Measuring family strengths and capabilities: Reliability and validity of the Turkish version of the Family Functioning Style Scale

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Abstract

The aim of the current study is to test the psychometric properties of the Turkish version of Family Functioning Style Scale (FFSS) - a 26-items scale originally developed by Dunst, Trivette and Deal to assess various kinds of family strengths and capabilities - by analysing its factor structure, and providing data regarding its reliability and validity. The sample was composed 386 participants between the ages of 18-76. The participants were university students, employees of public and private sector and their families; and members of the households in different neighbourhoods in Istanbul. The data were collected by the use of a socio-demographic information form and the Turkish version of FFSS. Family Structure Assessment Device (FSAD) was also used to investigate the criterion validity of FFSS. The principle component analysis conducted to determine the construct validity of FFSS was resulted in 3 factors, namely “Interactional Patterns and Family Values”, “Family Commitment”, and “Intrafamily Coping Strategies”. According to the reliability analysis, Cronbach alpha internal consistency was found to be .92, split-half reliability was found to be .92, and the correlations between individual items and the total score were between .50 and .79. With regard to criterion validity, a significant positive correlation was found between the total scores obtained from FFSS and FSAD. Based on the results of the current study, FFSS has been demonstrated as a psychometrically appropriate instrument to evaluate strengths and capabilities of the families in Turkish culture.

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1. Introduction

Following the publication of The Strengths Perspective in Social Work Practice in 1992 by Saleebey [1], the strengths-based approach has widely been adopted as a philosophy for studying and working with families [2]. This perspective has been built upon the idea that families all have many capabilities, abilities, and strengths that altogether build a capacity for the system to grow, change, and adapt [3]. Since family strengths and capabilities has emerged as an important subject to study, adequate means for strengths assessment are required for family practice and research based on strengths perspective [4]. Hence, efforts have been taken to utilize psychometric tools that adopt strengths perspective to assess families [5,6,7].

Researchers studying the family systems frequently rely on self-report measures specifically developed for families and have recently been focusing more on reliability and validity [4,8]. It is pointed that self-report measures are not only “expose each family member’s privately held thoughts and viewpoints”, but can also be “administered at various stages of family therapy to evaluate change and therapy effectiveness” [9, p.445]. A strengths-based approach argues that, these instruments should move the focus away from pathology or dysfunction and identify strengths and resources of the family on which to build. [4].

The Family Functioning Style Scale (FFSS) is one of the widely used family-centered assessment and outcome measures. It was developed by Dunst, Trivette and Deal [10] to specifically evaluate the positive aspects of family functioning. The scale can be used to examine the way families use their strengths, capabilities and competencies to activate their internal and external resources and meet their needs in times of crises and stress [11,12]. The aim of this study is to test the psychometric properties of the Turkish version of FFSS by analysing its factor structure, and providing data regarding its reliability and validity.

2. Method

2.1. Participants

The sample was composed of 386 participants (248 females, 138 males) between the ages of 18-76, with a mean age of 30.44. The participants were university students, employees of public and private sector and their families; and members of the households in different neighborhoods in Istanbul. Table 1 represents the socio-demographic characteristics of the sample.

<table>
<thead>
<tr>
<th>n= 386</th>
<th>Gender</th>
<th>Education Level</th>
<th>Marital Status</th>
<th>Income Level</th>
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<td>Only literate</td>
<td>Single</td>
<td>Medium</td>
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<td></td>
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<td>%0,8</td>
<td>%52,6</td>
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<td></td>
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<td>%44,6</td>
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<td>High</td>
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<td>%7,8</td>
<td>%1,6</td>
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</tbody>
</table>

2.2. Instruments

A socio-demographic information form and the Turkish version of the Family Functioning Style Scale (FFSS) were utilized as the data collection instruments. Family Structure Assessment Device (FSAD) was also used to investigate the criterion validity of FFSS.
Family Functioning Style Scale (FFSS) is a 26-item scale developed by Deal, Trivette and Dunst (1988) to measure the extent to which a family as-a-whole or its individual members believe their family is characterised by different strengths, capabilities and competencies. Items of FFSS are rated on a five-point scale from “not at all like my family” to “almost always like my family.” It has five sub-scales, namely interactional patterns, family values, coping strategies, family commitment, and resource mobilization. The reliability and validity of the scale were established in a study of 241 parents of preschool-aged children. Both split-half reliability ($r= .85$) and average correlations among the 26 items (.92) indicated an internally consistent measure. Validity analyses indicated that the instrument is measuring the intended constructs associated with family strengths.

Family Structure Assessment Device (FSAD) was developed by Gulerce [13] to measure the communication unity, management, competence and emotional context within the family. The scale consists of 36 items. It is a 10 point grading scale, the answers of which are going from “just like ours” to “just opposite ours”. Cronbach alpha coefficient of the scale was found .70.

2.3. Procedure

The FFSS was translated from English into Turkish by one of the authors who are a clinical psychologist. The scale was finalized after three independent judges, two clinical and one social psychologist, who have good command of English and also familiar with the related literature, read the translations and assessed the degree to which the translated items maintained both their original meaning and a cultural relevancy. The Turkish version of the FFSS, together with the socio-demographic information form and FSAD, was administered to the participants in the universities, in their workplaces or during the home visits. All participants were given an informed-consent form and voluntarily participated in the study.

3. Results

3.1. Results Regarding the Psychometric Properties of FFSS

3.1.1. Validity of the Scale

In order to test the scale in terms of its validity, both its factor structure and criterion-related validity were examined.

Factor Structure: The factor structure of FFSS was examined by principle component analysis (PCA) with varimax rotation. Item 7, which was found to decrease the internal consistency of the scale, was excluded from the analysis. The initial analysis, employing an eigenvalue of 1.00, resulted in 3 factors explaining 56.56% of the variance. A second analysis was run excluding the item 14 which had communality less than .30. And produced a three-factor solution that accounted for 57.98% of the variance. A factor loading of .35 was taken as the criterion to determine the item composition of the factors. Factor loadings of all 16 items were above this criterion and each item was included under the factor on which it had the highest loading. All but 4 items (items 5, 8, 13, 21) were included under the factor on which they had the highest loading. The items 5 and 8, which loaded under both Factor 1 and 3, were included under Factor 1 to be congruent with the factor structure of the original scale and to come up with a semantically more relevant solution, - even though the factor loadings were lower when compared to Factor 3. Similarly, items 13 and 21 loaded under both Factor 1 and 2 were included under Factor 1 even though they had lower loadings on this factor. Sixteen items (1,2,4,5,6,8,9,13,15,20,21,22,23,24,25,26) loaded on the first factor labelled as “Interactional Patterns and Family Values” and accounted for 26.32% of the variance. Four items (12,16,18,19) loaded on the second factor labelled as “Family Commitment” and accounted for 17.75% of the variance. The remaining four items (3,10,11,17) loaded on the third factor labelled as “Intrafamily Coping Strategies” and accounted for 13.91% of the variance.
The item compositions of the factors of the Turkish version of FFSS were found to be highly consistent with those of the original scale with some exceptions. Items of the two separate factors in the original scale, namely “Interactional Patterns” and “Family Values”, united under a single factor in the Turkish form. The factor labelled as “Resource Mobilization” was missing in the Turkish version. Items 7 and 14 which comprised this factor in the original scale were excluded from the Turkish form due to the reasons described above. Factor structure of FFSS, factor loadings of the items and Cronbach alpha values are presented in Table 2.

### Criterion validity:
Criterion validity was assessed by comparing the total scores for FFSS and those for FSAD. A significant positive correlation was found between the total scores obtained from the two scales (r = .70; p<.01).

### 3.1.2. Reliability of the Scale

Internal Consistency: According to the initial reliability analysis run in order to assess the internal consistency, the Cronbach alpha was found to be .94. After excluding the item 7 which lowers the internal
consistency and item 14 which has communality less than .30, a subsequent reliability analysis was run for the remaining 24 items. The Cronbach alpha was found to be .95. The internal consistencies of the factors were .94 for “Interactional Patterns and Family Values”, .77 for “Family Commitment” and .78 for “Intrafamily Coping Strategies”.

Split-Half Reliability: The split-half reliability (Guttman) was found as .92; \( \alpha = .90 \) for the first part (12 items) and \( \alpha = .91 \) for the second part (12 items).

Item-Total Correlations: The correlations between individual items and the total score ranged between .50 and .79. Correlation coefficients (r) of the items are provided in Table 2.

### 4. Conclusion

Assessment from a strengths-based perspective helps to identify not only the sources of resiliency within the family but also areas of family functioning that need to be strengthened or addressed [14]. The results of the current study revealed that Family Functioning Style Scale is a psychometrically appropriate instrument to evaluate strengths and capabilities of the families in Turkish culture. Furthermore, it has the advantage of being a self-report instrument that is appropriate to be used with different age groups ranging from adolescents to elderly. Therefore, the adaptation of FFSS into Turkish is expected to contribute strengths-based practice and research. The reliability and validity analysis of the scale for those family members who are under the age of 18 by the future studies would be an important contribution to the field.

### References