thus full metric invariance was not supported. To examine if partial metric variance was supported, we relaxed the constraints in the models where the MIs and EPCs were substantial (see MacCallum et al., 1992) in a sequential fashion (Dimitrov, 2010). This led to freeing of three paths for Israel (Items 3, 4, and 10) and Taiwan (Items 5, 9, and 10) and five paths for Turkey (Items 5, 6, 7, 8, and 10), Greece (Items 1, 2, 7, 8, and 10), and England (Items 2, 3, 4, 7, and 10), before the comparison of these partially invariant models (see Tables 4 and 5) with the original configural model showed sufficiently small differences in the model fit (ΔCFI $\leq -.002$). Therefore, partial scalar invariance was supported, with at least half of the items (50%–70% of the items per group) showing invariant factor loadings. As such, based on Steenkamp and Baumgartner's (1998) mathematical proof, sufficient invariance appears to be present to allow between-country differences to be examined.

Latent mean comparison. The latent means for England (M = 3.03, SE = 0.03), Greece (M = 2.76, SE = 0.02), Israel (M = 2.89, SE = 0.04), Taiwan (M = 2.88, SE = 0.03), Turkey (M = 2.80, SE = 0.03), and the United States (M = 3.03, SE = 0.03) were then examined by comparing an invariant model, where each of the latent means were set to be equal across models, to the previous partial scalar models, where all the latent means were allowed to freely estimate (see Tables 4 and 5). The results showed that the English and U.S. samples were invariant (i.e., equal means), while the latent mean scores for Greece, Israel, Turkey, and Taiwan were each variant with the latent mean from the U.S. sample (i.e., ΔCFIs $> -.002$). In each case, the samples from Greece, Israel, Turkey, and Taiwan showed lower latent means (i.e., less self-stigma) than did the U.S. sample.

Discussion

Self-stigma is a key factor in the decision to seek help and, therefore, of direct importance to researchers and clinicians developing interventions to reach out to underserved populations (see Vogel et al., 2010). However, limited research on the reliability and validity of scales to measure self-stigma outside of U.S. populations has curtailed generalizability (Miller & Sheu, 2008). The present research addressed this need by testing the measurement invariance of the widely used Self-Stigma of Seeking Help (SSOSH) scale across samples from six different countries. Specifically, in the configural invariance analysis, we found that the single-factor construct held across all countries. Similarly, the internal consistencies across country samples (.77–.89) were consistent with previous reports based on samples of college students (.79–.92; Vogel et al., 2006) and nonmajority samples (.79–.89; Soheilian & Inman, 2009; Vogel et al., 2011). Furthermore, the metric (factor loading) invariance analysis supported the invariance of the majority of items across countries (80%–100% of the items invariant across countries). Given these findings, it seems that, overall, the SSOSH assesses a construct that can be meaningfully measured across many cultural groups.

Table 3
Mean Factor Loadings From Bootstrap of the 10 Items of the SSOSH Across Cultures

Item	England M [95% CI]	Greece M [95% CI]	Israel M [95% CI]	Taiwan M [95% CI]	Turkey M [95% CI]	United States M [95% CI]
1	.80 [.73, .86]	.66 [.60, .71]	.58 [.46, .70]	.69 [.57, .81]	.64 [.54, .76]	.80 [.76, .83]
2	.67 [.59, .74]	.47 [.41, .53]	.57 [.46, .68]	.68 [.58, .79]	.58 [.48, .68]	.70 [.64, .76]
3	.71 [.62, .80]	.61 [.54, .67]	.68 [.55, .82]	.69 [.57, .80]	.62 [.52, .72]	.76 [.71, .81]
4	.52 [.43, .62]	.31 [.24, .37]	.33 [.19, .46]	.34 [.20, .46]	.35 [.24, .45]	.40 [.33, .48]
5	.45 [.34, .55]	.24 [.17, .31]	.35 [.23, .48]	.29 [.16, .41]	.56 [.45, .65]	.42 [.35, .50]
6	.84 [.77, .90]	.76 [.71, .82]	.69 [.58, .79]	.79 [.69, .91]	.71 [.61, .81]	.81 [.76, .85]
7	.78 [.69, .87]	.51 [.44, .57]	.74 [.64, .84]	.63 [.53, .72]	.68 [.59, .76]	.79 [.74, .83]
8	.81 [.74, .88]	.73 [.68, .78]	.74 [.63, .84]	.72 [.60, .83]	.72 [.63, .82]	.80 [.75, .84]
9	.46 [.35, .55]	.28 [.21, .35]	.47 [.33, .60]	.64 [.53, .75]	.49 [.39, .59]	.50 [.42, .57]
10	.68 [.60, .75]	.58 [.41, .52]	.33 [.21, .46]	.45 [.34, .56]	.30 [.19, .40]	.62 [.56, .67]

Note. All loadings are significant at $p < .001$. SSOSH = Self-Stigma of Seeking Help; CI = confidence interval.

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Table 4
Metric Invariance Comparisons of SSOSH Across Countries

	χ^2	S-B χ^2	*df*	RMSEA	CFI	ΔCFI	$\Delta\chi^2$	Model comparison
				England				
Configural	250.52	222.54	70	.063	.986			
Metric								
Full	275.65	253.32	79	.063	.984	−.002	31.58***	Configural
Scalar invariance								
Full	444.79	441.37	88	.085	.968	−.016[a]	560.05***	Metric
Partial	293.43	270.43	83	.064	.983	−.002	17.37*	Metric
Latent mean invariance	295.70	273.03	84	.064	.983	−.000	2.48	Partial scalar
				Greece				
Configural	493.39	379.52	70	.066	.973			
Metric								
Full	577.35	464.35	79	.069	.967	−.006[a]	104.63***	Configural
Partial	521.58	412.32	77	.066	.971	−.002	30.83***	Configural
Scalar invariance								
Full	929.67	789.02	86	.090	.939	−.032[a]	935.47***	Partial metric
Partial	556.24	445.25	81	.067	.969	−.002	36.61***	Partial metric
Latent mean invariance	661.13	523.86	82	.073	.962	−.008[a]	45.69***	Partial scalar
				Israel				
Configural	211.47	194.82	70	.061	.984			
Metric								
Full	241.56	225.61	79	.062	.981	−.003[a]	31.48***	Configural
Partial	230.22	214.80	78	.061	.983	−.001	19.69*	Configural
Scalar invariance								
Full	312.97	299.30	87	.072	.973	−.010[a]	101.00***	Partial metric
Partial	251.37	236.71	84	.062	.981	−.002	22.65***	Partial metric
Latent mean invariance	278.97	261.02	85	.066	.978	−.003[a]	16.80***	Partial scalar
				Taiwan				
Configural	218.31	131.70	70	.043	.993			
Metric								
Full	246.93	149.95	79	.043	.992	−.001	18.32*	Configural
Scalar invariance								
Full	363.31	227.82	88	.058	.983	−.009[a]	102.26***	Metric
Partial	271.67	171.46	85	.046	.990	−.002	32.37***	Metric
Latent mean invariance	340.17	210.65	86	.055	.985	−.005[a]	16.31***	Partial scalar
				Turkey				
Configural	256.23	178.01	70	.052	.988			
Metric								
Full	315.32	226.72	79	.057	.984	−.004[a]	58.35***	Configural
Partial	288.68	200.17	77	.053	.987	−.001	22.08**	Configural
Scalar invariance								
Full	489.57	351.12	86	.073	.971	−.016[a]	203.99***	Partial metric
Partial	305.36	214.76	81	.053	.985	−.002	16.18**	Partial metric
Latent mean invariance	410.95	284.95	82	.065	.978	−.007[a]	34.20***	Partial scalar

Note. SSOSH = Self-Stigma of Seeking Help; S-B χ^2 = Satorra–Bentler chi-square; RMSEA = root-mean-square error of approximation; CFI = comparative fit index.
* $p < .05$. ** $p < .01$. *** $p < .001$.
[a] Invariance is ΔCFI < –.002.

Although the majority of the items were invariant, three items did show some variance in three countries (see the Appendix for a list of the items). Item 7 ("I would feel okay about myself if I made the choice to seek professional help") was the most variant, showing a difference with the normed sample (U.S.) and Greek, Israeli, and Turkish. The wording of this item may not have translated as clearly across countries. For example, it is possible the phrase "feel okay" did not have a clear translation in these languages. Item 5 ("My view of myself would not change just because I made the choice to see a therapist") also showed a difference for Turkey but was invariant for other groups. Finally, Item 8 ("If I went to a therapist, I would be less satisfied with myself") was variant for the Greek sample but invariant for the other groups. Some additional examination of these items may be warranted, and researchers using the SSOSH in these countries may need to assess if these items function the same for their samples.

We also examined the invariance of the latent means and found that, whereas the English and U.S. samples did not differ with each other, the other samples (Greek, Israeli, Taiwanese, and Turkish) each showed lower levels of self-stigma than did the U.S. sample.

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Table 5
Invariance CFI Comparisons for SSOSH Models Across Groups

		Metric invariance			Scalar invariance			Mean invariance	
Country	Configural CFI	CFI	ΔCFI	Variant items	CFI	ΔCFI	Variant items	CFI	ΔCFI
England	.986	.984	−.002	—	.983[a]	−.001	2, 3, 4, 7, 10	.983	.000
Greece	.973	.971[a]	−.002	7, 8	.969[a]	−.002	1, 2, 7, 8, 10	.962	.007[b]
Israel	.984	.983[a]	−.001	7	.981[a]	−.002	3, 4, 7	.978	.003[b]
Turkey	.988	.987[a]	−.001	5, 7	.985[a]	−.002	5, 6, 7, 8, 10	.978	.007[b]
Taiwan	.993	.992	−.001	—	.990[a]	−.002	5, 9, 10	.985	.005[b]

Note. CFI = comparative fit index; SSOSH = Self-Stigma of Seeking Help. Invariance is ΔCFI < −.002.
[a] Partial invariance. [b] Variant mean differences.

This finding is consistent with assertions that perceptions of stigma could vary across cultural groups that place more emphasis on independence versus interconnectedness (Angermeyer & Dietrich, 2006). For example, a cultural focus on others could lessen the importance of the self and, therefore, might elicit less self-stigma. In addition, the SSOSH scale may reflect specific Western cultural expectations, including being able to solve problems on one's own, being independent, and being in control of one's emotions. In other words, the act of seeking mental health services may be viewed as a sign of individual weakness (Vogel et al., 2006). The current version of the SSOSH, having been developed in a Western country, might, therefore, overrepresent individualistic notions (i.e., Item 10 "I would feel worse about myself if I could not solve my own problems") and underrepresent collectivistic notions of self-stigma. Given previous findings that self-stigma may be related to perceptions of shame and views of mental health treatment in Eastern and Middle Eastern cultures (e.g., Shechtman et al., 2010; Soheilian & Inman, 2009), the understanding of the concept of self-stigma might be further enhanced by adding some additional items that reflect a more collectivistic orientation. For example, in a study of Middle Eastern Americans, Soheilian and Inman (2009) suggested that self-stigma could occur among Arab individuals when they internalize the prejudices related to seeking help present in the larger society and their family unit. Thus, individuals may feel increased self-stigma due to the desire to protect not only their own reputation but also that of their family. In the future, researchers may want to investigate the effect of adding items (e.g., "I would feel as though I let my family down by not solving my problems without professional help") that directly reflect concerns about failing other important people such as family members.

AQ: 12

Limitations and Conclusions

Overall, this study confirmed that the SSOSH scale largely maintained accuracy of measurement across the studied cultural groups. Therefore, researchers who wish to use the SSOSH to examine self-stigma across cultural groups can, with greater confidence, interpret detected mean differences on the SSOSH as reflecting true latent differences in self-stigma, rather than measurement error due to measurement invariance. Furthermore, researchers can also more confidently evaluate the strengths of relationships between self-stigma and other theoretically and culturally relevant factors, across cultural groups. As such, future research should examine the cultural applicability of help-seeking decision-making models that include self-stigma.

Despite the important findings of the current investigation, some limitations should be noted. First, even though our study accessed samples from six countries, future researchers could examine whether the results generalize to other countries in the world. Furthermore, within-country differences (within-country subgroups) were not examined (e.g., between individuals from different religious affiliations or ethnic groups). Researchers may want to attend to these subgroups. Researchers may also want to examine these relationships among immigrants within a given country to see if differences exist between groups originating from different countries but sharing the same nationality. In addition, future research should consider the impact of generational status, which has previously been found to relate to attitudes and stigma associated with seeking help (Ta, Holck, & Gee, 2010). Another limitation is that these samples were mostly drawn from college student populations (i.e., only the sample from England included noncollege students) within each country. As such, future research could examine whether measurement invariance of the SSOSH scale holds for individuals from community populations across different cultures. In many countries, college students do not necessarily represent the majority and are often more privileged. Such privilege may influence the degree to which individuals internalize stigma compared to others living in their country.

AQ: 13

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AQ: 15

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(*Appendix follows*)

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Appendix

Self-Stigma of Seeking Help Scale Items

INSTRUCTIONS: People at times find that they face problems that they consider seeking help for. This can bring up reactions about what seeking help would mean. Please use the 5-point scale to rate the degree to which each item describes how you might react in this situation.

1 = Strongly Disagree 2 = Disagree 3 = Agree & Disagree Equally 4 = Agree 5 = Strongly Agree

1. I would feel inadequate if I went to a therapist for psychological help.
2. My self-confidence would NOT be threatened if I sought professional help.
3. Seeking psychological help would make me feel less intelligent.
4. My self-esteem would increase if I talked to a therapist.
5. My view of myself would not change just because I made the choice to see a therapist.
6. It would make me feel inferior to ask a therapist for help.
7. I would feel okay about myself if I made the choice to seek professional help.
8. If I went to a therapist, I would be less satisfied with myself.
9. My self-confidence would remain the same if I sought professional help for a problem I could not solve.
10. I would feel worse about myself if I could not solve my own problems.

Items 2, 4, 5, 7, and 9 are reverse scored.

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APA PROOFS

AUTHOR QUERIES

AUTHOR PLEASE ANSWER ALL QUERIES 1

AQau—Please confirm the given-names and surnames are identified properly by the colors. = Given-Name, = Surname
The colors are for proofing purposes only. The colors will not appear online or in print.

AQ1—Author: Is the running head okay? If not, please provide one that is no more than 50 characters, including spaces and punctuation.

AQ2—Author: Our limit is 5 keywords or terms but 6 are listed. Please omit one.

AQ3—Author: Corrigan & Shapiro (2010). Please provide reference or delete citation.

AQ4—Author: Hammer & Vogel (2010). Please provide reference or delete citation.

AQ5—Author: Wu (2010). Please provide reference or delete citation.

AQ6—Author: Scale anchors were uppercased to match presentation in Appendix. Is this correct?

AQ7—Author: Please provide a reference for LISREL 8.8, unless it is known widely enough not to need one.

AQ8—Author: Jöreskog, Sörbom, du Toit, & du Toit (1999). Reference list includes only Jöreskog & Sörbom (1979). Was this meant? If not, please provide reference for Jöreskog & Sörbom, du Toit, & du Toit (1999) or delete citation.

AQ9—Author: There is no U.S. data in Table 4. Is this okay?

AQ10—Author: In Table 5: 1.There is no U.S. data. Is this okay? 2. Concerning the dashes, our guidelines are to leave cells blank if data are not available and to use dashes if data are either not obtained or not reported. If dashes are appropriate, please define them in the table note.

AQ11—Author: Please spell out EPCs on first mention.

AQ12—Author: I wonder whether “e.g.” was meant instead of “i.e.,” as an example of the overrepresenting of individualistic notions.

AQ13—Author: Ta, Holck, & Gee (2010). Please provide reference or delete citation.

AQ14—Author: Cheung, G. W., & Rensvold, R. B. (2002). Journal archive for this volume and page range shows different authors, publication date, and article title from what original article provided. Is current reference what was meant? If not, please provide correct one.

AUTHOR QUERIES

AUTHOR PLEASE ANSWER ALL QUERIES

AQ15—Author: Corrigan, P. W. (2004). Please cite in text or delete reference.

AQ16—Author: Jöreskog, K. G., & Sörbom, D. (1979). Please cite in text or delete reference.

AQ17—Author: Shea, M., & Yeh, C. J. (2008). Please cite in text or delete reference.

AQ18—Author: In author notes: 1.Please provide department for Dr. Liao. 2.Our guidelines are to include in the author note any information about article material presented in other places, so Turkish info was added here too. 3. Is there any thanks or funding information to add to the author notes?