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Systematic Review and Meta-Analysis of Family Needs Studies: Relationships with Parent, Family and Child Functioning

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Abstract: Findings from a research synthesis of the relationships between family needs and parent, family, and child functioning are reported. The synthesis included 31 studies conducted in 12 different countries. The studies were conducted between 1987 and 2021 and included 4,543 participants. Eight different family needs scales or adaptations of the scales were completed by the study participants (mothers, fathers, or grandmothers of children with developmental disabilities, autism spectrum disorders, or medical conditions). The outcome measures included caregiver psychological health, parenting stress, parenting burden, parenting beliefs, family coping strategies, family functioning, family support, and child functioning. The correlations between family needs and the outcome measures were used as the sizes of effects for evaluating the strength of the relationships between measures. Results showed that unmet family needs were associated with more negative and less positive family and family member functioning and fewer unmet family needs were associated with more positive and less negative family and family member functioning. The sizes of effect for parenting stress and burden were larger than were the sizes of effects for each of the other outcome measures. Child condition and study quality moderated the relationship between family needs and parenting stress and burden but not the other outcome measures. The results are discussed in terms of one component of family systems intervention models.

Keywords: *Child functioning, family functioning, family needs, family systems, parenting, meta-analysis.*

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Introduction

Human needs have been defined as either (a) something that is lacking but needed or required for existence or (b) something that provides a foundation for autonomy, competence, and thriving (Pittman & Zeigler, 2007). Patrick et al. (2007) described these two types of needs as physiological and psychological needs respectively. The foundations of a physiological perspective of human needs can be found in Hull's drive theory (Hull, 1943) and the foundations for a psychological perspective of human needs can be found in Murray's personality theory (Murray, 1938). The foundations for a need theory that includes both types of needs can be found in Maslow's theory of human motivation (Maslow, 1943).

Subsequently developed theories of human needs (e.g., Alderfer, 1969; Max-Neef, 1987; McClelland, 1988) include key components of both physiological and psychological perspectives of human needs. Contemporary needs theories include further delineations of the different types of human needs (Dover, 2016). Notwithstanding conceptual and operational differences in needs theories, nearly all theories emphasize the role unmet needs play in motivating individuals to pursue physical and social resources and supports to achieve needs satisfaction. Most needs theories also include the tenet that unmet needs have deleterious effects on human functioning and that needs satisfaction has positive effects on human functioning. Deci and Ryan (2000), for example, noted that the "satisfaction of needs...is associated with *psychological well-being*, whereas failure to satisfy needs is associated with deficits in well-being" (p. 233).

Findings from meta-analyses of needs studies show that needs fulfillment is associated with more positive and less negative personal well-being (e.g., Klug & Maier, 2015; Ng et al., 2012; Patrick et al., 2007; Stanley et al., 2021; Tang et al., 2019). Meta-analyses also indicate that needs satisfaction is related to more positive and less negative relationship well-being (Patrick et al., 2007; Van den Broeck et al., 2016). The health-promoting consequences of needs satisfaction have

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been reported in meta-analyses including physical health outcomes (Ng et al., 2012) and competence and performance outcomes (Cerasoli et al., 2016; Stanley et al., 2021). The results from these meta-analyses indicate that different dimensions of efforts to satisfy unmet needs (e.g., goal pursuit, autonomy, engagement, and intentions) are related to different dimensions of enhanced positive human functioning and attenuated negative human functioning.

Family Needs

In contrast to needs theories that focus on the need satisfaction of individuals, family system theories focus on the role family needs, resources, supports, and strengths play in enhancing healthy family and family member functioning (e.g., Broderick, 1993; Johnson & Ray, 2016; Olson et al., 2019). Family needs are hypothesized to be one of several family systems variables that influence different dimensions of family functioning. Large numbers of unmet family needs are viewed as conditions that are disruptive to healthy family and family member functioning and small numbers of unmet needs are viewed as conditions that contribute to healthy family and family member functioning. Hesse-Biber and Williamson (1984), for example, stated that healthy family functioning is promoted by “anything one individual family member can offer another [family member] to help that person *satisfy a need or attain goals*” (p. 262, emphasis added).

There have been numerous attempts to identify and categorize different types of family needs (e.g., Dunst et al., 1988; Nuri & Aldersey, 2016; Siebes et al., 2012). Dunst and his colleagues used needs theories (e.g., Maslow, 1943; Murray, 1938) and the literature on family needs and resources (e.g., Dunst & Leet, 1987; Hartman & Laird, 1983) to identify 40 different family needs which were organized into 12 categories (e.g., basic needs, financial needs, health care needs, childcare needs, social support needs). Siebes and her colleagues conducted a content analysis of 29 articles describing the needs of families with children and adolescents with disabilities and identified 99 family-related needs which were organized into 14 domains (e.g., childcare needs, transportation needs, medical care needs, informational needs, recreational needs, child-rearing needs). Both sets of family needs include a mix of different family resources and supports that are required or desired for healthy family functioning. Nuri and Aldersey (2016) conducted a content analysis of 23 articles and identified 101 family needs but did not include a categorization of the needs.

Family Needs Scales

Different family needs scales have been developed to identify the need for family resources and supports in households with children and adolescents (see e.g., Dunst & Deal, 1994; McGrew et al., 1992; Siebes et al., 2012). The different scales found in the literature differ in terms of the targets of needs scale items. One set of scales includes items that focus on family needs that are related to specific disabilities or medical conditions (e.g., critically ill children) or for family needs related to specific settings (e.g., neonatal intensive care units). The second set of scales includes items that focus on a broad range of family needs, including, but not limited to basic resources, financial resources, child care, family and social support, family time, social and recreational opportunities, and childrearing information and advice. The latter types of scales are the focus of the systematic review and meta-analysis described in this paper. Developers of these scales either implicitly or explicitly adopted a family systems framework for the identification of scale items that assess a broad range of family needs (Bronfenbrenner, 1979).

Broad-based, family systems approach to developing family needs scales are especially relevant in households where parents or other caregivers are rearing a child with an identified disability, complex medical condition, or a developmental delay (e.g., Algood et al., 2013; Seligman & Darling, 2016). In addition to the need for resources and supports for healthy family functioning, family needs associated with rearing a child with a disability, medical condition, or delay add to parent and family stress and demands beyond those associated with parenting a child or adolescent without any identified condition. Nearly all of the family systems-based needs scales developed to date have taken these considerations into account for identifying family needs scale items.

Two of the most frequently used scales are the *Family Needs Survey* (Bailey et al., 1992; Bailey & Simeonsson, 1988) and the *Family Needs Scale* (Dunst et al., 1987). Both scales include items assessing the need for a broad range of family and family member resources and supports. Other scales measuring a broad range of family needs include the *Family Needs Questionnaire* (Siklos & Kerns, 2006), *Family Needs Schedule* (Peshawaria et al., 1995), *Family Needs Inventory-Pediatric Version* (Alsem et al., 2014), *Parent Needs Scale* (Seligman & Darling, 1989), *Caregiver Needs Survey* (Bobbitt et al., 2016), and *Caregiver Needs Scale* (Wang et al., 2016). Respondents' completing a family needs scale indicate, on either a 3-point or 5-point Likert scale, the extent to which a scale item is a need in his or her family. Most family needs scales are scored where higher scores indicate the need for more family and family member resources and supports.

Purpose of the Study

Higher family needs scores are an indication of large numbers of unmet needs. Large numbers of unmet needs are hypothesized to be related to poorer family and family member functioning. This systematic review and meta-analysis examined which dimensions of parent, family, and child functioning are negatively affected by unmet family needs. Alkire (2002), for example, describes how unmet needs can be expected to negatively impact different dimensions of personal functioning. Algood et al. (2013) describe how the availability of family and family member resources and supports [to meet unmet needs] is important for parents and caregivers to have the time to engage in positive interactions with other family members (child, spouse, etc.). Bronfenbrenner (1979) contended “Whether parents can perform effectively in their child-rearing roles within the family depends on the role demands, stresses, and supports emanating from other settings” (p. 7). Smaller numbers of unmet family needs are hypothesized to be related to more positive family and family member functioning.

A search for research syntheses of family needs studies did not locate any systematic reviews or meta-analyses of these types of studies. The reviews that were located included no analyses of the relationships between family needs and parent, family, or child functioning (McGrew et al., 1992; Nuri & Aldersey, 2016; Siebes et al., 2012).

The systematic review and meta-analysis described in this paper are part of a line of research investigating the basic tenets of a family systems intervention model (Dunst, 2017). The model includes four interrelated components: family needs and concerns, family resources and supports, family strengths and hardiness, and practitioner capacity-building help-giving practices. The goal of family systems intervention is “to identify family needs, locate the informal and formal resources for meeting those needs, and [to] help link families with identified resources” (Hobbs et al., 1984, p. 50).

Research syntheses of studies of each of the components of the model except family needs produced results indicating the adequacy of family resources and supports (Dunst, 2021d), family strengths and hardiness (Dunst, 2021b; Dunst et al., 2021), and practitioner use of capacity-building help-giving practices (Dunst et al., 2007, 2008) are related to different dimensions of parent, family, and child functioning. The results of the present systematic review and meta-analysis were expected to add to this knowledge base and identify how family needs are or are not related to different dimensions of family and family member functioning.

Methodology

Study Design

The methods, procedures, and reporting standards described by Appelbaum et al. (2018) and Siddaway et al. (2019) guided the conduct of the research synthesis. This included the procedures used to locate family needs studies, the methods for coding and conducting statistical analyses (study quality, publication bias, effect size aggregation, etc.), and reporting the results from the systematic review and meta-analysis.

Search Strategy

The primary search sources were PsycNet, ProQuest Central, ProQuest Dissertations and Theses, PubMed, ERIC, and Google Scholar. The secondary search sources were ResearchGate, DOAJ, BASE, CORE, and Google. Natural language searches were conducted in all search sources except ERIC because the term *family needs* is not a controlled vocabulary term in the other primary sources and the secondary sources do not include a thesaurus.

An iterative process was used to locate family needs studies. First, searches were conducted using the names of different family needs scales (e.g., “family needs survey”, “family needs scale”, “family needs questionnaire”). Eleven different scale names were searched for studies. Second, the term “family needs” was combined with “scale OR survey OR questionnaire OR inventory OR tool” to locate studies. Third, the same was done for “parent needs” and “caregiver needs.” Fourth, “family needs”, “parent needs”, and “caregiver needs” were combined with other delimiters (e.g., “children OR adolescents”; “disability OR “chronic condition” OR delay”) as different terminology were used to describe family needs in households with children or adolescents with developmental disabilities, chronic medical conditions, or developmental delays.

For search sources where results could be sorted by relevance, the papers were examined until 100 papers in a row included no information related to family needs. In most of these databases, between 800 and 1000 papers were examined for relevance. In those search sources where the papers could not be sorted by relevance, all of the search results were examined for relevance.

Inclusion and Exclusion Criteria

Studies were included if a family needs scale was used to assess a broad range of needs, the total scale score or subscale scores were used to quantify the level of family needs, the scores were correlated with one or more measures of parent, family, or child functioning, and the participants were the parents or caregivers of children birth to 18 years of age with identified disabilities, medical conditions, or developmental delays. In studies where family needs subscale scores were

reported, the average correlation between these scores and the study outcomes were used as the best estimates of the total scale score. No limitation was placed on studies based on the type of research report, year of the research report, or where the studies were conducted.

Studies were excluded if a family needs scale included only items related to a child's condition or setting; the correlations between family needs and the study outcomes were not reported, reported as not significant, or were incomplete; or the study participants were not the parents or primary caregivers of children or adolescents. Studies were also excluded if the research reports were in other than a Germanic or Romance language and were not able to be translated into English.

Study Selection

Figure 1 shows the flow chart for locating studies that met the inclusion criteria. The large number of reports excluded at the screening stage were ones that simply mentioned or referenced family needs or were studies that simply tabulated the types of family needs that were reported by study participants. The full-text reports excluded at the eligibility stage included no correlations between the study measures, incomplete or missing correlations between measures, or for the other reasons listed in Figure 1. The final sample of studies was 31.

Data Preparation

The input for each family needs scale-outcome measure relationship was the correlation coefficient between measures and the study sample size. Data in each study was also coded to be able to conduct between subgroup and between type of outcome measure comparisons and to conduct moderator analyses.

The outcome measures in each study were first coded in terms of the targets of appraisal of the scale items (parent, family, or child) and then coded in terms of the outcome measure constructs (e.g., parenting stress, parenting burden, parenting beliefs). There were four types of parent measures, three types of family measures, and one type of child measure.

The correlations between family needs and the outcome measures could be either positive or negative depending on whether a higher score on an outcome measure indexed either healthy or poor functioning. The signs of the correlation coefficients were reversed where higher scores on the outcome measures were not in the same direction as were other measures so that the direction of the sizes of effects was the same for all measures in an outcome category.

Methods of Analysis

Meta-Essentials was used to perform the analyses of the data (Suurmond et al., 2017; Van Rhee et al., 2015). This included publication bias and study quality analyses, effect size aggregation, between-group comparisons, and moderator analyses of variables of interest.

Effect Size Estimates. The average, weighted correlations between the total family needs scores and each type of outcome measure were used to estimate the strength of the relationships between measures. The analyses between measures were performed with Fisher *r*-to-*z* transformations which were converted back to zero-order correlation coefficients for reporting purposes.

The output for each outcome measure included the number of study samples (*k*), the number of study participants (*N*), the average effect size between measures (*r*), the 95% confidence interval (CI) for the average effect sizes, the *Z*-tests for evaluating whether the average effect sizes differ significantly from zero, the *p*-values associated with the average effect sizes, and the homogeneity test (I^2) for between-study variance.

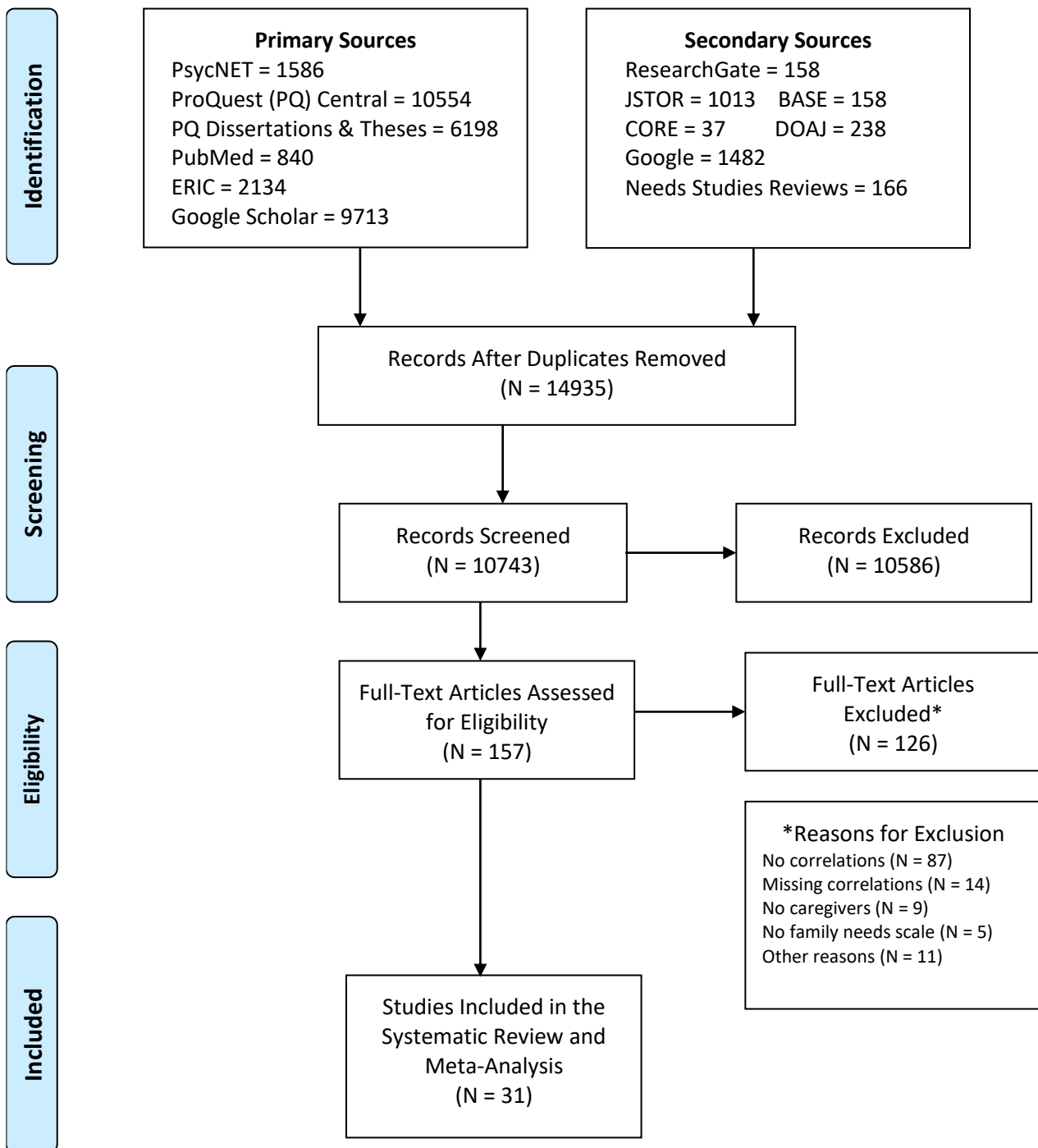


Figure 1. Flow chart for the identification of family needs scale studies. (Adapted from Moher et al., 2009).

Publication Bias. The presence of publication bias was assessed by the Egger regression test and the Begg and Mazumber rank-order correlation test. Separate analyses were done for each of the eight outcome measures. No publication bias is present if the test results are not significant (van Aert et al., 2019).

Between Type of Outcome Measure Comparisons. Q_{Between} (Q_B) was used to determine if the strength of the relationships between family needs and the different outcome measures were the same or different. Q_B is a nonparametric version of a one-way between-group ANOVA (Lipsey & Wilson, 2001).

Moderator Analyses. The moderators of interest were child condition, child age, the number of family needs scale items, and study quality. Either Q_B or linear regression analysis was used to determine if these variables moderated the relationships between family needs and the outcome measures.

The child conditions that were the focus of moderator analysis were between-group differences for children with developmental disabilities and delays, autism spectrum disorders, and medical conditions (including physical disabilities). Q_B was used to determine if there were between-group differences.

The mean age of the study participants' children was used to determine if child age moderated the relationship between family needs and the outcome measures. Regression analysis was used to determine if there were any age effects.

The family needs scales used by the primary study investigators differed in terms of the number of scale items used to compute a total scale score. Regression analysis was used to determine if the number of scale items moderated the relationships between family needs and the outcome measures.

Four study characteristics were used to assess study quality (sample size, specification of the study sample, description of the sample characteristics, internal consistency estimates of the family needs measures, and internal consistency estimates of the outcome measures). Study sample sizes were coded as less than 100 (= 0) or 100 or larger (=1). The study sample was coded as nonspecified parents or caregivers (= 0) or as specified parents or caregivers (= 1). Sample characteristics (age, education, and marital status) were coded as either not specified (= 0) or specified (= 1). The internal consistency estimates of the family needs scales were coded as not reported (= 0), those reported in previous studies (= 1), or were calculated for the family needs scale used in a study (= 2). The internal consistency estimates for the outcome measures were coded as not reported (= 0), those reported in previous studies (= 1), or calculated for the outcome measure(s) used in a study (= 2). The sum of the scores was used as the measure of study quality. Regression analysis was used to determine if the study quality scores moderated the relationships between family needs and the outcome measures. The study-by-study scores can be obtained from the author.

Results

Study and Participant Characteristics

Table 1 shows selected characteristics of the studies. The 31 studies were completed between 1987 and 2021 and included 4,543 participants. Most studies (90%) were conducted since 2000. Sample sizes ranged between 30 and 544 (Median = 120). Twelve studies had sample sizes between 30 and 94 (38%), 12 studies had sample sizes between 100 and 193 (38%), and seven studies (22%) had sample sizes between 234 and 544. Most studies (71%) were published in peer-reviewed journal articles. Nine studies (29%) were located in other sources (dissertations, master's theses, and a commercial publication).

Thirty of the studies were conducted in 12 different countries. One study had a sample from three different countries (Shivers et al., 2017). Thirteen studies (43%) were conducted in North America (Canada and the United States), fourteen studies (47%) were conducted in Europe (France, Latvia, Netherlands, Portugal, Sweden, Turkey, and the United Kingdom), two studies (7%) were conducted in the Far East (Japan and Taiwan) and two studies (7%) were conducted in India. The participants in the study with samples from three different countries (Canada, Ireland, and the United States).

The participants' children were described as having developmental disabilities or delays (35%), autism spectrum disorders (29%), physical disabilities (16%; cerebral palsy and spina bifida or hydrocephalus), or medical conditions (16%; chronic medical conditions, epilepsy, fetal alcohol spectrum disorders, or oxygen-dependent). Child condition was used to place the children into three groups (developmental disabilities or delays, autism spectrum disorders, and medical/physical conditions) for evaluating whether the sizes of effects between family needs and the outcome measures were moderated by group assignment.

Table 1. Selected Characteristics of the Family Needs Studies

| Study | Sample | Country ^a | Source | Child Conditions |
|------------------------------|--------|----------------------|-----------------|--------------------------------------|
| Ardic and Olcay (2021) | 273 | Turkey | Journal Article | Autism Spectrum Disorders |
| Bertule and Vetra (2020) | 234 | Latvia | Journal Article | Cerebral Palsy |
| Bobbitt et al. (2016) | 125 | Canada | Journal Article | Fetal Alcohol Spectrum Disorders |
| Carmo (2004) | 146 | Portugal | Master Thesis | Developmental Disabilities |
| Cate et al. (2002) | 544 | UK | Journal Article | Spina Bifida, Hydrocephalus |
| Darling and Gallagher (2004) | 120 | USA | Journal Article | Developmental Disabilities |
| Decker (2014) | 31 | USA | Dissertation | Epilepsy |
| Dell'Armi (2017) Study 1 | 270 | France | Dissertation | Autism Spectrum Disorders |
| Dell'Armi (2017) Study 2 | 110 | France | Dissertation | Autism Spectrum Disorders |
| Dunst et al. (1987) | 54 | USA | Research Report | Developmental Disabilities or Delays |
| Engstrand et al. (2020) | 120 | Sweden | Journal Article | Autism Spectrum Disorders |
| Farmer et al. (2004) | 83 | USA | Journal Article | Chronic Health Conditions |
| Glenn et al. (2008) | 80 | UK | Journal Article | Cerebral Palsy |
| Holliday (2011) | 56 | UK | Master Thesis | Epilepsy |
| Huus et al. (2017) | 38 | Sweden | Journal Article | Intellectual Disabilities |
| Kiami and Goodgold (2017) | 70 | USA | Journal Article | Autism Spectrum Disorders |
| Lee et al. (2016) | 303 | USA | Journal Article | Developmental Disabilities |
| Lee (2020) | 122 | Canada | Master Thesis | Down Syndrome |
| Marques and Dixe (2011) | 50 | Portugal | Journal Article | Autism Spectrum Disorders |
| Mishra and Sreedevi (2016) | 60 | India | Journal Article | Autism Spectrum Disorders |
| Newton (2006) | 105 | Canada | Master Thesis | Developmental Disabilities |
| Nitta et al. (2007) | 249 | Japan | Journal Article | Cerebral Palsy |
| O'Brien (1996) | 413 | USA | Journal Article | Behavioral Difficulties |
| Piskur et al. (2014) | 146 | Netherlands | Journal Article | Physical Disabilities |
| Reyes-Blanes et al. (1999) | 94 | USA | Journal Article | Developmental Disabilities |
| Shivers et al. (2017) | 193 | Canada | Journal Article | Autism Spectrum Disorders |
| | | Ireland | | |
| | | USA | | |
| Unger et al. (2001) | 104 | USA | Journal Article | Developmental Disabilities or Delays |
| Wagh and Ganaie (2014) | 30 | India | Journal Article | Intellectual Disabilities |
| Wang et al. (2016) | 104 | Taiwan | Journal Article | Oxygen Dependent |
| Wolf (2009) | 35 | USA | Master Thesis | Autism Spectrum Disorders |
| Yilmaz (2019) | 181 | Turkey | Journal Article | Developmental Disabilities |

^aCountry where data collection occurred.

Selected characteristics of the study participants are shown in Table 2. Mothers were the primary study participants in 25 studies (81%), grandmothers were the primary study participants in two studies (6%), and fathers were the primary study participants in one study (3%). Ninety percent of the study participants were mothers in 15 studies (48%) and 75 percent of the study participants were mothers in 22 studies (71%). Investigators of three studies described the study participants as parents but did not specify whether they were mothers or fathers.

The mean age of the study participants ranged between 28 and 65 years (Median = 38) in studies reporting age. The mean years of education completed by the study participants ranged between 7 and 17 years (Median = 14). The participants, on average, completed a high school or less than a high school education in four studies (22%), some post-high school education in 12 studies (67%), or a university education in two studies (11%). In those studies, including marital status, 75% or more of the study participants were married or living with a partner in 13 studies (72%).

The mean age of the participants' children ranged between 1.5 and 16 years (Median = 9). The children were preschoolers in 13 studies (42%), elementary-age children in 14 studies (45%), and high school age in four studies (13%). The age ranges of the participants' children were quite varied in eight studies (26%) where the age difference between the youngest and oldest children was between 15 and 31 years.

Table 2. Selected Characteristics of the Study Participants

| Study | Sample Size | Participant Characteristics ^b | | | | Child Age ^c | | |
|------------------------------|-------------|--|-------------------|------------------|---------------------|------------------------|------------------|-------------------|
| | | Primary Study Participants ^a | Percent of Sample | Mean Age (Years) | Mean Yrs. of School | Percent Married | Mean Age (Years) | Age Range (Years) |
| Ardic and Olcay (2021) | 273 | Mothers | 77 | 39 | 12 | NR ^d | 9 | 2-33 |
| Bertule and Vetra (2020) | 234 | Mothers | 93 | NR | 14 | 82 | 5 | 2-7 |
| Bobbitt et al. (2016) | 125 | Mothers | 69 | NR | 15 | 76 | 12 | <1-18+ |
| Carmo (2004) | 146 | Mothers | 86 | 32 | 7 | 81 | 4 | <1-5 |
| Cate et al. (2002) | 544 | Mothers | 97 | 38 | NR | 78 | 9 | 6-13 |
| Darling and Gallagher (2004) | 120 | Mothers | 79 | 33 | 14 | NR | 2 | <1-3 |
| Decker (2014) | 31 | Mothers | 100 | 46 | NR | 71 | 13 | 6-17 |
| Dell'Armi (2017) Study 1 | 270 | Mothers | 89 | 39 | NR | NR | 9 | 2-18 |
| Dell'Armi (2017) Study 2 | 110 | Mothers | 100 | 40 | NR | 78 | 9 | 2-18 |
| Dunst et al. (1987) | 54 | Mothers | 100 | 29 | 13 | NR | 4 | <1-10 |
| Engstrand et al. (2020) | 120 | Grandmothers | 64 | 65 | 15 | NR | 4 | 2-6 |
| Farmer et al. (2004) | 83 | Mothers | 94 | NR | NR | 51 | 7 | <1-17 |
| Glenn et al. (2008) | 80 | Mothers | 100 | 31 | 17 | 96 | 1.5 | <1-4 |
| Holliday (2011) | 56 | Mothers | 92 | 36 | 15 | 61 | 9 | <1-16 |
| Huus et al. (2017) | 38 | Mothers | 53 | NR | 13 | 68 | 13 | 7-17 |
| Kiami and Goodgold (2017) | 70 | Mother | 94 | NR | NR | NR | 10 | 4-14 |
| Lee et al. (2016) | 303 | Grandmothers | 63 | 52 | NR | NR | 7 | 1-18 |
| Lee (2020) | 122 | Mothers | 87 | 49 | 16 | 84 | 1.5 | <1-3 |
| Marques and Dixe (2011) | 50 | Parents | NR | 38 | 15 | NR | 10 | 3-18 |
| Mishra and Sreedevi (2016) | 60 | Parents | NR | 38 | 11 | NR | 10 | 3-18 |
| Newton (2006) | 105 | Mothers | 86 | 34 | 13 | 80 | 4 | <1-12 |
| Nitta et al. (2007) | 249 | Mothers | 100 | 41 | NR | NR | 12 | 6-18 |
| O'Brien (1996) | 413 | Mothers | 95 | 32 | NR | 99 | 2 | <1-3 |
| Piskur et al. (2014) | 146 | Mothers | 85 | 42 | 14 | 91 | 8 | 5-11 |
| Reyes-Blanes et al. (1999) | 94 | Mothers | 100 | 31 | 14 | 57 | 4 | <1-5 |
| Shivers et al. (2017) | 193 | Mothers | 89 | NR | NR | 74 | 16 | 7-25 |
| Unger et al. (2001) | 104 | Mothers | 91 | 28 | NR | 0 | 2 | <1-3.5 |
| Wagh and Ganaie (2014) | 30 | Parents | NR | 37 | NR | NR | 15 | 6-25 |
| Wang et al. (2016) | 104 | Fathers | 59 | 40 | 11 | 91 | 7 | 2-12 |
| Wolf (2009) | 35 | Mothers | 100 | NR | 14 | 86 | 4 | 1-10 |
| Yilmaz (2019) | 181 | Mothers | 100 | 37 | NR | NR | 9 | 2-17 |

Study Measures

Eight different family needs scales were used in the studies (Table 3). The *Family Needs Survey* was used in eight studies and adapted versions of the scale were used in an additional nine studies. The *Family Needs Scale* was used in three studies and an adapted version of the scale was used in one study. The *Family Needs Questionnaire* was used in two studies and an adapted version of the scale was used in one study. The *Family Needs Schedule* was used in one study and an adapted version of the scale was also used in one study. Investigators using adapted versions of these four scales provided different reasons for scale modifications. The other four family needs scales were each used in one study.

The internal consistency estimates (Coefficient Alpha) for the family needs scales were reported in 22 studies (71%). Investigators of 11 studies (35%) computed coefficient alpha for the study samples and investigators of 10 studies (32%) reported coefficient alpha for the original versions of the scale or that reported in another study. In all but one study, coefficient alpha was $>.80$.

Table 3. Family Needs Scale Measures Used in the Studies

| Family Needs Measures | Number of Studies | Number of Items | Coefficient Alpha ^a | Sources |
|--|-------------------|-----------------|--------------------------------|--|
| Family Needs Survey | 9 | 34-36 | .91 | Bailey and Simeonsson (1988); Bailey et al. (1992) |
| Family Needs Survey-Adapted Versions | 1 | 19 | NR | Marques and Dixe (2011) |
| | 1 | 24 | .77 | Yilmaz (2019) |
| | 1 | 29 | .83 | Ardic and Olcay (2021) |
| | 1 | 32 | NR | Carmo (2004) |
| | 1 | 32 | .94 | Cate et al. (2002) |
| | 1 | 33 | .93 | Engstrand et al. (2020) |
| | 1 | 41 | .82 | Bertule and Vetra (2020) |
| | 2 | 41 | .81 | Dell'Armi (2017) |
| Family Needs Scale | 3 | 41 | .95 | Dunst et al. (1987) |
| Family Needs Scale-Adapted Version | 1 | 23 | .93 | Unger et al. (2001) |
| Family Needs Questionnaire | 1 | 54 | .90 | Siklos and Kerns (2006) |
| Family Needs Questionnaire-Adapted Version | 1 | 40 | .93 | Brown et al. (2012) |
| | 1 | 67 | .95 | Wolf (2009) |
| Family Needs Schedule | 1 | 45 | NR | Peshawaria et al. (1995) |
| Family Needs Schedule-Adapted Version | 1 | 39 | NR | Wagh and Ganaie (2014) |
| Caregiver Needs Survey | 1 | 18 | NR | Bobbitt et al. (2016) |
| Family Needs Inventory-Pediatric Version | 1 | 148 | NR | Alsem et al. (2014) |
| Parent Needs Scale | 1 | 20 | NR | Seligman and Darling (1989) |
| Caregiver Needs Scale | 1 | 28 | .89 | Wang et al. (2016) |

^aReported by either the scale developers or in other studies of the psychometric properties of the scales.

Table 4 shows the measures that were used to assess parenting, family, and child functioning and the sources of the measures. The table also shows if higher scale scores index poor (negative) or healthy (positive) functioning. The majority of measures have been widely used and have well-established psychometric properties.

The four parenting measures were psychological health, parenting stress, parenting burden, and personal belief appraisals. The psychological health measures all had respondents make judgments of one or more dimensions or states of their mental health functioning (stress, anxiety, depression, well-being, or life satisfaction). The parenting stress measures assessed respondents' judgments of difficulties in parent-child relationships. The parenting burden measures assessed respondents' judgments of the strains and difficulties associated with caregiving responsibilities. The personal belief measures assessed parents' appraisals of their abilities to influence their parenting practices.

The three family measures were family coping strategies, family functioning, and family support. The family coping measures asked respondents to make judgments about the strategies used by the family to handle and adapt to stressful life events. The family functioning measures asked respondents to make judgments about different dimensions of family member interactions (communication, cohesiveness, adaptability, etc.). The family support measures asked respondents to make judgments about the helpfulness or availability of different sources of informal and formal social supports.

Table 4. Outcome Measures Used in the Family Needs Studies

| Outcome Measures | Higher Scores ^a | Sources | No. of Studies |
|--|----------------------------|----------------------------------|----------------|
| Psychological Health Measures | | | |
| Perceived Stress Scale | Negative | Cohen et al. (1983) | 3 |
| Distress Anxiety Stress Scale | Negative | Lovibond and Lovibond (1995) | 1 |
| General Health Questionnaire-12 | Negative | Goldberg and Hillier (1979) | 1 |
| Health and Well-Being Index | Positive | Dunst (1986) | 1 |
| Questionnaire on Resources and Stress-SF | Negative | Friedrich et al. (1983) | 1 |
| WHO Quality of Life Scale-Bref | Positive | World Health Organization (1996) | 1 |
| Parenting Stress Measures | | | |
| Parenting Stress Index-SF | Negative | Abidin (1995) | 5 |
| Parenting Stress Index | Negative | Abidin (1990) | 2 |
| Pediatric Inventory for Parents | Negative | Streisand et al. (2001) | 1 |

Table 4. Continued

| Outcome Measures | Higher Scores ^a | Sources | No. of Studies |
|---|----------------------------|---------------------------------|----------------|
| Caregiving Burden Measures | | | |
| Caregiver Strain Questionnaire | Negative | Brannan et al. (1997) | 1 |
| Child Health Questionnaire-Burden Subscale | Negative | Landgraf et al. (1999) | 1 |
| Family Impact of Childhood Disability Scale | Negative | Trute and Hiebert-Murphy (2002) | 1 |
| Impact on Family Scale | Negative | Stein and Riessman (1980) | 1 |
| Parenting Daily Hassles Scale | Negative | Crnic and Greenberg (1990) | 1 |
| Parenting Strain Index | Negative | Nakajima et al. (1999) | 1 |
| Strengths and Difficulties Scale | Negative | Goodman (1997) | 1 |
| Parenting Belief Measures | | | |
| Attitude Toward Parenting Scale | Positive | Wagh and Ganaie (2014) | 1 |
| Family Empowerment Scale | Positive | Koren et al. (1992) | 1 |
| Family Outcome Survey-Control Subscale | Positive | Bailey et al. (2011) | 1 |
| Parenting Efficacy Scale | Positive | Dunst et al. (2006) | 1 |
| Family Coping Measures | | | |
| Family Crisis Oriented Personal Evaluation Scale (F-COPE) | Positive | McCubbin et al. (2000) | 2 |
| Brief Coping Orientation to Problems Experienced Inventory (Brief COPE) | Positive | Carver (1997) | 1 |
| Coping Health Inventory for Parents | Positive | McCubbin (1991) | 1 |
| Family Functioning Measures | | | |
| Family Adaptability and Cohesion Evaluation Scale (FACES) | Positive | Olson et al. (1985) | 1 |
| Family Assessment Device | Negative | Miller et al. (1985) | 1 |
| Parental Burnout Scale | Negative | Ardic and Olcay (2021) | 1 |
| Family Support Measures | | | |
| Family Support Scale | Positive | Dunst et al. (1986) | 5 |
| Family Outcome Survey-Support Subscale | Positive | Bailey et al. (2011) | 1 |
| Network Relationship Inventory | Negative | Furman and Buhrmester (1985) | 1 |
| Social Support Index | Positive | McCubbin and Patterson (1982) | 1 |
| Child Functioning Measures | | | |
| Child Behavior Inventory | Negative | Eyberg and Ross (1978) | 1 |
| Child Behavior Problem Scale | Negative | Mishra and Sreedevi (2016) | 1 |
| Child Quality of Life Scale | Positive | Graham et al. (1997) | 1 |
| Functional Status Scale | Positive | Stein and Jessop (1990) | 1 |

^aHigher negative scores indicate poorer functioning and higher positive scores indicate better functioning.

Forest Plot Effect Size Data

The sizes of effect between the family needs scale measures and the outcome measures in each of the studies are included in the Appendix. The appendix shows the sample sizes in each study, the scale used to measure family needs, the number of family needs scale items, the scales used to measure the outcome measures, the effect size (correlations coefficients) for the relationships between family needs and the study outcomes, and the 95% confidence interval for the sizes of effect. The appendix also shows the correlations for which outcome measures were reversed so that the direction of effect was the same in each outcome category.

The direction of effects was the same in every study for every outcome measure. Larger numbers of family needs were associated with attenuated psychological functioning, increased parenting stress, more parenting burden, and poorer family functioning. Larger numbers of family needs were also associated with more negative parenting beliefs, less social support, and poorer child functioning.

A closer inspection of the effect size data found two outliers defined as sizes of effect outside the 95% confidence intervals for the average sizes of effect in an outcome measure category. This included the size of effect between family needs and parenting stress (Lee et al., 2016) and the size of effect between family needs and family support (Carmo, 2004). These two studies were excluded from all further analyses.

Publication Bias

Table 5 shows the publication bias results for each of the eight outcome measures. The observed and adjusted sizes of effect were identical for all of the measures. Neither the Egger regression test results nor the Begg Mazumber rank-order correlation test results were statistically significant. The findings indicated that there was no publication bias for any of the studies.

Table 5. Results of the Publication Bias Analyses

| Outcome Measures | Observed Average z | | Adjusted Average z | | Egger Regression Test | | Begg Mazumber Rank-Order Test | |
|----------------------|--------------------|----------|--------------------|----------|-----------------------|---------|-------------------------------|---------|
| | z | 95% CI | z | 95% CI | t-test | p-value | Z-test | p-value |
| Psychological Health | .33 | .26, .40 | .33 | .26, .40 | 1.29 | .250 | 0.74 | .458 |
| Parenting Stress | .49 | .39, .60 | .49 | .39, .60 | 0.30 | .780 | 0.30 | .764 |
| Parenting Burden | .45 | .38, .52 | .45 | .38, .52 | 0.02 | .990 | 0.75 | .453 |
| Parenting Beliefs | .31 | .04, .58 | .31 | .04, .58 | 0.57 | .620 | 0.68 | .497 |
| Family Measures | | | | | | | | |
| Family Coping | .28 | .13, .44 | .28 | .13, .44 | 0.03 | .980 | 0.68 | .497 |
| Family Functioning | .31 | .10, .52 | .31 | .10, .52 | 5.54 | .110 | 1.57 | .117 |
| Family Support | .30 | .21, .40 | .30 | .21, .40 | 0.49 | .640 | 0.45 | .652 |
| Child Measures | | | | | | | | |
| Child Functioning | .29 | .19, .38 | .29 | .19, .38 | 1.23 | .340 | 1.36 | .174 |

Note. z = Fisher's transformation of the correlation coefficients.

Meta-Analysis Findings

The results from the meta-analysis of the relationships between family needs and the parenting, family, and child functioning measures are shown in Table 6. The sizes of effects for each outcome measure were all statistically significant as evidenced by the Z-test results and confidence intervals not including zero. Greater numbers of family needs were associated with poorer psychological health, more parenting stress, more parenting burden, poorer family coping strategies, poorer family functioning, less informal and formal family supports, and poorer child functioning.

The indices for the heterogeneity of effect sizes for each outcome measure indicated, except for parenting burden, that there was minimal variability in the sizes of effects for the studies for each of the parenting, family, and child measures. I^2 for four of the outcome measures (parenting beliefs, family coping, family functioning, and family support) showed that all of the variability in the size of effects for each measure was due to sampling error rather than between-study differences. All eight indices, however, need to be interpreted with caution given the small number of studies for each outcome measure.

Table 6. Average Weighted Effect Sizes for the Relationships Between the Family Needs Measures and Parenting, Family and Child Functioning

| Study Outcome Measures | k | N | r | 95% CI | Z-Test | p-value | I^2 |
|---------------------------|---|------|-----|----------|--------|---------|-------|
| Parenting Measures | | | | | | | |
| Psychological Health | 8 | 1182 | .33 | .25, .40 | 9.44 | .000 | 30 |
| Parenting Stress | 7 | 554 | .46 | .33, .57 | 8.15 | .000 | 54 |
| Parenting Burden | 7 | 1199 | .42 | .26, .56 | 5.97 | .000 | 86 |
| Parenting Beliefs | 4 | 152 | .30 | .04, .52 | 3.63 | .000 | 1 |
| Family Measures | | | | | | | |
| Family Coping | 4 | 435 | .28 | .15, .39 | 6.95 | .000 | 0 |
| Family Functioning | 3 | 427 | .30 | .11, .48 | 6.57 | .000 | 0 |
| Family Support | 7 | 701 | .30 | .22, .36 | 9.55 | .000 | 0 |
| Child Measures | | | | | | | |
| Behavior Functioning | 4 | 1100 | .28 | .17, .38 | 8.00 | .000 | 14 |

Notes. k = Number of studies, N = Number of study participants, r = Average, weighted effect size, and CI = Confidence interval.

Between Outcome Measures Comparisons

The sizes of effect ranged between .28 and .33 for six family member outcome measures (psychological health, parenting beliefs, family coping, family functioning, family support, and child functioning) and were .42 and .46 for two parenting outcome measures (parenting stress and parenting burden). The latter two sizes of effect were not statistically different, $Q_B = 0.20$, $df = 1$, 12 , $p = .657$. The sizes of effect for the other family member outcome measures were also not statistically different, $Q_B = 1.37$, $df = 5$, 24 , $p = .928$.

The sizes of effect for these two sets of measures were $r = .44$, 95% CI = .40, .48, $k = 14$, $N = 1753$, $Z\text{-test} = 9.98$, $p = .000$, for parenting stress and burden and $r = .30$, 95% CI = .28, .31, $k = 30$, $N = 3997$, $Z\text{-test} = 20.11$, $p = .000$, for the six other family member outcome measures. These two sizes of effect differed significantly, $Q_B = 8.66$, $df = 1, 42$, $p = .003$. The size of effect between family needs and parenting stress and burden was larger than the size of effect between family needs and the other family member functioning outcome measures.

Moderator Analyses

The moderator analyses were done for the parenting stress and burden measures combined and the other family member measures combined since the sizes of effect for these two sets of measures were different. The moderators of interest were child condition (autism spectrum disorders, developmental disabilities and delays, and medical conditions), child age, study quality, and the number of family needs scale items used to compute total scale scores.

Table 7 shows the results for the child condition analyses. The sizes of effects for both sets of outcome measures were statistically significant for each of the three groups of children. Study participants who reported more family needs also reported (a) more parenting stress and burden and (b) poorer family member functioning. Comparisons of the sizes of effects for the two sets of outcome measures showed there was a between child condition group difference for parenting stress and burden, $Q_B = 18.94$, $df = 2, 11$, $p = .000$, but not for the family member functioning, $Q_B = 1.88$, $df = 2, 27$, $p = .391$. The size of effect between family needs and both parenting stress and burden was larger for the parents of children with medical conditions compared to the other two groups of parents.

The effects of child age, study quality, and the number of family needs scale items on the relationship between family needs and the parenting and family member functioning measures are shown in Table 8. Child age and study quality moderated the relationships with parenting stress and burden but not with the family member functioning measures. The sizes of effect between family needs and parenting burden was larger in households with older children. In contrast, the sizes of effect between family needs and both parenting stress and burden was smaller as study quality increased.

Table 7. Average Weighted Effect Sizes for the Relationships Between the Family Needs Measures and the Outcome Measures for Three Different Groups of Children

| Study Outcome Measures | k | N | r | 95% CI | Z-Test | p-value | I ² |
|--|----|------|-----|----------|--------|---------|----------------|
| Parenting Stress and Burden | | | | | | | |
| Autism Spectrum Disorders | 5 | 528 | .37 | .20, .51 | 6.01 | .000 | 45 |
| Developmental Disabilities and Delays | 3 | 622 | .33 | .19, .45 | 9.84 | .000 | 0 |
| Medical Conditions | 6 | 603 | .57 | .46, .65 | 11.86 | .000 | 41 |
| Family Member Functioning^a | | | | | | | |
| Autism Spectrum Disorders | 8 | 1016 | .31 | .24, .38 | 10.55 | .000 | 0 |
| Developmental Disabilities and Delays | 13 | 1473 | .27 | .23, .31 | 13.64 | .000 | 0 |
| Medical Conditions | 9 | 1508 | .32 | .25, .39 | 10.14 | .000 | 27 |

NOTES. k = Number of studies, N = Number of study participants, r = Average, weighted effect size, and CI = Confidence interval.

^aFamily member functioning measures include psychological health, parenting beliefs, family coping, family functioning, social support, and child functioning.

The effects of child age, study quality, and number of family needs scale items on the relationship between family needs and the parenting and family member functioning measures are shown in Table 8. Child age and study quality moderated the relationships with parenting stress and burden but not with the family member functioning measures. The size of effect between family needs and parenting burden was larger in households with older children. In contrast, the size of effect between family needs and parenting stress and burden was smaller as study quality increased.

The number of family needs scale items moderated the relationship with family member functioning but not parenting stress and burden. The sizes of effect between family needs and family member functioning became larger as the number of family needs scale items increased.

Table 8. Moderators of the Relationships Between Family Needs and the Study Outcomes

| Moderators/Outcome Measures | β | R ² | Z-Value | p-value |
|---|---------|----------------|---------|---------|
| Child Age | | | | |
| Parenting Stress and Burden | .43 | 18 | 3.22 | .001 |
| Family Member Functioning | .03 | <1 | 0.13 | .897 |
| Study Quality | | | | |
| Parenting Stress and Burden | -.31 | 9 | 2.30 | .021 |
| Family Member Functioning | -.07 | <1 | 0.07 | .737 |
| Number of Family Needs Scale Items | | | | |
| Parenting Stress and Burden | .21 | 4 | 1.59 | .112 |
| Family Member Functioning | .43 | 19 | 2.23 | .026 |

Notes. β^2 is the standardized regression coefficient for the moderator effects. R² is the amount of variance accounted for in the relationship between family needs and the outcome measures by the moderator variables.

Discussion

Results reported in this paper showed that family needs were related to different dimensions of parent, family, and child functioning. Large numbers of unmet family needs were related to poorer family and family member functioning and small numbers of unmet family needs were related to positive family and family member functioning. Family needs behaved in the same way as individual needs in explaining variations in different dimensions of personal health and functioning (e.g., Ng et al., 2012; Patrick et al., 2007; Stanley et al., 2021). The results from the research synthesis build upon findings in previous systematic reviews and meta-analyses by showing how family needs are related to family and child functioning in addition to personal (parent) functioning.

The strength of the relationships between family needs and family and family member functioning was, however, not the same. There was more covariation between family needs and parenting stress and burden than between family needs and other outcome measures (psychological health, family coping, family functioning, family support, and child functioning). Parenting stress and burden were more negatively affected by large numbers of unmet needs compared to the other outcome measures. The moderator analyses found that the relationship between family needs and parenting stress and burden was more pronounced among parents of children with various medical conditions (Table 7) and parents of older children (Table 8). Whereas family needs were related to all eight dimensions of family and family member functioning that were the focus of investigation in the primary studies (Table 6), family needs had a more potent effect on parenting stress and burden.

Taken together, the results provide support for the contention that family needs are one family system variable that is an important covariate of family and family member health-related functioning (Broderick, 1993; Johnson & Ray, 2016). Other family systems variables found to be related to variations in family and family member health-related functioning in other meta-analyses include family resources, family hardiness, family strengths, and family and social supports (e.g., Dunst, 2021b, 2021c, 2021d; Dunst et al., 1997, 2021). The pattern of results in these meta-analyses is consistent with basic tenets of the family system intervention model that guided the conduct of the research synthesis described in this paper (Dunst, 2017).

The types of family needs that were included on the family needs scales in the studies in the research synthesis were quite varied and included, but were not limited to, basic needs (e.g., food and shelter), financial needs (e.g., good-paying job and the ability to pay monthly bills), health care needs (e.g., medical and dental), child care needs (e.g., babysitting or daycare), time availability (e.g., time to spend together as a family), social support needs (e.g., family and friends), informational needs (e.g., information about a child's condition or services), specialized child needs (e.g., wheelchair or medical treatment), and specialized services (e.g., early childhood intervention or special education) (see especially Siebes et al., 2012). Large numbers of unmet family needs in these as well as other needs categories constitute a special case of the type of pile-up effect described by Lavee et al. (1985) as stressful life events that have negative consequences on family and family member functioning. The family needs scales used in the studies in the research synthesis, and the total scale scores used to index unmet family needs, captured this type of family pile-up effect.

Conclusion

Contemporary family systems theories and models (e.g., Johnson & Ray, 2016; Kerig, 2019; Olson et al., 2019) include a focus on the intra-family and extra-family factors that contribute to healthy positive family and family member functioning. Unmet family needs were found to be an important covariate of family and family member functioning. Family systems intervention models (e.g., Dunst, 2017; Hartman & Laird, 1983; Hobbs et al., 1984) include the identification of unmet family needs as a first step for mobilization of the resources and supports to address those needs to strengthen family and family member functioning. Results from the systematic review and meta-analysis provide

empirical support for the contention that mobilization of resources and support to meet family needs will have positive effects on family and family member functioning.

Recommendations

One finding from the research synthesis points to a need for better-designed and implemented studies of family needs. Previous meta-analyses of family systems intervention model variables found little variation in the quality of the studies in those meta-analyses. This was not the case in the systematic review and meta-analysis described in this paper. Study quality was found to moderate the relationship between family needs and parenting stress and well-being (Table 8). Investigators that did not use psychometrically sound family needs scales and/or used investigator-developed outcome measures without assessing the internal consistency estimates of the scales tended to yield larger sizes of effects. Further family needs studies should include family needs scales of known psychometric properties and outcome measures also of known psychometric properties to ensure the reliability and validity of the study results.

Other meta-analyses of family systems intervention variables yielded results that subdomains of family resources, strengths, and social supports are differentially related to the outcomes in those research syntheses (Dunst, 2021a, 2021e, in press). Meta-analyses of whether this is the case in family needs studies are warranted to determine if different types of family needs are differently related to different dimensions of family and family member functioning. Several different meta-analyses could be conducted. For example, different subsets of family needs could be related to different dimensions of parent health and well-being as was done in other meta-analyses (see e.g., Dunst, 2021a, 2021e). In addition, different subsets of family needs could be related to different types of parenting health and well-being (see e.g., Dunst, in press). Results for these types of meta-analyses would provide evidence about which types of family needs are related to which types of parent, family, and child functioning.

Limitations

There are three limitations of the systematic review and meta-analysis that deserve comment. First, the data for the relationships between family needs and family and family member functioning are correlational. Consequently, causal statements about the relationships between the independent and dependent variables may not be warranted. Second, the number of sizes of effects between family needs and each of the different outcome measures were all less than 10 (Table 6). The average effect sizes may therefore not be adequate estimates of the relationships between measures. Third, and unlike other meta-analyses in this line of research, few studies used the same outcome scales in each of the outcome categories that were the focus of investigation (Table 4) except for the *Parenting Stress Index* (Abidin, 1990, 1995). This may have contributed to bias in the effect size aggregation.

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Appendix. Forest Plot Data for the Relationships Between Family Needs and the Different Dimensions of Parenting, Family and Child Functioning

| Family Member Measures | N | Family Needs Measures^a | No. Items | Outcome Measures^b | r | 95% CI^d | |
|-------------------------------|----------|--|------------------|---|----------|---------------------------|-----------|
| | | | | | | LL | UL |
| Psychological Health | | | | | | | |
| Bertule and Vetra (2021) | 234 | Family Needs Survey | 41 | Perceived Stress Scale | .33 | .21 | .44 |
| Bobbitt et al. (2016) | 125 | Caregiver Needs Survey | 18 | Perceived Stress Scale | .41 | .25 | .55 |
| Dell'Armi (2017) Study 1 | 270 | Family Needs Survey-AV | 41 | WHO Quality of Life-Bref (R) ^c | .28 | .17 | .39 |
| Dunst et al. (1987) | 54 | Family Needs Scale | 41 | Health and Well-Being Index (R) | .42 | .17 | .62 |
| Lee (2020) | 122 | Family Needs Survey | 35 | Ques. Resources and Stress-SF | .28 | .11 | .44 |
| Marques and Dixe (2011) | 50 | Family Needs Survey-AV | 19 | Distress Anxiety Stress Scale | .40 | .13 | .61 |
| Piskur et al. (2014) | 146 | Family Needs Inventory | 148 | General Health Questionnaire-12 | .44 | .30 | .56 |
| Yilmaz (2019) | 181 | Family Needs Survey-AV | 24 | Perceived Stress Scale | .18 | .03 | .32 |
| Parenting Stress | | | | | | | |
| Glenn et al. (2008) | 80 | Family Needs Survey | 34 | Parenting Stress Index | .58 | .41 | .71 |
| Holliday (2011) | 56 | Family Needs Survey | 35 | Pediatric Inventory for Parents | .40 | .15 | .40 |
| Kiami and Goodgold (2017) | 70 | Family Needs Questionnaire | 54 | Parenting Stress Index-SF | .53 | .33 | .68 |
| Lee et al. (2016) | 303 | Family Needs Scale | 41 | Parenting Stress index-SF | .03 | -.08 | .14 |
| Newton (2006) | 105 | Family Needs Survey | 35 | Parenting Stress Index-SF | .24 | .05 | .41 |
| Unger et al. (2001) | 104 | Family Needs Scale-AV | 23 | Parenting Stress Index-SF | .39 | .21 | .54 |
| Wang et al. (2016) | 104 | Caregiver Needs Scale | 28 | Parenting Stress Index | .58 | .43 | .70 |
| Wolf (2009) | 35 | Family Needs Questionnaire-AV | 67 | Parenting Stress Index-SF | .46 | .14 | .69 |
| Parenting Burden | | | | | | | |
| Decker (2014) | 31 | Family Needs Survey | 35 | Child Health Questionnaire (R) | .50 | .16 | .73 |
| Dell'Armi (2017) Study 2 | 110 | Family Needs Survey-AV | 41 | Family Impact of Disability Scale | .25 | .06 | .42 |
| Engstrand et al. (2020) | 120 | Family Needs Survey-AV | 33 | Strengths and Difficulties Scale | .25 | .07 | .41 |
| Farmer et al. (2004) | 83 | Family Needs Survey | 35 | Impact on Family Scale | .50 | .32 | .65 |
| Nitta et al. (2007) | 249 | Family Needs Survey | 34 | Parenting Strain Index | .66 | .58 | .73 |
| O'Brien (1996) | 413 | Parent Needs Survey | 20 | Parenting Daily Hassles Scale | .33 | .24 | .41 |
| Shivers et al. (2017) | 193 | Family Needs Questionnaire-AV | 40 | Caregiver Stain Questionnaire | .40 | .27 | .51 |
| Parenting Beliefs | | | | | | | |
| Decker (2014) | 31 | Family Needs Survey | 35 | Family Empowerment Scale | -.11 | -.46 | .27 |
| Dunst et al. (1987) | 54 | Family Needs Scale | 41 | Parenting Efficacy Scale | -.40 | -.61 | -.14 |
| Huss et al. (2017) | 38 | Family Needs Survey | 36 | FOS-Perceived Control Subscale | -.18 | -.48 | .16 |
| Wagh and Ganaie (2014) | 30 | Family Needs Schedule-AV | 39 | Attitude Toward Parenting Scale (R) | -.44 | -.70 | -.08 |
| Family Coping | | | | | | | |
| Kiami and Goodgold (2017) | 70 | Family Needs Questionnaire | 54 | Coping Health Inventory | -.40 | -.58 | -.18 |
| Lee (2020) | 122 | Family Needs Survey | 35 | F-COPES | -.23 | -.39 | -.05 |
| Marques and Dixe (2011) | 50 | Family Needs Survey-AV | 19 | F-COPES | -.18 | -.44 | .11 |
| Shivers et al. (2017) | 193 | Family Needs Questionnaire-AV | 40 | Brief COPE | -.28 | -.41 | -.14 |

Appendix. continued

| Outcome Measures | N | Family Needs Measures | No. Items | Outcome Measures | r | 95% CI | |
|------------------------------|-----|------------------------|-----------|------------------------------------|------|--------|------|
| | | | | | | LL | UL |
| Family Functioning | | | | | | | |
| Ardic and Olcay (2021) | 273 | Family Needs Survey-AV | 29 | Parental Burnout Scale | .34 | .23 | .44 |
| Marques and Dixe (2011) | 50 | Family Needs Survey-AV | 19 | FACES | .14 | -.15 | .41 |
| Unger et al. (2011) | 104 | Family Needs Scale-AV | 23 | Family Assessment Device (R) | .28 | .09 | .45 |
| Family Support | | | | | | | |
| Bertule and Verta (2020) | 234 | Family Needs Survey | 41 | Family Support Scale | -.35 | -.46 | -.23 |
| Carmo (2004) | 146 | Family Needs Survey-AV | 32 | Family Support Scale | -.05 | -.21 | .11 |
| Darling and Gallagher (2004) | 120 | Family Needs Scale | 41 | Family Support Scale | -.32 | -.47 | -.15 |
| Decker (2014) | 31 | Family Needs Survey | 35 | Social Support Index | -.46 | -.71 | -.11 |
| Farmer et al. (2004) | 80 | Family Needs Survey | 35 | Family Support Scale | -.22 | -.42 | .00 |
| Huss et al. (2017) | 38 | Family Needs Survey | 36 | FOS-Social Support Subscale | -.20 | -.50 | .14 |
| Reyes-Blanes et al. (2019) | 94 | Family Needs Survey | 35 | Family Support Scale | -.28 | -.46 | -.08 |
| Unger et al. (2011) | 104 | Family Needs Scale-AV | 23 | Network Relationship Inventory (R) | -.19 | -.37 | .01 |
| Child Functioning | | | | | | | |
| Cate et al. (2002) | 544 | Family Needs Survey-AV | 32 | Child Quality of Life Scale | -.25 | -.33 | -.17 |
| Farmer et al. (2004) | 83 | Family Needs Survey | 35 | Functional Status Scale | -.25 | -.44 | -.03 |
| Mishra and Sreedevi (2016) | 60 | Family Needs Schedule | 45 | Child Behavior Problem Scale (R) | -.47 | -.65 | -.24 |
| O'Brien (1996) | 413 | Parent Needs Scale | 20 | Child Behavior Inventory (R) | -.29 | -.38 | -.20 |

NOTE. AV = Adapted version.

^aFamily Needs Survey (Bailey and Simeonsson, 1988; Bailey et al., 1992), Family Needs Scale (Dunst et al., 1987), Family Needs Questionnaire (Siklos and Kerns, 2006), Family Needs Schedule (Peshawaria et al., 1995), Caregiver Needs Survey (Bobbitt et al., 2016), Family Needs Inventory-Pediatric Version (Alsem et al., 2013), Parent Needs Scale (Seligman and Darling, 1989), and Caregiver Needs Scale (Wang et al., 2016).

^bSee Table 3 for the sources of each of the outcome measures.

^cCI = Confidence interval, LL = Lower confidence interval, and UL = Upper confidence interval.