



## SELF-EFFICACY IN PARENTS OF CHILDREN WITH SPECIAL NEEDS: A STATE-OF-THE-ART REVIEW OF RESEARCH AND IMPLICATIONS

Noora Ronkainen<sup>i</sup>,

Satu Uusiautti,

Tanja Äärelä

University of Lapland,

Finland

### Abstract:

Research on self-efficacy in parents who have children with special needs appears fragmented and relatively scarce. The purpose of the research was to analyze (1) how the self-efficacy of parents who have children with special needs has been researched in 2000-2020 and (2) what implications the research provides to support parents' self-efficacy. This was a state-of-the-art review in which a total of 23 articles were selected (n=10 from EBSCO and n=13 from ScienceDirect). The data were analyzed with the method of qualitative content analysis. For the research question 1, three upper categories were formed: Self-efficacy from the perspective of the parent's well-being; Self-efficacy in relation to the child; and Self-efficacy in relation to the support offered to parents. For the research question 2, all articles (n=21) that included any implications were used for answering this question. Implications were categorized into Social support and services; Support for parents' well-being; and Knowledge and skills offered to parents. Based on the analysis more research is needed about the connection between perceived well-being and self-efficacy from the parents' own perspective. Cognitive-behavioral therapeutic interventions would be beneficial for parents who find their child's behavior challenging. They also need continuous access to behavioral therapeutic methods.

**Keywords:** state-of-the-art-review; children with special needs, parent self-efficacy, parenting

### 1. Introduction

Every parent will sometimes face the question of whether he or she can meet the child's needs, provide sufficient support to the child's development. Indeed, parents' self-efficacy beliefs can have a significant impact on the parents' perceived quality of family

---

<sup>i</sup> Correspondence: email [noronkai@ulapland.fi](mailto:noronkai@ulapland.fi)

life and upbringing children receive (Miller, 2016). Being a parent to a child with special needs can be challenging from the perspective of parenting self-efficacy (Gilmore & Cuskelly, 2012; Rezendes & Scarpa, 2011). However, research on self-efficacy in parents who have children with special needs appears fragmented and relatively scarce when compared to for example self-efficacy research among children and youth (Britner & Pajares, 2006; Butz & Usher, 2012; Usher et al., 2018). The purpose of this research is to analyze what has been studied and how about the self-efficacy in parents of children with special needs and what kind of implications these studies have produced. It is important to compile information about the support measures and needs for further analysis and development. This research represents a systematic state-of-the-art review as it aims to bring out the level of current research and point out gaps in research-based knowledge.

As the theoretical framework of this research, Parenting Self-Efficacy (PSE) means the parent's own assessment of the ability to perform the assigned task. Parenthood's self-efficacy is also linked to how a parent evaluates his or her ability to have a positive influence on the behavior and development of a child (Coleman & Karraker, 1997). Parental self-efficacy, mental health, and self-worth are related to how he or she is able to offer his or her child love and support (Asmussen, 2011). Parents who feel that they are receiving outside help and encouragement may feel more able to perform more challenging parenting tasks, as they feel they do not have to do it alone (Smart, 2016). The stress experienced by parents can be linked to parenting self-efficacy. Parents with high self-efficacy are better able to face challenges and are able to apply parenting skills in difficult circumstances (Bandura, 1993; Miller, 2016). High parenting self-efficacy is likely to benefit parents whose child has challenging behaviors or temperament. High parenting self-efficacy offers parents patience and perseverance (Smart, 2016).

Based on our initial screening of earlier research, parenting self-efficacy has been researched widely, for example from the perspectives of especially mothers, new parents, and children's well-being (see e.g., Albanese, Russo, & Geller, 2019; Chau & Giallo, 2014; Coleman & Karraker, 2000; Pritham, Chang, & Chiu, 2008; Secer et al., 2012; Mouton et al., 2018). However, research on self-efficacy in parents of children with special needs has been fragmented (Hohlfield, Harty, & Engel, 2018; Ronkainen & Ratinen, 2020).

According to Bandura (1997a), self-efficacy means a human-being's perception of his or her ability to act and influence in situations taking place in their lives. These beliefs of one's efficacy can influence the level of performance in various situations and become crucial when making important decisions in life (Pajares, 2005). People approach and try to analyze situations based on their evaluations of their abilities and capabilities, but tend to avoid events that they perceive as stressful or overwhelming compared to their perceived resources (Bandura, 1977b). Self-efficacy is a state that is situational and based on one's beliefs but that can be molded (Margolis & McCabe, 2004). Bandura (1977b) distinguished four areas that are central to how one's self-efficacy is molded: mastery experience, vicarious experience, social persuasion, and physiological and affective states. Each of them transmits information about one's efficacy (Bandura, 1997b).

There are numerous ways of defining special needs, but the fundamental principle in the Finnish school system is that children should learn together regardless of any difficulties or differences they may have, and have the support they need, in mainstream classes. The Centers for Disease Control and Prevention (CDC) defines children with special needs as follows: children who have physical, developmental, behavioral, or emotional conditions that require more help and support than typically developing children. Children with special needs may require individualized education programs or plans to help them succeed in school (Centers for Disease Control and Prevention.) In this research, we understand the concept widely, so that it comprises for instance children with neurological, developmental, psychological, or behavioral differences, and health issues. The reason for this is that in the Finnish school system, the concept of special needs is being used relatively widely. It is not, for example, limited to just handicapped or mental disabilities but also all the other conditions that cause the need for support. However, the focus is on those parents whose children have long-term or permanent special needs and disabilities.

The challenges of a child, such as continuous health problems, can affect the parent's self-efficacy. Depending on the level of parental self-efficacy, some parents can handle these challenges, for some they cause stress (Bandura, 1997). Bandura noted that people with low self-efficacy are at higher risk of stress and depression. This is explained by the fact that a parent feels that he or she is unable to control what is happening in his or her life, they are more likely to dwell on their coping deficiencies. They feel that, while others can control the events of their lives, they cannot (Asmussen, 2011).

It seems likely that if the child has needs for support that influences everyday life, the level of parenting self-efficacy can decrease alongside the increase of parental stress (Hastings, 2009; Loui, Cromer, & Berry, 2017; Smith, Oliver, & Innocenti, 2010), especially if parents do not receive enough support for their parenting task (Hsiao, 2018; Koeske & Koeske, 1990). If parents perceive their family life and parenting stressful, their experiences of coping are threatened (Hsiao, 2018). Physiological and emotional conditions, such as stress together with emotions, provide information on a parent's self-efficacy beliefs. For example, optimism strengthens self-efficacy beliefs, while despair weakens them (Pajares, 2005). If a parent has experienced stress or anxiety in certain situations, for example, it may affect his or her task-specific goal-setting or cause him or her to avoid situations in which he or she has experienced such feelings (Benedetto & Ingrassia, 2018).

## **2. Method**

The following research questions were set for this research:

- 1) What is the research evidence of 2000-2021 related to the self-efficacy of parents of children with special needs? and
- 2) What implications does the research provide in order to support parents' self-efficacy?

This was a systematic state-of-the-art review (Wee & Banister, 2015). In studies like the one at hand, the theoretical framework is used for defining the core concepts, which in this research were “parenting self-efficacy” and “children with special needs”. In this study, the state-of-the-art literature review has been understood in such a way that it highlights the current situation of the topic being studied, in this case, parenting self-efficacy with a special focus on parents who have children with special needs, and highlights what kind of research is needed. Grant and Booth (2009) look at the state-of-the-art literature review from a different perspective, as they distinguish it from systematic review, meta-analysis, or mapping. They define the state-of-the-art literature review as a method that seeks to address current issues on the topic, rather than combining past and present approaches, as well as seeking to provide new perspectives for further research. While meta-analysis combines the results of quantitative studies and mapping categorizes existing literature and research, the state-of-the-art review includes recent qualitative and quantitative research (Grant & Booth, 2009). When compared to a systematic review that aims to provide a comprehensive analysis and synthesis of the research evidence, the state-of-the-art review can be considered more focused on finding priorities for future research (Grant & Booth, 2009). The method also provides the researcher with the opportunity to choose what kind of articles he will choose for analysis, decide on their number, as well as identify their main features (Grant & Booth, 2009).

This study also followed the phases of Fink’s (2010) literature review: setting research questions, selecting bibliography databases and web pages, setting practical criteria from selection, setting methodological criteria for selection, conducting a review, as well as conducting a synthesis of the results through a descriptive review or meta-analysis.

The study looked for articles on the self-efficacy of parents of children with special needs from two databases selected based on the emphasis on educational science. The databases chosen were EBSCO (Academic Search Elite) and ScienceDirect (Elsevier). Articles were selected as material based on the following criteria: (1) research is original research (quantitative and qualitative research designs were accepted without limitation to any specific ages or gender neither among children or parents involved); (2) the study was published between 2000 and 2021; (3) the study was peer-reviewed; and (4) electronic publication only. Review and theoretical articles were excluded.

Several searches were performed in both databases. After each search, articles that met the original criteria and did not come up in earlier search rounds were included in the data. Therefore, the data accumulated as follows:

The EBSCO search progressed through seven rounds of searches in which the search words were changed and different combinations tested:

- 1) Parenthood, parents, parenting, children with disabilities or special needs, and self-efficacy. Two articles included.
- 2) Parenthood, parents, parenting, autism or ASD or autism spectrum disorder, and self-efficacy. Six articles included.

- 3) Parental self-efficacy and children with disabilities or special needs. One article included.
- 4) Parenthood, parents, parenting, self-efficacy, and autism or ASD or autism spectrum disorder or Asperger's or Asperger's syndrome or autistic disorder or Aspergers. Five new articles included.
- 5) Parenting efficacy and children with disabilities or special needs. Four articles included.
- 6) Parenthood or parenting, self-efficacy, and children with Down syndrome or ADHD. Three articles included.
- 7) Parenting efficacy and children with ADHD or Down syndrome. Two articles included.

The Science Direct search was performed next. Due to cross-referencing between these databases, some articles that were found in EBSCO, were also found in Science Direct. The Science Direct search included five rounds:

- 1) Parenting efficacy and children with disabilities or children with special needs. Twelve articles included.
- 2) Parenting self-efficacy and children with disabilities. Seven articles included.
- 3) Parenting self-efficacy and children with special needs. Two articles included.
- 4) Parenting self-efficacy and children with autism. Five articles included.
- 5) Parenting self-efficacy and children with ADHD. One article included.

In total, 23 articles were selected (n=10 from EBSCO and n=13 from ScienceDirect). From these, 20 articles provided information for the analysis of the first research question, while 21 provided answers to the second research question. All articles that were included in the data are listed, numbered, and described briefly in Appendix and marked with information on whether they were used for RQ1 or RQ2 or both.

Qualitative content analysis was selected as the method for analysis (Schreier, 2021). Content analysis is textual analysis, in which the aim is to organize the data into concise and clear content without losing the information it contains. This method of analysis seemed appropriate because the purpose of the study was to create a description of how the self-efficacy of parents of children with special needs had been studied in previous studies and what suggestions were made for their support.

First, the units of analysis were defined, which in this study were, for example, words and subject areas, followed by the data reduction phase (all irrelevant things were eliminated). After that, the data classification phase started, forming the upper and lower classes of the study. First, the data were classified based on the research method into quantitative, qualitative, and mixed-methods research.

As a result of the analysis of the first research question, three upper categories were formed, in which the datasets were placed: Self-efficacy from the perspective of the parent's well-being; Self-efficacy in relation to the child; and Self-efficacy in relation to the support offered to parents. These upper classes were further divided into subcategories, depending on how and what had been studied in the studies. Table 1 illustrates how the categories emerged from the articles.

**Table 1: Results Categories for the First Research Question**

Upper Categories	Subcategories	Articles Included in the Category (as numbered in the Appendix)
1. Self-efficacy from the Perspective of the Parent's Well-being	A. Parent's resources	2; 8; 15; 18.
	B. Factors that challenge well-being	9;16; 21.
2. Self-efficacy in Relation to the Child	C. The challenging behavior of the child	12; 14; 19.
	D. The child's developmental challenges	5; 10; 13.
	E. Parental involvement	17; 20.
4. Self-efficacy in Relation to the Support Offered to Parents	F. Parents' self-efficacy and the support offered to them for parenting	1; 3; 4; 22; 23.

In the next phase of the analysis (regarding research question 2), the articles were re-read for implications presented based on the research. All articles (n= 21) that included any implications were used for answering this question. Implications were categorized into three main categories that were Social support and services; Support for parents' well-being; and Knowledge and skills offered to parents. Table 2 illustrates how the categories emerged from the articles.

**Table 2: Results Categories for the Second Research Question**

Categories	Articles Included in the Category (as numbered in the Appendix)
1. Social Support and Services	14; 17; 21.
2. Support for Parents' Well-being	2; 6; 7; 9; 15.
3. Knowledge and Skills Offered to Parents	1; 3; 4; 8; 11; 12; 13; 16; 18; 19; 20; 22; 23.

### 3. Findings

#### 3.1 Overview of research on the self-efficacy in parents of children with special needs

##### 3.1.1 Self-efficacy from the perspective of the parent's well-being

From the perspective of a parent's well-being, the articles presented research on the parent's resources, first of all, as part of self-efficacy. In their study, Mas et al. (2019) looked at whether the results of the study conducted in North America could be replicated in Spain. In the study, parents' self-efficacy was examined from the perspective of psychological well-being and family-oriented practices. In addition to the parents' self-efficacy, attention was paid to the parents' self-confidence and competence beliefs. The Family-Centered Practices Scale; self-efficacy beliefs; parenting competence and confidence beliefs and psychological well-being. Conti (2015) examined in his study similarly to Mas et al. (2019), parents' self-efficacy from the perspective of self-image and compassion, especially through educational goals. Mas et al.'s (2019) study consisted of two sub-studies, the first of which looked at the satisfaction experienced by parents and their experiences of the meaning of life, and the second of which assessed the self-efficacy of parents. Both Conti (2015) and Mas et al. (2019) used a measure for parent's

competence. In the first sub-study of Conti (2015), the following measures were used: the Satisfaction with Life Scale (SWLS); the Meaning in Life Questionnaire (MLQ); the Kansas Family Life Satisfaction Scale (KFLS), and the Parenting Goal Questionnaire (PGQ).

Schrott et al. (2018) as well as Hodgetts, Savage, and McConnell (2013), both used the Stepping Stones Triple P (SSTP) program intervention in their studies. SSTP is a structured intervention, but its plans are identified to suit each family's own goals and circumstances. The objectives of the SSTP are as follows: (1) To increase the parent's competence in managing the child's disruptive behavior, (2) to reduce negative parental behavior, (3) to improve parental well-being by promoting coping and reducing stress, (4) to improve parents' relationship with parenting issues and roles, and (5) to improve parents' problem-solving skills (Hodgetts et al., 2013). The aim of the SSTP intervention is therefore to have a very comprehensive impact on the well-being of parents.

In Shrott et al.'s (2018) research, the number of families participating (n=23) was clearly higher than in Hodgetts et al.'s (2013) research (n=6). Parents who participated in the intervention took part in an interview, six group gatherings (some parents in a telephone conversation), and one group discussion (Schrott et al., 2018). The evaluations were carried out four times: before the start of the actual parenting program, before and after the intervention, and six months after the end of the intervention. In a study by Hodgetts et al. (2013), parents participated in a single interview to map families' stories, parental resources, and expectations of SSTP, among other things before the intervention and responded to the survey after the intervention. The survey surveyed the following issues, among others: depression and anxiety, the parent's self-efficacy, and experience with the support and services received.

Some of the studies focused on factors that challenge well-being in the examination of self-efficacy. A study by May, Fletcher, Dempsey, and Newman (2015) looked at the associations between co-parenting satisfaction, self-efficacy of parents on the autism spectrum, and parenting stress. In their study, Huang and Zheng (2016) looked at how Chinese parents of autistic children manage to deal with the stress they face. In the study by May et al. (2015), the data was collected using a questionnaire to examine, among other things, the stress experienced by parents, self-efficacy, and perceived satisfaction related to co-parenting. Huang and Zheng (2016), on the other hand, collected the data for their research through a semi-structured interview. The thematic analyses looked at variables related to parental stress, perceived parental self-efficacy, adherence to parents' traditional Asian values, coping means, and satisfaction with previous interventions (EI) in which their child has participated. In May et al.'s (2015) research, 80 mothers and 72 fathers participated while Huang and Zheng's (2016) research included seven Chinese families. This may be explained by the fact that the material was collected through an interview, while May et al. (2015) questionnaire can reach a larger audience.

In May et al. (2015) and Huang and Zheng (2016) studies, the emphasis was on stress, while Weiss, Tint, Paquette-Smith, and Lunsky (2016) investigated which factors influence parents' experiences of challenges with a child on the autism spectrum. The

study looked at the availability of services for families, the perceived barriers to access to services, the extent of autism spectrum symptoms, psychiatric and medical diagnoses, the stress experienced by the caregiver, and the outcome variables. The parents' self-efficacy was assessed using the existing scale (Mastery Subscale of the Revised Caregiver Appraisal Scale).

### **3.1.2 Self-efficacy in relation to the child**

Another research theme focused especially on the parent's self-efficacy in relation to the child. From these studies, studies on the challenging behavior of the child and the child's developmental challenges, as well as studies on parental involvement, could be distinguished.

Kabashima, Tadaka, and Arimoto's (2020) study developed a scale of parental self-efficacy aimed at preventing challenging behaviors in children with autism. The aim of the study was also to assess the validity and reliability of the scale. Lu et al.'s (2021) research aimed to examine the mechanisms of connections between social support received by parents, parental resilience, parental self-efficacy, and emotional or behavioral problems in children with autism. Sofrnoff and Farbotko's (2002) research aimed to use an intervention program to promote the self-efficacy of parents of children with Asperger. Kabashima et al. (2020) and Lu et al. (2021) used the competence scale as one of the indicators in their questionnaires (Kabashima et al. (2020): The Parenting Sense of Competence subscale (PSOC); Lu et al. (2021): Parenting Sense of Competence Scale). In addition, the studies used scales for assessing the child's challenging behaviors (Aberrant Behavior Checklist (ABC)).

Unlike Kabashima et al. (2020) and Lu et al. (2021), the study by Sofrnoff and Farbotko (2002) aimed to use an intervention program to promote the self-efficacy of parents of children with Asperger to cope with their child's challenging behavior. Thus, their research aimed to find ways to support the parents' self-efficacy in dealing with the challenging behavior of the child. The study involved 45 mothers and 44 fathers. The study compared the results of two different groups: (1) A group that attended a one-day workshop and six individual sessions, both of which dealt with the same material. The workshop-intervention group involved 17 mothers and 16 fathers, while the individual sessions involved 18 mothers and 18 fathers. (2) A non-intervention control group. The control group consisted of 10 mothers and 10 fathers. Sofrnoff and Farbotko (2002) also used a questionnaire as part of data collection in their research.

The study by Emser, Mazzucchelli, Christiansen, and Sanders (2016) looked psychometrically at parents' self-efficacy and how parents were able to handle their children's developmental, emotional, and behavioral challenges. The purpose of Jahng's (2020) study was to investigate the connection between a mother's self-efficacy and her experience of raising her child. The children of the mothers who participated in the study had been found to have intellectual and developmental challenges. Kabiyea and Manor-Binyamini's (2019) study examined fathers and their experiences of children with developmental challenges. The study looked at stigma, somatization, and fathers' self-

efficacy and stress. Of these three studies, Emser et al. (2016) had the largest research participant group, while Kabiyea and Manor-Binyamini (2019) had the smallest. This illustrates the notion that in general fathers are less likely to be recruited when studying parenthood than mothers.

Both Kabiyea and Manor-Binyamini (2019), Emser et al. (2016), and Jahng (2020) collected data by using a questionnaire. The Kabiyea and Manor-Binyamini (2019) questionnaire included the following metrics: background variables (demographic), stigma, parental self-efficacy, and stress and somatization questionnaires. Emser et al.'s (2016) survey included the Child Adjustment and Parent Efficacy Scale-Developmental Disability, The Developmental Behaviour Checklist, and The Parenting and Family Adjustment Scales (PAFAS). Jahng (2020) used the survey "the Childhood Trauma Questionnaire", which assessed the exposure of mothers in their childhood to abuse by their parents; the Echelle Globale du Sentiment de Compétence Parentale (EGSCP), which is an assessment of parents' self-efficacy; and the Abusive Parenting Scale, which assessed whether the parents had either physically or emotionally abused their child. Third, the studies looked at parental involvement. Popa, Gliga, and Michel (2012), the study examined from the perspective of parents through a survey and an interview about how they participated in their child's education and how they perceived the role of a special education teacher in early childhood education. The survey was prepared using The Early Parenting Self-Efficacy Scale Inventory (EIPSES).

Solish and Perry's (2008) research aimed to activate parental involvement in their children's Intensive Behavioral Intervention (IBI). The data for the study was collected through an interview (semi-structured) and a questionnaire. The data was collected from parents and pediatric therapists, assessing parental involvement using variables. Independent variables included the parent's self-efficacy, knowledge of autism, belief in IBI, and stress. Both parents and therapists responded to the questionnaire, and parents participated in a semi-structured interview (Vineland Adaptive Behavior Scales Interview Edition, Survey Form (VABS)) in addition to the questionnaire. The Parent Involvement Questionnaire included six metrics, including parents' participation, self-efficacy, perceptions of their child's progress, belief in IBI, parents' knowledge of their child's autism, and parents' experience of stress.

### **3.1.3 Self-efficacy in relation to the support offered to parents**

The studies also examined parents' self-efficacy and the support offered to them for parenting. In their study, Dai et al. (2018) investigated whether videos can be used to enrich the education program for parents of children on the autism spectrum, as well as to increase understanding in the Republic of Albania, increase parents' understanding of their children's behavior, and strengthen parents' self-efficacy. The purpose of the pilot study by Zhou, Yin Wang, and Wang (2019) was to design, implement, and evaluate family-focused psychoeducational therapy (FFTP) in families with a child on the autism spectrum. Both Dai et al. (2018) and Zhou et al. (2019) aimed to provide parents with support for parenting and self-efficacy.

Both studies used questionnaires and intervention. In Dai et al.'s (2018) study, parents also participated in the interview in addition to answering questions from the Early Intervention Parenting Self-Efficacy Scale (EIPSES) related to behavioral strategies. After that, the parents could use teaching and behavior management techniques from a parental training program. The program could be watched on DVD a few times a week. Parents evaluated the program with a short assessment. The therapists were in contact with the parents in the form of a telephone interview (duration about 15 minutes) on a weekly basis. Zhou et al. (2019) used the following metrics: The Tool to measure Parenting Self-efficacy (TOPSE); Self-Rating Anxiety Scale (Zung Self-Rating Anxiety Scale SAS); and Self-Rating Depression Scale (Zung Self-Rating Depression Scale SDS). In the second phase of the study, parents with ASD participated in the FFTP intervention for four weeks.

While Dai et al.'s (2018) and Zhou et al.'s (2019) studies aimed to provide parents with information, Barlow et al. (2006), Williams et al. (2005), and Cullen and Barlow (2004) implemented the Training and Support Programme (TSP) intervention, which aimed to teach parents massage methods that they could use for their children in a home environment. Barlow et al. (2006) focused on parents' self-efficacy, psychological well-being, and perception of children's sleep, eating, and changes in movement. Williams et al.'s (2005) primary objective was to compare parents' perceptions of psychological well-being and self-efficacy and to examine the benefits of intervention 12 months after the intervention. Barlow et al. (2006) focused their research on the short-term effects of intervention, while Williams et al. (2005) analyzed long-term effects of the intervention. In their study, Cullen and Barlow (2004) investigated the parents' anxiety and depression, as well as the child's sleep, eating and movement, alongside the parents' self-efficacy analysis.

## **3.2 Implications to parents' support**

### **3.2.1 Social support and services**

Parenting a child with special needs requires plenty of resources from the parents, and, therefore, it is important that the parents have the opportunity to receive support from outside the family as well. The aim of Lu et al.'s (2021) study was to investigate the mechanisms of social support received by parents, parental resilience, parental self-efficacy, and the connections between emotional or behavioral problems in children with autism. According to the results, the received social support, the parents' resilience, and the parents' self-efficacy were significantly linked to the child's emotional and behavioral challenges so that the parents' resilience and self-efficacy played a conciliatory role between the social support received by the parent and the child's challenges. When mothers accepted and understood their child's special needs and received practical and social support from others, they became more flexible in their daily lives. They also had a more positive attitude towards their children, which also had a positive effect on the child's emotional and behavioral challenges. When a parent perceived their child

positively and not just through challenges, it also had a positive effect on the child's behavior.

Popa et al. (2012) discovered that the parents who participated in the study felt that they themselves were taking an active role in the upbringing of their child and cooperating and providing solutions to the problems. From the point of view of parents, special education teachers in early childhood education have an important role in the child's educational progress. Most of the participants in the study felt that they formed a good team with a special education teacher in early childhood education. Parents felt that the special education teacher was a great support for their children.

Weiss et al. (2016) found that the level of self-efficacy of parents is influenced by several factors. Given the central role of parents in the life cycle of people with special needs, it is important that service providers support parents' and children's access to care. Cultural competence and the provision of support in languages other than English were found important means to provide people from different cultures with easier access to support. The parents' experience of the service system had an impact on their perceived self-efficacy. For example, parents' negative attitudes towards professionals and the service system, as well as the feeling that their problems are not taken seriously, were the core reasons why parents reported that they were not able to adequately support their child. According to the study, it is advisable to provide parents with a variety of help and support to guide parents to work with the realities of the situation, provide up-to-date information on the services available (e.g., waiting lists and service costs), and the opportunity to get in touch with other parents.

### **3.2.2 Support for parents' well-being**

The studies describing implications related to support the well-being of parents, focused on the handling of stress and the smooth running of everyday life. The purpose of Harty et al.'s (2007) study was to examine mothers' self-efficacy beliefs in relation to their parenting and to assess the language development of their preschool-aged child when the child had communication challenges. Mothers' self-efficacy was more likely to be supported by providing mothers with the means and support to deal with stress than by providing them with skills for assessing the abilities of their children. The core implication was to put emphasis on how to support parents experiencing positive emotions despite stress and means to cope with adversities.

A study by Hastings and Symes (2002) looked at the effects of a therapeutic intervention that supported parents' self-efficacy. As a result of the regression analysis, it was found that maternal stress mediated the support received from the intervention and the effect of the level of autism on the mother's therapeutic self-efficacy. When a child had more than one symptom of autism and the therapeutic team was not perceived as supportive, the stress experienced by the mother was high which affected their self-efficacy.

In their study, Huang and Zhou (2016) looked at how Chinese parents were able to handle the stress they faced with a child with autism. The study found that when

parents lacked the means to respond to their child's negative behavior, it manifested itself as parental stress, and that children's characteristics, experience of isolation, and social stigma were the most significant factors causing stress to parents. In the study, low parental self-efficacy seemed to be explained more by the parent's well-being, attitudes, and cognitions, which were associated with feelings of guilt than solely by a lack of information related to autism spectrum disorders. Research plays an important role in evaluating and providing intervention services to Chinese ASD families. The study helped evaluate and provide intervention services to Chinese families with children with ASD and showed how important it is to contextualize interventions in a culturally sensitive way.

Some of the studies introduced implications on how to enhance life with children with special needs. Conti (2015) examined the importance of compassion, self-image, and self-efficacy from the perspective of parents' upbringing goals among mothers of children with autism. Compassionate goals were found to predict positive family life satisfaction, parent satisfaction with themselves, and the experience of meaning in life. Compassionate parenting goals can help mothers of children on the autism spectrum understand their children better. A deeper understanding can also increase confidence in one's own parenting. The results of the study show that when supporting compassionate parenting goals, they can act as an effective buffer against stress and elevate the well-being of parents of autistic children. Interventions that support conscious parenting were found to be good ways to support compassionate parenting. Also, Mas et al. (2019) found that family-centered exercises were directly related to parents' self-efficacy and parenting beliefs.

### **3.2.3 Knowledge and skills offered to parents**

May et al. (2015) examined the links between co-parenting satisfaction, self-efficacy of parents on the autism spectrum, and parenting stress. The study found that both parents and children benefited from practices that supported co-parenting in early intervention. This should encourage service providers to ensure that the processes and practices they provide encourage and facilitate parenting for both parents. Based on the results of the study, co-parenting skills and support for them are especially important in families with ASD disorders.

Solish and Perry's (2008) research aimed to activate parental involvement in their children's Intensive Behavioral (IBI) intervention. The study showed that parents with stronger self-efficacy were also more likely to participate in their child's intervention. The researchers suggested that clinics should develop strategies that increase parents' self-efficacy so that participation in interventions is better targeted to support different kinds of parents. In addition, parents who believed that IBI would have a positive effect on their child were also more likely to participate in the program themselves.

Kabashima et al. (2020) found that the Parental Self-Efficacy Scale for Preventing Challenging Behaviors in Children with Autism Spectrum Disorder (PASEC) can help prevent challenging behaviors in children, and thus promote parents' self-efficacy and

contribute to improving the mental health of parents and children. When parents understood their children's feelings and behaviors, they were able to respond to them more appropriately. The advantage of the PASEC scale was that it contained points that reflected the parent's self-efficacy and helped parents to shape their children's environment so that it could prevent challenging behaviors. Similarly, Zhou et al. (2019) discovered that family-centered psychoeducational therapy (FFTP) effectively affected parents' self-efficacy by reducing anxiety and depression. Parents who felt less confident with their child needed a comprehensive intervention to improve the situation. Participating in the therapy program seemed to empower parents. Likewise, Jiang et al. (2018) examined short- and long-term changes in parents' self-efficacy as a result of intervention. They concluded that different interventions supported parental cognition, of which the self-efficacy of the parents is one, and that clinical focus on cognitions was beneficial.

Jiang et al.'s (2018) study found that parents' self-efficacy is enhanced by parent-focused and multi-component interventions. In a study by Sofrnoff and Farbotko (2002), parents in the intervention group reported a strengthening of self-efficacy and a decrease in children's problem behavior. The mothers' self-efficacy had strengthened more with the intervention than the fathers' self-efficacy. The study suggested that parents should be offered short "boost" sessions after participating in the intervention, which could be used to maintain parental motivation and achieve goals. The study also found that one-day workshops can be an effective way to support a parent's self-efficacy (see also Schrott et al., 2018). The role of effective interventions was also supported by Williams et al. (2005), whose study found the importance of parental engagement for the success of interventions.

Based on a study by Kabiyea and Manor-Binyamini (2019), cognitive-behavioral interventions are recommended for fathers that would provide fathers with the means to deal with their stigmas. In the light of research, the attitude of society seemed to play a significant role in how fathers experience stigma and somatization.

Studies in our data (Barlow et al. 2006; Cullen & Barlow, 2004; Sofrnoff & Farbotko, 2002) ended up recommending cognitive-behavioral therapeutic interventions for parents. According to Hodgetts et al. (2013), it would be beneficial that parents who find their child's behavior challenging would have continuous access to behavioral therapeutic methods. Dai et al.'s (2018) research showed that remote interventions were also important to guarantee all parents with equal access to interventions and support. In the future, remote interventions should also include the possibility for the parent to contact the therapist.

#### **4. Discussion**

The analysis showed that self-efficacy in parents of children with special needs has been researched from multiple perspectives. However, the quantitative measures by using self-efficacy scales combined with other specific scales, such as competence or well-being,

seemed to prevail. Another main research approach seemed to be interventions that aimed to enhance parenting skills and coping with daily life, understanding about the nature of special needs, or reducing stress.

Several implications that would foster parents' self-efficacy could be found in the data. The main implications were: (1) The need for stronger social support and information about support services. In addition, cultural-sensitive support was highlighted as an important tool to reach various parents. (2) Support for well-being and coping with everyday life challenges should focus on tools for reducing stress and negative stigma and tools for increasing positive parenting experiences and parental self-esteem to enhance parents' self-efficacy beliefs. (3) Implications regarding interventions included flexible, efficient programs and opportunities to participate in personal guidance and therapy meetings. Interventions should also pay attention to how to motivate parents with different levels of self-efficacy and how to ensure commitment. Follow-up sessions and meetings were recommended in the data of this research. It is notable that the studies highlighted that early support was important for both parents and their children (e.g., May et al., 2015; Solish & Perry, 2008). When parents understand their children and have the resources to meet their needs, they will be more able to handle the challenging behavior of the child (Kabashima et al., 2020). Implications appeared especially important for parents with young children with special needs.

## 5. Limitations

In this research, the focus was set on parents' self-efficacy research. The overall picture of the development of a phenomenon can also become skewed if the subject matter has been extensively covered in the past (Grant & Booth, 2009). In this research, the time period was over 20 years, during which research and understanding of special needs has increased considerably (Määttä, Äärelä, & Uusiautti, 2018). Overall, the findings seemed to provide a comprehensive picture of the most recent research in the field. Thus, the analysis helps determine the future needs and prospects of research.

## 6. Conclusion

A higher level of parental self-efficacy seems to promote parents' commitment to positive practices that can be used to alleviate children's emotional and behavioral problems. Parents with high levels of resilience have good psychological resources, such as optimism and perseverance, allowing them to stand firm in the face of challenging tasks, as well as build optimistic attitudes, which play a significant role in the self-efficacy of parents. Social organizations should set up social support networks and professional centers (e.g., in schools, children's centers, etc.) in order to provide parents with a wide range of support (e.g. telecare, healthcare workers, psychologists, etc.) and to build partnerships between parents and professionals. It is also important to pay attention to

the education of parents of children with special needs. Education should be one that focuses on parents and provides strategies that allow parents to meet their child's needs.

Stress has a significant impact on how parents perceive their self-efficacy. If a parent feels that everyday life is stressful and burdensome, for example, that they do not receive enough support, it can have a negative impact on their perceived self-efficacy (Benedetto & Ingrassia, 2018; Mouton, Loop, & Roskam, 2018). Therapeutic orientations such as cognitive behavioral therapy provide models for concrete and straightforward methods. Parental malaise and an understanding of coping patterns can also help develop parent education workshops and support groups. Successful parenting experiences have been found to increase the sense of control and support self-efficacy.

To conclude, it seems that more qualitative research is needed about the connection between perceived well-being and parenting, from the parents' own perspective. Research should focus on questions such as what is specific among those parents who experience high levels of well-being and self-efficacy and what could be learned from them to support other parents of children with special needs better?

### **Conflict of Interest Statement**

The authors have no conflicts of interest that would affect the research or writing and, consequently, the objectivity or honesty of the study.

### **About the Authors**

**Noora Ronkainen**, MA, PhD Student at University of Lapland (third year) and Early Childhood Education Teacher. Her research interests focus on special education and educational psychology, including the well-being of children with special needs and their families.

ORCID: <https://orcid.org/0000-0003-4552-5946>

**Satu Uusiautti (PhD)**, Professor of Education (educational psychology) at the University of Lapland, Finland. Her research interests focus on positive development and human strengths, flourishing and success, and positive educational psychology.

ORCID: <https://orcid.org/0000-0002-2409-6460>

**Tanja Äärelä (PhD)**, Professor of Special Education at the University of Lapland, Finland. Her research interests focus on special education and pedagogy, challenging behavior, home-school collaboration and support in learning and school attendance.

### **References**

- Albanese, A. M., Russo, G. R., & Geller, P. A. (2019). The role of parental self-efficacy in parent and child well-being: A systematic review of associated outcomes. *Child: Care, Health, and Development*, 45(3), 333–363. <https://doi.org/10.1111/cch.12661>.
- Asmussen, K. (2011). *The evidence-based parenting practitioner's handbook*. Routledge.

- Bandura, A. 1993. Perceived Self-Efficacy in Cognitive Development and Functioning. *Educational Psychologist* 28(2), 117–148.
- Bandura, A. (1977a). *Social Learning Theory*. Prentice-Hall.
- Bandura, A. (1977b). Self-efficacy: toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Bandura, A. (1993). Perceived self-efficacy in cognitive development and functioning. *Educational Psychologist*, 28(2), 117–148.
- Bandura, A. (1997). *Self-efficacy: the Exercise of Control*. W. H. Freeman.
- Barlow, J., Powell, L., & Gilchrist, M. (2006). The influence of the training and support programme on the self-efficacy and psychological well-being of parents of children with disabilities: A controlled trial. *Complementary Therapies in Clinical Practice*, 12, 55–63. <https://doi.org/10.1016/j.ctcp.2005.02.005>
- Benedetto, L., & Ingrassia, M. (2018). Parental self-efficacy in promoting children care and parenting quality. In M. Ingrassio (Ed.), *Parenting. empirical advances and intervention resources* (pp. 31–57). IntechOpen.
- Britner, S. L., & Pajares, F. (2006). Sources of science self-efficacy beliefs of middle school students. *Journal of Research in Science Teaching*, 43(5), 485–499. <https://doi.org/10.1002/tea.20131>
- Butz, A. R., & Usher, E. L. (2015). Salient sources of early adolescents' self-efficacy in two domains. *Contemporary Educational Psychology*, 42, 49–61. <https://doi.org/10.1016/j.cedpsych.2015.04.001>
- Chau, V., & Giallo, R. (2014). The relationship between parental fatigue, parenting self-efficacy and behaviour: implications for supporting parents in the early parenting period. *Child: Care, Health and Development*, 41(4), 626–633. <https://doi.org/10.1111/cch.12205>
- Centers for Disease Control and Prevention. <https://www.cdc.gov/ncbddd/developmentaldisabilities/index.html>
- Coleman, P. K., & Karraker, K. H. (1997). Self-efficacy and parenting quality: future applications. *Developmental Review*, 18(1), 47–85. <https://doi.org/10.1006/drev.1997.0448>
- Coleman, P. K., & Karraker, K. H. (2000). Parenting self-efficacy among mothers of school-age children: conceptualization, measurement, and correlates. *Family Relations*, 49(1), 13–24. <https://doi.org/10.1111/j.1741-3729.2000.00013.x>
- Conti, R. (2015). Compassionate parenting as a key to satisfaction, efficacy, and meaning among mothers of children with autism. *Journal of Autism and Developmental Disorders*, 45, 2008–2018. <https://doi.org/10.1007/s10803-015-2360-6>
- Cullen, L. A., & Barlow, J. H. (2004). Training and support programme for caregivers of children with disabilities: an exploratory study. *Patient Education and Counseling*, 55(2), 203–209. <https://doi.org/10.1016/j.pec.2003.09.004>
- Dai, Y. G., Brennan, L., Como, A., Hughes-Lika, J., Dumont-Mathieu, T., Carcani-Rathwell, I., Minxhozi, O., Aliaj, B., & Fein, D. A. (2018). A video parent-training program for families of children with autism spectrum disorder in Albania.

- Research in Autism Spectrum Disorders*, 56, 36–49.  
<https://doi.org/10.1016/j.rasd.2018.08.008>
- Emser, T. S., Mazzucchelli, T. G., Christiansen, H., & Sanders, M. R. (2016). Child Adjustment and Parent Efficacy Scale-Developmental Disability (CAPES-DD): First psychometric evaluation of a new child and parenting assessment tool for children with a developmental disability. *Research in Developmental Disabilities*, 53–54, 158–177. <https://doi.org/10.1016/j.ridd.2015.09.006>
- Fink, A. (2010). *Conducting research literature reviews: From the internet to the paper*. Sage.
- Gilmore, L., & Cuskelly, M. (2012). Parenting satisfaction and self-efficacy: A longitudinal study of mothers of children with Down syndrome. *Journal of Family Studies*, 18(1), 28–35. <https://doi.org/10.5172/jfs.2012.18.1.28>
- Grant, M. J., & Booth, A. (2009). A typology of reviews: An analysis of 14 review types and associated methodologies. *Health Information and Libraries Journal*, 26(2), 91–108. <https://doi.org/10.1111/j.1471-1842.2009.00848.x>
- Harty, M., Alant, E., & Uys, J. E. (2007). Maternal self-efficacy and maternal perception of child language competence in pre-school children with a communication disability. *Child Care, Health and Development*, 33(2), 144–154. <https://doi.org/10.1111/j.1365-2214.2006.00661.x>
- Hastings, R. P. (2009). Parental stress and behaviour problems of children with developmental disability. *Journal of Intellectual & Developmental Disability*, 27(3), 149–160. <https://doi.org/10.1080/1366825021000008657>
- Hastings, R. P., & Symes, M. D. (2002). Early intensive behavioral intervention for children with autism: parental therapeutic self-efficacy. *Research in Developmental Disabilities*, 23(5), 332–341. [https://doi.org/10.1016/S0891-4222\(02\)00137-3](https://doi.org/10.1016/S0891-4222(02)00137-3)
- Hodgetts, S., Savage, A., & McConnell, D. (2013). Experience and outcomes of stepping stones triple P for families of children with autism. *Research in Developmental Disabilities*, 34, 2572–2585. <https://doi.org/10.1177/1362361319866063>
- Hohlfeld, A. S. J., Harty, M., & Engel, M. E. (2018). Parents of children with disabilities: A systematic review of parenting interventions and self-efficacy. *African Journal of Disability*, 7, a437. <https://doi.org/10.4102/ajod.v7i0.437>
- Hsiao, Y.-J. (2018). Parental stress in families of children with disabilities. *Intervention in School and Clinic*, 53(4), 201–205. <https://doi.org/10.1177/1053451217712956>
- Huang, M., & Zhou, Z. (2016). Perceived self-efficacy, cultural values, and coping, styles among Chinese families of children with autism. *International Journal of School & Educational Psychology*, 4(2), 61–70. <https://doi.org/10.1080/21683603.2016.1130562>
- Jahng, K. E. (2020). South Korean mothers' childhood abuse experience and their abuse of their children with intellectual and developmental disabilities: Moderating effect of parenting self-efficacy. *Child Abuse & Neglect*, 101, art. 104324. <https://doi.org/10.1016/j.chiabu.2019.104324>
- Jiang, Y., Haack, L., M., Delucchi, K., Rooney, M., Hinshaw, S. P., McBurnett, K., & Pfiffner, L. J. (2018). Improved parent cognitions relate to immediate and follow-up treatment outcomes for children with ADHD-predominantly inattentive

- presentation. *Behavior Therapy*, 49(4), 567–579.  
<https://doi.org/10.1016/j.beth.2017.11.007>
- Kabashima, Y., Tadaka, E., & Arimoto, A. (2020). Development of the parental self-efficacy scale for preventing challenging behaviors in children with autism spectrum disorder. *PLOS ONE*, 15(9), e0238652.  
<https://doi.org/10.1371/journal.pone.0238652>
- Kabiyea, F., & Manor-Binyamini, I. (2019). The relationship between stress and stigma, somatization and parental self-efficacy among fathers of adolescents with developmental disabilities in the Bedouin community in Israel. *Research in Developmental Disabilities*, 90, 31–40. <https://doi.org/10.1016/j.ridd.2019.04.004>
- Koeske, G. F., & Koeske, R. D. (1990). The buffering effect of social support on parental stress. *American Journal of Orthopsychiatry*, 60(3), 440–451.
- Loui, A. D., Cromer, L. D., & Berry, J. O. (2017). Assessing parenting stress: review of the use and interpretation of the parental stress scale. *The Family Journal: Counseling and Therapy for Couples and Families*, 25(4), 359–367.  
<https://doi.org/10.1177/1066480717731347>
- Lu, M., Chen, J., He, W., Pang, W., & Zou, Y. (2021). Association between perceived social support of parents and emotional/behavioral problems in children with ASD: A chain mediation model. *Research in Developmental Disabilities*, 113, 1–9.  
<https://doi.org/10.1016/j.ridd.2021.103933>
- Määttä, K., Äärelä, T., & Uusiautti, S. (2018). Challenges of special education. In S. Uusiautti & K. Määttä (Eds.), *New methods of special education* (pp. 13-29). Peter Lang.
- Margolis, H., & McCabe, P. (2004). Self-efficacy: a key to improving the motivation of struggling learners. *The Clearing House*, 77(6), 241–249.
- Mas, J. M., Dunst, C. J., Balcells-Balcells, A., Garcia-Ventura, S., Giné, C., & Cañadas, M. (2019). Family-centered practices and the parental well-being of young children with disabilities and developmental delay. *Research in Developmental Disabilities*, 94, 1–13. <https://doi.org/10.1016/j.ridd.2019.103495>
- May, C., Fletcher, R., Dempsey, I., & Newman, L. (2015). Modeling relations among coparenting quality, autism-specific parenting self-efficacy, and parenting stress in mothers and fathers of children with ASD. *Parenting: Science and Practice*, 15, 119–133. <https://doi.org/10.1080/15295192.2015.1020145>
- Miller, P. H. (2016). *Theories of developmental psychology*. Worth Publishers.
- Mouton, B., Loop, L., & Roskam, I. (2018). Confident parents for easier children: a parental self-efficacy program to improve young children's behavior. *Education Sciences*, 8(3). <https://doi.org/10.3390/educsci8030134>
- Pajares, F. (2005). *Self-efficacy during childhood and adolescence. Implications for teachers and parents*. Information Age Publishing.  
<https://pdfs.semanticscholar.org/bb2f/53f4ba6dd197ce64673f880869286eb4eb.pdf>

- Popa, M., Gliga, F., & T, Michel. (2012). The perception of parents on the issue of early intervention in child development. *Procedia – Social and Behavioral Sciences*, 33, 303–307.
- Rezendes, D. L., & Scarpa, A. (2011). Associations between parental anxiety/depression and child behavior problems related to autism spectrum disorders: the roles of parenting stress and parenting self-efficacy. *Autism Research and Treatment*, 2011, art. 395190. <https://doi.org/10.1155/2011/395190>
- Ronkainen, N., & Ratinen, I. (2020). Self-efficacy as a basis for good parenting – Self-efficacy perceptions of the parents of children with special needs in Lapland, Finland. *The Finnish Journal of Education*, 51(5), 551–563.
- Secer, Z., Ogelman, H. G., Önder, A., & Berengi, S. (2012). Analysing mothers' self-efficacy perception towards parenting in relation to peer relationships of 5-6 year-old preschool children. *Educational Sciences: Theory & Practice*, 12(3), 2001–2008.
- Schrott, B., Kasperzack, D., Weber, L., Becker, K., Burghardt, R., & Kamp-Becker, I. (2018). Effectiveness of the Stepping Stones Triple P group parenting program as an additional intervention in the treatment of autism spectrum disorders: effects on parenting variables. *Journal of Autism and Developmental Disorders*, 49, 913–923. <https://doi.org/10.1007/s10803-018-3764-x>
- Schreier, M. (2021). *Qualitative content analysis in practice*. Sage.
- Smith, T. B., Oliver, M. N. I., & Innocenti, M. S. (2010). Parenting stress in families of children with disabilities. *American Journal of Orthopsychiatry*, 71(2), 257-261. <https://doi.org/10.1037/0002-9432.71.2.257>
- Smart, L. K. (2016). *Parenting self-efficacy in parents of children with autism spectrum disorders*. [Academic dissertation.] Department of Psychology, BYU.
- Sofrnoff, K., & Farbotko, M. (2002). The effectiveness of parent management training to increase self-efficacy in parents of children with Asperger syndrome. *AGE Publications and The National Autistic Society*, 6(3), 271–286. <https://doi.org/10.1177/1362361302006003005>
- Solish, A., & Perry, A. (2008). Parents' involvement in their children's behavioral intervention programs: Parent and therapist perspectives. *Research in Autism Spectrum Disorders*, 2, 728–738. <https://doi.org/10.1016/j.rasd.2008.03.001>
- Usher, E. L., Li, C. R., Butz, A. R., & Rojas, J. P. (2019). Perseverant grit and self-efficacy: are both essential for children's academic success? *Journal of Educational Psychology*, 111(5), 877–902. <https://doi.org/10.1037/edu0000324>
- Wee, B. V., & Banister, D. (2016). How to write a literature review paper? *Transport Reviews*, 36(2), 278–288. <https://doi.org/10.1080/01441647.2015.1065456>
- Weiss, J. A., Tint, A., Paquette-Smith, M., & Lunsy, Y. (2016). Perceived self-efficacy in parents of adolescents and adults with autism spectrum disorder. *Autism*, 20(4), 425–434. <https://doi.org/10.1177/1362361315586292>
- Williams, H. L., Cullen, L. A., & Barlow, J. H. (2005). The psychological well-being and self-efficacy of carers of children with disabilities following attendance on a Simple Massage Training and Support Programme: A 12-month comparison study of

- adherers and non-adherers. *Complementary Therapies in Medicine*, 13(2), 107–114.  
<https://doi.org/10.1016/j.ctim.2005.03.007>
- Zhou, Y., Yin, H., Wang, M., & Wang, J. (2019). The effect of family-focused psychoeducational therapy for autism spectrum disorder children's parents on parenting self-efficacy and emotion. *Archives of Psychiatric Nursing*, 33, 17–22.  
<https://doi.org/10.1016/j.apnu.2018.08.002>

**Appendix:** Articles selected as data

Article Information	The Aims and Methods	Answered to Research Question 1 (RQ1), 2 (RQ2) or both (RQ1; RQ2)
1) Barlow, J., Powell, L. & Gilchrist, M. 2006. The influence of the training and support programme on the self-efficacy and psychological well-being of parents of children with disabilities: a controlled trial.	The aim of the study was to assess the effectiveness of The Training and Support Programme for parents with children with special needs. The study focused on parents' self-efficacy, psychological well-being and perceptions of children's sleep, eating and moving changes. The aim of the intervention was to teach parents easy massage methods that parents could use in their home. The study group consisted of 95 parents (n=95). 49 of the parents participated in the intervention group and 46 in the control group. The parents practiced massage with the masseuse for eight weeks, each time lasting 1 hour. The data were collected by a questionnaire at the beginning of the intervention and eight weeks after the intervention.	RQ1; RQ2
2) Conti, R. 2015. Compassionate Parenting as a key to satisfaction, efficacy and meaning among mothers of children with Autism.	The study was carried out as two sub-study studies. The first part of the study examined at the contentment of parenthood and their perceptions of the meaning of life. The 2nd part of the study examined at the parents' self-efficacy and parental satisfaction (n=74, parent of an autistic child), (n=214, parent of a typically developing child). The data were collected using an electronic questionnaire.	RQ1; RQ2
3) Cullen, L. A. & Barlow, J. H. 2004. A training and support programme for caregivers of children with disabilities: an exploratory study.	The aim of the study was to assess the TSP intervention. The study group included 82 parents and 82 special children (n=164). The data were collected in two parts: At baseline and eight weeks after intervention by using questionnaires.	RQ1; RQ2
4) Dai, Y. G., Brennan, L., Como, A., Hughes-Lika, J., Dumont-Mathieu, T., Carcani-Rathwell, I., Minxhozi, O., Aliaj, B. & Fein, D. A. 2018. A video parent-training program for	The purpose of the study was to assess whether the videos could enrich the parents' training program and (a) increase understanding of Albania in the Republic, (b) increase parents'	RQ1; RQ2

Noora Ronkainen, Satu Uusiautti, Tanja Äärelä  
 SELF-EFFICACY IN PARENTS OF CHILDREN WITH SPECIAL NEEDS:  
 A STATE-OF-THE-ART REVIEW OF RESEARCH AND IMPLICATIONS

families of children with autism spectrum disorder in Albania.	understanding of behavior and (c) strengthen parents' self-efficacy. The study included 29 parents (n=29) whose children aged between 18 and 70 months.	
5) Emser, T. S., Mazzucchelli, T. G., Christiansen, H. & Sanders, M. R. 2016. Child Adjustment and Parent Efficacy Scale-Developmental Disability (CAPES-DD): First psychometric evaluation of a new child and parenting assessment tool for children with a developmental disability.	The study looked at psychometrically (Parent Efficacy Scale-Developmental Disability (CAPES-DD) parents' self-efficacy and how parents are able to deal with their children with evolving challenges, emotional and behavioral challenges. The study included 636 parents (n=636). Children's ages ranged from 2 to 15. The data were collected in two parts of the survey.	RQ1
6) Harty, M., Alant, E. & Uys, J. E. 2006. Maternal self-efficacy and maternal perception of child language competence in pre-school children with a communication disability.	The purpose of the study was to examine the mother's self-efficacy beliefs in relation to her parenthood and the mother's assessment of the language development of her preschool child when the child had communication challenges. The data were collected by questionnaire from 25 mothers (n=25). The questionnaire consisted of two parts: 1. Parental self-presence and 2. Mother's assessment of the child's language development.	RQ2
7) Hastings, R. P. & Symes, M. D. 2002. Early intensive behavioral intervention for children with autism: parental therapeutic self-efficacy.	The study looked at the therapeutic self-efficacy of parents. The study included 85 (n=85 mothers) whose children had participated in a therapeutic program. The material was collected by a survey.	RQ2
8) Hodgetts, S., Savage, A. & McConnell, D. 2013. Experience and outcomes of stepping stones triple P for families of children with autism.	The study examined at the changes parents experienced in family behavior patterns as a result of SSTP intervention. The material was collected through intervention, interview and questionnaire (n=6).	RQ1; RQ2
9) Huang, M. & Zhou, Z. 2016. Perceived self-efficacy, cultural values, and co-ping styles among Chinese families of children with autism.	The aim of the study was to find out how Chinese parents can handle stress if their child has a autism spectrum disorder (ASD). The material was collected through a semi-structured interview. Seven Chinese families (n=7) participated in the interview. These questions were drawn up on the basis of existing scales and assessed the participation of parents, the level of parental self-preservation observed, the respect of	RQ1; RQ2

Noora Ronkainen, Satu Uusiautti, Tanja Äärelä  
 SELF-EFFICACY IN PARENTS OF CHILDREN WITH SPECIAL NEEDS:  
 A STATE-OF-THE-ART REVIEW OF RESEARCH AND IMPLICATIONS

	traditional Chinese values and the perception of obstacles/challenges that affect parental experience in raising ASD children.	
10) Jahng, K. E. 2020. South Korean mothers' childhood abuse experience and their abuse of their children with intellectual and developmental disabilities: Moderating effect of parenting self-efficacy.	The purpose of the study was to find out the connection between the mother's self-efficacy and her experience in raising her children. The study included 134 (n=134) Korean mothers whose children were 2–8 years old and had intellectual and developmental challenges. The data were collected by a questionnaire.	RQ1
11) Jiang, Y., Haack, L. M., Delucchi, K., Rooney, M., Hinshaw, S. P., McBurnett, K. & Pfiffner, L. J. 2018. Improved Parent Cognitions Relate to Immediate and Follow-Up Treatment Outcomes for Children With ADHD-Predominantly Inattentive Presentation.	The study looked at the impact of treatment on parental self-efficacy and cognitive errors and whether these parental cognitions are associated with short-term or long-term outcomes in parental behavior. The study focused to children and parents: Child Life and Attention Skills (n=74) and Parental Treatment (PFT; n=74) or (TAU; n=51).	RQ2
12) Kabashima, Y., Tadaka, E. & Arimoto, A. 2020. Development of the parental self-efficacy scale for preventing challenging behaviors in children with autism spectrum disorder.	The study has developed a scale of parental self-efficacy to prevent the challenging behavior of children of the autism spectrum disorder. Assess the reliability and validity of the scale. The data were collected by a questionnaire (n=260).	RQ1; RQ2
13) Kabiyea, F. & Manor-Binyamini, I. 2019. The relationship between stress and stigma, somatization and parental self-efficacy among fathers of adolescents with developmental disabilities in the Bedouin community in Israel.	The aim of the study was to study stigmatization, somatization and daddy self-efficacy and stress related to child developmental challenges. The data of the study were collected by a questionnaire. The data consisted of 90 (n=90) father's reply.	RQ1; RQ2
14) Lu, M., Chen, J., He, W., Pang, F. & Zou, Y. 2021. Association between perceived social support of parents and emotional/behavioral problems in children with ASD: A chain mediation model.	The aim of the study is to examine the mechanisms of parental social support, parental resilience, parental self-presence and emotional/behavior relationships between children. The study included 289 parents (n=289). The material was collected by a survey.	RQ1; RQ2
15) Mas, J. M., Dunst, C. J., Balcells-Balcells, A., Garcia-Ventura, S., Giné, C. & Cañadas, M. 2019. Family-centered practices and the parental well-being of young children with disabilities and developmental delay.	The study examined whether the results of a study in North America could be repeated in Spain. The study examined at the relationship between parental mental well-being and parental self-efficacy and competence beliefs through family-centered practices. The study	RQ1; RQ2

Noora Ronkainen, Satu Uusiautti, Tanja Äärelä  
 SELF-EFFICACY IN PARENTS OF CHILDREN WITH SPECIAL NEEDS:  
 A STATE-OF-THE-ART REVIEW OF RESEARCH AND IMPLICATIONS

	was carried out as two sub-study studies. The material was collected by a survey. The first study included 105 families (n=105) and the second study included 310 families (n=310).	
16) May, C., Fletcher, R., Dempsey, I. & Newman, L. 2015. Modeling Relations among Coparenting Quality, Autism-Specific Parenting Self-Efficacy, and Parenting Stress in Mothers and Fathers of Children with ASD.	This study examined at the links between the satisfaction of co-parenting, the endurance of the parents of autism and the stress of parenthood. The study included 80 (n=80) mothers and 72 (n=72) fathers whose children (children under 13 years of age) had a diagnosis of autism spectrum disorder. The data were collected by a questionnaire.	RQ1; RQ2
17) Popa, M., Gliga, F. & Michel, T. 2012. The perception of parents on the issue of early intervention in child development.	The study examines parents' perceptions of challenging situations in early development and early childhood education in Romania. The study involved 100 (n=100) parents whose child had developmental challenges. The data was collected using a custom survey.	RQ1; RQ2
18) Schrott, B., Kasperzack, D., Weber, L., Becker, K., Burghardt, R. & Kamp-Becker, I. 2018. Effectiveness of the Stepping Stones Triple P Group Parenting Program as an Additional Intervention in the Treatment of Autism Spectrum Disorders: Effects on Parenting Variables.	Based on parents' own reporting, the study assessed parental variables and the changes that parents experienced in family behavior patterns as a result of the SSTP intervention (n=23). The data were collected by interviews, group meetings, telephone conversations and questionnaires.	RQ1; RQ2
19) Sofrnoff, K. & Farbotko, M. 2002. The Effectiveness of Parent Management Training to Increase Self-Efficacy in Parents of Children with Asperger Syndrome.	The aim of the study was to promote the self-efficacy of Asperger children's parents in the context of challenging behavior. The intervention compared two different formats: (1) a one-day workshop and six individual sessions, both dealing with the same material and (2) a non-intervention control group. 45 (n=45) mothers and 44 (n=44) fathers were enrolled in the study. 17 mothers and 16 fathers participated in the workshop intervention group, while 18 mothers and 18 fathers participated in individual sessions; and (2) a non-intervention control group. The control group consisted of 10 moms and 10 dads.	RQ1; RQ2

Noora Ronkainen, Satu Uusiautti, Tanja Äärelä  
 SELF-EFFICACY IN PARENTS OF CHILDREN WITH SPECIAL NEEDS:  
 A STATE-OF-THE-ART REVIEW OF RESEARCH AND IMPLICATIONS

	The data was collected using a questionnaire and intervention.	
20) Solish, A. & Perry, A. 2008. Parents' involvement in their children's behavioral intervention programs: Parent and therapist perspectives.	The aim of the study was to increase the participation of parents in the intervention of their children (Intensive Behavioral Intervention (IBI). The data were collected by questionnaires from parents and children's therapists, which evaluated parental participation using variables. One or both of the parents also responded to a semi-structured interview (VABS), which can be done to a person who knows the person well. The study included 48 parents (n=48) and 34 therapists.	RQ1; RQ2
21) Weiss, J. A., Tint, A., Paquette-Smith, M. & Lunsky, Y. 2016. Perceived self-efficacy in parents of adolescents and adults with autism spectrum disorder.	The study examined which variables/factors affect the challenges facing families of the autism spectrum disorder (n=324). The data were collected by questionnaire.	RQ1; RQ2
22) Williams, H. L, Cullen, L. A. & Barlow, J. H. 2005. The psychological well-being and self-efficacy of carers of children with disabilities following attendance on a Simple Massage Training and Support Programme: A 12-month comparison study of adherers and non-adherers.	The aim of the study was to implement the Training and Support Programme (TSP) which provides older methods for carrying out simple massages for its children. The primary objective of the study was to compare perceptions of mental well-being and self-sustainability and the benefits of intervention 12 months after intervention. It was assessed using the questionnaire. The study included 82 (n=82) caregivers.	RQ1; RQ2
23) Zhou, Y., Yin, H., Wang, M. & Wang, J. 2019. The effect of family-focused psychoeducational therapy for autism spectrum disorder children's parents on parenting self- efficacy and emotion.	The purpose of the study was to design, implement and evaluate a family-centered psycho-educational treatment (FFPT) for families with autism spectrum disorder (ASD). The study was carried out as two sub-study studies. The first part of the study looked at the ability of the parents to self-preservation. Two control groups: 64 (n=64) parents of ASD children and 63 (n=63) parents of typically developing children (TD group). In part 2, ASD parents participated in FFPT for four weeks. The data were collected by intervention and questionnaire	RQ1; RQ2

Creative Commons licensing terms

Authors will retain the copyright of their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Special Education Research shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflict of interests, copyright violations and inappropriate or inaccurate use of any kind content related or integrated on the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).