Validation of the Arabic Translation of the Multidimensional Scale of Perceived Social Support (Arabic-MSPSS) in a Lebanese Community Sample
Rana Merhi and Shafee S. Kazarian

Abstract
Objective: The aim of this study is to report on the Arabic translation of the 12-item Multidimensional Scale of Perceived Social Support (Arabic-MSPSS) and its reliability and validity when administered to a community sample of Lebanese adults. Method: A total of 221 participants completed the Arabic translation of the MSPSS, the Emotion Regulation Questionnaire (Arabic-ERQ), and the Satisfaction with Life Scale (Arabic-SWLS). The factor structure, internal consistency and correlation of the Arabic MSPSS with sociodemographic factors, emotion regulation and subjective well-being were evaluated. Results: Three factors (Family, Friends, and Significant Other) with high reliabilities were obtained. MSPSS scores were associated with sex and religion but not age, marital status, education or income. Social support scores were independent of ERQ emotional suppression scores but correlated with ERQ cognitive reappraisal scores (r=0.17 for global social support, r=0.17 for Family support, and r=0.20 for Significant Other support), as well as subjective wellbeing scores (r=0.33 for global social support, r=0.32 for Family support, and r=0.29 for Significant Other support). Conclusion: The Arabic translation of the MSPSS is a reliable and culturally valid measure of social support in the Lebanese context.

Key words: Arabic MSPSS, emotion regulation, subjective well-being, Lebanese

Declaration of Interest: None

Introduction
The Multidimensional Scale of Perceived Social Support (MSPSS)\(^1\) is a brief and widely used self-report tool for the assessment of social support in community and mental health contexts. The MSPSS was developed for the assessment of perceived adequacy of three sources of social support (family, friends and significant other) in European-Americans in the United States. Zimet et al. conducted principal components factor analysis with oblique rotation with all 12 items of the English MSPSS in a group of young adults from the United States and supported a three-factor solution for the scale. The tridimensional structure of the MSPSS and the independence of the measure form social desirability was subsequently confirmed.\(^2\)

Since the inception of the MSPSS, the measure has been extended to a variety of populations, age groups and cultural contexts. In relation to populations, the MSPSS has been applied to inpatient and outpatient psychiatric settings\(^3\)\(^4\), medical facilities and medical residents\(^5\), rescue workers such as firefighters and emergency medical service personnel\(^6\), and caregivers\(^7\). In relation to age, the use of the MSPSS has been extended from young adults\(^8\), adolescents\(^9\) and older adults\(^10\). In relation to cultural groups within the pluralist North American context, MSPSS validation studies on European-Americans have been extended to African-American adolescents\(^11\), Arab Muslim youth in the United States\(^12\) and Mexican-American adolescents\(^13\).

Finally, the MSPSS has been translated into a variety of languages and validated for cultural appropriateness in several Western European and Asian countries including China\(^14\), India\(^15\), Israel\(^16\), Italy\(^17\), Pakistan\(^18\), Turkey\(^19\), and Uganda\(^20\).
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The MSPSS appears to be a psychometrically reliable and valid instrument for use across clinical and non-clinical populations. Nevertheless, there is lack of clarity on the cross-cultural stability of the factor structure of the measure in that the three factors identified in Western samples have not been uniformly observed in non-Western countries. Akhtar et al. examined the factor structure of the Urdu version of the MSPSS and reported that the Pakistani women in their rural sample perceived social support as a unitary rather than a tridimensional source of social support as in Western samples. Akhtar et al. attributed the discrepant factor structure of the Urdu version of the MSPSS to cultural factors. More specifically, the authors suggested that the communal living in the Pakistani extended family system and the high rates of marriages within families dilute differences between family members, friends and significant others as sources of social support.

Chou also examined the factor-analytic properties of the Chinese version of the MSPSS in a Hong Kong Chinese adolescent sample and found a two-factor (friend and family) rather than a three-factor structure for the measure. The author suggested that age may explain the discrepancy in findings in that significant others of adolescents are more likely to be peers whereas significant others of young adults are more likely to be romantic partners. As such, adolescents may fail to differentiate between sources of social support from friends and significant others as invoked by the MSPSS whereas young adults may have no difficulty in differentiating between sources of social support from friends and significant others.

In view of the ambiguity in the universality of the factor structure of the MSPSS cross-culturally, and considering the lack of cultural application of the measure in the Arab Middle East generally, and the Lebanese context in particular, the reliability and validity of an Arabic translation of the scale in a community group of Lebanese are evaluated. Social support is of particular significance to Middle Eastern societies generally and Lebanon in particular. The Middle Eastern Lebanon represents a pluralist society in which Christians, Muslims and secular groups are not only negotiating peaceful coexistence after a protracted civil war of 15 years duration (1975-1990), but are also facing the challenge of adapting to the shift from a traditional collectivist cultural orientation (i.e., where the extended family of origin is the main source of social support) to a more individualist cultural orientation. Through an individualist cultural orientation familial ties are loosened, and familial social support competes with other prevailing non-familial sources of social support such as friends and romantic relationships.

While the MSPSS has been translated into the Arabic language for use with Arab Muslim adolescents living in the United States, the measure was adapted such that a 3-point rating scale instead of the original 7-point rating scale was used to assess social support from family, friends and school personnel rather than family, friends, and significant other. In the present study, we re-adapted the Arabic translation of the MSPSS in that the 7-point rating scale was used to measure the original three sources of social support (family, friends, and significant other) as conceptualized by Zimet et al. To our knowledge, the psychometric properties of an Arabic translation of the MSPSS in a community sample of Lebanese have not been analyzed. The cross-cultural validation of the Arabic translation of the MSPSS in the Lebanese context is important to determine if the measure is culturally appropriate for Lebanese and if it is tapping dimensions of social support among Lebanese similar to the family, friends and significant other sources of social support found in the North American context.

The aim of the present study was to evaluate the reliability and validity of the Arabic translation of the MSPSS in a community sample in Lebanon. We were interested in finding out if the three-factor structure reported by Zimet et al. in the United States also applies to adults in Lebanon. Moreover, we aimed at assessing
whether scores obtained from the Arabic translation of the MSPSS are likely to correlate with the sociodemographic factors of age, sex, education, marital status, and income. Additionally, we examined the discriminant validity of the MSPSS through its correlation with measures of emotion regulation and subjective well-being.

Method

Participants

A total of 221 Lebanese residents from the Greater Beirut Area of Lebanon participated in the study. The majority of the participants were female (n=123, 55.7%), and their mean age was 33.98 years (SD=11.71, range = 21 to 75). Four religious groups were represented in the sample (34.9% Christian, 8.3% Druze, 18.1% Shi’ite, and 34.8% Sunni). In relation to marital status, 51.4% of the group reported being single, 41.4% married, and 4.5% separated or divorced. With regard to education, 24.3% reported high school or lower education, 12.4% vocational diplomas and 63.3% university level education. Finally, 19.4% reported a monthly income of $500 and less, 28.4% an income between $500-$1000, 19.4% an income between $1000 and $1500, and 33.6% an income above $1500.

Instrumentation

Arabic translation of the Multidimensional Scale of Perceived Social Support (Arabic-MSPSS) 1. This is a 12-item measure of perceived social support. Each item is rated on a 7-point Likert rating scale (1= very strongly disagree, 7= very strongly agree), higher scores indicating higher perceived social support. The Arabic translation of the MSPSS that was adapted to measure support from family, peers and school personnel was readapted to measure support from family, friends and significant other, as originally designed by Zimet et al.1 (see Appendix I). Readaptation of the Arabic translation of the MSPSS comprised use of Ramaswamy et al.’s Arabic translations of the 12-item MSPSS with replacement of the Arabic term ‘school personnel’ by the Arabic term ‘significant other’ in the four items of the school personnel source of social support so that the readapted subscale measures social support from a significant other rather than school personnel. While the 3-point rating scale has been preferred in the case of American-Arab adolescents, we chose to use the original 7-point rating scale for three reasons: our sample was an adult population, our concern that a 3-point scale would not capture the variability of the social support construct, and the necessity to use a methodology that is consistent with the original development of the scale and subsequent research on it.

Arabic translation of the Emotion Regulation Questionnaire (Arabic-ERQ) 2. This is a 10-item measure of two emotion regulation strategies: emotional suppression (4 items, e.g., ‘I keep my emotions to myself’) and cognitive reappraisal (6 items, e.g., ‘I control my emotions by changing the way I think about the situation I’m in.’). Each item requires a 7-point Likert rating that ranges from 1=Strongly agree to 7=Strongly agree, higher scores indicating higher emotional suppression or higher cognitive reappraisal. An internal consistency of α = .73 for the emotional suppression subscale and α = .79 for the cognitive reappraisal subscale of the English ERQ is reported. In the present study, the original ERQ was translated into Arabic by a professional translator, and the Arabic translation was then translated back to English by another professional translator, independent of the first translator. The two English versions were then compared and differences reconciled. The internal consistencies of the Arabic translation of the ERQ subscales were .66 for cognitive reappraisal and .60 for emotional suppression.

Arabic translation of the Satisfaction with Life Scale (Arabic-SWLS) 3, 4. This is a 5-item measure of subjective well-being. Each item is rated on a 7-point Likert rating scale (1= very strongly disagree, 7= very
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strongly agree), higher scores indicating higher subjective well-being. The internal consistency of the Arabic translation of the SWLS in the present study was $\alpha = .77$, a finding comparable to the internal consistency of $\alpha = .76$ reported by Bassil (13), but somewhat lower than $\alpha = .85$ for the English SWLS (3).

Procedure

After obtaining the approval of the Institutional Review Board (IRB) of the American University of Beirut, Lebanese residents above 21 years of age were conveniently sampled from the Greater Beirut Area of Lebanon. All participants understood written and spoken Arabic, and participated voluntarily. Potential participants were approached by the first author in different shops across eight different areas in the Greater Beirut Area (i.e., Hamra, Achrafieh, Fir El-Shiebback, Mar Elias, Verdun, Harat Hreik, Corniche El-Mazraa, and Jnah-Beirut). The battery of questionnaires (the Arabic translation of the MSPSS (1), the Arabic translation of the ERQ (15), and the Arabic translation of the SWLS (33)) was administered to participants on an individual basis. Measures were pilot tested prior to final use and administered in a randomized order to minimize order effects. Data collection took around two months before completion (early October 2010 – early December 2010).

Informed consent was obtained from all participants, prior to their participation.

Results

Arabic Translation of the MSPSS: Factor Structure

The 12 items of the Arabic translation of the MSPSS were subjected to principal factor analysis using SPSS Version 19. The principal axis extraction approach typically results in the identification of the same number of factors as confirmatory factor analysis using structural equation modeling (25). The Kaiser-Meyer-Olkin (KMO) value of .80 exceeded the required value of .60, and the Bartlett’s Test of Sphericity reached statistical significance ($p < .001$), supporting the factorability of the correlation matrix.

Principal factors analysis with Oblique rotation, as suggested by Zimet et al. (1), revealed the presence of three factors with eigenvalues exceeding 1 (4.50, 1.54, 1.18), and explaining 37.48%, 12.87%, and 9.84% of the variance, respectively. The factor analysis pattern matrix for the Arabic translation of the MSPSS is provided in Table 1. As can be seen, the first factor was a Friends source of social support, whereas the second factor was a Family source of social support and the third a Significant Other source of social support.

Table 1: Pattern Matrix for the Arabic Version of the Multidimensional Scale of Perceived Social Support (MSPSS).

<table>
<thead>
<tr>
<th>Item Content</th>
<th>I</th>
<th>H</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. I can count on my friends when things go wrong.</td>
<td>.87</td>
<td>-.04</td>
<td>-.01</td>
</tr>
<tr>
<td>12. I can talk about my problems with my friends.</td>
<td>.75</td>
<td>.06</td>
<td>-.05</td>
</tr>
<tr>
<td>9. I have friends with whom I can share my joys and sorrows.</td>
<td>.72</td>
<td>.04</td>
<td>.10</td>
</tr>
<tr>
<td>6. My friends really try to help me.</td>
<td>.70</td>
<td>-.02</td>
<td>.15</td>
</tr>
<tr>
<td>4. I get the emotional help and support I need from my family.</td>
<td>-.09</td>
<td>.89</td>
<td>.06</td>
</tr>
<tr>
<td>3. My family really tries to help me.</td>
<td>-.16</td>
<td>.82</td>
<td>.05</td>
</tr>
<tr>
<td>11. My family is willing to help me make decisions.</td>
<td>.19</td>
<td>.60</td>
<td>-.06</td>
</tr>
<tr>
<td>8. I can talk about my problems with my family.</td>
<td>.16</td>
<td>.56</td>
<td>.00</td>
</tr>
<tr>
<td>2. There is a special person with whom I can share my joys and sorrows.</td>
<td>-.02</td>
<td>-.03</td>
<td>.91</td>
</tr>
</tbody>
</table>
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1. There is a special person who is around when I am in need. \( r = .03 \)
2. There is a special person who is a real source of comfort to me. \( r = .03 \)
3. There is a special person in my life who cares about my feelings. \( r = .09 \)

Appendix I: Arabic version of the Multidimensional Scale of Perceived Social Support (MSPSS)

| Arabic translation of the MSPSS: internal consistencies and intercorrelations |
|---|---|---|---|---|---|---|
| 7 | أفراد معي | 6 | أفراد عائلة | 5 | أفراد العمل | 4 | أفراد صديق | 3 | أفراد شملة | 2 | أفراد عائلة | 1 | أفراد معي |
| 6 | أفراد أمي | 5 | أفراد هنا | 4 | أفراد هناك | 3 | أفراد هذه | 2 | أفراد هذه | 1 | أفراد أمي |

Using Spearman correlations, the Arabic translation of the MSPSS global scores for the total sample correlated \( r = -.67 \) (\( p < .01 \)) with Family scores, \( r = .81 \) (\( p < .01 \)) with Friends scores, and \( r = .74 \) (\( p < .01 \)) with Significant Other scores. Similarly, Family scores correlated \( r = -.34 \) (\( p < .01 \)) with Friends scores and \( r = .33 \) (\( p < .01 \)) with Significant Other scores, and Friends scores correlated \( r = .43 \) (\( p < .01 \)) with Significant Other scores.
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Arabic translation of the MSPSS: descriptives and sociodemographic factors

A repeated measures Analysis of Variance (ANOVA) was conducted to examine how the current sample of Lebanese adults rated sources of perceived social support. Results indicated a significant difference in perceived social support source, $F(2, 408) = 36.01, p < .001$, such that Lebanese adults in the current sample reported significantly lower social support on friends social support than family social support ($F(1, 204) = 5.10, p < .05, r = .37$), and significantly higher social support on the significant other social support than family social support ($F(1, 204) = 33.34, p < .001, r = .16$).

In terms of sociodemographic factors, comparisons of the Arabic translation of the MSPSS overall, Family, Friend and Significant Other scores in relation to age, marital status, level of education, and income were all non-significant, suggesting the independence of these factors in the reporting of total and the three sources of social support in this group of Lebanese adults. The associations between social support and religious affiliation were not examined because there was more than 5% of missing data on the religion variable. Using the Mann–Whitney U test statistic, comparisons between males and females indicated females scoring higher on overall social support ($U = 3,718.50, p < .01, r = -.24$) than their male counterparts (Median=66.0 for females and Median=61 for males). Multivariate Analysis of Variance (MANOVA) with sex and the two sources of social support as variables (Significant Other scores were dropped from the analysis due to a violation in the assumption of homogeneity of variance) showed a sex difference on Family social support scores and Friends social support scores ($T = .07, F(2, 208) = 5.78, p < .01$). Discriminant function analysis resulted in one discriminant function with a canonical correlation of 0.23 between sources of social support and sex. Standardized Canonical Discriminant Function Coefficients for both, Family social support (.15) and Friends social support (.94) indicated that social support from Friends had a greater contribution in differentiating males from females. In contrast to females, males reported lower social support on the friendship dimension.

Arabic translation of the MSPSS and Emotion Regulation

The Arabic translation of the ERQ emotional suppression scores failed to correlate with the Arabic version of the MSPSS total scores and each of the sources of social support. Cognitive reappraisal scores, on the other hand, correlated $r=.17$, $p < .05$ with the social support total scores, $r=.17$, $p < .05$ with Family scores, and $r=.20$, $p < .01$ with Significant Other scores, but not with Friend scores ($r=.06$, ns). These results supported the discriminant validity of the MSPSS as a measure of social support and not emotion regulation.

Arabic Translation of the MSPSS and Subjective Well Being

The Arabic translation of the SWLS scores correlated $r = .33$ ($p < .01$) with the Arabic translation of the MSPSS total scores, $r=.32$ ($p < .01$) with Family scores, and $r = .29$ ($p < .01$) with Significant Other scores, but not with Friends scores ($r = .12$, ns). These findings are comparable to those reported for the English MSPSS.

The moderate correlations furthermore indicate that MSPSS measures social support rather than life satisfaction.

Discussion

To the best of our knowledge, this is the first study that validates the Arabic translation of the MSPSS in a community sample of Lebanese in the religiously pluralist Lebanon. In the present study, the three MSPSS informed sources of social support identified in American and European samples were observed in the Lebanese context and Arabic translation of the MSPSS scores showed low to moderate correlations with emotion regulation and life satisfaction scores, indicating...
the Arabic MSPSS to be measuring a separate and distinctive variable (i.e., social support). Taken together, these findings support the construct validity of the scale and the cross-cultural stability of the factor structure of the MSPSS. The tridimensional factor structure of the Arabic translation of the MSPSS, the high internal consistency of the total scale and its three subscales, and the moderate intercorrelations of the sources of social support suggest that the Arabic translation of the MSPSS may be measuring distinct and reliable dimensions of social support, a view consistent with the conceptualization of the original MSPSS as a tripartite measure of perceived adequacy of social support.

Since past MSPSS research has examined the relationship of perceived social support to age, sex, marital status, and education, the present study extended this area of investigation to income. The finding of a lack of an association with income suggests that Lebanese from different income levels benefit similarly from the varied sources of social support. The finding of a lack of an association between perceived social support and education is consistent with previous research. On the other hand, the correlation with age is at odds with previously reported studies as is the lack of a correlation between perceived social support and marital status. While further research is required to elucidate the reasons for the discrepancy in findings on age and marital status, the present study suggests that the benefits obtained from the different sources of social support are universal across age and marital status rather than specific to developmental milestones.

The sex comparisons on the Arabic translation of the MSPSS parallel those reported previously but are inconsistent with those found by Edwards. Lebanese females reported higher support from friends, in addition to reporting higher overall social support. Cheng and Chan suggested that females benefit more from the social support of friends than males because they engage in more self-disclosure than their male counterparts.

While this explanation may apply in the present context, it requires further examination as self-disclosure was not measured directly in the present study. Nevertheless, the sex differences in perceived social support reported in the present study are important and require replication as lower levels of social support in the present study were associated with lower life satisfaction, and as lower social support has been shown to associate with increased psychological distress and high-risk behaviors including sexual behaviors and suicide.

As a group, Lebanese in the present study reported lower perceived social support from family than from significant others, a finding consistent with the Kazarian and McCabe study but inconsistent with those reported by others. It should be pointed out that family members (e.g., spouse) may also be significant others in people's life. This is not problematic since the participant answering the questionnaire would be differentiating between family and significant other according to his/her own terms. The finding of lower perceived social support from family than from significant others in the Lebanese context is of particular significance given the primacy of family in the traditional Lebanese collectivist culture.

This finding may be suggestive of the loosening of family ties in Lebanese society because of the shift from a traditional collectivist cultural orientation in which the self is construed as an extension of kin, as opposed to an individualist cultural orientation in which the self is preoccupied with validation of self-identity and autonomy from family. Nevertheless, Lebanese in the present study reported higher perceived social support from family than from friends, a finding that may highlight the primacy of the family over that of friends. It is possible that the differential ordering of social support is due to type of support (e.g., financial or emotional) provided by each source, in that the Lebanese adults of the present sample experienced more financial and/or emotional support from significant others (e.g., spouse) than they do from family members (e.g., parents), and
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from family members than they do from friends. While this interpretation is consistent with Farsoun and Farsoun\(^2\), who reported that Lebanese adults receive and provide financial and emotional support from family members, it remains to be examined in the future. Moreover, while other explanations such as the sociodemographic characteristics of the present study sample are equally plausible, direct measures of cultural orientations need to be considered in the future.

Since past research has not focused on perceived social support and emotion regulation, the present study extended the field of perceived social support to emotion regulation. Perceived social support, particularly from family and significant other was associated with increased use of cognitive reappraisal as an emotion regulation strategy. Perceived social support was also correlated with life satisfaction, the cognitive component of subjective well-being, finding consistent with previous research\(^3\). While it seems plausible to suggest that positive conditions of social support may contribute to the use of subjective well-being and cognitive reappraisal, which has been identified as the more effective emotion regulation strategy\(^4\), the correlational nature of the study also raises the alternate possibility; that subjective well-being and cognitive reappraisal may contribute to perceived adequacy of social support.

The present study provides preliminary support to the value of the Arabic translation of the MSPSS and its three sources of social support as a valid, reliable and culturally appropriate scale for assessing perceived social support of Lebanese adults in the Lebanese context.

While factor structure, internal consistency, and discriminant validity were used to examine the reliability and validity of the Arabic MSPSS in the present study, test-retest reliability and convergent validity should be examined in future studies. Also, participants were not examined for symptoms of anxiety or depression. Since social support has been found to negatively relate to anxiety and depression\(^5\), future validation studies in the Lebanese and Arab context should take into consideration the presence of anxiety or depressive symptomatology.

Finally, the present study is limited by its focus on Lebanese adults in the urban city of Beirut. More representative samples of Lebanese, rural vs. urban comparisons to address issues concerning extended vs. nuclear families and consensual living and marriages within families as was done by Akhtar et al.\(^6\), and applications in other Arab countries need to be considered in the future to further evaluate the correlates of social support in the diverse religious and ethnic Arab Middle East context.

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