PSYCHOMETRIC PROPERTIES OF THE REVISED DYADIC ADJUSTMENT SCALE ON A SAMPLE OF MARRIED ADULTS

Maria N. Turliuć *  
Alexandru Ioan Cuza University, Romania

Antoaneta A. Muraru **  
Alexandru Ioan Cuza University, Romania

Abstract
In the field of couple and family psychology, the Dyadic Adjustment Scale is a widely used measure of marital adjustment. D. M. Busby et al. (1995) published a revised version of the scale (The Revised Dyadic Adjustment Scale/RDAS), which includes only 14 items. Three components of marital adjustment are operationalized: consensus, satisfaction and cohesion. This present study examined the factorial structure and reliability of RDAS on a sample of 383 Romanian married adults. Exploratory factor analysis yielded three factors accounting for 65.7% item variance. Except for item 14, the other items showed high or very high loadings in one of the three factors. For models with three latent correlated factors, confirmatory factor analysis indicated an acceptable statistical fit. Further, invariance of the measurement model across gender groups was tested. The configural model proved a satisfactory fit across gender groups. When measurement weights and structural covariance were constrained to be equal across gender, the invariance of measurement model was also supported. RDAS can confidently be used in both research and evaluation of interventions’ outcomes on marital couples. Some implications are briefly discussed.

Keywords: marital adjustment, RDAS, factor analysis, reliability, validity

Correspondence concerning this paper should be addressed to:
* Ph.D., Professor, Alexandru Ioan Cuza University, Faculty of Psychology and Education Sciences, Department of Psychology, Toma Cozma Street, no. 3, Iaşi, 700554, Romania. E-mail: turlieuc@uaic.ro
** Ph.D. student, Alexandru Ioan Cuza University, Faculty of Psychology and Education Sciences, Department of Psychology, Toma Cozma Street, no. 3, Iaşi, 700554, Romania. E-mail: antoanetamuraru@yahoo.com
Beside such concepts as the quality of marital relationship, marital satisfaction or happiness, marital adjustment represents a frequently measured variable in the field of marriage and family psychology (Spanier, 1976). In spite of calls to abandon this concept, most researchers in the field of couple and family psychology have continued to study it (Spanier, 1985).

According to Spanier (1976), adjustment in marital or cohabiting couples may be viewed as a dynamic process which implies a qualitative dimension (referring to certain couple’s characteristics or quality of the interactions between partners). Marital adjustment can be assessed on a continuum at one point in time. Spanier (1976) has conceptualized the marital adjustment as a process, whose outcome is determined by a number of variables: (a) troublesome differences in marital relationship; (b) interpersonal tensions and personal anxiety; (c) partners’ satisfaction; (d) dyadic cohesion; (e) consensus on important matters.

Spanier (1976) constructed a 32-item scale (the Dyadic Adjustment Scale/DAS) to operationalize marital adjustment. This instrument was going to become one of the most widely used measures in studies on marriage (Sabatelli, 1988). It has attracted some criticism due to the differences among subscales (dyadic consensus, satisfaction, cohesion and affectional expression). The critique usually resides in the following areas: a) the effect of items’ length and weight on total score (Norton, 1983); b) the number of dimensions that it actually measures (Crane, Busby, & Larson, 1991; Sabatelli, 1988; Sharpley & Cross, 1982); c) the reliability of the subscale referring to the affectional expression (Graham, Liu, & Jeziorski, 2006); d) the evidence regarding the construct and criterion-related validity (Sabatelli, 1988).

Despite negative criticism, DAS has continued to be of interest for researchers. On samples of married couples with or without problems, as well as mixed samples or samples of married adults, several studies found consistent evidence on psychometric qualities of DAS (Crane et al., 1991; Graham et al., 2006; Hunsley, Pinsent, Lefebvre, James-Tanner, & Vito, 1995; Sabourin, Lussier, Laplante, & Wright, 1990; South, Krueger, & Iacono, 2009; Spanier, 1976; Spanier & Thompson, 1982), as well as its usefulness in the context of clinical practice (Prouty, Markowski, & Barnes, 2000). There were more trials in order to psychometrically test shorter versions of DAS which include 7 items (Hunsley et al., 1995; Hunsley, Best, Lefebvre, & Vito, 2001), 6 items (Hunsley et al., 1995; Sharpley & Cross, 1982), 4 items (Sabourin, Valois, &
Lussier, 2005) or even only one item (Hunsley et al., 1995; Sharpley & Cross, 1982). However, the RDAS (Busby, Christensen, Crane, & Larson, 1995) seems to be the most psychometrically consistent, since it also suggests a series of improvements compared to the DAS scale.

The present study focuses on the revision of DAS carried out by Busby and his colleagues (1995). The revision of the scale was encouraged by the validity issue of two subscales: Dyadic Satisfaction and Affectional Expression. Moreover, Busby et al. (1995) suggest some methodological limitations of previous validation studies, such as the use of samples consisting of participants separated or divorced from their marital partner. In order to solve the controversy on the unidimensionality vs. multidimensionality of the scale, Busby et al. (1995) tested a hierarchic measurement model using analysis of the items’ content together with confirmatory factor analysis (CFA). Results suggested a solution with 7 first-order factors (decision making, values, affection, stability, conflicts, activities and discussions) and 3 second-order factors (dyadic consensus, satisfaction and cohesion). Compared with samples used in previous validation studies of DAS, the one used by Busby et al. (1995) showed an improvement since it consisted of 98 married couples who had called on marital therapy services and 144 couples who were not experiencing marital distress. The authors provided consistent psychometric data for the 14-item version of DAS. Therefore, the data of CFA indicates a hierarchical factor structure that Busby et al. (1995) hypothesized for the RDAS. The standardized values for the items’ loadings in the first-order factors ranged between .56 and .90. The measurement model indicated a good fit to observed data. The first-order factors showed statistically significant loadings in three second-order latent factors (standardized values ranged between .60 and .83). The second measurement model also had a good statistical fit to observed data. The indicators for the three dimensions of marital adjustment were as follows: for marital consensus - decision making, values and affection, for satisfaction - stability and conflict, and for marital cohesion - activities and discussion. By using the multi-group confirmatory factor analysis, the authors provided data for the invariance of factorial structure in subsamples of distressed and non-distressed married adults (Busby et al., 1995). There was a significant positive correlation ($r = .97; p < .01$) between RDAS scores and DAS scores. Also, RDAS correlated significantly with the Locke-Wallace Marital Adjustment Test ($r = .68; p < .01$). This data offered further evidence for the construct
validity of the RDAS. The criterion of validity was investigated by discriminant analyses comparing the RDAS and the DAS scores of distressed and non-distressed couples. The results suggested RDAS and DAS were equal in their ability to correctly classify cases as either distressed or non-distressed married adults, even if the former had 18 less items than the latter scale. The values of internal consistency (Cronbach’s α) were: RDAS total – .90, dyadic consensus subscale – .81, dyadic satisfaction subscale – .85 and dyadic cohesion subscale – .80. The Guttman split-half reliability coefficient for the RDAS total was .94, while Spearman-Brown split-half was .95. Although Busby and his collaborators (1995) provided empirical evidence for the RDAS usefulness in distinguishing distressed couples from non-distressed couples, they did not indicate any cutoff point which could be used to differentiate the two types of marital couples. Based on empirical proofs, Crane, Middleton and Bean (2000) suggested that the most efficient RDAS cutoff score for distinguishing between distressed and non-distressed married individuals is 48.

The full English version of RDAS is presented in Busby et al. (1995). A respondent may answer on a 6-point Likert-type scale ranging from 0 (always disagree) to 5 (always agree) for items 1-6, from 0 (all the time) to 5 (never) for items 7-10, from 0 (never) to 4 (every day) for the item 11 and from 0 (never) to 5 (more often) for items 12-14. For each of the three subscales, the score is obtained by adding up scores on consisting items. Therefore, for marital consensus, the score may range between 0 and 30, for marital satisfaction between 0 and 20 and for marital cohesion between 0 and 19. The overall marital adjustment score is computed by adding up the scores of the subscales. The possible range of the overall score on RDAS is 0 to 69, with lower scores indicating greater marital distress.

Unfortunately, although Busby et al. (1995) provided convincing enough data for the psychometric qualities of the RDAS and certain improvements in the operationalization of marital adjustment, few studies have used it. In order to explore a shorter version of DAS using the nonparametric item response curve, Sabourin et al. (2005) conducted five studies, with a total participation of 8256 married or cohabiting adults. The authors tested four short versions of the DAS: a 4-item version (the items were selected through an analysis of items’ characteristic curves), a 7-item version (proposed by C. F. Sharpley and H. J. Rogers), a 10-item version (developed by L. A. Kurdek) as well as RDAS. For all four short versions, they provided psychometric data
referring to the criterion-related validity and social desirability in responses. The data reported by Sabourin et al. (2005) suggested that the RDAS scale is an effective tool in distinguishing distressed married or cohabitating adults from non-distressed ones (92.1% of the distressed subjects, and 94.9% of the non-distressed participants were correctly classified; k = .85, 95% CI = .830, .865). Compared with the other short versions, the values of indicators referring to the discriminative capacity of RDAS were the best. Moreover, the data of the logistic regression analyses proved the predictive power of the score in RDAS in relation to the risk of couple dissolution: $\chi^2 (1, N = 135) = 22.65, p < .01$, OR = .91, 95% CI = .868, .948 – for females, and $\chi^2 (1, N = 135) = 12.84, p < .01$, OR = .92, 95% CI = .874, .965 – for males. The scores in all short versions were correlated with the scores in the Balanced Inventory of Desirable Responding/BIDR (D. L. Paulhus). This tool consists of two scales (Self-Deception Scale/SDS and Impression Management/IM) and allows the assessment of proneness to social desirable responses on various tools meant to assess personality, attitudes, opinions, values or different contexts-related behaviors. The correlations of the scores in RDAS with the scores in BIDR were significant. However, they were modest and lower than the correlations between the scores in DAS and those in BIDR (Sabourin et al., 2005): in females, r = .25, p < .01 (for SDS) and r = .29, p < .01 (for IM); in males, r = .23, p < .01 (for SDS) and r = .27, p < .01 (for IM).

In another study, 1187 American married or cohabiting couples answered online to several measures including the RDAS (Ward, Lundberg, Zabriskie, & Berrett, 2009). For the RDAS, internal consistency was .94. The scores in RDAS strongly correlated ($r = .78; p < .001$) with the scores in a scale designed to measure the satisfaction with marital life.

In relation to other well-validated short versions of the DAS (Hunsley et al., 1995; Hunsley et al., 2001; Sharpley & Cross, 1982; Sabourin et al., 2005), RDAS presents two major advantages which make it useful for research purposes and clinical practice: (a) it keeps a balance between the number of items (which is relatively economical) and the psychometrical features referring to reliability and validity (see Busby et al., 1995; Sabourin et al., 2005); (b) the items allow researchers or clinicians to obtain a score both for the overall level of adjustment to the current marital relationship and for three more specific dimensions, i.e. the dyadic consensus, cohesion and satisfaction. Until now, there has not been any study to report the psychometric qualities of the
Romanian version of RDAS. Therefore, the scale has been translated into Romanian and administered to a large sample of married adults, in order to test its psychometric characteristics: internal validity (factorial structure), the invariance of the factorial structure across gender, reliability and concurrent validity.

Method

Participants

Three hundreds and eighty three married adults (141 males and 242 females) completed the Revised Dyadic Adjustment Scale and questionnaire focused on demographic variables. Only 3.1% of the participants answered the questions together with their marital partners. Among participants, 299 completed three more scales referring to adaptability, cohesion and differentiation of self within their family-of-origin, and romantic attachment style. Other 84 of participants completed an inventory designed for five domains of personality traits (neuroticism, extraversion, openness, agreeableness and conscientiousness). This article focuses only on data referring to the RDAS. The participants’ mean age was 35.7 (SD = 7.4; range 20-60 years of age). All the participants were Caucasian, most of them married for the first time (93.2%), residents of an urban area (87.5%), Christian-Orthodox (91.6%), university graduates (43.9%), MA or MS graduates (29.8%) or PhD graduates (2.3%). On average, the participants were married for 4.7 years (SD = 4.4; range 1-28 years of marriage). Thirty percent of participants were childless, 38.4% of them had one child, 27.9% two children and 33.7% three or more children.

Measures

Marital adjustment was measured with the 14-item Romanian version of the RDAS. The order of items is identical in both Romanian and English version. In order to translate the RDAS into Romanian, the authors of the current study obtained the agreement of the first author (Dean M. Busby) of original scale. Then, the two authors of the current study independently translated the original English version of RDAS into Romanian. The two versions were compared to each other and a preliminary working version was agreed upon. An experienced bilingual speaker translated the items of the
Romanian version into English. This process of backtranslation yielded some discrepancies with the original English version, which were resolved through discussions among the authors of the current study and the translator, thus reaching a final Romanian working version. Items 1-6 are designed to operationalize the marital consensus, while items 7-10 refer marital satisfaction and items 11-14 to marital cohesion.

The questionnaire regarding the demographic variables included: the participants’ age, gender, marital status, experience in the current marital relationship (in years), number of children raised together with marital partner, residence, level of education, ethnic background, religion, profession and occupational status. The last item asked the participants to rate the overall level of satisfaction with their marital life using a 4-point scale: 1 (not at all satisfied), 2 (little satisfied), 3 (fairly satisfied) and 4 (very satisfied). The reason for including this item was to have one more measure to explore the concurrent validity of the RDAS.

Because of the ambiguity regarding the psychological content of marital adjustment, some researchers argued that the global items are more adequate than items with a more specific content related to certain aspects of marital life (Kamo, 2000). In a certain culture, the way a successful marriage is perceived by partners may be different from one couple to another. To the same extent, differences among cultures are also possible regarding the way married adults describe their own relationship. Therefore, the marital adjustment or the quality of the marital relationship should be measured also through the ratings of the marriage as a whole, not only through its specific components. We agree with the suggestion made by Kamo (2000) concerning the differences among couples coming from the same culture or different cultures and we consider that the use of global items could facilitate the cross-cultural comparisons on the quality of the marital relationship. However, we claim the measurement of marital adjustment through several items which have a more specific content since: (a) there is no doubt that marital adjustment involves more than one aspect of a couple’s life (e.g., quality of communication, expression of affection and intimacy, degree of consensus on various problems of interest to both marital partners, level of conflict etc.); these aspects can be relevant for the practice of marital counselors and therapists; further, most of these aspects have already been revealed or confirmed in several empirical studies carried out on samples of married couples without problems (Sabourin et al., 1990; South et
al., 2009), married couples facing problems (Crane et al., 1991; Spanier & Thompson, 1982) or mixed samples (Busby et al., 1995; Spanier, 1976); (b) the meaning of the answers the participants in a study or married couples seeking for therapeutic assistance give to general items may be more ambiguous than the meaning of the answers to items with a more specific content; thus, when a person refers to her or his current marital relationship as a whole, she or he may report high or very high level of satisfaction, even if the same person’s answers to items concerning certain aspects of the marital relationship may vary from low to high satisfaction; therefore, the use of several items with a specific content allows the researcher or therapist to enrich the meanings of the score a person obtains; (c) in the literature focusing on the issue of the quality of marital relationship or adjustment, the multidimensional measurement approach is preferred by most authors. Consequently, the item referring to the global level of satisfaction with their marital relationship among participants in our study was introduced in order to explore the concurrent validity of RDAS rather than a measure, per se, of the satisfaction.

Procedure

The participants were recruited by a convenience non-probabilistic sampling plan from various occupational settings (e.g., education, public administration, services, university students etc.). The main criterion for a potential participant to be included in this study was to be partner in a married couple for at least one year. As Harway suggests (2005), the first year of marriage seems to be the most difficult period for the two spouses, because even if the partners have a similar cultural background, they come from different families whose daily habits, domestic tasks and ideologies may be different. On the other hand, the marital partners may have different relationship expectations, as well as different values related to everyday life, child-rearing, gender roles, sexuality etc. It is not by accident that many couples come across major difficulties in the first year of their marriage, and some of them end up in divorce.

Participation in the study was voluntary and based on informed consent. The participants completed the questionnaires at home or work. The responses were anonymous. All protocols were returned to the investigators with the responses. Because of the incomplete data, 12 protocols were removed from the database and subsequent analyses, thus resulting in a final sample of 383
participants. Our initial intention was to collect data from a large sample of married couples. However, because of the sampling constraints, only a small portion of the participants (8%) were represented by two spouses. Thus, the unit of analysis was the individual.

Statistical analysis

Statistical analyses were performed with the SPSS 16.00 and AMOS 16.00. The means and standard deviations of the RDAS scores for both females and males were computed and comparisons by gender were performed. At the same time, we were interested in making comparisons about the effect of the presence or absence of children on the couples. For each comparison, the effect size was estimated using the Cohen’s $d$ coefficient. According to Cohen (1992), a value of $d$ equal to .20 indicates a small effect size, a value equal to .50 is indicative of a moderate effect size, while a value equal to .80 indicates a large effect size. The effect of the participants’ age upon the score on RDAS was estimated using One-Way ANOVA. In the case of the statistical technique, two indicators for effect size may be computed ($\eta^2$ and Cohen’s $f$ coefficient). A value of $f$ equal to .10 indicates a small effect size, a value equal to .25 is indicative of a moderate effect size, while a value equal to .40 indicates a large effect size.

In order to determine the factorial structure of the RDAS scale, an exploratory factor analysis (EFA) by principal components extraction was performed. There was no imposed number of factors (eigenvalues > 1). According to the suggestions about the intercorrelations between empirically derived subscales from DAS (Spanier, 1976), oblique rotation (via direct oblim) was specified (value of $\Delta$ was set at zero). An item was retained for one factor when the value of factor loading was equal to or greater than .40, as recommended by Stevens (2002). The suitability of the raw data for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1974) and Bartlett's test of sphericity (Dziuban & Shirkey, 1974). The KMO statistic varies between 0 and 1. Kaiser (1974) recommended to accept values $\geq .50$ and suggested that the values between .50 and .70 are mediocre, the values between .70 and .80 are good, and the values between .80 and .90 are great, while the values greater than .90 are excellent. To the same extent, the factor analysis is suitable when the Bartlett's test is statistically significant (Dziuban & Shirkey, 1974).
In order to estimate non-standardized and standardized parameters in confirmatory factor analysis, the maximum likelihood (ML) method based on covariance matrices was used (Byrne, 2010). Almost all items of RDAS were not distributed normally (see Table 1 for skewness and kurtosis values), thus violating the ML assumption that the raw data be normally distributed (Byrne, 2010; West, Finch, & Curran, 1995). One approach to handle the presence of non-normal data in CFA is to use the bootstrapping procedure which yields more accurate ML estimates of parameters and standard errors from a measurement model. Unfortunately, bootstrapping does not imply a possibility of correcting the biased value of the $\chi^2$ fit index which is the most exposed to the overinflation by non-normality. However, several simulations have found significant problems in the ML procedure arising with univariate skewness at least equal to 2 and kurtosis to 7 (Curran, West, & Finch, 1996; Muthén & Kaplan, 1985). In our study, none of the values of skewness for items of RDAS was greater than 2, while none of the values of kurtosis was greater than 7. Thus, it was considered that the distributions of the items’ scores did not significantly depart from normality and, therefore, application of the ML method without bootstrapping is justified.

The statistical fit of the hypothetical measured model to the observed data was estimated using the following indicators (Byrne, 2010): $\chi^2$, degree of freedom ($df$), significance level, SRMR (standardized root mean square residual), GFI (goodness-of-fit index), AGFI (adjusted goodness-of-fit index), NFI (normed fit index), TLI (non-normed or Tucker-Lewis index), CFI (comparative fit index), and RMSEA (root mean square error of approximation). The last one is a very important indicator, showing the degree to which estimated parameters are representative for the whole population from which the sample was drawn. Since the value of RMSEA is sensitive to the misspecifications of the relationship among variables and it is accompanied by a confidence interval which provides an indication of estimation’s precision, its use in applied research is strongly encouraged (MacCallum & Austin, 2000). According to Byrne (2010), an insignificant value for $\chi^2$, values as close as possible to 1.00 for GFI and AGFI, values higher than .95 for NFI, TLI and CFI, a value as close as possible to zero for SRMR, and a value lower than .05 for RMSEA are indicative of a good fit between the hypothesized model and the observed data. Following the suggestions from literature, it was considered that a value of RMSEA as high as .08 indicates an acceptable fit of a SEM.
model (Browne & Cudeck, 1993). Also, TLI and CFI values from .90 to .95 may indicate an acceptable fitting (Bentler, 1990; Hu & Bentler, 1998).

Testing of the invariance of the hypothetical measurement model across gender groups was performed using multiple-group analysis (for more details, see Byrne, 2010). In order to determine the degree of fit between the baseline configural (unconstrained) model and the observed data, the following indicators were used: \( \chi^2 \), degree of freedom, significance level, TLI, CFI, and RMSEA. The TLI and CFI are comparative indexes, thus being of interest for the invariance testing purpose (Byrne, 2010). The configural model provides the baseline to which all subsequent tests for invariance are compared. The classical approach in arguing for evidence of invariance is based on the \( \Delta \chi^2 \) test (Byrne, 2010). The value \( \Delta \chi^2 \) represents the difference between the \( \chi^2 \) value for the configural model and the \( \chi^2 \) values for the other models in which equality constraints have been imposed on particular parameters. Evidence of invariance is claimed if the \( \Delta \chi^2 \) value is not statistically significant. In the criticism of the \( \Delta \chi^2 \) procedure, some researchers have argued that from a practical perspective, the \( \chi^2 \) difference test represents an excessively stringent test of invariance, because that SEM models at best are only approximations of reality (Byrne, 2010). Also, the \( \Delta \chi^2 \) index has been criticized because its value grows rapidly with increasing sample size (Hu & Bentler, 1998). Based on simulation, some authors argued that it may be more reasonable to base decisions on a difference in the CFI rather than on the \( \Delta \chi^2 \) value, due to the fact that \( \Delta \text{CFI} \) is more independent of model parameters and sample size for testing measurement invariance and more generally, two nested models (Cheung & Rensvold, 2002). According to the authors mentioned above, a value of \( \Delta \text{CFI} \) smaller than or equal to \( -.01 \) indicates that the null hypothesis of invariance should not be rejected. Although this practical approach has been criticized, its use is increasingly reported in the literature (Byrne, 2010). In our study, both procedures were used yielding a similar conclusion.

The internal consistency of the Romanian version of the RDAS was estimated through the Cronbach’s \( \alpha \) coefficient, which is adequate to Likert-type scales and also using Spearman-Brown split-half coefficient. The split-half procedure implies splitting one scale in two parts and examining the correlation between them. This kind of reliability is based on the estimation of the amount of error in psychometric instrument scores that is attributable to content
sampling error (Urbina, 2004). The correlation between the score on one half of the instrument and that on the other half is used to derive a split-half reliability coefficient. Since this coefficient actually estimates the consistency of scores on the two halves, the Spearman-Brown formula is applied in order to obtain one estimate for the full instrument.

Results

Psychometric properties of items

The basic psychometric features for each item of RDAS are shown in Table 1. Except for item 11, the rest of them showed acceptable deviations from the normality of the score distribution, more obvious for the items marital consensus was operationalized through. However, the mean value of skewness was .87, while the value for kurtosis was 1.09.

Table 1. Means and Standard Deviations, Normality Indices, Corrected Item-Total Score Correlations ($r_a$), and α if Item is Deleted

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean (SD)</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>$r_a$</th>
<th>α if item deleted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>4.01 (1.18)</td>
<td>-1.57</td>
<td>2.41</td>
<td>.33</td>
<td>.82</td>
</tr>
<tr>
<td>2.</td>
<td>3.89 (0.98)</td>
<td>-1.21</td>
<td>1.99</td>
<td>.56</td>
<td>.80</td>
</tr>
<tr>
<td>3.</td>
<td>4.04 (0.93)</td>
<td>-1.09</td>
<td>1.42</td>
<td>.50</td>
<td>.81</td>
</tr>
<tr>
<td>4.</td>
<td>3.95 (1.09)</td>
<td>-1.36</td>
<td>2.20</td>
<td>.51</td>
<td>.81</td>
</tr>
<tr>
<td>5.</td>
<td>3.67 (1.00)</td>
<td>-1.03</td>
<td>1.43</td>
<td>.57</td>
<td>.80</td>
</tr>
<tr>
<td>6.</td>
<td>4.10 (0.90)</td>
<td>-1.20</td>
<td>2.41</td>
<td>.48</td>
<td>.81</td>
</tr>
<tr>
<td>7.</td>
<td>3.55 (1.90)</td>
<td>-.97</td>
<td>-.66</td>
<td>.43</td>
<td>.82</td>
</tr>
<tr>
<td>8.</td>
<td>2.96 (1.14)</td>
<td>-.61</td>
<td>-.44</td>
<td>.60</td>
<td>.80</td>
</tr>
<tr>
<td>9.</td>
<td>3.66 (1.94)</td>
<td>-1.10</td>
<td>-.48</td>
<td>.43</td>
<td>.82</td>
</tr>
<tr>
<td>10.</td>
<td>2.91 (1.05)</td>
<td>-.46</td>
<td>-.38</td>
<td>.57</td>
<td>.80</td>
</tr>
<tr>
<td>11.</td>
<td>2.33 (0.86)</td>
<td>-.05</td>
<td>.10</td>
<td>.39</td>
<td>.81</td>
</tr>
<tr>
<td>12.</td>
<td>3.36 (1.29)</td>
<td>-.41</td>
<td>-.49</td>
<td>.44</td>
<td>.81</td>
</tr>
<tr>
<td>13.</td>
<td>2.30 (1.50)</td>
<td>-.28</td>
<td>-.88</td>
<td>.36</td>
<td>.82</td>
</tr>
<tr>
<td>14.</td>
<td>3.83 (1.27)</td>
<td>-.96</td>
<td>.06</td>
<td>.47</td>
<td>.81</td>
</tr>
</tbody>
</table>

The correlations among items had absolute values ranging from .0004 to .90 ($M = .28$). The highest values ($\geq .70$) were obtained for the correlations among the items 7, 8, 9 and 10. The correlations between the score of the items RDAS total score had corrected values ranging from .33 to .60 ($M = .47$). For the whole sample of participants, internal consistency of all 14 items was good
(α = .82). The mean value of internal consistency for groups of items resulting from the removal of an item was equal to .81.

**Exploratory factor analysis**

The KMO measure of sampling adequacy was .85, which fell into the range of being greatly recommended by Kaiser (1974). In addition, the Bartlett’s test was statistically significant, $\chi^2 = 2956.42$, $df = 91$, $p < .001$. Therefore, the exploratory factor analysis was appropriate for raw data obtained on the current sample. Table 2 presents the loadings in the extracted factors, as well as the communalities for items.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor loadings of item</th>
<th>Communalities</th>
</tr>
</thead>
<tbody>
<tr>
<td>I – Marital consensus</td>
<td>II – Marital satisfaction</td>
<td>III – Marital cohesion</td>
</tr>
<tr>
<td>1.</td>
<td>.57</td>
<td>-.02</td>
</tr>
<tr>
<td>2.</td>
<td>.81</td>
<td>.002</td>
</tr>
<tr>
<td>3.</td>
<td>.78</td>
<td>-.04</td>
</tr>
<tr>
<td>4.</td>
<td>.77</td>
<td>.001</td>
</tr>
<tr>
<td>5.</td>
<td>.79</td>
<td>.06</td>
</tr>
<tr>
<td>6.</td>
<td>.71</td>
<td>.01</td>
</tr>
<tr>
<td>7.</td>
<td>-.06</td>
<td>.95</td>
</tr>
<tr>
<td>8.</td>
<td>.06</td>
<td>.89</td>
</tr>
<tr>
<td>9.</td>
<td>-.08</td>
<td>.93</td>
</tr>
<tr>
<td>10.</td>
<td>.08</td>
<td>.86</td>
</tr>
<tr>
<td>11.</td>
<td>.004</td>
<td>-.001</td>
</tr>
<tr>
<td>12.</td>
<td>.08</td>
<td>-.03</td>
</tr>
<tr>
<td>13.</td>
<td>-.09</td>
<td>.007</td>
</tr>
<tr>
<td>14.</td>
<td>.37</td>
<td>.05</td>
</tr>
</tbody>
</table>

**Note.** Factor loadings of items which were hypothesized as indicators of one specific dimension of marital adjustment are boldfaced.

The communalities ranged between .30 and .89 ($M = .65$). The factorial analysis revealed three factors whose eigenvalues were 4.83, 3.08, and 1.28. Together, the factors accounted for 65.7% of the variance of the items. Items 2-6 showed high loadings (above .70) in the first of the extracted factors, while loadings in the other two factors were close to zero. Also, item 1 showed a moderate loading in the first factor and negligible loadings in the other factors. This item also showed the lowest value of communality in the extracted factors.
Taking into account the data reported by Busby et al. (1995), the first factor was identified with marital consensus. In the current sample, this factor accounted for 34.5% of the variance of the items. Items 7-10 showed very high loadings (above .85) in the second of the extracted factors and loadings close to zero in the other factors. Therefore, the second factor was identified with marital satisfaction. This factor accounted for 22% of the variance of the items. The loadings of items 11, 12 and 13 in the third factor were .77, .81, and .87, while loadings in the first two factors were close to zero. Although we expected item 14 to group with items 11-13, it showed modest loadings (.37 and .39) in the first and in the third factor. The third factor was identified with marital cohesion and accounted for 9.1% of the variance of the items. Thus, except for item 14, the items of the Romanian version of the RDAS clearly grouped in the three dimensions of marital adjustment which were identified through confirmatory factor analysis by Busby et al. (1995). The correlations among the three factors were: FI with FII = .17 (p < .01), FII with FIII = .06 (p = .17) and FI with FIII = .47 (p < .001).

**Confirmatory factor analysis**

The data of the CFA showed the superiority of a measurement model with three (latent) intercorrelated factors and with item 14 removed. This model fits satisfactorily the observed data: $\chi^2 = 232.96$, $df = 62$, $p < .001$, SRMR = 0.05, GFI = .91, AGFI = .87, NFI = .91, TLI = .92, CFI = .93, RMSEA = .08 (90% CI = .074, .097). Although $\chi^2$ was not insignificant, as it is recommended in literature (see Byrne, 2010), the RMSEA value was slightly greater than .05 which was suggested as reference point for a SEM-type model with a good statistical fit. At the same time, the value of RMSEA was equal to the reference point suggested by Browne and Cudeck (1993) for a reasonable fit of a structural model. The values for NFI, TLI and CFI were acceptable (see Bentler, 1990). The standardized measurement weights (loadings) for items were statistically significant ($p < .001$), and their values ranged between .45 and .96 ($M = .75$). According to the data of the EFA, the most consistent correlation ($\beta = .59; p < .001$) was between the latent factors referring to consensus and cohesion. The latent factor referring to marital consensus correlated significantly with the one referring to satisfaction, although the value of correlation was lower ($\beta = .39; p = .02$). The latent factors referring to satisfaction and cohesion did not correlate ($\beta = .01; p = .84$).
Figure 1 shows the measurement model within all items of RDAS were specified as indicators for the latent factors referring to consensus, satisfaction and cohesion. In the construction of the hypothesized model, we followed the specifications which Busby et al. (1995) had suggested for their measurement model.

Note. In order to simplify the model, only standardized values of parameters are shown in figure above. All measurement weights were significant at $p < .001$.

* $p < .05$. ** $p < .001$.

Figure 1. Measurement Model with Three Inter correlated Dimensions of Marital Adjustment (Total Sample)
This model showed a satisfactory fit to the observed data, although the values for CFI and AGFI were slightly lower compared to the values for the above-shown model: $\chi^2 = 285.71$, $df = 74$, $p < .001$, SRMR = 0.06, GFI = .89, AGFI = .85, NFI = .90, TLI = .91, CFI = .92, RMSEA = .08 (90% CI = .076, .097). For all the items, the standardized measurement weights were statistically significant ($p < .001$), and their values ranged between .45 and .96 ($M = .73$). The pattern of the correlations among the three latent factors was similar to the one we have obtained for the model with item 14 removed.

A third measurement model was similar to the one previously described, the only difference being that item 14 was set as an indicator of the latent factor referring to marital consensus. The statistical fit of this hypothesized model was similar to the one of the model previously described: $\chi^2 = 281.81$, $df = 74$, $p < .001$, SRMR = 0.05, GFI = .90, AGFI = .86, FI = .90, TLI = .91, CFI = .92, RMSEA = .08 (90% CI = .075, .096). As for all previous models, the standardized measurement weights were statistically significant ($p < .001$) for all items and their values ranged between .45 and .96 ($M = .73$).

A fourth hypothetical measurement model was examined. It started with the assumption of one-latent factor underlying the score of the items. Thus, only a one-latent factor was specified. This was hypothesized to indicate the global level of marital adjustment. Although the standardized measurement weights for items were statistically significant ($p < .01$ or $p < .001$), their values were lower than in the models previously analyzed. They ranged between .17 and .77 ($M = .50$). Further, the measurement model showed an unacceptable fit to the observed data: $\chi^2 = 1722.49$, $df = 77$, $p < .001$, SRMR = 0.18, GFI = .60, AGFI = .46, NFI = .42, TLI = .33, CFI = .43, RMSEA = .23 (90% CI = .227, .246). Therefore, the measurement model, which included all items of RDAS and three intercorrelated latent factors, was considered as providing satisfactory approximation of the three dimensions of marital adjustment (consensus, satisfaction and cohesion) and the relationships among them.

As the four measurement models we tested were not nested, the $\chi^2$ value change was not considered appropriate for the comparison of models. Instead, Akaike's Information Criterion (AIC) was examined. The AIC is used in the comparison of two or more SEM models, with smaller values representing a better fit of the hypothesized model (Byrne, 2010). In a Monte Carlo-type simulation, Ichikawa (1988) showed that selecting the model in a factor analysis minimizing the value of AIC is quite satisfactory. The AIC’s values of
the four measurement models we tested were: for one-latent factor model – 1778.49, for three-factor model with item 14 removed – 290.96, for three-factor model with item 14 set as an indicator of marital cohesion – 347.71, and for three-factor model with item 14 set as an indicator of marital consensus – 343.81. Thus, for the three-factor model with item 14 set as an indicator of cohesion and the three-factor model with item 14 set as an indicator of consensus, the AIC’s values were very close to each other and both greater than the AIC for the three-factor measurement model with item 14 removed. On the other hand, the value for the one-latent factor model was much bigger. Therefore, we concluded that the three-factor measurement model with item 14 removed was the best model.

Descriptive statistics and comparisons by age, presence or absence of children and gender

In relation to the possible range of scores on RDAS, the respondents showed the tendency to express a moderate-to-high level of adjustment to the current marital relationship, as well as to consensus (see Table 3). The mean scores for satisfaction and cohesion were at a moderate level.

Table 3. Descriptive Statistics of the scores on RDAS

<table>
<thead>
<tr>
<th>Scale</th>
<th>Mean (SD)</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Possible Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital adjustment (RDAS Total)</td>
<td>48.60 (9.77)</td>
<td>−.66</td>
<td>.47</td>
<td>0–69</td>
</tr>
<tr>
<td>Consensus</td>
<td>23.68 (4.54)</td>
<td>−1.12</td>
<td>1.60</td>
<td>0–30</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>13.09 (5.55)</td>
<td>−.94</td>
<td>−.57</td>
<td>0–20</td>
</tr>
<tr>
<td>Cohesion</td>
<td>11.82 (3.80)</td>
<td>−.38</td>
<td>−.03</td>
<td>0–19</td>
</tr>
</tbody>
</table>

The distribution of scores showed negative asymmetries (toward high values), more pronounced for consensus and satisfaction. As for consensus, the distribution of scores was much more homogenous (kurtosis = 1.60) than the distribution for the other two dimensions of marital adjustment.

The participants were distributed in four age groups, as follows: 20-30 (n = 113), 31-40 (n = 175), 41-50 (n = 75) and 51-60 (n = 20). The data of the One-Way ANOVA revealed insignificant effects of the participants’ age on the RDAS scores – F(3, 379) = 1.97, p = .11, η² = .01, f = .12, consensus – F(3, 379) = .26, p = .85, η² = .002, f = .04 and cohesion – F(3, 379) = 1.04, p = .37,
However, the participants’ age had a significant effect of moderate size on the satisfaction with the marital relationship, $F(3, 379) = 7.05, p < .001, \eta^2 = .05, f = .23$. The satisfaction with the marital relationship tended to increase with the participants’ age. Compared to the participants aged between 20 and 30, the participants aged between 31 and 40 and those aged between 51 and 60 tended to express a significantly higher level of satisfaction.

The comparisons with the t-Student test revealed insignificant effects of the presence or absence of children in the marital relationship ($n = 115/n = 267$) on the scored participants obtained on RDAS – $t(380) = -.74, p = .46, d = .08$, consensus – $t(380) = -1.65, p = .10, d = .18$, satisfaction – $t(380) = 1.17, p = .24, d = .13$ and cohesion – $t(380) = 1.66, p = .09, d = .19$.

There were no significant differences between females and males in all RDAS scores (see Table 4). For all differences, the value of Cohen’s $d$ coefficient indicated small effect size. This result suggested the hypothesis of the invariance of the measurement model across the gender of the participants. The hypothesis was tested using the multiple-group analysis.

Table 4. Descriptive Statistics by Gender

<table>
<thead>
<tr>
<th>Scale</th>
<th>Women, Mean (SD)</th>
<th>Men, Mean (SD)</th>
<th>t</th>
<th>p</th>
<th>d</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDAS Total</td>
<td>48.16 (9.77)</td>
<td>49.36 (9.76)</td>
<td>-1.15</td>
<td>.25</td>
<td>.12</td>
</tr>
<tr>
<td>Consensus</td>
<td>23.56 (4.48)</td>
<td>23.90 (4.65)</td>
<td>-0.70</td>
<td>.48</td>
<td>.08</td>
</tr>
<tr>
<td>Satisfaction</td>
<td>12.88 (5.58)</td>
<td>13.46 (5.50)</td>
<td>-0.98</td>
<td>.32</td>
<td>.10</td>
</tr>
<tr>
<td>Cohesion</td>
<td>11.72 (3.91)</td>
<td>12.00 (3.59)</td>
<td>-0.67</td>
<td>.49</td>
<td>.07</td>
</tr>
</tbody>
</table>

**Invariance of measurement model across gender of participants**

Table 5 shows the data from testing the invariance of the measurement model (factorial structure of RDAS) across the gender of the participants. In testing for invariance, the researcher’s interest primarily focuses on the extent to which parameters in the measurement and structural components of the model are equivalent across the groups which are differentiated by an independent variable (Byrne, 2010). Besides the baseline (unconstrained) model, two other models were tested in our study: one in which only the measurement weights (i.e., latent factor loadings) were constrained to be equal across gender groups and another in which all estimated measurement weights, as well as structural covariances among latent factors were constrained to be equal across the gender of the participants. The measurement error variances
(residuals) are rarely constrained to be equal across two or more groups as this parameterization is considered to be an excessively stringent test of multi-group invariance (Byrne, 2010).

Table 5. Tests of the Invariance of RDAS Factorial Structure across Gender

<table>
<thead>
<tr>
<th>Model</th>
<th>( \chi^2 )</th>
<th>df</th>
<th>( \Delta \chi^2 )</th>
<th>( \Delta df )</th>
<th>p</th>
<th>CFI</th>
<th>( \Delta )CFI</th>
<th>TLI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unconstrained model (baseline)</td>
<td>396.38***</td>
<td>148</td>
<td>1.916</td>
<td>.897</td>
<td>.066</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measurement weights constrained</td>
<td>413.59***</td>
<td>159</td>
<td>-17.21</td>
<td>11</td>
<td>&gt;.05</td>
<td>.914</td>
<td>-0.002</td>
<td>.901</td>
<td>.065</td>
</tr>
<tr>
<td>Structural covariance constrained</td>
<td>417.74***</td>
<td>165</td>
<td>-21.36</td>
<td>17</td>
<td>&gt;.05</td>
<td>.915</td>
<td>-0.001</td>
<td>.906</td>
<td>.063</td>
</tr>
</tbody>
</table>

Note: ***p < .001.

The baseline measurement model provided a satisfactory fit to the data across gender groups. When measurement weights were constrained to be equal across gender, the multiple-group analysis yielded one model which also provided a satisfactory fit to the data. In addition, when measurement weights and covariance among latent factors were constrained to be equal across gender, the multiple-group analysis yielded a third model which provided again a satisfactory fit to the data. The \( \Delta \chi^2 \) tests were not significant, supporting the invariance of measurement and structural model of RDAS across the gender of the participants. Moreover, the \( \Delta \)CFI were lower than .01 strengthening the evidence of invariance. When measurement weights and covariance among latent factors were constrained to be equal across gender, the standardized values of measurement weights (latent factor loadings) ranged between .46 and .96 (\( M = .73 \)) for females and between .41 and .95 (\( M = .74 \)) for males. In both females and males, the correlations between the latent factors were: consensus and satisfaction .13 (\( p = .02 \)), satisfaction and cohesion .02 (\( p = .64 \)), consensus and cohesion .65 (\( p < .001 \)) respectively.

Reliability and concurrent validity of scale and subscales

The value of the internal consistency was acceptable for the subscale referring to the marital cohesion (\( \alpha = .75 \)), good for the subscale referring to consensus (\( \alpha = .83 \)) and very good for the subscale referring to satisfaction (\( \alpha = .91 \)). The whole scale showed a good level of the internal consistency (\( \alpha = .82 \)). For the subsample of females, the values of the internal consistency were as follows: full RDAS – .82, consensus – .83, satisfaction – .90 and cohesion –
In males, the values of the internal consistency were as follows: full RDAS – .83, consensus – .83, satisfaction – .91 and cohesion – .72.

For the total RDAS, the Spearman-Brown split-half reliability (= .80) was within acceptable range. Odd-numbered items were combined to form one shorter version of the RDAS, while even-numbered items were combined to form another version. The value of the correlation between the two versions was .75 (p < .001).

In order to explore the concurrent validity of the RDAS, the comparisons by responses to the item referring to the global level of satisfaction with marital relationship were performed. The distribution of the participants by responses was as follows: 2.1% not at all satisfied, 4.2% little satisfied, 36.3% fairly satisfied, 55.4% very satisfied, 2.1% with no response. Since the percentages for the first two categories of responses were too small, the groups were combined in order to justify the inclusion of the corresponding groups of participants in comparisons. The data of the One-Way ANOVA revealed significant relations between the level of global satisfaction with the marital relationship and the scores on RDAS – F(2, 372) = 85.32, p < .001, η² = .31, f = .67, consensus – F(2, 372) = 101.33, p < .001, η² = .35, f = .73, satisfaction – F(2, 372) = 5.88, p < .01, η² = .03, f = .17 and cohesion – F(2, 372) = 55.33, p < .001, η² = .22, f = .54. For marital satisfaction, the effect size was modest, while for the other dependent variables the effect sizes were high (see Cohen, 1992). For cohesion, consensus, and the total score the values of mean significantly increased in the group of participants who reported they were fairly satisfied with their marital relationship compared with the other groups. Similarly, the participants who reported they were very satisfied tended to obtain higher levels of cohesion, consensus and total marital adjustment. Marital satisfaction revealed a similar tendency towards the increasing of the mean, although the differences among groups had much lower values. Moreover, the only significant difference was registered between participants who reported they were very satisfied with their marital relationship and those who reported they were not at all or little satisfied with the marital relationship (t-Bonferroni = 3.04; p < .01).
Discussion

This paper provides basic psychometric data for the revised version (RDAS/Busby et al., 1995) of one of the most psychometrically sound measures of marital adjustment, the Dyadic Adjustment Scale (Spanier, 1976). Since its creation, the DAS has become one of the most widely used measures in the couple and family research and intervention field (Sabatelli, 1988; Spanier, 1985). More than 1000 studies across various social and behavioral sciences have used it (Spanier, 1985). In order to improve the multidimensional measurement of marital adjustment with the DAS, Busby et al. (1995) have revised it, their work leading to a shorter 14-item version. One of the most important contributions of Busby et al. (1995) was the empirical evidence for the hierarchical factorial structure of the RDAS. Previously, Sabourin et al. (1990) used the CFA and provided empirical evidence for the hierarchical factorial structure of the DAS in a sample of 408 married or cohabiting adults.

In the study we have carried out, the EFA revealed three factors which presented consistent loadings in items 1-6 (factor I), 7-10 (factor II), and 11-13 (factor III). Together, these factors accounted for a considerable percentage (more than 65%) of the variance of scores on RDAS items. The second factor that we have identified with the marital satisfaction tended to be relatively independent of the other two factors which showed a much higher correlation between them. Only item 14 (“How often do you calmly discuss something?”) was problematic, since it showed similar loadings both in the first factor (which was identified with marital consensus), and in the third factor (marital cohesion). This result is justifiable when we take into account the fact that item 14 showed significant correlations both in items 11-13 and in items 1-6, while the correlations with items 7-10 were less consistent. Thus, only the correlations with items 8 and 10 were significant, while the mean value of the correlations of items 7-10 was .12. In the confirmatory factor analysis, through which Busby et al. (1995) tested a measurement model with seven first-order latent factors, item 27 in the DAS (corresponding to item 14 in the RDAS) showed a good standardized value of loading in the factor indicating the positive atmosphere of the discussions between spouses ($\beta = .79; p < .001$). The other indicator of the first-order factor related to positive atmosphere of marital discussion was item 25 in the DAS (corresponding to item 12 in the RDAS). Nevertheless, this result was obtained in the context of analysis in which item
14 was set as an indicator of the first-order factor referring to the discussions between the married partners. Unfortunately, Busby et al. (1995) did not report data of the factor analysis, which would have allowed us to gather more information about the construct validity of item 14 and to compare this information with those we have gathered on the current sample. However, in the studies focusing on the psychometric properties of the DAS on various samples (e.g. adults without marriage distress, divorced adults, partners from marital couples without problems or marital partners who requested therapeutical assistance), item 27 showed loadings ≥ .64 in the factor identified with marital cohesion and loadings ≤ .20 in the other factors (Crane et al., 1991; Sabourin et al., 1990; Sharpley & Cross, 1982; Spanier & Thompson, 1982; Spanier, 1976). Only in a subsample of 145 distress-free married adults, Crane et al. (1991) reported a loading equal to .46 of item 27 in the marital cohesion. In two of the measurement models we have tested on the current sample, item 14 in the RDAS (27 in the DAS) showed a significant loading both in the hypothetical factor referring to marital cohesion, and in the one related to marital consensus. However, when item 14 was removed, the measurement model showed a slight improvement of the statistical fit, compared to the measurement models which had included item 14. Therefore, supplementary empirical investigations are required, in order to clarify the usefulness of item 14 in the RDAS. These investigations should provide information on the psychometric status of item 14 both in the married adults who are not going through marital distress and in those facing it.

The results of the CFA revealed the superiority of a model with three intercorrelated latent factors and with item 14 removed. However, the measurement models with three intercorrelated factors and all items set as indicators of the dimensions of marital adjustment showed a satisfactory statistical fit to the observed data. These models were convergent with regard to the construct validity of RDAS (Busby et al., 1995).

A multi-group analysis which was carried out on the measurement model suggests that RDAS scores are gender-invariant indicators of marital adjustment among married adults. Thus, any difference that may occur in empirical studies between males and females could be interpreted as true mean difference rather than measurement bias. Notice that South et al. (2009) have provided empirical support for the invariance across gender of the second-order factor solution of the full DAS on a sample of 900 married couples. These
authors note: “Having established invariance of the DAS across gender, we can conclude that any differences between men and women can be interpreted as arising from actual differences in relationship adjustment, not that the instrument is measuring different concepts in the two groups” (South et al., 2009, p. 626). The findings of our study add to the empirical evidence on invariance of the factorial structure of the RDAS in distressed and non-distressed married adults (Busby et al., 1995).

The split-half reliabilities we reported in this study suggest that the RDAS could be divided into two equivalent forms (each comprising only seven items), when the primary research purpose is to estimate the effect of a clinical intervention on married individuals or couples. By all means, to such purpose, an index for global level of marital adjustment is more adequate. This index could be obtained from one of the split-halves of the RDAS, since measuring each of the marital adjustment dimensions may lead to less precise findings because of too few items. In a design with pre- and post-intervention measures, the researcher is looking to minimize biases which could adversely affect the internal validity of the study (Clark-Carter, 2010; Coolican, 1994). Therefore, using two equivalent forms of the RDAS (which could be derived by splitting the scale) is desirable. However, as Busby et al. (1995) have suggested, further studies are needed in order to evaluate the appropriateness of using two split forms of the RDAS.

Limitations of the current study

The psychometric study presented in this paper is based on the responses of married adults from a convenience sample. The convenience sampling is a non-probabilistic technique where subjects are selected because of their convenient accessibility and proximity to the researcher. Thus, this type of sample could not be as representative as a randomized sample or as a multistadial stratified sample. The participants in this study were adults, who had been married, for the first or second time, for at least one year. However, a small percentage of participants were partners in marital couples. The participants were not asked whether they were facing marital distress or whether they had requested assistance from a couples-therapist. Therefore, the findings of this present study do not include comparisons regarding the power of the Romanian version of RDAS to differentiate between married adults going through marital distress and those without issues in their marriages.
Moreover, the current sample mostly consisted of residents from urban areas, Orthodox Christians, with an education level at the Bachelor’s Degree or higher. These demographic variables may influence the way an individual perceives and interprets various aspects of marital relationship (for a synthesis of the empirical evidence, see Larson & Holman, 1994). Also, the current study focused more on aspects referring to the reliability and internal validity (factorial structure) of the RDAS. The internal validity was investigated by combining the EFA with CFA. Further evidence on construct, concurrent, and predictive validity is required.

**Practical implications**

In the field of couple and family psychology and psychotherapy, the usefulness of assessment tools was emphasized (Sabatelli, 1988). Such tools provide the researchers and clinicians the possibility to gather valuable information for their studies or interventions on couples and family systems. One of the research aims in the field of couple and family psychotherapy is to provide evidence for the effectiveness of various therapy methods and techniques. In this regard, the instruments are useful in operationalizing the variables related to therapeutic outcomes. In addition, counselors and therapists may use the tools to gather relevant information (e.g. the perception of married partners regarding the quality of their relationship, the level of marital distress or satisfaction), which may help them establish the aims of intervention. However, before using various assessment tools in research and clinical interventions, researchers and practitioners have to make sure that these tools are reliable and valid. This is an imperative requirement since “The understanding of social phenomena, when that understanding is derived from survey research, is predicated on the quality of the measures employed by researchers. Any attempt, therefore, to study a phenomenon without the utilization of a well-conceived and executed measure of it becomes an exercise in futility” (Sabatelli, 1988, pp. 912-913).

In spite of its limitations, this psychometric study meets the researchers and clinicians’ need to have at their disposal assessment tools that were previously well-substantiated based on a strong conceptual and psychometric evidence. In Romania, the literature available on the conceptual and methodological aspects of the measurement of variables related to marital and family life is scarce, as it was revealed by a search in our national database.
Thus, we have not identified any study focusing on the evaluation of psychometric properties and usefulness of tools meant to measure facets of marital life. Also, a careful review of the Romanian literature on marital adjustment or quality and related constructs suggests the scarcity of studies using the RDAS, as a measure for the dependent variable(s). The study we carried out seems to be the first one interested in adapting and exploring the psychometric properties of a short Romanian version of the scale proposed by Spanier (1976). The present study could help researchers and practitioners by meeting their practice-based needs. The findings we reported here could contribute to the enrichment of the empirical evidence regarding: (a) the robustness of marital adjustment operationalization in terms of consensus, cohesion and satisfaction; (b) the psychometric qualities of the RDAS in other cultures rather than the dominant, U.S.A.-based ones. The psychometric qualities of the Romanian version of RDAS are promising. The RDAS could be a useful criterion for validation of other assessment tools in the field of marriage and family psychology. Furthermore, this present study may provide Romanian researchers an example of how multivariate analysis (e.g., CFA or multi-group analysis using structural equation modeling) may be integrated, in order to adapt and test the psychometric qualities of the assessment tools created for other cultures than the Romanian one.

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