The Family Adjustment Measure Project: *The Norming and Validation of the Family Adjustment Measure*
(Preliminary Findings)
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Background

The purpose of this study is to develop an assessment that measures family adjustment specific to parents of children with special needs based on these four possible domains: Social Support, Positive Coping Skills, Family and Marital Adjustment, and Effective Parenting.

Research Questions include:
1. **How many different factors are needed to explain the pattern of relationships among the 75 items on the Family Adjustment Measure?**
2. **What is the nature of those factors?**
3. **What relationship exists between these factors and the Relationship Assessment Scale and the Perceived Stress Scale?**

Methods

1. Following UCF IRB approval, the FAM, the RAS, and the PSS were placed on the IRB-approved study information form with link to SurveyMonkey.com, and were disseminated electronically to over 10,000 persons on the Family Café listserv.
2. The participants included to take part in this research were the parent of a child with special needs who is married or in a committed, monogamous relationship, and must be 18 years of age or older.
3. Upon consent online participants will complete:
   - The FAM Informational Questionnaire
   - The 75-item Family Adjustment Measure
   - The seven-item Relationship Assessment Scale
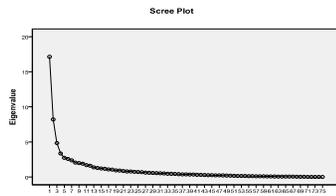   - The 10-item Perceived Stress Scale

References

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The PSS Scale is reprinted with permission of the American Sociological Association, from Cohen, S., Kamarck, T., and Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior, 24,* 386-396.

Acknowledgements

Abstract

Although research exists on family and relational adjustment for parents of children with special needs, no formal assessment measure exists. This gap in Marriage and Family research provides motivation for the Family Adjustment Measure Project to develop and validate an adjustment measure for parents of children with special needs. Using SurveyMonkey.com, the 75-item Family Adjustment Measure (FAM) was administered to 112 parents of children with special needs who were in monogamous relationships. A Factor Analysis was conducted to refine and reduce the FAM items to form a smaller number of coherent subscales. To establish concurrent validity, the Relationship Assessment Scale (RAS: Hendrick, 1988), a valid and reliable measure of relationship satisfaction, and the Perceived Stress Scale (PSS: Cohen, 1983), a widely administered assessment that measures individual stress, were administered.

Results

Initial Eigenvalues

Component	Total	% of Variance	Cumulative %	Decision
1	17.13	22.845	22.845	Accept
2	8.21	10.941	33.786	Accept
3	4.84	6.448	40.233	Accept
4	3.35	4.471	44.705	Accept
5	2.74	3.650	48.355	Reject
6	2.58	3.443	51.798	Reject
7	2.37	3.162	54.960	Reject
8	2.05	2.737	57.697	Reject
9	1.98	2.639	60.337	Reject
10	1.90	2.536	62.872	Reject
11	1.69	2.266	65.138	Reject
12	1.61	2.144	67.282	Reject
13	1.37	1.828	69.110	Reject
14	1.29	1.722	70.832	Reject
15	1.22	1.627	72.460	Reject
16	1.17	1.556	74.016	Reject
17	1.07	1.430	75.445	Reject
18	1.05	1.395	76.840	Reject

Concurrent Validity

Factor	RAS (N = 93)	PSS (N = 92)
Parental Distress	-.334	.671*
Family-Based Support	.818*	-.425
Informational and Social Support	.251*	-.355
Professional Support	-.132	-.425

* Sig. at the .01 level

Concurrent validity was used to establish how well our new subscales correlated with previously validated assessments. The Relationship Assessment Scale positively correlated with Family-based Support (r = .82); the Perceived Stress Scale positively correlated with Parental Distress (r = .67).

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.565
Bartlett's Test of Sphericity	Approx. Chi-Square	5686.46
	df	2775
	Sig.	.000

The Kaiser-Meyer-Oklin value was .6, meeting the recommended value and Bartlett's Test of Sphericity reached statistical significance, supporting factorability of the correlation matrix.

Descriptive Statistics

	Mean	Std. Deviation	N
TotalRAS	20.2151	6.69336	93
TotalPS	18.2283	6.87583	92
PARDISTR	25.9032	10.56354	93
INFSOCSUPP	17.4409	7.48253	93
PROFSUPP	4.9355	4.62227	93
FAMBsupp	22.3763	4.84076	93

Scree Plot

The scree plot revealed a break between the 4th and 5th component; with Catell's scree test, we decided to use four components for further investigation.

Four New Subscales

	Cronbach's Alpha Reliablity	Questions
Factor 1: Parental Distress	.94	I feel alone and no one knows what I am feeling. As a parent of a child with a disability I feel disappointment. As a parent of a child with a disability I feel numbness. As a parent of a child with a disability I feel or have felt stressed As a parent of a child with a disability I feel angry. I feel depression because I have a child with a disability. As a parent of a child with a disability I feel alone. As a parent of a child with a disability I feel burdened. I feel sadness because my child has a disability. As a parent of a child with a disability I feel or have felt stressed physically. As a parent of a child with a disability I feel or have felt stressed emotionally. As a parent of a child with a disability I feel frustration. I feel Devastated because I have a child with a disability. As a parent of a child with a disability I feel shock.
Factor 2: Family-Based Support	.90	We respect each other in our family. We deal with stress as a family. There is martial harmony in our family. There is loyalty in our family. I feel supported by my spouse, partner, or significant other. Our family has developed positive coping skills. We care about each other in our family.
Factor 3: Informational and Social Support	.91	Social supports for my family have helped to reframe situations in a positive manner. The identification of local resources helped me plan for my child's future. Social supports for my family have helped to eliminate stress. The identification of local and regional resources has helped me access services to help raise my child. I have social supports for my family. I realize/acknowledge that there are informational supports for me as a resource. I use positive reframing to deal with stressful situations. Our family receives social support.
Factor 4: Professional Support	.90	Counseling has helped me to identify positive coping skills. My counselor helps me identify core problems and strategies to solve them. I have worked with mental health professionals to help identify local resources for my family. I have worked with mental health professionals to help identify social supports. Counseling has helped me to develop active coping skills.

Discussion

The 75 items on the Family Adjustment Measure (FAM) were refined and reduced to a smaller number of coherent subscales using Principle Components of Analysis (PCA). Prior to performing PCA, the suitability of the preliminary data of factor analysis was assessed. The Kaiser-Meyer-Oklin value was .6, meeting the recommended value (Kaiser 1970, 1974), and Bartlett's Test of Sphericity (Bartlett 1954) reached statistical significance, supporting factorability of the correlation matrix. The correlation matrix of the preliminary data revealed the presence of many coefficients .5 and above.

Principle components analysis showed 18 components with eigenvalues above 1. These explained up to 76.84% of the cumulative variance. The scree plot revealed a break between the 4th and 5th component. We decided to use four components for further investigation based on visual inspection of Catell's (1966) scree test and variance explained by the components.

The four components represented 44.71% of the cumulative variance, with components 1, 2, 3, and 4 contributing 22.85%, 10.94%, 6.45%, and 4.47% respectively. Varimax rotation was performed to help interpret these four components. The rotation showed certain items from FAM loaded strongly on four components. Based on analysis of the items that loaded on each scale, the following names were given for the subscales: Parental Distress, Family-Based Support, Informational and Social Support, and Professional Support.

Concurrent validity was used to establish how well our new subscales correlated with previously validated assessments. The Relationship Assessment Scale positively correlated with the FAM Family-Based Support subscale (r = .82), Also, the Perceived Stress Scale positively correlated with the FAM Parental Distress subscale (r = .67).

Conclusion

Preliminary factor analysis of the Family Adjustment Measure yielded four subscales (Parental Distress, Family-Based Support, Informational and Social Support, and Professional Support) that explained 44.71% of the variance.

The FAM Family-Based support subscale correlated highly with the Relationship Assessment Scale suggesting that satisfaction within a relationship correlates with support within the family. The FAM Parental Distress subscale correlated highly with the Perceived Stress Scale suggesting that perceived stress indicates parental distress.

We will extend the FAM Project until the summer for further data collection since a sample size of 10 participants per question is recommended for assessment development.

Limitations

The current sample is fairly homogeneous with a disproportionate amount of middle-class, Caucasian females.

This study is a preliminary analysis of the data. Final data analyses, including factor analysis, will occur when a sample size nearing 700 is reached.