

The Family Support Scale: Reliability and Validity

By Carl J. Dunst, Vicki Jenkins, and Carol M. Trivette

A sizeable body of literature indicates that social networks and the social support they provide mediate personal and familial well-being, stress, and coping (Bott, 1971; Dean & Lin, 1977; McCubbin, Joy, Cauble, Comeau, Patterson, & Needle, 1980; Mitchell & Trickett, 1980). The concept of social support has become a focal point of research designed to explicate the relationship between different dimensions of support and physical and emotional well-being (Gore, 1978; Janis, 1975; LaRocco, House, & French, 1980); support and life satisfaction (Crnic, Greenberg, & Ragozin, 1981); and support and child development (Cochran, & Brassard, 1979; Crackenberg, 1981); to mention just a few investigative areas.

Social support has been defined in a number of ways, including network characteristics, types of support, and qualitative aspects (Andrews & Withey,

1976; Barrera & Ainlay, 1983; Mitchell & Trickett, 1980). Network characteristics include size, density, connectedness, and frequency of contacts; types of support include material aid, emotional and instrumental assistance, and guidance and information sharing; and qualitative aspects include both satisfaction with support and the degree of perceived helpfulness of support. Support is generally considered a multidimensional construct that has both quantitative and qualitative features.

Dean and Lin (1977), in their review of the stress-buffering role of social support, made note of the fact although there is considerable evidence to indicate that support mediates well-being and coping, "the development of reliable and valid measures of social support remains a priority task....A thorough search in the social and psychological inventories of scales has failed to uncover any measures of social support with either known and/or acceptable properties of reliability and validity" (pp. 408-409). A recent review of social support measures (Dunst & Trivette, 1984) finds the state of affairs not much better. With the exception of two recently developed instruments (Barrera & Ainlay, 1983; Lin, Dean, & Ensel, 1981), no other measures of social

support are available that meet minimal psychometric standards (American Psychological Association, 1974). Barrera (1981) stressed the need to have broad-based, psychometrically sound measures of support. On the one hand he noted that if social support is a multidimensional construct, multiple measures of support are necessary in order to isolate the different dimensions of the construct. On the other hand he noted that "A multimethod approach to assessing support would also allow for a more precise specification of what aspects of support are predictive of adjustment for specific populations" (p. 72).

This paper describes the findings of analyses designed to establish the reliability and validity of the Family Support Scale (see Appendix). The Family Support Scale (FSS) is an 18 item self-report measure designed to assess the degree to which different sources of support have been helpful to families rearing young children. Ratings are made on a five-point Likert scale ranging from Not At All Helpful (0) to Extremely Helpful (4). The scale was originally developed as part of an investigation examining the mediating influences of social support on the personal and familial well-being and coping of parents rearing preschool

*Carl J. Dunst, Ph.D., is Director, Family, Infant and Preschool Program, Western Carolina Center, and Senior Research Associate, Human Development Research and Training Institute, Western Carolina Center, Morganton, NC. Vicki Jenkins, M.S.W., is a social worker at Morganton, NC. Carol M. Trivette, M.A., is Research Associate, Human Development Research and Training Institute, Western Carolina Center, Morganton, NC.

This research was supported, in part, by grants to the first author from the National Institute of Mental Health (#83527). Appreciation is extended to Ms. Pat Condrey and to Ms. Mona Powell for their assistance in preparation of the manuscript. Reprints may be obtained from the first author at Western Carolina Center, Morganton, NC 28655.

handicapped children (Dunst, 1982; Dunst, Trivette, & Cross, 1984, in press). The scale is similar in format and content to both the Sources of Help Checklist (Bronfenbrenner, 1978) and the Carolina Parent Support Scale (Bristol, 1983).

The FSS is designed to measure qualitative aspects of support; namely satisfaction with support as well as degree of perceived helpfulness. Andrews and Withey (1976) noted that satisfaction with support is fundamental to well-being, and Barrera (1981) found that support satisfaction as opposed to quantitative aspects of support proved to be the best predictor of well-being in a study of stress-buffering role of support among pregnant teenagers. Barrera and Ainlay (1983) have noted the need for assessing qualitative dimensions of support in order to fully capture the essence of supportive relationships.

The FSS is based on a conceptual model developed by Bronfenbrenner (1979) and operationalized by Dunst (1982). The model describes how events in different ecological units affect the development of children as they function as a member of these ecological niches. According to Bronfenbrenner, ecological units, or social networks, may be conceived topologically as a nested arrangement of concentric structures each embedded within one another. At the innermost level is the developing child and his or her nuclear family members (mother, father, & siblings). The family unit is embedded in broader ecological units consisting of blood and marriage relatives, friends, and other acquaintances. These kinship units are further embedded in larger social units, including neighborhoods, churches, social organizations, the parents place of work, and professional helpers and agencies. Dunst's (1982) operationalization of Bronfen-

brenner's ecological model defines four levels of ecological units: nuclear and extended family, formal and informal kinship members, formal and informal social units (church, neighborhood, etc.), and human service professionals and agencies.

According to Bronfenbrenner (1979), different ecological units do not operate in isolation, but impact upon one another both directly and indirectly (Cochran & Brassard, 1979; Holahan, 1977) so that provision of support in one unit or subunit reverberate and affect the behavior of persons in other social units. This set of conditions are viewed as the factors which mediate well-being among persons receiving support, which in turn is likely to affect how parents interact and treat their children, which then in turn is likely to affect the child's behavior and development (Bronfenbrenner, 1977, 1979; Cochran & Brassard, 1979). Inasmuch as the birth and rearing of a young child proves stressful to some (Hobbs, 1965; LeMasters, 1957; Miller & Sollie, 1980), but that provision of support of parents is effective in (a) lessening stress (Litwak, 1960), (b) fostering positive interactions between the parent and their child (Crnic et al., 1983; Crockenberg, 1981), and (c) affecting child behavior and development (Crnic et al., 1983; Crockenberg, 1981), the need for a reliable and valid measure of support becomes quite apparent.

The FSS takes about five minutes to complete. Two indices of support are obtained from the scale: the number of sources of support available to the family and the sum of 18 ratings of the support items. The latter is intended as a "helpfulness" index as perceived by the respondent. The data reported here concern primarily the reliability and validity of the helpfulness scores.

Method

Subjects

The subjects were 139 parents (96 mothers and 43 fathers) of preschool handicapped, mentally retarded, and developmentally at-risk children. The parents and their children were participating in an early intervention program (Dunst, 1982) at the time data collection occurred.

Eighty-five percent of the sample were married, while the remaining 15% were single, widowed, separated or divorced. The mean ages of the mothers and fathers were, respectively, 28.98 (SD = 8.52) and 33.17 (SD = 8.09) years. The mothers and fathers completed, on the average, 11.50 (SD = 2.57) and 11.53 (SD = 2.76) years of school. The majority (60%) of the parents fell into the lowest three social economic strata (Hollingshead, 1975).

Preliminary t-tests comparing single vs. married mothers, male vs. female respondents, and mothers vs. fathers (for whom both completed the FSS) were performed on each scale item, the number of sources of support, and total helpfulness scores. Only eight significant differences were found for the 60 separate comparisons. Consequently, analyses were not performed separately for the different subgroups in determining the reliability and validity of the scale.

Procedure

The subjects completed the FSS as part of their participation in a study examining the relationship between social support and parental well-being, family integrity, and child behavior and development. The "helpfulness" responses on the FSS were used to determine the internal consistency, split-half reliability, construct validity, and content validity of the scale. Twenty-five of the

were 139 parents (43 fathers) of disabled, mental-developmentally delayed children. The parents were participating in a parent training program at the time data were collected.

Seventy percent of the parents were married, while the remaining 30% were single, widowed or divorced. The majority of the mothers were employed, respectively, 62.5% (SD = 2.12) and 33.17 (SD = 2.12). The mothers and fathers were matched, on the basis of age (M = 32.57 (SD = 2.57) and 32.76 (SD = 2.76) years of age) and ethnicity (60% of the parents were from the lowest three socioeconomic strata (Hollingshead, 1975)).

Statistical tests comparing married and divorced mothers, male and female respondents, and parents and children (for whom the FSS was available) on each scale item, the number of sources of support, and helpfulness scores. Significant differences were found on the 60 separate items. Consequently, a series of tests were not performed for the different items in determining the validity of the scale.

The parents completed the FSS during their participation in the parent training program, and the relationship between social support and parenting, family integration, behavior and the "helpfulness" of the FSS were used to determine the internal consistency, construct validity, and content validity. Twenty-five of the

parents completed the FSS on two occasions, one month apart, to determine short-term test-retest reliability. Fifty of the respondents completed the scale twice, and an average of 18 months apart, to determine long-term stability of support.

The subjects also completed the Questionnaire on Resources and Stress (Holroyd, 1978) and the Parent-Child Interaction Rating Scale (Dunst, 1983) as part of the study. The QRS includes several personal and familial well-being scales (poor health/mood, excess time demands, family integration, & limits on family opportunities). The PCIRS measures how often parents play different types of parent-child games with their children. The criterion validity of the FSS was determined with regard to its ability to predict personal and familial well-being, parent-child interactions, and

child progress. The latter was computed as the difference between the child's mental ages at the time the parents completed the scales and one year earlier divided by the corresponding differences in the chronological ages of the child (($MA_2 - MA_1 : CA_2 - CA_1$)).

Results

Table 1 shows the means and standard deviations for the 18 FSS items, total scale scores, and number of sources of support. For the majority of items, the mean scores tend to vary around the central point of the five-point Likert scale, and the standard deviations are quite alike for most items. The range of scores for all 18 items varied from 0 to 4, indicating that the scale was sensitive in detecting differences in ratings of helpfulness among the subjects.

Table 1

Means and Standard Deviations of the Family Support Scale Items

Items	Mean	S.D.
Parents	2.24	1.44
Spouse's Parents	1.73	1.48
Relatives/Kin	1.43	1.20
Spouse's Relatives/Kin	1.21	1.20
Husband/Wife	2.93	1.40
Friends	1.54	1.31
Spouse's Friends	1.13	1.73
Own Children	1.51	1.52
Other Parents	0.88	1.30
Church	1.85	1.50
Social Groups/Clubs	0.42	0.94
Co-Workers	0.80	1.01
Parent Group	0.77	1.27
Child/Family's Physician	2.46	1.21
Professional Helpers	2.86	1.18
School/Day Care Center	1.74	1.75
Professional Agencies	1.36	1.56
Specialized Early Intervention Services	3.00	1.33
NUMBER OF SUPPORT SOURCES	11.51	3.36
TOTAL SCALE SCORES	29.80	10.47

Reliability

Internal consistency. Coefficient alpha computed from the average correlations among the 18 scale items was .77. Coefficient alpha computed from the average correlation of the 18 FSS items with the total scale scores was .85. The split-half (even vs. odd item) reliability was .75 corrected for length using the Spearman-Brown formula. The magnitude of both coefficient alpha and the split-half reliability coefficient indicate that the FSS has substantial internal consistency, and that there is evidence to substantiate the contention that the scale is measuring a broad construct which we labelled social support.

Test-retest reliability. The short-term stability of the FSS was determined for 25 of the subjects who completed the scale on two occasions one-month apart. The analyses yielded an average $r = .75$ (SD = .17) for the 18 separate items and $r = .91$ for the total scale scores. Only one scale item (social group/clubs) had a test-retest correlation ($r = .26$) that was not statistically significant. All the other reliability coefficients were significant beyond the .005 level (one-tailed test). The test-retest findings show that social support is a relatively stable construct at least over a short period of time.

Long-term stability. Fifty respondents completed the FSS on two occasions an average of 18 months apart. The stability coefficient for the total scale scores was .47 ($p < .001$), indicating moderate stability in the degree of helpfulness of support over an extended period of time. The average correlation between support scores for individual items was .41 (SD = .18). All but the stability coefficients for the professional helpers, family/child's physician, and co-workers items were statistically significant. The reliability coefficient

cient for stability in number of sources of support was essentially zero ($r = -.01$). Taken together, these findings indicate that qualitative rather than quantitative aspects support remained relatively stable over time.

Validity

Factor structure. A principal components analysis using varimax rotation was used to discern the construct validity of the FSS. The correlation matrix was factored with unities in the diagonal, and factors with eigen-

values exceeding 1.0 were retained for rotation. Scale items with factor loadings greater than .45 were considered indicative of factor membership. The solutions obtained are shown in Table 2. The analysis yielded six orthogonal factors which, together, accounted for 62% of the variance. The multiple factor solution indicates that the FSS is measuring independent sources of social support, especially in light of the fact that 5 out of 6 factors accounted for nearly identical proportions of variance.

Content validity. The factor analysis results also provide evidence regarding the content validity of the scale. First, the fact that all 18 FSS items load substantially on the different factors indicates that all the scale items are measuring aspects of support. Second, the factor solutions fit nicely to the conceptual model upon which the FSS is based. The pattern of solutions suggest six major sources of support which generally parallel the types of embedded relationships described by Bronfenbrenner (1979) and Dunst (1982). Table 2 includes the tentative labels for the factor solutions: I--Informal Kinship, II--Social Organizations, III--Formal Kinship, IV--Nuclear Family, V--Specialized Professional Services, and VI--Generic Professional Services.

Criterion validity.--The concurrent predictive validity of the FSS was determined using hierarchical multiple regression analyses predicting personal and familial well-being, number of parent-child interactions, and child progress from FSS helpfulness scores and number of sources of support. Independent variables were entered in the following order: covariates (gross monthly income, SES, child age, child sex, child IQ, child diagnosis), social support helpfulness scores, and number of sources of support. At each step of the analyses, the increments (I) in R^2 were determined to assess whether the particular variables accounted for a significant proportion of the variance in the criterion measures. Thus, the effects of support were determined only after the shared variance with the six covariate variables were partialled-out.

The findings showed that a significant amount of variance in both emotional and physical health, $F(1, 128) = 5.19$, $p < .05$, and time demands

Table 2

Varimax-Rotated Factor Solutions for the Family Support Scale

Items	Factor Loadings
Informal Kinship: Factor I (15)*	
Spouse's Friends	.753
Friends	.742
Other Parents	.722
Own Children	.598
Church	.523
Social Organizations: Factor II (10)	
Social Groups/Clubs	.763
Parent Groups	.747
Co-workers	.575
Formal Kinship: Factor III (10)	
Relatives/Kin	.757
Parents	.698
Spouse's Relatives/Kin	.473
Nuclear Family: Factor IV (10)	
Husband/Wife	.824
Spouse's Parents	.751
Specialized Professional Services Factor V (09)	
Specialized Early Intervention Program	.735
Professional Helpers	.709
School/Day Care	.553
Generic Professional Services: Factor VI (08)	
Professional Agencies	.661
Family/Child's Physician	.637

* Percentage of variance accounted for by the factor.

reliability. The factor structure also provides information regarding the content validity of the scale. First, the factor structure of the FSS items load on the different solutions such that all the scale measuring aspects of social support, the factor solutions to the conceptual model which the FSS is a part of. Second, the pattern of solutions for the major sources of support are generally parallel to the embedded relationships by Bronfenbrenner and Dunst (1982). The following are the tentative factor solutions: I--Kinship, II--Social Support, III--Formal Kinship, IV--Near Family, V--Professional Services, VI--Generic Professional Services.

Validity.--The convergent validity of the scale was established using hierarchical regression techniques relating personal and family support, number of interactions, and social support scores from FSS scores and number of interactions. Independent variables entered in the regression included the covariates (gross income, SES, child age, child IQ, child social support scores, and number of interactions). At each step in the analyses, the increase in R² were determined to determine whether the parameter accounted for a significant portion of the variance in the criterion variable. The effects of the covariates were determined only after the variance with the independent variables were controlled.

The analyses showed that a significant amount of variance in child and physical health, $F(1, 128) = 5.19$, $p < .05$, time demands

placed upon the respondent by their child, $F(1, 128) = 5.26$, $p < .05$, was accounted for by the helpfulness scores on the FSS. Enhanced well-being and less time demands were associated with higher social support scores. Neither family integration or family opportunity scores on the QRS were predicted by social support although the zero-order correlations between the helpfulness scores and criterion measures were, respectively, statistically significant ($r = -.18$, $p < .025$ and $r = -.14$, $p < .05$). Elevated helpfulness scores were associated with more integrated family units and more family opportunities. Number of sources of support accounted for significant proportions of the variance in number of parent-child interactions, $F(1, 127)$, $p < .05$, and child progress, $F(1, 127)$, $p < .05$. Respondents with larger social support networks played a wider variety of games with their children and had offspring who made more developmental progress during the course of a year. Taken together, these results provide converging evidence regarding the mediating influences of social support on personal, family, and child behavior.

Discussion

The results of this study establish both the reliability and validity of the Family Support Scale. The internal consistency, split-half, and short-and long-term test-retest reliability coefficients were of moderate to substantial magnitude, and psychometrically acceptable. Both the internal consistency and split-half reliability findings indicated that the FSS is measuring a relatively homogeneous construct which we labelled "social support." The test-retest findings showed that social support is a relatively stable construct over both a short and

extended period of time.

The factor structure of the FSS showed that the scale is tapping independent sources of support. The particular set of solutions obtained paralleled the predicted nested arrangement of social units (Bronfenbrenner, 1979; Dunst, 1982). The results, however, indicate a need for refinement of the embedded social unit model. Two of the operationalized ecological units (informal and formal kinship members & human service professionals and agencies) seem to actually be four separate support networks. The informal and formal kinship unit appear to be comprised of two separate groups of persons: extrafamily acquaintances/friends (Factor I) and blood/marriage kin (Factor III). The proposed human service social unit separated into two factors: specialized professional services (Factor V) and generic professional services (Factor VI). Tentatively, then, the factor analysis results suggests a six rather than four level model of social support. The proposed embedded relationships may then be conceived topologically in the following order: nuclear family, formal kinship, informal kinship, social organizations, specialized professional services, and generic professional services.

As expected, FSS scores were significantly related to personal and familial well-being. Thus, the scale is a sensitive instrument for discriminating between individuals who manifest differing levels of stress and coping. This finding provides yet additional evidence in support of the contention that social support mediates physical and emotional well-being (Dean & Lin, 1977; McCubbin et al., 1980; Mitchell & Trickett, 1980). In addition to predicting personal and familial well-being, our findings also indicated that FSS scores predicted number of parent-child interactions and child progress. Taken together, the

findings provide credence for the tenet that social support both directly and indirectly mediates parental, family, and child outcomes (Bronfenbrenner, 1977; Cochran & Brassard, 1979; Crnic et al., 1983; Dean & Lin, 1977; Dunst, 1982; Dunst et al., 1984, in press; Mitchell & Trickett, 1980; McCubbin et al., 1980).

The results of our analyses indicate that the FSS is both a reliable and valid instrument. The principal utility of the scale rests on its ability to discriminate between differing in their social support. The strengths of the scale include its ease of administration, compactness, and comprehensiveness with regard to the range of sources of support rated. Its weaknesses include its failure to tap specific characteristics of support networks and the social support they provide (e.g., types of support provided, reciprocal relationships, etc., see Mitchell & Trickett, 1980).

The FSS would appear to have clinical value as a screening instrument. The scale could be used to assess both the number and quality of social support available to families, and provide a basis for querying respondents about specific aspects of both help and lack of help. The FSS might also be used to gauge the success of interventions designed to mediate provisions of support by plotting changes in the helpfulness scores over time.

Social support is emerging as an important mediating and explainer variable in the helping professions. Scales like the FSS can help explicate the relationships between social support and the ability to cope and manage different life crises.

References

- Andrews, F., & Withey, S. (1976). *Social indicators of well-being*. New York: Plenum, American

<p>Psychological Association. (1974). <i>Standards for educational and psychological tests</i>. Washington, DC: American Psychological Association.</p> <p>Barrera, M. (1981). Social support in the adjustment of pregnant adolescents. In B. Gottlieb (Eds), <i>Social networks and social support</i>. Beverly Hills, CA: Sage Publications.</p> <p>Barrera, M., & Ainlay, S. (1983). The structure of social support: A conceptual and empirical analysis. <i>Journal of Community Psychology</i>, 11, 133-143.</p> <p>Bott, E. (1971). <i>Family and social networks</i>. London: Tavistock Publication.</p> <p>Bristol, M. (1983). Carolina Parent Support Scale. Unpublished rating scale, Frank Porter Graham Child Development Center, University of North Carolina, Chapel Hill, NC.</p> <p>Bronfenbrenner, U. (1978). Sources of Help Checklist. Unpublished rating scale, College of Human Ecology, Department of Human Development And Family Studies, Cornell University, Ithaca, NY.</p> <p>Bronfenbrenner, U. (1979) <i>The ecology of human development: Experiments by nature and design</i>. Cambridge: Harvard University Press.</p> <p>Caplan, G.</p>	<p>(1974). <i>Support systems and community mental health</i>. New York: Behavioral Publications.</p> <p>Cochran, M., & Brassard, J. (1979). Child development and personal social networks. <i>Child Development</i>, 50, 601-616.</p> <p>Crockenberg, S. (1981). Infant irritability, mother responsiveness and social influences on the security of infant-mother attachment. <i>Child Development</i>, 52, 857-865.</p> <p>Crnic, K., Greenberg, M., Ragozin, A., Robinson, N., & Basham, R. (1983). Effects of stress and social support on mothers of premature and full-term infants. <i>Child Development</i>, 54, 209-217.</p> <p>Dean, A., & Lin, N. (1977). Stress-buffering role of social support. <i>Journal of Nervous and Mental Disease</i>, 165, 403-417.</p> <p>Dunst, C. J. (1982). Social support, early intervention, and institutional avoidance. Paper presented at the annual meeting of the Southeastern Association on Mental Deficiency, Louisville, KY.</p> <p>Dunst, C.J. (1983). Parent-Child Interaction Rating Scale. Unpublished paper, Family, Infant and Preschool Program, Western Carolina Center, Morganton, NC.</p> <p>Dunst, C.J., & Trivette, C.M. (1984). A guide to measures of social support, parental</p>	<p>stress, well-being and coping, and other family-level measures. Unpublished paper, Family, Infant and Preschool Program, Western Carolina Center, Morganton, NC.</p> <p>Dunst, C. J., Trivette, C. M., & Cross, A. (In Social support networks of Appalachian families with handicapped children: Relationship to personal and family well-being. To appear in S. Keefe (Ed.), <i>Mental health in Appalachia</i>. Lexington: University of Kentucky Press.</p> <p>Dunst, C. J., Trivette, C. M., & Cross, A. (1984). Mediating influences of social support: Personal, family, and child outcomes. Paper submitted for publication.</p> <p>Gore, S. (1978). The effects of social support in moderating the health consequences of unemployment. <i>Journal of Health and Social Behavior</i>, 10, 157-165.</p> <p>Holahan, C. J. (1977). Social ecology. In I. Iscop, B. Bloom, & C. Spielberger (Eds.), <i>Community psychology in transition</i>. New York: Wiley.</p> <p>Holroyd, J. (1974). The Questionnaire on Resources and Stress: An instrument to measure family responses to a handicapped family member. <i>Journal of Community Psychology</i>, 2, 92-94.</p> <p>Hollingshead, A. B.</p>
--	--	--

Appendix 1

FAMILY SUPPORT SCALE

Listed below are sources that often times are helpful to members of families raising a young child. This questionnaire asks you to indicate how helpful each source is to *your family*.

Please *circle* the response that best describes how helpful the sources have been to your family during the past 3 to 6 months. *Cross out* any sources of help that have not been available to your family during this period of time.

	Not At All Helpful	Sometimes Helpful	Generally Helpful	Very Helpful	Extremely Helpful
1. My parents	0	1	2	3	4
2. My spouse's parents ..	0	1	2	3	4
3. My relatives/kin	0	1	2	3	4
4. My spouse's relatives/kin	0	1	2	3	4
5. Husband or wife	0	1	2	3	4
6. My friends	0	1	2	3	4
7. My spouse's friends ...	0	1	2	3	4
8. My own children	0	1	2	3	4
9. Other parents	0	1	2	3	4
10. Church	0	1	2	3	4
11. Social groups/clubs ...	0	1	2	3	4
12. Co-workers	0	1	2	3	4
13. Parent groups	0	1	2	3	4
14. My family or child's phys- cian	0	1	2	3	4
15. Professional helpers (social workers, therapists, teachers, etc.)	0	1	2	3	4
16. School/day care center	0	1	2	3	4
17. Professional agencies (public health, social services, mental health, etc.)	0	1	2	3	4
18. Specialized Early In- tervention Services ² ...	0	1	2	3	4
19. Other (specify)	0	1	2	3	4

¹Married parent version. The single parent version has the word "spouse" replaced with "child's father" (or mother).

²The name of the program the child/family participated in was included here.