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SYSTEMATIC REVIEW AND META-ANALYSIS OF THE RELATIONSHIPS BETWEEN FAMILY SOCIAL SUPPORT AND PARENTING STRESS, BURDEN, BELIEFS AND PRACTICES

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ABSTRACT: This paper includes the results of a systematic review and meta-analysis of the relationships between perceived family social support and parenting stress, caregiving burden, parent engagement practices, and parent-child interaction practices among caregivers raising a child with and without identified disabilities or health-related conditions birth to 18 years of age. The study included 82 independent samples of caregivers (N = 7,675 study participants) conducted in 12 countries between 1985 and 2020. The *Family Support Scale* total scale score was the independent variable in each study. The dependent measures included seven different parenting stress scales, eight different caregiving burden scales, seven different parenting belief scales, and nine different parenting behavior and practices scales. The correlations between the independent and dependent measures were the sizes of effect between the perceived family social support and the different parenting measures. Results showed that perceived family social support was related to attenuated parenting stress, less caregiving burden, and more positive parenting beliefs, behavior, and practices. The sizes of effect ranged between r = -.14, 95% CI = -.17, -.11, p = .000, for caregiving burden and r = .22, 95% CI = .16, .28, p = .000, for parenting beliefs. The sizes of effect for the relationships between measures did not differ as a function of child condition (developmental disabilities, autism spectrum disorders, health-related conditions, at-risk status, or no disability or at-risk status) or caregiver gender (mothers or fathers). Child age moderated the relationships between family social support and parenting stress and caregiving burden and caregiver age and marital status moderated the relationships between family social support and parenting stress. The pattern of results provided support for the hypothesized relationships between the independent and dependent measures based on the conceptual frameworks that guided the conduct of the study and showed that perceived family social support was related to attenuated parenting stress, less caregiving burden, and more positive parenting beliefs and practices.

KEYWORDS: Perceived family social support, parenting stress, caregiving burden, parenting engagement practices, parent-child interaction practices, meta-analysis

INTRODUCTION

Social networks include both informal and formal social relationships with network members (Bruggeman, 2013). Social network members include one's spouse or partner, friends and relatives, neighbors and other community members, babysitters and childcare providers, co-workers, clerics, helping professionals, and other individuals that a person has a social relationship with others and his or her family members. Social network members are considered potential sources of social support which includes both the perceived and received

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assistance, advice, guidance, and other types of help that are hypothesized to be related to healthy functioning (Helgeson, 1993; Wills & Ainette, 2012). Findings from meta-analyses of social support studies show that both perceived and received support are related to different dimensions of psychological health and functioning (e.g., Haber et al., 2007; Prati & Pietrantoni, 1992; Rueger et al., 2016). In research syntheses of both perceived and received social support, the sizes of effect for perceived support are consistently found to be larger than those for received support (e.g., Haber et al., 2007; Prati & Pietrantoni, 1992).

Family social support refers to the support provided to parents and other primary caregivers of children and adolescents by informal and formal social network members (Pierce et al., 2013; Pinkerton et al., 2015). This support is hypothesized to bolster parents' well-being and their abilities related to carry-out caregiving responsibilities (Pierce et al., 2013; Pinkerton et al., 2015). For example, Bronfenbrenner (1979) contended "Whether parents can perform effectively in their child-rearing roles…depends on the role demands, stresses, and supports emanating from other [social] settings….Parents' evaluations of their own capacity to function, as well as their view of their child, are related to such factors as flexibility of job schedules, adequacy of child care arrangements, and the presence of friends and neighbors who can help out in large and small emergencies" (p. 7). Elsewhere, Bronfenbrenner (1975) noted that "One problem still remains….Inadequate health care, lack of education, low income, and the necessity for full-time work…rob parents of time and energy to spend with their children" (pp. 465-466).

Bronfenbrenner's contentions provide the foundation for understanding the relationships between family social support and both parents' stress and well-being and parents' abilities to carry-out caregiving responsibilities in a competent manner. The availability of family social support would be expected to alleviate parents' stress and decrease caregiving demands associated with raising a child. Family social support would also be expected to provide parents the time and psychological energy to engage in interactions with their children in ways promoting their learning and development.

Family Social Support and Parenting

Moncrieff Cochran and his colleagues describe the different ways social network members influence parenting beliefs, attitudes, and behaviors (e.g., Cochran & Niego, 2002; Cochran & Walker, 2005). Cochran and Niego (2002), for example, noted that at least four different types of social support from social network members provide parents assistance needed to carry-out everyday parenting responsibilities and for interacting with their children in ways promoting optimal development. The family social supports that Cochran and his colleagues consider especially important include instrumental assistance (e.g., help with child-rearing responsibilities), emotional support (e.g., empathy and encouragement), child-rearing advice, and informational support, and role models of positive parenting practices.

Informal and formal family social support is important for all parents rearing young children and adolescents (see e.g., Crockenberg, 1988). Family social support has been found especially important for parents and other primary caregivers rearing children with identified disabilities, chronic medical conditions, and other child-related risk conditions (e.g., Dunst et al., 1997; Smith et al., 2015). Family social support has also been found to be important for adolescent parents, unmarried parents, immigrant parents, families living in poverty, grandparents raising grandchildren, and parents experiencing other family risk factors (e.g., Bunting & McAuley, 2004; Magnuson & Duncan, 2002).

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Measuring Family Social Support

There are more than a dozen scales that measure different types of family social support (Dunst, in press). Most, however, include items assessing only a small number of sources of support (e.g., family and friends). Most scales also do not include instructions asking parents or other primary caregivers to make judgments about social support in terms of providing the time and energy to engage in child-rearing activities. The one exception is the *Family Support Scale* (Dunst et al., 1984, 1986). The scale instructions ask respondents to make judgments about how helpful 18 different sources of social support have been in terms of raising a child. The 18 scale items assess the helpfulness of social support from five different groups of social network members (nuclear family, blood and marriage relatives, friends and co-workers, parent groups and organizations, and professional helpers and organizations). Each item is rated on a 5-point Likert scale ranging from *not-at-all-helpful* to *extremely helpful*. The sum of the 18-item ratings provides a global measure of perceived helpfulness of family social support.

The *Family Support Scale* (FSS) has been widely used in studies of perceived family social support of parents and children with diverse backgrounds and conditions (Mantri-Langeveldt et al., 2019). The psychometric properties of the scale have been established in more than a dozen studies (see Dunst, in press) and the scale has been translated into more than five languages. The total FSS score is related to more than a dozen different parent, family, and child functioning measures (e.g., Almasri et al., 2004; Crowley, 1995; Dunst et al., 1994; Taylor et al., 1993). Findings from a meta-analysis of the relationships between the total FSS scores and the psychological health of parents and other primary caregivers are reported in a companion paper (Dunst, in press). The study described in this paper examined the relationships between the total FSS scale scores and parenting stress, caregiving burden, parent engagement practices, and parent-child interaction practices. The study is part of a line of research by the author and his colleagues testing basic tenets of an applied family and social system intervention model (Dunst, 2017).

Purpose of the Study

The systematic review and meta-analysis described in this paper tested hypotheses based on propositions made by Bronfenbrenner (1979), Cochran and Niego (2002), and others (e.g., Crockenberg, 1988) about the relationships between family social support and parenting stress, burden, beliefs, behaviors, and practices. The hypotheses tested included:

H1: Family social support will be related to attenuated parenting stress associated with rearing a child or adolescent with or without a disability or health-related condition.

H2: Family social support will be related to less caregiving burden associated with rearing a child or adolescent with or without a disability or health-related condition.

H3: Family social support will be related to positive parenting belief appraisals related to rearing a child or adolescent with or without a disability or health-related condition.

H4: Family social support will be related to increased parenting effort to engage his or her child with or without a disability or health-related condition in learning activities.

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H5: Family social support will be related to more positive parenting interactions with his or her child with or without a disability or health-related condition.

H6: The relationships between family social support and parenting stress, burden, engagement, and practices will be similar for children and adolescents with or without a disability or health-related condition.

H7: The relationships between family social support and parenting stress, burden, engagement, and practices will be similar for different groups of caregivers.

In addition to hypothesis testing, additional analyses were conducted to determine if different child, parent, and family background characteristics moderated the relationships between the FSS total scale scores and the four parenting measures. These moderator analyses were used to determine if the relationships between family social support and parenting beliefs and behavior were conditioned on child and family characteristics.

METHOD

The guidelines for conducting a systematic review described by Siddaway et al. (2019) were used to identify, select, and appraise the results in FSS studies. The *Meta-Essentials* workbook for correlational data was used to conduct the analyses (Suurmond et al., 2017; Van Rhee et al., 2015). The *American Psychological Association* reporting standards for meta-analyses were used to present the results of the study (Appelbaum et al., 2018).

Search Strategy

Five primary (PsycNet, PubMed, ProQuest Central, ProQuest Dissertations and Theses, ERIC) and six secondary (Google Scholar, JSTOR, DOAJ, BASE, CORE, and Research Gate) databases were searched for FSS studies. (Google was used to locate unpublished research reports not available in other sources.) Natural language searches were conducted since *family support* is not a controlled vocabulary term in the thesauri of any of the primary search sources and because none of the secondary sources have thesauri.

An iterative search method was used to locate FSS studies. First, searches were conducted using *Family Support Scale* as the search term. If a search identified more than a thousand papers in any one source, the search was repeated by combining "family support scale" with helpfulness or helpful* (depending on the search source) to identify only studies of perceived family social support. Second, FSS studies were identified using "family support" AND "questionnaire OR instrument OR measure" because some investigators used these terms rather than the term *scale* when describing or citing the FSS. Third, the term "family social support scale" was used to locate FSS studies after it was determined that this is how the scale was described and cited by some investigators.

Inclusion and Exclusion Criteria

Studies were included if the FSS was used to measure the helpfulness of family social support; one or more scales were used to measure parenting stress, burden, engagement, or practices; the correlations between measures were reported; and the participants were the parents or primary caregivers of children birth to 18 years of age with or without disabilities or health-related conditions. In studies where FSS subscale scores were used to measure family social support, the average correlation between the FSS subscale scores and the parenting

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measure(s) was used as the best estimate of the total scale scores. No limitation was placed on the type of research report or where the research studies were conducted. Searches were conducted between the year the FSS was first published (Dunst et al., 1984) to the first quarter of 2022.

Papers were excluded if the FSS was not used to measure family social support, no correlations were reported between family support and a parenting measure, a subset of FSS scale items was only used to measure family support, the scoring instructions for the FSS were altered, or the study participants were not parents or primary caregivers of the children or adolescents. Research reports were also excluded if insufficient information was included to determine the direction of effect between family social support and a parenting measure.

Methods of Analysis

Data Preparation

The zero-order correlations between the total FSS scores and the parenting measures and the sample sizes in each study were imputed in the *Meta-Essentials* Excel spreadsheets. The child and family grouping and moderator variables of interest were also imputed into the spreadsheets. These included the children's ages and conditions; and the caregivers' gender, age, education, and marital status.

Average Effect Size Estimates

The average, weighted zero-order correlations between the FSS scores and the different parenting outcomes were used as the sizes of effects between measures. Random effects models were used to perform the analyses. The correlations between measures were converted to Fisher *z* indices for the analyses and transformed back to correlation coefficients for reporting purposes. Each analysis includes tests for the statistical significance of the average, weighted sizes of effect, and tests for between-study variability in the correlation coefficients.

Publication Bias

The Egger regression test and the Begg and Mazumber rank-order correlation test were used to assess the presence of publication bias (van Aert et al., 2019). Non-significant test results indicate minimal asymmetry in the distribution of effect sizes in the funnel plots. A between type of research report (published vs. nonpublished) comparison was also performed to confirm the existence of publication bias if either of the two statistical tests were significant.

Moderator Analyses

Either $Q_{Between}$ (Q_B) or linear meta-regression analyses were used to determine if the sizes of effects between the FSS and parenting measures differed by the moderator variables. Q_B is a nonparametric version of a one-way between-group ANOVA for comparing the sizes of effect for different subgroups of study participants (Lipsey & Wilson, 2001). Meta-regression analyses were used to determine if any continuously scored moderator variables were related to differences in the sizes of effects between the FSS scores and the parenting measures (Thompson & Higgins, 2002).

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RESULTS

Study Selection

Figure 1 shows the flow chart for locating studies that met the inclusion criteria. Studies excluded at the screening stage used the FSS as a dependent measure or included only a reference to or citation of the scale. The full-text articles that were excluded were for the reasons listed in Figure 1 (no parenting measures were included, no correlations were reported between measures, the FSS scoring instruction were altered, etc.). The final number of studies meeting the inclusion criteria was 62 and included 82 independent samples of caregivers. The studies were conducted between 1985 and 2020 and included 7,675 participants. The individual study and sample characteristics are included in a supplemental report (https://www.puckett.org/FSS_Parenting_SR.pdf).

Study and Participant Characteristics

Selected characteristics of the FSS studies are shown in Table 1. The studies were located in six different types of research reports. Just over half of the studies (57%) were published in peer-reviewed journal articles and 40% were located in doctoral dissertations, master's theses, and honor's theses. One study was found in an unpublished research report and one study was located in a book chapter.

The studies were conducted in 12 different countries. Two-thirds of the studies were conducted in the United States and just over three-quarters (78%) were conducted in North America. Two-thirds of the studies were conducted between 2001 and 2020. The median year of the research reports was 2006. Three-quarters of the studies had 100 or fewer participants (Median = 61).

Table 2 shows selected characteristics of the study participants. Mothers were the primary participants in 80% or more of the studies and fathers were the study participants in 15% of the studies. Grandmothers were the participants in two studies. Fifty-eight percent or more of the participants were married or living with a partner. The median percent of the sample that was married or living with a partner was 79.

In studies including participant ages, most (87%) were 30 years of age or older. The median participant age was 37 years. Two-thirds of the study participants had some education beyond high school and one-third had college degrees. The median years of formal education completed by the study participants was 13.

The children's ages ranged from less than one year to 18 years. The samples were almost equally divided according to the four age ranges in Table 2. The median child age was 7 years. Just over 50% of the children had either developmental disabilities or autism spectrum disorders. Fifteen percent of the children had health-related conditions (e.g., intraventricular hemorrhages, neural tube defects, Fragile X syndrome). Eleven percent of the children were at-risk for poor outcomes for different family-related factors (e.g., poverty, neighborhood violence). Five samples of children had no identified conditions or were considered at-risk for poor outcomes.

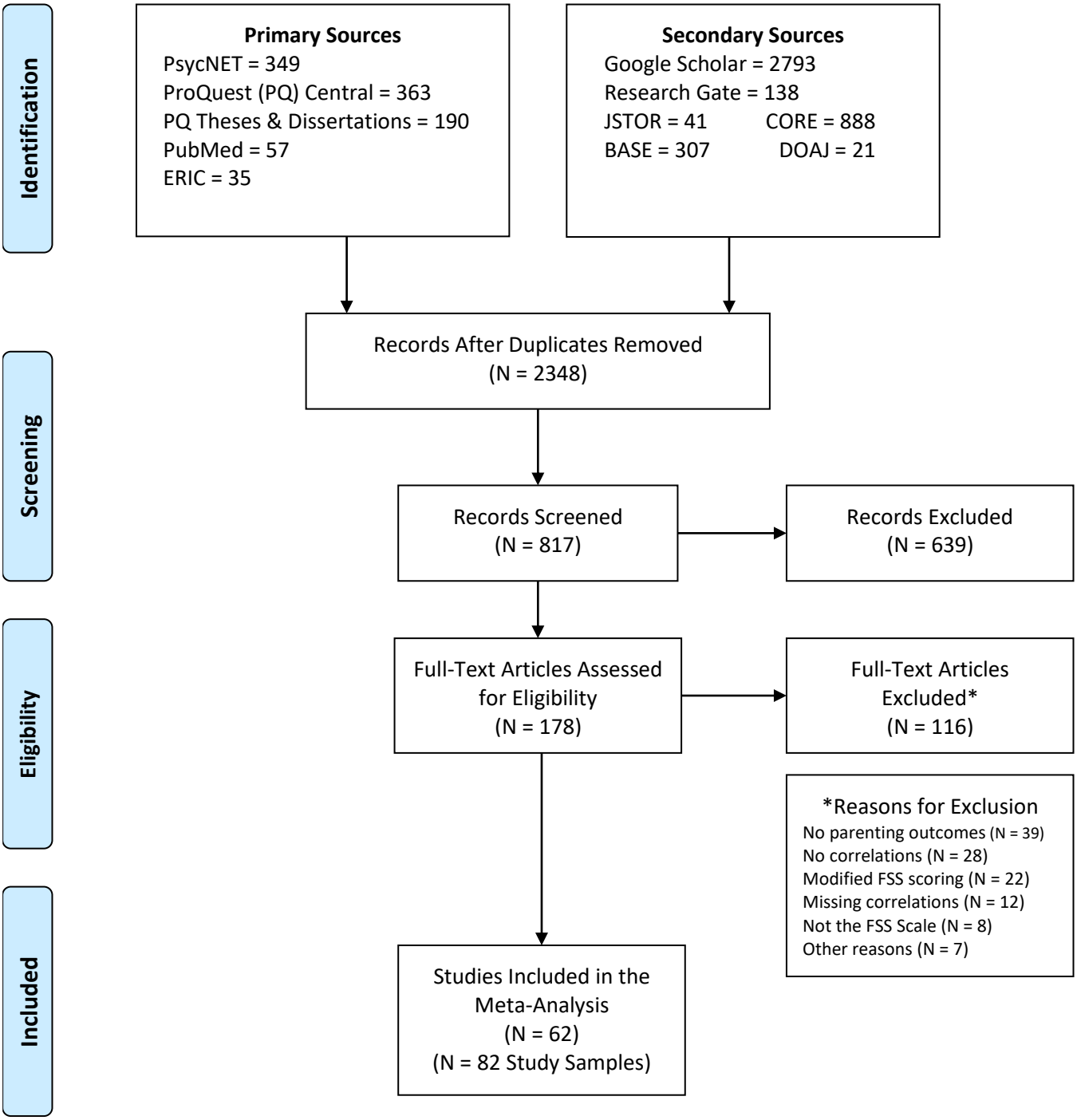

Figure 1. Flow chart for the identification of studies reporting the correlations between the Family Support Scale (FSS) and parenting outcomes. (Adapted from Moher et al., 2009).

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Table 1: Selected Characteristics of the Family Support Scale Studies

Study Characteristic	Number	Percent	Study Characteristic	Number	Percent
Type of Research Report			**Year of Research Report**		
Journal Articles	47	57.3	1985-1990	8	9.8
Dissertations	22	26.8	1991-1995	6	7.3
Master's Theses	9	11.0	1996-2000	12	14.6
Honor's Theses	2	2.4	2001-2005	11	13.4
Unpublished Paper	1	1.2	2006-2010	21	25.6
Book Chapter	1	1.2	2011-2015	13	15.9
			2016-2020	11	13.4
Location of Study					
USA	54	65.9	**Study Sample Size**		
Canada	6	7.3	14-25	7	8.5
Australia	4	4.9	26-50	25	30.5
Canada/USA	4	4.9	51-75	20	24.4
South Africa	3	3.7	76-100	11	13.4
United Kingdom	3	3.7	101-121	8	9.8
Taiwan	2	2.4	137-184	6	7.3
Other[a]	6	7.2	224-231	3	3.7
			824-992	2	2.4

[a]Other (one study each): China, Haiti, Ireland, Macedonia, New Zealand, Portugal.

Table 2: Selected Characteristics of the Family Support Scale Study Participants and Their Children

Sample Characteristics	Number	Percent	Sample Characteristics	Number	Percent
Study Participants			**Percent Married**		
Mothers (100%)	34	41.5	0-24	7	10.1
Mothers (>75%)	31	37.8	25-49	5	8.7
Fathers	12	14.6	50-74	17	24.6
Grandmothers	2	2.4	75-98	25	36.2
Mixed Samples	3	3.7	100	15	21.7
			Missing	13	---
Mean Participant Age (Yrs.)					
18-20	2	2.8	**Mean Child Age (Yrs.)**		
25-29	7	9.8	<1-3	21	25.6
30-34	14	19.7	4-6	17	20.7
35-39	21	25.6	7-9	23	28.0
40-44	25	35.2	10-13	21	25.6
56-60	2	2.8			
Missing	11	---			
			Child Condition		
Mean Years of Education			Developmental Disabilities	30	36.6
Less Than High School	11	17.7	Autism Spectrum Disorders	16	19.5
High School	10	16.2	Health-Related Conditions	12	14.6
Some College	21	33.9	At-Risk	9	11.0
College Graduate	20	32.2	Motor Disorders	4	4.0
Missing	20	---	Other	6	7.3
			None	5	6.1

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Study Measures

Family Support Scale

The total FSS score was the family social support measure in each study. In some studies, a few items were either eliminated or added by the study investigators depending on the purpose of the study and the study participants. All of the FSS scales included items measuring family social support from each of the six groups of social network members described in the introduction.

Parenting Measures

The parenting measures used as outcomes in the FSS studies assessed parenting stress, caregiving burden, parenting beliefs (self-efficacy or sense of competence), and/or parenting behavior (child engagement practices or positive parenting practices). The scale items were first examined to identify the targets of appraisals (Bugental et al., 1988). Scales measuring the same constructs were then categorized for data analysis purposes. Table 3 shows which scales were used to measure which parenting constructs.

Seven different self-report scales were used to measure parenting stress. The parenting stress scales all measured feelings of emotional strain and pressure associated with caring for a child. Eight different self-report scales were used to measure two types of caregiving burden (childrearing demands and difficult child behavior). The caregiving burden scales measured the demands or stains placed upon a parent as part of caring for a child.

Three different self-report scales were used to measure parenting efficacy beliefs. The efficacy belief scales all measured parents' judgments about their control of or ability to successfully execute parenting activities. Four different self-report scales were used to measure parents' sense of competence. The parenting competence scales all measured parents' judgments of parenting knowledge or child development.

Four scales were used to measure parenting engagement practices. The parenting engagement scales all measured parents' efforts to involve their children in different kinds of everyday routines or learning activities. Four scales were used to measure parents' interactional behavior. The positive parenting practices scales all measured parents' use of sensitive and responsive interactional behavior in interactions with their children.

Forest Plot Data

The forest plot data for the FSS-parenting measure relationships are included in a supplemental report (https://www.puckett.org/FSS_Parenting_SR.pdf).

Publication Bias

Table 4 shows the results from the publication bias analyses. The results showed some indication of publication bias for the parenting stress measures but not for caregiving burden, parenting beliefs, or parenting practices. The latter three sets of results found that the distribution of effect sizes in the funnel plots was symmetrical and not skewed. A post hoc comparison of published and unpublished studies for the parenting stress measures was not significant, $Q_B = 1.14$, $df = 1, 60$, $p = .286$, indicating that there was no difference in the sizes of effect for the two types of research reports.

Table 3: Parenting Measures Used in the Family Support Scale Studies

Parenting Measures	Sources	No. of Samples
Parenting Stress Scales		
Parenting Stress Index-Short Form	Abidin (1995)	24
Parenting Stress Index-Long Form	Abidin (1983)	13
Questionnaire on Resources and Stress-Short Form	Friedrich et al. (1983)	12
Questionnaire on Resources and Stress-Poor Health and Mood Subscale	Holroyd (1974)	8
Parental Stress Scale	Berry and Jones (1995)	3
Parental Stressor Scale (Investigator Adapted)	Carter and Miles (1989)	1
Stress Index for Parents of Adolescents	Sheras et al. (1998)	1
Caregiving Burden Scales		
Parenting Stress Index-Child Difficulty Subscale	Abidin (1995)	12
Questionnaire on Resources and Stress- Excessive Time Demands Subscale	Holroyd (1974)	6
Parenting Daily Hassles Scale	Crnic and Greenberg (1990)	4
Parenting Stress Index-Child Demandingness Subscale	Abidin (1983)	3
Impact on Family Scale	R. E. K. Stein and Riessman (1980)	2
Caregiver Strain Questionnaire	Brannan et al. (1997)	1
Care of My Child Scale	McCubbin et al. (1993)	1
Troublesome Behavior Stress Scale	Koeske and Koeske (1990)	1
Parenting Self-Efficacy Belief Scales		
Parenting Sense of Competence Scale	Gibaud-Wallston and Wandersman (2001)	5
Parental Locus of Control Scale	Campis et al. (1986)	1
Family Empowerment Scale-Family Sense of Control Subscale	Koren et al. (1992)	1
Parental Perceived Competence Scales		
Parenting Stress Index-Parental Competence Subscale	Abidin (1983)	2
Beliefs About Child Development Scale	Sameroff and Feil (1985)	1
Parental Knowledge Scale (Investigator Adapted)	Reece (1992)	1
Myself as Mother Scale	Walker et al. (1986)	1
Parenting Engagement Practices Scales		
Parent Involvement Index	Lowitzer (1989)	2
Parent-Child Play Scale	Dunst (1986b)	2
Parenting Practices Questionnaire-Parent Involvement Subscale	Tolan et al. (1997)	1
Home Observation for Measurement of the Environment Scale	Caldwell and Bradley (1984)	1
Positive Parenting Practices Scales		
NCATS-Parenting Interactional Behavior Subscale	Barnard (1978)	3
Caregiving Styles of Interaction Scale-Parenting Behavior Facilitation Subscales	Dunst (1986a)	2
Parenting Practices Questionnaire-Warmth and Nurturance Subscale	Robinson et al. (1995)	1
Parent-Child Early Relational Assessment Scale-Parental Warmth Subscale	Clark (1999)	1

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Table 4: Publication Bias Results

	Egger Regression Test				Begg and Mazumdar Test		
Parenting Measures	**b_0**	**se**	***t*-test**	***p*-value**	**Tau**	***z*-value**	***p*-value**
Parenting Stress							
All Stress Measures Combined	-0.83	0.34	2.43	.020	-.18	2.08	.037
Parenting Stress Index-Short Form	-1.99	0.43	4.60	.000	-.14	0.97	.333
Parenting Stress Index-Long Form	0.61	0.31	1.95	.080	.10	0.49	.625
QRS Health and Mood Subscale	-2.05	1.82	1.13	.300	-.36	1.24	.216
QRS Short Form	-4.15	3.09	1.34	.210	-.35	1.58	.115
Other Stress Measures	-3.97	1.34	2.96	.060	-.60	1.47	.142
Caregiving Burden							
All Burden Measures Combined	-0.16	0.33	0.49	.630	-.09	0.69	.488
Childrearing Demands	-0.41	0.98	0.42	.680	-.09	0.45	.656
PSI Difficult Child Behavior Subscale	-.12	0.43	0.28	.790	-.20	0.86	.392
Parenting Beliefs							
All Belief Measures Combined	-1.76	1.63	1.08	.300	-.08	0.37	.714
Parenting Competence Appraisals	0.69	0.21	3.28	.080	.67	1.36	.174
Parenting Efficacy Appraisals	-1.35	1.83	0.73	.490	-.11	0.42	.677
Parenting Practices							
All Practices Measures Combined	-0.41	.36	1.14	.280	.13	0.61	.542
Parenting Engagement	-0.60	.73	0.82	.460	-.20	0.56	.573
Positive Parenting Interactions	1.59	1.38	1.15	.300	.43	1.35	.176

NOTES. QRS= Questionnaire on Resources and Stress and PSI=Parenting Stress Index. b_o = y-axis intercept. se = standard error. Tau = Kendall's rank-order correlation coefficient.

Effect Size Findings

The sizes of effects for the relationships between the total FSS scores and the four different parenting measures are shown in Table 5. The pattern of results provided support for Hypotheses 1, 2, 3, 4, and 5. Higher FSS scores were related to less parenting stress and less caregiving burden, and more positive parenting beliefs and practices. The analyses of all results combined for each set of parenting measures showed that the average, weighted effect sizes were significant as evidenced by the Z-value results. The heterogeneity findings indicated that there was variability in the sizes of effect for only the parenting stress measures. This suggests that the relationship between the FSS scores and most parenting stress measures differ as a function of other explanatory variables.

The average sizes of effect for the different parenting stress measures ranged between r = -.25 (95% CI = -.32, -.19) for the *Parenting Stress Index-Short Form* and -.11(95% CI = -.26, .05) for the heterogenous parenting stress measures (Berry & Jones, 1995; Carter & Miles, 1989; Sheras et al., 1998). Four of the five average effect sizes for the different parenting stress measures were significant as evidenced by the significant Z-values. A 5-between type of parenting stress measure comparison was not significant, $Q_B = 4.76$, $df = 4, 57$, $p = .313$, indicating that the sizes of effect for the five parenting stress measures were not different.

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The FSS total scale scores were significantly related to both types of caregiving burden measures as evidenced by the Z-value results. In both cases, higher FSS scores were related to less childrearing demands and less difficult child behavior. There was no difference in the sizes of effect for the two types of caregiving burden measures, $Q_B = 1.16$, $df = 1, 25$, $p = .282$.

Table 5: Average Weighted Effect Sizes for the Relationships Between the Total Family Support Scale Scores and the Different Types of Parenting Measures

Parenting Measures	k	N	*r*	95% CI	*Z*-value	*p*-value	I^2
Parenting Stress							
All Stress Measures Combined	62	5687	-.21	-.25, -.17	9.63	.000	49
Parenting Stress Index-Short Form	24	2229	-.25	-.32, -.19	7.56	.000	55
Parenting Stress Index-Long Form	13	1653	-.22	-.26, -.18	11.74	.000	0
QRS Health and Mood Subscale	8	765	-.22	-.35, -.08	3.79	.000	54
QRS Short Form	12	417	-.21	-.38, -.02	2.41	.016	63
Other Stress Measures	5	623	-.11	-.26, .05	1.92	.054	47
Caregiving Burden							
All Burden Measures Combined	26	2936	-.14	-.18, -10	7.12	.000	3
Childrearing Demands	15	1253	-.17	-.24, -.09	4.91	.000	19
PSI Difficult Child Behavior Subscale	11	1683	-.12	-.16, -.07	5.87	.000	0
Parenting Beliefs							
All Belief Measures Combined	13	1106	.22	.16, .28	7.80	.000	0
Parenting Competence Appraisals	4	408	.27	.25, .30	34.50	.000	0
Parenting Efficacy Appraisals	9	698	.19	.10, .27	4.77	.000	5
Parenting Practices							
All Practices Measures Combined	13	1796	.20	.17, .23	12.86	.000	0
Parenting Engagement	6	1421	.21	.15, .26	9.63	.000	0
Positive Parenting Interactions	7	375	.17	.11, .24	6.42	.000	0

NOTES. k = Number of samples, N = Number of study participants, *r* = Average, weighted effect size, CI = Confidence interval, I^2 = Heterogeneity in the sizes of effects in individual studies, QRS=Questionnaire on Resources and Stress, and PSI=Parenting Stress Index.

The comparison between parenting stress and caregiving burden for all measures combined was significant, $Q_B = 5.32$, $df = 1, 87$, $p = .021$. The size of effect for parenting stress was larger than the size of effect for caregiving burden. The moderator analyses of these two parenting measures were therefore analyzed separately because of this difference.

Results from the analyses of the two types of parenting belief measures showed that the FSS total scale scores were related to more positive belief appraisals as evidenced by significant Z-values. There was no difference in the sizes of effect for the two types of parenting belief measures, $Q_B = 1.97$, $df = 1, 11$, $p = .160$.

The FSS total scale scores were statistically related to both parenting practices measures as evidenced by the Z-value results. Higher FSS scores were related to increased parental effort to engage their children in learning opportunities and more frequent parental use of positive interactional behavior. There was no difference in sizes of effects for the two parenting practices measures, $Q_B = 0.32$, $df = 1, 11$, $p = .571$.

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The comparison between all parenting belief measures combined and all parenting practices measures combined was not significant, $Q_B = 0.24$, $df = 1, 24$, $p = .628$. These two sets of measures were therefore combined for conducting moderator analyses to have a larger number of effect sizes.

Moderator Analyses

The effects of child condition and caregiver gender were evaluated by Q-between-subgroup comparisons. The effects of child age, caregiver age, caregiver education, and marital status were evaluated by meta-regression analyses.

Subgroup Results

Table 6 shows the results for the between-subgroup comparisons. (The findings need to be interpreted with caution for groups including fewer than five effect sizes.) The sizes of effect for the different child conditions showed that the average effects sizes were significant for parenting stress and caregiving burden as evidenced by the Z-value results for subgroups including three or more effect sizes. The sizes of effect for parent gender showed that the average effect sizes were significant for mothers for all three parenting measures as evidenced by the Z-value results. The same was the case for fathers parenting stress and parenting beliefs and practices scores.

There were no differences in the sizes of effect for child conditions for any of the parenting measures. The results provide tentative support for Hypothesis 6 that the relationships between the FSS total scale scores and the parenting measures would be much the same for children with different identified conditions, children at-risk for poor outcomes, and children without identified or at-risk conditions.

There was no difference in the sizes of effect for mothers and fathers for parenting stress and parenting beliefs and practices. The sizes of effects were identical for parenting beliefs and practices and very similar for parenting stress. The results for caregiver burden are not interpretable because there were only two fathers who completed caregiving burden measures. The results provide partial support for Hypothesis 7 that there would be no differences in the sizes of effects for mothers and fathers.

There were no differences in the sizes of effect for child conditions for any of the parenting measures. The results provide tentative support for Hypothesis 6 that the relationships between the FSS total scale scores and the parenting measures would be much the same for children with different identified conditions, children at-risk for poor outcomes, and children without identified or at-risk conditions.

There was no difference in the sizes of effect for mothers and fathers for parenting stress and parenting beliefs and practices. The sizes of effects were identical for parenting beliefs and practices and very similar for parenting stress. The results for caregiver burden are not interpretable because there were only two fathers who completed caregiving burden measures. The results provide partial support for Hypothesis 7 that there would be no differences in the sizes of effects for mothers and fathers.

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Table 6: Average Weighted Effect Sizes for the Relationships Between the Total Family Support Scale Scores and the Parenting Measures for Different Subgroups of Children and Caregivers

Child and Caregiver Subgroups	k	N	*r*	95% CI	*Z*-value	*p*-value	I^2
Parenting Stress Measures							
Child Condition[a]							
At-Risk for Poor Outcomes	5	1037	-.13	-.26, .00	2.68	.007	26
Developmental Disabilities	31	3329	-.21	-.26, -.16	7.74	.000	46
Health-Related Conditions	10	391	-.22	-.40, -.03	2.55	.011	63
Autism Spectrum Disorders	14	866	-.23	-.31, -.14	5.56	.000	24
		$Q_B = 2.56$, $df = 3, 56$, $p = .464$					
Caregivers							
Mothers[b, c]	49	5026	-.21	-.25, -.16	8.78	.000	52
Fathers	9	377	-.23	-37, -.08	3.46	.001	29
		$Q_B = 0.14$, $df = 1, 56$, $p = .709$					
Caregiver Burden Measures							
Child Condition[a]							
Developmental Disabilities	18	3437	-.13	-.16, -.10	8.85	.000	0
Autism Spectrum Disorders	2	55	-.18	-36, .01	---	---	---
At-Risk for Poor Outcomes	3	249	-.21	-.36, -.04	5.39	.000	0
Health-Related Conditions	5	273	-.25	-.47, .01	2.69	.007	49
		$Q_B = 3.32$, $df = 3, 24$, $p = .344$					
Caregivers							
Mothers	27	4114	-.14	-.17, -.11	9.53	.000	0
Fathers	2	58	-.36	-.93, .70	---	---	---
		$Q_B = 3.02$, $df = 1, 27$, $p = .082$					
Parenting Beliefs and Practices Measures							
Child Condition							
Developmental Disabilities	12	855	.17	.13, .22	8.31	.000	0
Health-Related Conditions	3	270	.20	-.10, .47	2.92	.003	24
Autism Spectrum Disorders	4	309	.21	-.06, .45	2.47	.013	44
At-Risk for Poor Outcomes	4	1194	.21	.15, .27	11.67	.000	0
No Identified Condition or At-Risk	3	340	.27	.23, .31	28.53	.000	0
		$Q_B = 2.75$, $df = 4, 21$, $p = .600$					
Caregivers							
Mothers[b, c]	22	2764	.21	.17, .24	12.98	.000	0
Fathers	3	204	.21	.06, .35	6.01	.000	0
		$Q_B = 0.01$, $df = 1, 21$, $p = .988$					

[a]There were only two samples of children with no disability, delay, health-related condition, or at-risk condition for parenting stress and caregiver burden. [b]Samples including 75% or more mothers. [c]Mothers include one grandmother sample.

There was no difference in the sizes of effect for mothers and fathers for parenting stress and parenting beliefs and practices. The sizes of effects were identical for parenting beliefs and practices and very similar for parenting stress. The results for caregiver burden are not interpretable because there were only two fathers who completed caregiving burden measures. The results provide partial support for Hypothesis 7 that there would be no differences in the sizes of effects for mothers and fathers.

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Meta-Regression Results

The results from the analyses regressing the sizes of effect on the child and caregiver moderator variables are shown in Table 7. The sizes of effect for the relationships between the FSS total scale scores and the parenting measures were moderated by child age for both parenting stress and caregiver burden and by caregiver age and marital status for parenting stress.

The strength of the relationship between family support and parenting stress became weaker as child age increased. Child age accounted for 5% of the variance in the sizes of effect between family support and parenting stress. The strength of the relationship between family support and caregiver burden became stronger as child age increased. The amount of variance accounted for in the relationships between family support and caregiving burden by child age was 17%.

Table 7: Moderators of the Relationships Between the Total Family Support Scale Scores and the Parenting Measures

Moderators	k	β	R^2	Z-value	p-value
Parenting Stress					
Child Age	61	.22	4.76	2.39	.017
Caregiver Age	51	.26	6.91	2.59	.009
Caregiver Education	43	.17	2.81	1.60	.109
Marital Status	50	-.42	18.04	4.38	.000
Caregiver Burden					
Child Age	28	-.41	16.66	2.09	.037
Caregiver Age	24	-.15	2.40	0.76	.445
Caregiver Education	22	.10	1.07	0.45	.652
Marital Status	22	.18	3.11	0.83	.406
Parenting Beliefs & Practices					
Child Age	25	.21	4.54	0.85	.394
Caregiver Age	23	.03	0.10	0.11	.911
Caregiver Education	23	.25	6.49	0.89	.375
Marital Status	22	.10	0.91	0.37	.712

NOTES. k is the number of effect sizes in each analysis. β is the standardized regression coefficient for the effect sizes regressed on each moderator variable. R^2 is the amount of variance accounted for in the relationship between family support and the outcome measures by each moderator variable.

The strength of the relationship between family support and parenting stress became weaker as caregiver age increased. Caregiver age accounted for 7% of the variance in the sizes of effects between family support and parenting stress. The strength of the relationship between marital status and parenting stress became stronger as the percentage of caregivers who were married or living with a partner increased. Marital status accounted for 18% of the variance in the sizes of effect between measures.

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DISCUSSION

Major Findings

Results from the systematic review and meta-analysis showed that perceived family social support was related to attenuated parenting stress, less caregiving burden, more positive parenting beliefs, enhanced parental effort to engage their children in everyday activities, and increased use of sensitive and responsive parenting behavior. The pattern of results is consistent with Bronfenbrenner's contentions about the role social support plays in parents' abilities to competently carry-out parenting responsibilities and promote child learning and development (Bronfenbrenner, 1979).

Findings from the between subgroup moderator analyses indicated that perceived family social support behaved in the same way for children with and without identified disabilities or health-related conditions and for mothers and fathers. In those between subgroup analyses including at least five effect sizes, the pattern of results was much the same for the children and their caregivers. Higher FSS total scale scores were related to less parenting stress and burden and more positive parenting behavior and practices regardless of child condition or parent gender. The results provide evidence for the generalized influence of perceived family social support on different dimensions of parenting psychological health and parenting beliefs and practices.

The meta-regression moderator analyses found that child age, caregiver age, and caregiver marital status moderated the relationships between perceived family social support and parenting stress. These findings explain at least some of the heterogeneity in the sizes of effect in the FSS studies for the different parenting stress measures (Table 5).

Child age was the only moderator variable related to differences in the sizes of effect between perceived family social support and caregiving burden. The direction of effect was the opposite for the relationship between perceived family social support and parenting stress. Parenting stress decreased but caregiving burden increased as children became older. This pattern of results is consistent with the expectation that parenting stress would lessen with parents' adaptations to their children's conditions and that caregiving burden would increase as childrearing demands increased (e.g., Haveman et al., 1997; Rentinck et al., 2006).

The results, taken together, provide support for the hypothesized relationships between perceived family social support and the different parenting measures. The availability of social support from social network members was related to less parenting stress and less caregiving burden consistent with Bronfenbrenner's (1975, 1979) contentions that social resources are a necessary condition for parents and other primary caregivers to have the psychological energy to carry-out parenting responsibilities. The availability of social support was also related to positive parenting beliefs and development-enhancing parenting behavior and practices. These findings are also consistent with Bronfenbrenner's (1975, 1979) contentions that the availability of family social support provides parents the time to spend with their children, engage their children in everyday learning activities, and interact with their children in sensitive and responsive ways.

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Contributions to Research and Practice

The study described in this paper is part of a line of research testing basic tenets of an applied family social systems intervention model (Dunst, 2017). The model includes four integrated components (family needs and concerns, family strengths, family supports and resources, and capacity-building family-centered practices). The practices in each component are based on theoretical and conceptual formulations described by ecological, social, and family systems experts that focus on the conditions that provide parents and other primary caregivers the time and psychological energy to carry-out parenting roles and responsibilities and provide children with optimal learning experiences and opportunities (e.g., Bronfenbrenner, 1979, 1992; Cox & Paley, 1997; Garbarino & Benn, 1992; Johnson & Ray, 2016; Kerig, 2019). Needs satisfaction, the adequacy of family resources, the availability of family social support, the use of family strengths to obtain resources and supports, and practitioner use of capacity-building practices to support and strengthen family and family member's abilities to obtain support and resources to meet family needs are all considered conditions for healthy child, parent, and family functioning.

Results from systematic reviews and meta-analyses of studies of each family social systems model components provide support for the basic tenets of the model (e.g., Dunst, 2021a, 2021b, 2021c; Dunst, 2022; Dunst et al., 2021). Results from the study in this paper add to this knowledge base by showing how perceived family social support is related to different types of parenting beliefs and behavior. These results, together with findings from another study of the relationships between perceived family social support and different dimensions of personal psychological health and well-being (Dunst, in press), show that the positive effects of social support are realized in many different personal and parenting domains.

Conclusion

Findings from meta-analyses of social support studies show that both perceived and received support from different social network members are related to positive psychological health and well-being of many different groups of persons in different countries (e.g., Bender et al., 2019; Chu et al., 2010; Haber et al., 2007; Procidano, 1992; Schiller et al., 2021). Results reported in this paper add to this research evidence by showing how family social support is related to attenuated parenting stress, decreased caregiving burden, and positive parenting beliefs and practices.

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