

The impact of online family training on perception of inadequacy and self-efficacy in parents of children with special needs

Emre ÜNLÜ^{a*} 

^a İzmir Demokrasi University

Suggested citation: Ünlü, E. (2026). The impact of online family training on perception of inadequacy and self-efficacy in parents of children with special needs. *Journal of Educational Technology and Online Learning*, 9(2), 146-165.

Highlights

- Structured online family training significantly reduces parents' perception of inadequacy and enhances their self-efficacy beliefs.
- Telehealth-based intervention serves as a resilient support mechanism for families during crises, bridging the gap caused by the lack of physical access.
- While the program is universally effective across different parental education levels, household income remains a critical determinant for maximizing self-efficacy gains (The Matthew Effect)
- Fathers and mothers benefit equally from the online training, indicating that digital platforms can effectively engage fathers in the special education process
- Qualitative findings confirm that parents successfully transfer theoretical knowledge learned online into daily home routines, such as play and behavioral management.

Abstract

The transition from child-centered to family-centered approaches in special education requires active parental empowerment. This study examined the effect of a structured online family training program on parents' perceptions of inadequacy and self-efficacy levels for children with special needs. Employing an explanatory sequential mixed-method design, the study involved 30 parents who had not previously received formal training. Data were collected using the "Family Burden Assessment Scale," "Parental Self-Efficacy Instrument," and semi-structured interviews. Quantitative analysis revealed a statistically significant decrease in parents' perception of inadequacy and a significant increase in self-efficacy following the eight-week telehealth intervention. Notably, while the training was universally effective across different educational backgrounds, a significant positive correlation was found between household income and self-efficacy gains, suggesting that economic resources amplify the benefits of intervention. Qualitative findings corroborated the statistical results, showing that parents successfully transferred theoretical knowledge into daily routines such as play and behavioral management. These results demonstrate that online family training serves as a resilient support mechanism, particularly in crisis contexts, transforming parental helplessness into competence. The study highlights the potential of digital platforms to democratize access to special education services.

Article Info: Research Article

Keywords: *Family training, parental self-efficacy, perception of inadequacy, telehealth, special education, mixed-method design.*

1. Introduction

1.1. The Paradigm Shift in Special Education: From Child-Centered to Family-Centered Approaches

The conceptualization of education and rehabilitation for individuals with special needs has undergone a profound transformation over the last few decades. Historically, intervention models were predominantly

* Corresponding author. İzmir Demokrasi University Faculty of Education Department of Special Education.
e-mail address: eskemre@gmail.com

"child-centered," focusing almost exclusively on the individual's deficits and delegating remediation to professionals within institutional settings. However, contemporary research and ecological systems theories have necessitated a paradigm shift toward "family-centered" models (Reichow et al., 2016). This shift is predicated on the understanding that the family is not merely the backdrop of a child's life but is the primary, most consistent, and influential environment for their development (Tomasello et al., 2010). Especially in the context of early childhood special education, families' active participation is no longer optional but a fundamental component of legal and ethical mandates. Research emphasizes that optimal developmental outcomes are achieved when interventions are aligned with the family's priorities and daily routines rather than being imposed as isolated clinical tasks (Reichow et al., 2016; Tomasello et al., 2010).

The rationale behind this shift lies in the continuity of care and the generalization of skills. While schools and rehabilitation centers provide structured support, the transfer of a learned behavior from a clinical setting to the real world primarily occurs within the home environment. The literature highlights that interventions are most effective when embedded in the child's natural environment (Rios & Burke, 2021). Meta-analytical evidence further confirms that Parent-Implemented Interventions (PIIs) yield moderate to strong lasting effects on children's social and communication skills across diverse cultural settings (Cheng et al., 2022). Furthermore, family-centered services do not only aim to improve the child's developmental outcomes but also directly target the quality of the parent-child interaction and the overall well-being of the family unit (Wuang et al., 2022).

Consequently, the ultimate goal of special education services has expanded from simply teaching the child skills to empowering the family unit. In this context, transforming the parental role from a traditional "caregiver" to an active "educator" is increasingly recognized as a cornerstone for maximizing the long-term effectiveness of clinical interventions (Liang et al., 2022). Therefore, achieving targeted success in special education requires a systemic transition in which parents evolve from passive "caregivers" or "observers" to active "partners" and "co-therapists" in the educational process (Reichow et al., 2016).

1.2. The Ecology of the Family: Challenges, Stress, and the Perception of Inadequacy

Despite the theoretical consensus on the importance of family involvement, the practical reality for parents of children with special needs—particularly those with lifelong developmental disabilities like Autism Spectrum Disorder (ASD)—is fraught with complex challenges. The journey often begins with the diagnosis, a pivotal moment that can shatter a family's expectations and trigger a grieving process. Following the diagnosis, families are often thrust into a labyrinth of medical, educational, and bureaucratic systems that can be overwhelming to navigate (Tomasello et al., 2010). Studies consistently report that parents of children with ASD experience significantly higher levels of parenting stress and lower quality of life compared to parents of typically developing children (Ting & Chu, 2023). Seeridaram and Rashid (2023) further highlight that this inherent stress is often compounded by social stigmatization and external environmental pressures, which significantly heighten the emotional burden on the family unit.

Beyond the systemic hurdles, the daily management of the child's condition creates a chronic stress load. Parents frequently report high levels of anxiety related to the child's challenging behaviors, communication deficits, and social isolation (Wuang et al., 2022). This caregiving burden is recognized as multidimensional; as children with ASD advance toward adulthood, caregivers often face intensifying financial, physical, and social challenges that further strain the family ecology (Dückert et al., 2023). Furthermore, macro-level crises such as pandemics or regional instabilities can exacerbate this psychological burden. For instance, recent studies conducted in crisis contexts indicate that a parent's psychological readiness to raise a child is directly linked to their capacity to cope with external stressors; when support systems collapse, parental competence is severely threatened (Shulga et al., 2022). When these stressors are compounded by a lack of accurate information or insufficient social support, parents often internalize the difficulties they face. This internalization manifests as a profound "Perception of Inadequacy," in which parents feel ill-equipped to meet their child's needs (Tomasello et al., 2010).

This perception of inadequacy acts as a significant barrier to the child's development and the family's adaptation. A parent who feels incompetent is less likely to engage in developmental interactions, may

exhibit inconsistent discipline, and is more prone to giving up on intervention strategies. The literature suggests that the stress associated with raising a child with disabilities is not solely a function of the child's characteristics but is also significantly mediated by the parents' appraisal of their own coping resources and competence (Wuang et al., 2022; Ting & Chu, 2023). Thus, addressing the parents' perception of their own skills is as critical as addressing the child's specific disability.

1.3. Theoretical Framework: Parental Self-Efficacy as a Protective Factor

To counteract the debilitating effects of perceived inadequacy, the construct of "Self-Efficacy" provides a robust theoretical framework. Grounded in Social Cognitive Theory, self-efficacy is defined as an individual's belief in their capability to organize and execute the courses of action required to manage prospective situations (Bandura, 1997). In the context of disability, this translates to "Parental Self-Efficacy" (PSE)—the belief a parent holds about their ability to positively influence their child's development and behavior (Wuang et al., 2022). Strengthening this belief is essential, as recent experimental evidence specifically involving Turkish parents of children with autism indicates that structured empowerment programs significantly boost parental self-efficacy, thereby acting as a critical buffer against the inherent challenges of caregiving (Şahin Büyük & Özmen, 2025).

The literature draws a clear distinction between parents with high and low self-efficacy. Parents with high self-efficacy are more likely to view challenges as problems to be solved rather than insurmountable threats. They exhibit greater perseverance in the face of setbacks, use more effective parenting strategies, and experience lower levels of depression and anxiety (Ting & Chu, 2023). Recent studies have empirically demonstrated that parental self-efficacy serves as a mediator between parenting stress and family quality of life; as self-efficacy increases, the detrimental impact of stress on the family system diminishes (Wuang et al., 2022). Furthermore, the impact of such self-belief extends beyond psychology; high parental self-efficacy is positively correlated with a child's psychosocial development, particularly when parents are actively trained to manage behavioral and social needs (Paramansyah et al., 2023). Crucially, self-efficacy is not a static trait; it is a dynamic quality that can be enhanced through mastery experiences and social persuasion. Family-centered services aim to cultivate this sense of agency by shifting the focus from a "deficit model" to an "empowerment model" (Tomasello et al., 2010).

1.4. The Mechanism of Change: Family Training Programs

The most systematic and effective method to bridge the gap between "perception of inadequacy" and "high self-efficacy" is the implementation of structured Family Training Programs. These programs are designed not merely to disseminate theoretical knowledge but to equip parents with practical, actionable skills. A systematic review of special education training programs reveals that these interventions yield multidimensional benefits, including increased parental knowledge, improved advocacy skills, and a stronger sense of empowerment (Rios & Burke, 2021). Systematic evidence also indicates that these structured programs significantly enhance the parents' ability to manage their child's daily living and social activities, leading to long-term improvements in both parental mental health and child development (Tabatabaei et al., 2022).

Parents who participate in such training programs report feeling more in control of their situation and less isolated. The format of these trainings plays a crucial role in their effectiveness. Group-based trainings, for example, offer the added benefit of social support, allowing parents to share experiences with peers who face similar challenges (Rios & Burke, 2021). The success of these interventions often depends on their structure; evidence-based programs in diverse cultural contexts have shown that even short-term, intensive parent training can result in sustained changes in the home environment (Liang et al., 2022). Moreover, the mode of delivery has evolved significantly. Recent research supports the efficacy of telehealth and remote training models, indicating that online interventions can be as effective as face-to-face sessions in reducing parenting stress and improving child behaviors, thus providing a vital alternative when physical access is restricted (Johnson, 2024).

1.5. The Context of Disadvantage and the Need for Accessibility

While the benefits of family training are well-documented, a significant gap remains in equitable access. Families from low socioeconomic backgrounds, those with lower levels of education, or those living in rural areas often face barriers to accessing quality family support services. Recent studies emphasize that telehealth-based parent training is a viable solution to address these disparities, particularly for families in rural or underserved areas who struggle with transportation or the availability of local experts (Johnson, 2024). Systematic reviews of parent interventions confirm that digital platforms can effectively bridge these geographical and economic gaps, providing high-quality training that is both culturally adaptable and cost-effective (Tabatabaei et al., 2022).

Furthermore, crises such as the COVID-19 pandemic have exacerbated these inequalities, disrupting face-to-face special education services and leaving many families to cope entirely on their own. In such contexts, the delivery of accessible, comprehensive, and remote-friendly training programs becomes imperative. There is a pressing need for interventions that can reach parents who have never received formal training, providing them with the "lifeline" of support necessary to navigate both the crisis and the ongoing demands of special needs parenting (Shulga et al., 2022). This need is particularly acute in developing regions and countries like Türkiye, where the lack of formal parental training remains a significant barrier to effective early intervention (Şahin Büyük & Özmen, 2025). Evidence suggests that when these remote programs are structured to be inclusive of families with diverse backgrounds, they can achieve high levels of parent satisfaction and sustained clinical outcomes even after the sessions conclude (Liang et al., 2022).

1.6. Significance of the Study

Although the literature abounds with studies examining the effects of parent training on child outcomes, relatively little research focuses primarily on the psychological transformation of parents regarding "Perception of Inadequacy" and "Self-Efficacy" simultaneously. Moreover, quantitative studies often fail to capture the nuance of how this transformation occurs. This research addresses these gaps by employing a Mixed-Method Design. The use of a mixed-methods approach is particularly significant in this field, as it allows for a deeper understanding of the "empowerment" process that quantitative metrics alone may not fully capture (Şahin Büyük & Özmen, 2025). Uniquely, this study focuses on a specific cohort of parents who have never received prior structured family training, allowing for the assessment of the program's impact on a potentially disadvantaged group. This focus is crucial, as providing a "lifeline" to previously unsupported families through digital platforms can result in high levels of parent satisfaction and a significant reduction in the psychological care burden (Tabatabaei et al., 2022).

This study aims to fill this gap by evaluating the effectiveness of a structured, 8-week online family training program. By employing an explanatory sequential mixed-method design, this research seeks to answer two main questions: (1) Does online family training significantly reduce parents' perception of inadequacy and increase their self-efficacy? and (2) How do parents experience this training process and transfer the acquired skills into their daily lives? Addressing these questions provides a comprehensive evaluation of how theoretical knowledge is internalized and translated into practical home routines, thereby fostering long-term family resilience (Cheng et al., 2022; Paramansyah et al., 2023).

2. Methodology

This section details the research model, participants, data-collection instruments, intervention procedure, and data-analysis strategies employed in the study.

2.1. Research Design

This study employs a Mixed Methods Research Design, specifically the Explanatory Sequential Design (Creswell & Plano Clark, 2018). In this design, quantitative data were collected and analyzed in the first phase to assess the general impact of the training program. Subsequently, qualitative data were gathered in

the second phase to explain, refine, and deepen the statistical results—particularly to understand the underlying mechanisms of change in participants' perceptions of inadequacy and self-efficacy.

In the quantitative dimension, a "Single Group Pre-test Post-test Quasi-Experimental Design" was adopted to assess changes in the dependent variables before and after the intervention. In the qualitative dimension, a phenomenological approach was used to explore parents' lived experiences of the training process and its impact on their daily lives.

2.2. Study Group

The study group consisted of parents residing in Turkey who have children diagnosed with developmental disabilities. Participants were selected using criterion sampling, a purposive sampling strategy. To ensure internal validity and isolate the pure effect of the training program, the following exclusion criterion was strictly applied:

Participants must not have attended any structured family training program of similar scope or content before this study.

Initially, 31 parents were reached and included in the data collection. However, during the preliminary data screening, data from 1 participant were excluded from the quantitative analysis due to being identified as an extreme outlier in the scale responses. Consequently, the final quantitative analysis was conducted with a valid sample of 30 participants (N=30). Demographic data indicated that the group was homogeneous in terms of lacking prior formal support. The detailed demographic characteristics of the participants are presented in Table 1.

2.3. Data Collection Tools

Data were collected using a "Personal Information Form," the "Family Burden Assessment Scale (Perception of Inadequacy Sub-dimension)," the "Parental Self-Efficacy Instrument for Children with Disabilities," and a "Semi-Structured Interview Form."

1. Personal Information Form: Developed by the researcher, this form collected demographic variables including age, occupation, education level, household income, marital status, and the child's age and diagnosis.

2. Family Burden Assessment Scale (Perception of Inadequacy): To measure parents' feelings of inadequacy, the "Family Burden Assessment Scale," developed by Yıldırım Sarı and Başbakkal (2008), was utilized. Although the original scale comprises 43 items and six sub-dimensions, this study focused specifically on the "Perception of Inadequacy" sub-dimension, aligned with the research hypotheses. High scores indicate a higher perception of inadequacy. In the current study, the Cronbach's Alpha internal consistency coefficient for this sub-dimension was calculated as $\alpha = .89$, indicating high reliability.

Table 1.

Demographic Characteristics of the Participants and Their Children

Variable	Category	n (Frequency)	% (Percentage)
Sample Size	Total Number of Participants	31	100.0
	Primary School	6	19,4
	Secondary School	3	9,7
Mother's Graduation Status	High School	3	9,7
	Associate Degree	7	22,5
	Undergraduate	10	32,2
	Graduate	2	6,5
	Primary School	5	16
Father's Graduation Status	Secondary School	3	9,7
	High School	6	19,4
	Associate Degree	3	9,7
	Undergraduate	11	35,5
	Graduate	3	9,7

Marital Status	Married	27	87,1
	Single/Divorced/Widowed	4	12,9
Child's Educational Environment	Special Education and Rehabilitation	16	51,5
	Inclusive Class	10	32,3
	Special Education Kindergarten	3	9,7
	Kindergarten	2	6,5
Income Level	Lower than 500\$	13	41,9
	500-1000\$	12	38,7
	Over 1000\$	6	19,4
Child Age	Lower than 5	10	32,3
	5-10	16	51,5
	10-15	3	9,7
	Over 15	2	6,5
Proximity	Anne	19	61,3
	Father	5	16
	Brother	3	9,7
	Other	4	13
Mother Profession	Housewife	19	61,3
	Teacher	6	19,3
	Health Worker	3	9,7
	Private Sector	2	6,5
	Officer	1	3,2
Father Profession	Private Sector	21	67,7
	Officer	5	16
	Teacher	3	9,7
	Retired	2	6,6

3. Parental Self-Efficacy Instrument for Children with Disabilities (PSICD): To assess parents' beliefs in their parenting capabilities, the scale originally developed by Guimond et al. (2005) and adapted into Turkish by Cavkaytar, Aksoy, and Ardiç (2014) was employed. Higher scores signify stronger self-efficacy beliefs. The internal consistency of the scale in this study was high, with a Cronbach's alpha of .92.

4. Semi-Structured Interview Form: A qualitative interview schedule consisting of five open-ended questions was developed to explore participants' experiences. To ensure content validity, three experts in special education reviewed the draft questions, and minor revisions were made based on their feedback.

2.4. Procedure

Ethical Procedures: Before data collection, ethical approval was obtained from the İzmir Democracy University Ethics Committee (Decision No: E-35950415-050-13324). Informed consent was obtained from all participants, ensuring confidentiality and voluntary participation.

The research process was conducted in four phases:

- 1. Pre-Test Application:** Baseline data were collected via online forms before the first training session.
- 2. Intervention (The Training Program):** A comprehensive family training program was implemented over a period of 8 weeks (8 sessions). Due to pandemic restrictions, sessions were conducted synchronously via an online videoconferencing platform (Zoom). The curriculum, delivered by multidisciplinary experts, covered: (i) behavioral management strategies, (ii) enhancing communication skills, (iii) legal rights and advocacy, (iv) self-care skills teaching, and (v) parental psychological resilience.
- 3. Post-Test Application:** Immediately following the conclusion of the training program, the same scales were readministered to assess quantitative changes.
- 4. Qualitative Interviews:** Following the quantitative analysis, semi-structured interviews were conducted to gather in-depth narratives regarding the participants' gains and experiences.

2.5. Data Analysis

2.5.1. Data Screening and Normality Assumptions

Before the main analyses, the dataset was screened for accuracy and for compliance with assumptions. Univariate outliers were checked using Z-scores, and multivariate outliers were assessed using Mahalanobis Distance. No significant outliers necessitating further exclusion were detected in the final sample of 30. Since the sample size was less than 50 ($N < 50$), the Shapiro-Wilk test was used in conjunction with Skewness and Kurtosis to assess normality. The Shapiro-Wilk results ($p > .05$) and Skewness-Kurtosis values (ranging from 0 to 1.5) indicated that the data were normally distributed (Tabachnick & Fidell, 2013).

2.5.2. Hypothesis Testing

Statistical analyses were performed using SPSS version 26.0.

- Paired Samples t-test was used to compare pre-test and post-test scores.
- One-Way ANOVA was employed to analyze differences based on categorical variables.
- Pearson Correlation Coefficient was calculated to examine relationships between continuous variables (e.g., age, income) and gain scores.

The significance level was set at $p < .05$.

2.5.3. Qualitative Analysis

Qualitative data were analyzed using content analysis. The process involved: (1) transcribing responses, (2) generating initial codes, and (3) collating codes into themes. To ensure trustworthiness, direct quotations from participants (coded K1-K31) were included to support the findings.

3. Findings

In this section, the findings obtained from the study are presented sequentially in accordance with the Explanatory Sequential Mixed Methods Design. The results are organized into two main phases to provide a holistic understanding of the research problem. First, the quantitative findings are detailed, encompassing the normality assumptions, the statistical impact of the training program on parental variables (Paired Samples t-test), and the analysis of demographic factors (ANOVA and Correlation). Subsequently, the qualitative findings derived from semi-structured interviews are presented to explain the underlying reasons for the quantitative changes and to explore the participants' lived experiences in depth.

3.1. Preliminary Findings Regarding Normality of Data

Before proceeding to the main hypothesis testing, a comprehensive screening was conducted to assess the data's distributional properties. Given the sample size ($N=30$), the Shapiro-Wilk test was preferred because it offers higher power for small-to-medium samples than the Kolmogorov-Smirnov test. In addition to the significance tests, the skewness and Kurtosis coefficients were examined to visualize the distribution's shape.

As presented in Table 2, the Shapiro-Wilk results for all variables indicated no significant deviation from normality ($p > .05$). Furthermore, the Skewness and Kurtosis values were found to be within the acceptable range of ± 1.5 suggested by Tabachnick and Fidell (2013) for psychometric scales. Based on these indicators, it was determined that the data met the assumptions for parametric testing, and thus, Paired Samples t-tests and Pearson Correlation analyses were employed.

Table 2

Normality Test Results for Research Variables

Variables	Measurement	N	Skewness	Kurtosis	Distribution
Perception of Inadequacy	Pre-test	30	-1.101	677	Normal
	Post-test	30	-1.131	213	Normal
Self-Efficacy	Pre-test	30	-.638	418	Normal
	Post-test	30	-.419	-.707	Normal

3.2. Quantitative Findings: The Effectiveness of the Family Training Program

The primary hypothesis of the study was that the structured family training program would reduce parents' perceptions of inadequacy and increase their self-efficacy. To test this, pre-test and post-test scores were compared using the Paired Samples t-test. The detailed results are presented in Table 3.

Table 3.

Comparison of Pre-test and Post-test Scores

Variable	Measurement	N	Mean Difference	SD	t	p
Perception of Inadequacy	Pre-test - Post-test	30	-2.33	6.12	-2.088	.046*
Self-Efficacy	Pre-test - Post-test	30	-7.03	14.45	-2.667	.012*
Psychological Resilience	Pre-test - Post-test	30	0.35	03.06	638	528
Family Burden	Pre-test - Post-test	30	-3.50	16.82	-1.140	264

(Note: Negative mean difference in Self-Efficacy implies an increase in post-test scores. $p < .05$)

As seen in Table 3, the training program produced statistically significant changes in the target variables:

1. Reduction in Inadequacy: A significant decrease was observed in the parents' Perception of Inadequacy scores ($t = -2.088$, $p = .046$). This finding statistically proves that the training alleviated parents' feelings of helplessness and incompetence regarding their children's education.
2. Increase in Self-Efficacy: Parallel to the decrease in inadequacy, a significant increase was found in Self-Efficacy scores ($t = -2.667$, $p = .012$). This indicates that parents felt more competent in their parenting skills after the 8-week program.
3. Secondary Variables: No significant difference was found in "Family Burden" and "Psychological Resilience" scores ($p > .05$). This result suggests that while the training was highly effective on skill-based variables (competence/efficacy), changing broader psychological constructs like resilience or burden may require longer-term interventions or systemic support beyond a single training program.

3.3. Examination of Gain Scores According to Demographic Variables

Within the scope of the research, whether the "Gain Scores" (Difference Scores), representing the difference between participants' pre-test and post-test scores, differed according to demographic characteristics, was examined. For this purpose, One-Way Analysis of Variance (ANOVA) was used for categorical variables, and Pearson Correlation Analysis was used for continuous variables.

3.3.1. Findings According to Marital Status

Spousal support is conceptually defined as a primary source of emotional and instrumental assistance in raising a child with special needs. To examine whether partner presence influenced the effectiveness of the training, gain scores were analyzed by marital status (e.g., Married, Divorced/Single). The ANOVA results are presented in Table 4.

Table 4

ANOVA Results of Perception of Inadequacy and Self-Efficacy Gain Scores by Marital Status

Variable	Source of Variance	Sum of Squares	df	Mean Square	F	p	Difference
Perception of Inadequacy	Between Groups	324.222	3	108.074	2.658	.56	None
	Within Groups	762.444	26	29.325			
Self-Efficacy	Between Groups	1.254.022	3	418.007	1.633	.197	None
	Within Groups	4.800.944	26	184.652			

As shown in Table 4, while no statistically significant difference was found at the strict .05 level, the result for Perception of Inadequacy ($p = .056$) requires careful interpretation as it approaches the significance threshold. Interpretation and Discussion of the "Borderline" Effect:

1. The "Single Parent" Burden: The p-value of .056 suggests a strong trend. This implies that marital status likely influences how parents experience feelings of inadequacy. Single parents or those with limited spousal support may carry a heavier emotional load ("Perception of Inadequacy"), making the impact of the training different for them compared to married couples who can share the burden.

2. Social Support Mechanism: The fact that the result is on the verge of significance aligns with the "Social Support Theory." Parents who share responsibilities with a partner might start with a lower baseline inadequacy or have more opportunities to practice the skills learned in training (e.g., one parent manages the behavior while the other observes), whereas single parents must manage everything alone.

3. Skill Acquisition is Universal: Interestingly, for Self-Efficacy ($p = .197$), the difference is clearly non-significant. This indicates that regardless of whether a parent is single or married, they are equally capable of learning the skills (efficacy). Marital status seems to affect emotional burden (inadequacy) rather than learning capacity (efficacy).

4. Implication for Future Studies: This borderline finding suggests that with a larger sample size, the "single parenting" factor might emerge as a statistically significant predictor. Therefore, future intervention programs should consider adding specific psychosocial support modules for single parents.

3.3.2. Findings According to Father's Occupation

To understand the potential impact of socioeconomic status on training outcomes, the difference in gain scores was analyzed by the father's occupation. The participants were categorized into groups such as "Civil Servant," "Worker," "Self-Employed," and "Retired/Unemployed." The One-Way ANOVA results are presented in Table 5.

Table 5

ANOVA Results of Perception of Inadequacy and Self-Efficacy Gain Scores by Father's Occupation

Variable	Source of Variance	Sum of Squares	df	Mean Square	F	p	Difference
Perception of Inadequacy	Between Groups	102.229	3	34.076	900	.455	None
	Within Groups	984.438	26	37.863			
Self-Efficacy	Between Groups	237.348	3	79.116	354	.787	None
	Within Groups	5.817.619	26	223.754			

As shown in Table 5, the analysis yielded no statistically significant differences in gain scores for either Perception of Inadequacy ($p > .05$) or Self-Efficacy ($p > .05$) by father's occupation. This finding is particularly significant for the generalizability of the training program.

1. Inclusivity of the Content: The lack of differentiation based on occupational groups suggests that the training content was designed in an accessible language that could be understood and utilized equally by

parents from diverse professional backgrounds. Whether the parent was a white-collar professional or a blue-collar worker, the benefit derived from the training was uniform

2. *Economic Resources vs. Social Status*: It is crucial to interpret this result in conjunction with the findings on "Income Level" (Section 3.3.1). While *household income* was a significant predictor of self-efficacy gains, *occupational title* was not. This distinction implies that the determining factor for families is not the social prestige of the job, but rather the economic resources (financial capital) available to support the child's needs.

3. *Universal Design*: The results confirm that the intervention model possesses a "universal design" characteristic, capable of transcending socio-professional barriers and providing equitable support to disadvantaged groups.

3.3.3 Findings According to the Educational Environment

The educational setting of the child (e.g., Special Education Rehabilitation Center, Inclusive Classroom, or Special Education Class) is often considered a variable that shapes parental stress and needs. To determine whether the training program's effectiveness varied by the child's educational environment, the gain scores were analyzed using a One-Way ANOVA. The results are presented in Table 6.

Table 6.

ANOVA Results of Perception of Inadequacy and Self-Efficacy Gain Scores by Educational Environment

Variable	Source of Variance	Sum of Squares	Mean		F	p	Difference
			df	Square			
Perception of Inadequacy	Between Groups	10.444	2	5.222	84	.968	None
	Within Groups	1.076.222	27	39.860			
Self-Efficacy	Between Groups	...	...	...	577	.635	None
	Within Groups	...	...	...			

As shown in Table 6, the analysis revealed no statistically significant difference in the gain scores for either variable across educational environments ($p > .05$). The extremely high p-values (approaching 1.00) indicate that the groups are statistically indistinguishable in the benefits they derived from the training. This finding provides critical insights into the nature of parental needs:

1. *Gap in the System*: The fact that parents from all types of educational settings benefited equally suggests that current educational institutions—whether inclusive schools or special rehabilitation centers—focus primarily on the child's academic/developmental goals, often leaving the "parental guidance" aspect insufficient. This training program successfully filled that universal gap for all groups.
2. *Home as a Distinct Environment*: The results confirm that the challenges parents face at home (e.g., behavioral management, daily routines, emotional resilience) are independent of the school setting. Therefore, a home-based family training program acts as a complementary mechanism that is essential regardless of where the child receives formal education.
3. *Cross-Contextual Validity*: The program proved to be effective for a parent whose child is in a highly supported special education class as well as for a parent whose child is in an inclusive classroom. This underscores the versatility and adaptability of the training content.

3.3.4 Findings According to Mother's Education Level

Maternal education is widely regarded in the literature as a critical predictor of parental involvement and the utilization of educational resources. To determine whether participants' educational backgrounds influenced the magnitude of the training benefit, the gain scores were analyzed by the mother's education level. The analysis included categories ranging from primary school to university graduates. The ANOVA results are presented in Table 7.

Table 7*ANOVA Results of Perception of Inadequacy and Self-Efficacy Gain Scores by Mother's Education Level*

Variable	Source of Variance	Sum of Squares	df	Mean Square	F	p	Difference
Perception of Inadequacy	Between Groups	269.171	4	67.293	1.580	.204	None
	Within Groups	817.495	25	32.700			
Self-Efficacy	Between Groups	354.938	4	88.735	299	.909	None
	Within Groups	5.700.029	25	228.001			

As detailed in Table 7, the One-Way ANOVA revealed no statistically significant difference in gain scores for either variable by mother's education level ($p > .05$). Specifically, the high p-value for Self-Efficacy ($p = .909$) indicates that the groups were nearly identical in their progress. This lack of differentiation is a positive indicator of the training program's instructional quality and accessibility:

1. *Pedagogical Appropriateness*: The finding suggests that the language, materials, and teaching methods used in the program were appropriately simplified and structured to be understood by parents from all educational backgrounds. The training did not require a high level of prior academic literacy to be effective.
2. *Focus on Practical Application*: The fact that a university graduate and a primary school graduate achieved similar gains indicates that the training focused on practical, actionable parenting skills rather than abstract theoretical knowledge.
3. *Eliminating Barriers*: In many special education interventions, lower parental education can act as a barrier to understanding complex medical or behavioral terminologies. This program successfully eliminated that barrier, proving its effectiveness as an inclusive model for diverse populations.

3.3.5. Findings According to Father's Education Level

In family-centered interventions, paternal involvement is often underrepresented compared to maternal involvement. To investigate whether fathers' educational backgrounds differentially affected training outcomes, the gain scores were analyzed using a One-Way ANOVA based on fathers' education levels. The results are detailed in Table 8.

Table 8*ANOVA Results of Perception of Inadequacy and Self-Efficacy Gain Scores by Father's Education Level*

Variable	Source of Variance	Sum of Squares	df	Mean Square	F	p	Difference
Perception of Inadequacy	Between Groups	290.739	4	72.685	1.718	.161	None
	Within Groups	795.927	25	31.837			
Self-Efficacy	Between Groups	716.906	4	179.227	645	.668	None
	Within Groups	5.338.061	25	213.522			

As shown in Table 8, the analysis revealed **no statistically significant difference** in the gain scores for either variable ($p > .05$). The F-values (2.283 for Inadequacy and .839 for Self-Efficacy) indicate that the variance between educational groups (e.g., primary school vs. university) was minimal. This finding reinforces the conclusions drawn from the "Mother's Education" variable and adds a crucial dimension regarding paternal engagement:

1. *Overcoming Educational Barriers*: Similar to mothers, fathers' educational background did not hinder their ability to benefit from the training. This proves that the program's content was delivered in a format that was equally accessible to a father with basic education and one with higher education.

2. *Redefining Paternal Roles*: Traditionally, lower parental education is associated with lower participation in special education services. The lack of a discrepancy in gains by education level suggests that the training successfully engaged fathers by focusing on competence rather than academic prerequisites.
3. *Uniform Impact*: The consistency of these results across both parents' education levels confirms the robustness of the intervention design. It suggests that the core mechanism of the training—building self-efficacy through practical strategies—operates independently of the family's formal educational history.

3.3.6. Relationship Between Age Variables and Gain Scores

In the special education literature, the ages of parents and children are often scrutinized as potential moderators of intervention efficacy. To determine whether the effectiveness of the training depended on these developmental timelines, the relationship between age variables (Participant Age, Child Age) and gain scores was examined using Pearson's Correlation Analysis. The results are presented in Table 9.

Table 9.

Correlation Analysis Results Between Participant/Child Age and Gain Scores

Variables	N	r	p
Participant Age & Inadequacy (Gain)	30	-.224	.234
Participant Age & Self-Efficacy (Gain)	30	.200	.289
Child Age & Inadequacy (Gain)	30	.126	.506
Child Age & Self-Efficacy (Gain)	30	.38	.840

As detailed in Table 9, the analysis revealed **no statistically significant relationship** between age variables and the outcomes of the training ($p > .05$).

1. *Andragogical Flexibility (Adult Learning)*: The lack of correlation with "Participant Age" suggests that the training program was equally effective for younger parents (early 20s) as well as older parents (40s and above). This indicates that the ability to acquire new parenting skills and change perceptions of inadequacy is not constrained by age; whether novice or experienced parents, the participants' "teachability" remained high.
2. *Relevance Across Developmental Stages*: The lack of correlation with "Child Age" is particularly promising. It implies that the strategies taught in the program (e.g., behavioral management, communication) were versatile enough to be applied to both toddlers (during the early intervention period) and older children/adolescents. The training provided relevant tools for parents regardless of where their child stood on the developmental spectrum.
3. *Closing the Gap*: Often, early intervention is seen as the "golden window," leading to concerns that interventions for older children might be less effective. This finding challenges the notion that parental support falls within the scope of self-efficacy, showing that parents of older children can benefit just as much as those of younger children.

3.3.7. Relationship Between Income Level and Gain (Difference) Scores

While demographic variables such as age and education did not create a significant variance in training outcomes, the role of economic resources emerged as a distinctive factor. To examine this, the relationship between household income level and gain scores was analyzed using Pearson Correlation. The results are presented in Table 10.

Table 10

Correlation Analysis Results Between Income Level and Gain Scores

Variables	N	r	p
Income & Inadequacy (Gain)	30	-.192	.309

Income & Self-Efficacy (Gain)	30	428	.018*
-------------------------------	----	-----	-------

* *Correlation is significant at the 0.05 level.*

As detailed in Table 10, a moderate, positive, and statistically significant relationship was detected between income level and Self-Efficacy gain scores ($r = .428$, $p = .018$).

Interpretation and Socio-Economic Implications: This finding is one of the most striking results of the study, indicating that families with higher economic status derived significantly more benefit from the training in terms of building self-confidence. This phenomenon can be explained through several theoretical lenses:

1. *Hierarchy of Needs (Resource Availability):* Low-income families often struggle with basic survival needs (e.g., rent, food, medical costs). According to Maslow's hierarchy, when physiological and safety needs are threatened, focusing on "self-actualization" or "parental competence" becomes cognitively more difficult. High-income families, free from survival anxiety, likely had more mental bandwidth to internalize and practice the strategies taught in the training.
2. *The "Buffer" Effect of Money:* Economic resources act as a buffer against daily stressors. A high-income parent can hire help for household chores or purchase educational materials mentioned in the training, thereby easily converting theoretical knowledge into practice. In contrast, a low-income parent might understand the theory but lack the material resources to implement it, limiting their mastery experiences and, consequently, their self-efficacy gains.
3. *The "Matthew Effect" in Special Education:* This finding aligns with the "Matthew Effect" (the rich get richer). While the training was accessible to all, those with initial advantages (economic capital) were better positioned to leverage the new information. **Policy Implication:** This result strongly suggests that for low-income families, providing "education alone" is not sufficient. To close the efficacy gap, educational interventions for disadvantaged groups must be supplemented with material support or social services to level the playing field.

3.4. Qualitative Results

In this section, the views of the 31 participants regarding the organized family education program, their evaluations of its positive and negative aspects, the effects of the pandemic, expectations for future trainings, and reflections on the training's impact on daily life were examined using descriptive analysis. The obtained data were grouped under five main themes and presented in tables.

3.4.1. General Views and Satisfaction Level Regarding the Training

When responses to the question "What are your thoughts on the training you attended?" were examined, it was observed that overall satisfaction was quite high. Participants described the training as "productive," "inclusive," and "hope-inspiring".

Table 11

Participants' General Views on the Training

Theme	Codes	Frequency (f)
Satisfaction & Content	Productive and informative content	15
	Comprehensive and detailed	9
Instructor Quality	Expert competence and effective transfer	11
	Sincere and supportive approach	7
Emotional Impact	Hope-inspiring and motivating	6
	Feeling of belonging (not being alone)	4

Participants expressed satisfaction with the training, especially during a period when access to experts was difficult. For instance, participant **K12** expressed the impact of the training with these words:

"I haven't received such comprehensive, detailed, and useful information from any of the doctors/experts we have consulted about autism until today... My perspective on autism has changed incredibly. I realized the practices I was doing wrong."

Similarly, participant **K30** emphasized accessibility, stating, "Reaching such experts in the field was nearly impossible for us... It was perfect."

"I haven't received such comprehensive, detailed, and useful information from any of the doctors/experts we have consulted about autism until today... My perspective on autism has changed incredibly. I realized the practices I was doing wrong."

Similarly, participant **K30** emphasized accessibility, stating, *"Reaching such experts in the field was nearly impossible for us... It was perfect."*

3.4.2. Positive and Negative Aspects of the Training

Participants' evaluations of the training process are presented in Table 12. Positive views were predominant, with "interactive structure (Q&A)" and "ease of remote access" standing out. Negative aspects were limited and generally related to technical or temporal constraints.

Table 12

Views on Positive and Negative Aspects of the Training

Category	Codes	Frequency (f)
Positive Aspects	Interactive structure (Q&A sessions)	12
	Accessibility (Online/Remote participation)	8
	Interdisciplinary approach	5
	Availability of resources/materials	4
Negative Aspects	No negative aspect stated	18
	Duration constraints (Too long/short)	3
	Lack of face-to-face practice	3
	Technical issues / Connection problems	2

A large proportion of participants (n=18) stated that they did not find any negative aspects of the training. Participant **K8** praised the interactive nature of the training, stating, "The positive side was that every question was answered, and every subject important in Autism was touched upon in 8 days." On the other

hand, a few mentioned limitations of online training. Participant K2 drew attention to the lack of practice by saying, "I wish it could have been done face-to-face without the pandemic."

3.4.3. *Effects of the Pandemic Process on Family and Child*

When the effects of the pandemic period on children with special needs and their families were examined, the picture was observed to be predominantly negative. The closure of schools and rehabilitation centers caused skill loss and increased behavioral problems in children.

Table 13

Effects of the Pandemic Process

Theme	Codes	Frequency (f)
Educational & Developmental	Regression in skills / Educational loss	14
	Disruption of routines (School/Rehab closure)	11
Behavioral & Emotional	Increase in obsessive/repetitive behaviors	9
	Aggressiveness and tantrums	6
	Social isolation and withdrawal	8
Psychological State of Parents	Increased stress and burnout	7
Positive Adaptation	Turning crisis into opportunity (Spending time together)	5

Participants' statements indicate that the "educational gap" created by the pandemic put immense pressure on families. Participant K5 summarized this situation as, "Staying at home was quite difficult; problem behaviors started to appear." At the same time, some families tried to turn this process into an opportunity (K4: "We took action immediately and turned the crisis into an opportunity").

3.4.4. *Future Training Needs and Expectations*

When asked, "If new training were to be provided, what other topics would you like it to cover?", the emerging needs varied by children's developmental stages and the daily challenges they faced.

Table 14

Training Topics Requested by Families

Theme	Codes	Frequency (f)
Behavioral Management	Coping with problem behaviors	7
Skill Development	Play skills and creative drama	5
	Sensory integration	4
	Social skills and communication	4
	Independent living and self-care	3
Adolescence & Adult Life	Puberty and sexual education	3
	Vocational training / Employment	2
Academic Skills	Reading, writing, and mathematics	2

The data show that families have practical demands for managing daily crises (problem behaviors) and supporting their children's development (play, sensory integration), rather than just theoretical knowledge.

Participant K1 drew attention to the ways needs change with age, saying, "I would be very happy if there is a training on adolescence in special education."

3.4.5. *Reflections of Training on Daily Life*

One of the most important outputs of the study is whether the training provided was put into practice by parents. The vast majority of participants reported applying the techniques they learned in their communication and games with their children.

Table 15

Transfer of Training to Daily Life

Theme	Codes	Frequency (f)
Interaction & Play	Applying play techniques (e.g., floor time)	11
	Increasing joint attention	6
Communication Strategy	Using positive language / Better communication	9
	Understanding the child's perspective	7
Behavioral Intervention	Analyzing causes of behaviors	6
	Managing obsessions functionally	4
Daily Living	Integrating education into daily routines	5
	Giving household responsibilities	3

Concrete examples from participants demonstrate that the training led to behavioral change. Participant K8 described the change in their child's play behavior thanks to the "approaching step by step" technique they learned:

"My son, who didn't play with cars until today, played with the car for even 5 minutes by approaching step by step as Bora Hodja explained. I cannot describe how happy I was."

Another striking example came from participant K12. The participant explained how they turned obsessive behavior into a functional one by giving responsibilities to their child:

"Since we started filling the food bowls of our cats and dogs together with my daughter... she observed that animals actually eat those things she thought were roasted chickpeas and stopped filling them into the toy basket. I wouldn't have found even such a simple application without this training."

These findings reveal that family education programs directly contribute to children's development by increasing parents' perceptions of competence.

4. Discussion

This study aimed to examine the effectiveness of a comprehensive, online family training program on the "Perception of Inadequacy" and "Self-Efficacy" levels of parents with children with special needs. The findings from this mixed-method research provide strong evidence that structured, interdisciplinary family training is a powerful mechanism for transforming parental helplessness into competence, particularly in the absence of prior formal support.

4.1. *The Transformation from Helplessness to Competence*

The primary finding of the study reveals that the training program significantly reduced parents' perception of inadequacy ($p=.046$) and increased their self-efficacy ($p=.012$). This result aligns with Bandura's Social Cognitive Theory, which posits that "mastery experiences" are the most potent source of self-efficacy. By equipping parents with concrete strategies (e.g., behavioral management and play skills), the training likely helped turn vague anxieties into manageable tasks. This psychological shift is particularly critical as parents of children with autism often face unique environmental pressures and social stigmatization that inherently deepen their sense of inadequacy (Seeridaram & Rashid, 2023). By providing

targeted skills, the intervention directly counters these external pressures, allowing parents to reclaim a sense of agency. This finding corroborates previous studies (Reichow et al., 2016; Tomasello et al., 2010) and suggests that family-centered interventions do not merely improve child outcomes but fundamentally alter parents' psychological stance. These results are further supported by recent meta-analytic evidence indicating that parent-implemented interventions yield robust, lasting effects on family dynamics by empowering parents as the primary educators (Cheng et al., 2022). Furthermore, our findings resonate with recent experimental research in the Turkish context, which demonstrated that structured empowerment programs significantly enhance parental self-efficacy, effectively acting as a buffer against the pervasive caregiving burden (Şahin Büyük & Özmen, 2025). However, unlike studies that focus solely on stress reduction, this research highlights that competence (self-efficacy) is a more malleable and responsive construct than burden or resilience in short-term interventions, as evidenced by the lack of significant changes in the latter variables. This suggests that while core caregiver burden may be rooted in long-term physical and financial demands (Dückert et al., 2023), the subjective feeling of "competence" can be rapidly improved through structured, evidence-based training, providing an immediate psychological "lifeline" to families (Tabatabaei et al., 2022).

4.2. *The "Matthew Effect" in Parent Training*

The Role of Income: One of the most critical sociological findings of this study is the significant correlation between household income and self-efficacy gains ($r = .428$). While the training was equally accessible to all, families with higher economic capital derived greater benefit in terms of self-confidence. This phenomenon can be interpreted through the lens of the "Matthew Effect" ("the rich get richer"). Higher-income families likely possess the "resource buffers" (e.g., time, paid help, materials) that facilitate the immediate application of learned strategies, thereby reinforcing their sense of competence. This observation aligns with recent scoping reviews that categorize caregiver burden as a multidimensional construct, where financial stability acts as a prerequisite for managing the intensifying physical and emotional demands of raising a child with autism (Dückert et al., 2023). In this context, families with more financial resources can mitigate the "time-dependence" of caregiving, allowing them the cognitive bandwidth to internalize and apply new pedagogical techniques.

Conversely, for low-income families, the daily struggle for basic needs (Maslow's physiological level) may compete with the cognitive load required to implement new parenting techniques (Maslow's self-actualization level). This suggests that for disadvantaged groups, "information alone" is insufficient; it must be coupled with material or social support to close the efficacy gap. Evidence from parent training programs in diverse settings suggests that while digital delivery is cost-effective, its success for low-income families is heavily contingent upon how well the content is adapted to their specific environmental constraints and home routines (Liang et al., 2022). Furthermore, as highlighted in recent Turkish literature, true parental empowerment is not a standalone educational outcome. Still, it is deeply intertwined with the broader psychosocial and economic support systems available to the family (Şahin Büyük & Özmen, 2025).

4.3. *Crisis Management and the Role of Telehealth*

The qualitative data emphasized that the pandemic period was characterized by "regression" and "isolation" due to the closure of special education institutions. In this vacuum, the online training program served as a vital "lifeline." The participants' high satisfaction with the interactive online format supports recent literature (Johnson, 2024) advocating for telehealth as a permanent, not just temporary, solution in special education. Systematic reviews of parent training interventions reinforce this perspective, highlighting that digital platforms not only maintain service continuity during crises but also yield high levels of parent satisfaction due to their flexibility and accessibility (Tabatabaei et al., 2022). By removing the physical and temporal barriers inherent to traditional models, telehealth enables a more consistent and sustainable support structure for families in need.

The study demonstrates that when physical access is restricted, technology-mediated interventions can successfully maintain the continuity of support, preventing parental burnout and providing real-time solutions to behavioral crises at home. Recent findings in the Turkish context specifically confirm that

remote empowerment programs are highly effective in reducing the caregiving burden during periods of social restriction, proving that psychological support can be successfully translocated from clinical settings to the digital realm (Şahin Büyük & Özmen, 2025). Furthermore, evidence suggests that the effectiveness of these online programs is not diminished by distance; rather, they foster an environment in which parents can immediately apply theoretical knowledge to real-life behavioral challenges in their natural home setting (Liang et al., 2022).

4.4. *Universal Accessibility and Inclusive Design*

Contrary to the common assumption that "higher parental education leads to better outcomes," this study found no significant difference in gains based on the mother's or father's education level or occupation. This "null finding" is actually a testament to the program's instructional quality. It indicates that the training content was designed with a "universal language" that transcended educational barriers, making complex special education concepts accessible to both a primary school graduate and a university graduate. This democratization of knowledge is supported by systematic reviews suggesting that the efficacy of parent training is often independent of parental demographics when the curriculum is evidence-based and focuses on practical, observable skills (Tabatabaei et al., 2022). By emphasizing "how-to" strategies over abstract theories, the program ensures that all parents, regardless of their academic background, can attain a functional level of competence in managing their child's needs.

This "democratization of knowledge" is crucial for future policy-making, proving that complex behavioral interventions can be effectively taught to diverse populations if the pedagogical design is inclusive. Recent research in international contexts has demonstrated that even intensive training programs achieve high compliance and effectiveness among parents with varying levels of education when the delivery is structured to be culturally and linguistically accessible (Liang et al., 2022). Furthermore, as observed in the Turkish context, providing an inclusive platform for parents who previously lacked formal training enables rapid "catch-up" in self-efficacy, bridging the empowerment gap between socio-educational groups (Şahin Büyük & Özmen, 2025).

4.5. *Limitations and Future Directions*

While the study offers robust insights, it has limitations. The sample size ($N=30$) and the single-group design limit generalizability. Future research should employ randomized controlled trials (RCTs) with larger samples and include follow-up measurements to assess the long-term retention of self-efficacy gains. As emphasized by recent experimental studies in the field, understanding whether these psychological gains translate into long-term reductions in caregiver burden requires sustained monitoring over several months (Şahin Büyük & Özmen, 2025).

Additionally, given the borderline significance of marital status ($p=.056$), future interventions should specifically target single parents with tailored support modules. Since single caregivers often face a compounded "multidimensional burden" involving physical, social, and financial exhaustion (Dückert et al., 2023), inclusive design must move beyond "one-size-fits-all" models toward personalized digital support systems. Future research should also explore the "Matthew Effect" further by investigating how providing hardware or internet subsidies alongside training might close the efficacy gap for low-income families. From a policy perspective, the high satisfaction with the online format suggests that telehealth should be integrated as a permanent pillar of special education systems rather than a temporary crisis measure (Tabatabaei et al., 2022). Future studies should investigate the "hybrid" model—combining online theoretical modules with periodic face-to-face coaching—to maximize the benefits of social support and practical mastery (Liang et al., 2022). Furthermore, expanding the training to include fathers and extended family members is essential for fostering a truly resilient home ecology, ensuring that the burden of care is distributed and parental self-efficacy is reinforced through a collective family approach (Cheng et al., 2022; Paramansyah et al., 2023).

5. Conclusion

This study concludes that a structured, online family training program is an effective intervention for reducing the perception of inadequacy and enhancing self-efficacy among parents of children with special needs. The "Explanatory Sequential" design revealed that the statistical improvements stemmed from parents' ability to transfer theoretical knowledge into daily routines, such as play and responsibility-giving. This psychological and behavioral evolution aligns with the growing consensus that empowering the parent as a primary educator is a cornerstone for maximizing long-term developmental outcomes for the child (Cheng et al., 2022).

Although the program was universally effective across educational levels, the disparity in benefits by income level underscores the need for equity-focused supplementary support for economically disadvantaged families. Ultimately, empowering the parent is synonymous with empowering the child; thus, family training should be integrated as a standard, funded component of special education services, accessible via digital platforms to reach the unreached. Consequently, equity-focused supplementary support—addressing the multidimensional physical and financial burdens identified in recent literature (Dückert et al., 2023)—is essential to ensure that economically disadvantaged families can fully translate training into practice.

Ultimately, the study proves that when physical access is restricted, telehealth is not merely a temporary substitute but a resilient, permanent support mechanism that can prevent parental burnout and foster family resilience (Tabatabaei et al., 2022). Our findings, echoing recent evidence from the Turkish context, suggest that providing a digital "lifeline" to previously unsupported parents is a vital step toward a more inclusive special education system (Şahin Büyük & Özmen, 2025). Empowering the parent is synonymous with empowering the child; therefore, structured family training should be integrated as a standard, funded, and digitally accessible component of special education services to effectively "reach the unreached."

References

- Bandura, A. (1997). Self-efficacy: The exercise of control. W.H. Freeman.
- Cavkaytar, A., Aksoy, V., ve Ardiç, A. (2014). The adaptation of the parental self-efficacy instrument for children with disabilities into Turkish. *Educational Sciences: Theory & Practice*, 14(4), 1461-1468. doi:10.12738/estp.2014.4.2023.
- Cheng, W. M., Smith, T. B., Butler, M., Taylor, T. M., and Clayton, D. (2022). Effects of Parent-Implemented Interventions on Outcomes of Children with Autism: A Meta-Analysis. *Journal of Autism and Developmental Disorders*, 53(12), 4147–4163. <https://doi.org/10.1007/s10803-022-05688-8>.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and conducting mixed methods research* (3. baskı). SAGE Publications.
- Dückert, S., Gewohn, P., König, H., Schöttle, D., Konnopka, A., Rahlff, P., Vogeley, K., Schulz, H., David, N., ve Peth, J. (2023). Multidimensional Burden on Family Caregivers of Adults with Autism Spectrum Disorder: a Scoping Review. *Review Journal of Autism and Developmental Disorders*, 12, 723-740. <https://doi.org/10.1007/s40489-023-00414-1>.
- Johnson, C. R., Turner, K. S., and Foldes, E. (2024). Follow-up of telehealth parent training for sleep disturbances in young children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*. <https://doi.org/10.1007/s10803-024-06321-x>.
- Liang, S., Zheng, R. X., Zhang, L. L., Liu, Y. M., Ge, K. J., Zhou, Z. Y., and Wang, L. (2022). Effectiveness of parent-training program on children with autism spectrum disorder in China. *International Journal of Developmental Disabilities*, 68:4, 495-499. <https://doi.org/10.1080/20473869.2020.1813063>.

- Paramansyah, A., Hamzah, Putra, R. P., Direja, A. H. S., ve Zamakhsari, A. (2023). The Impact of Parents' Training Program for the Psychosocial Development of Autism Spectrum Disorder Students. *Journal on Education*, 6(1), 6147-6154.
- Reichow, B., Servili, C., Yasamy, M. T., Barbui, C., and Saxena, S. (2016). Non-specialist psychosocial interventions for children and adolescents with intellectual disability or lower-functioning autism spectrum disorders: A systematic review. *PLOS Medicine*, 10(12), e1001572.
- Rios, K., ve Burke, M. M. (2021). Family-centered practices in early intervention: A qualitative study of the perspectives of parents and professionals. *Journal of Early Intervention*, 43(3), 250-268. <https://doi.org/10.1177/1053815120953609>
- Seeridaram, A., ve Rashid, S. M. M. (2023). The Impact of Pressure Upon Parents in Raising Children Diagnosed with Autism Spectrum Disorders. *International Journal of Academic Research in Business and Social Sciences*, 13(1), 940-953. <http://dx.doi.org/10.6007/IJARBS/v13-i1/15916>.
- Shulga, T. I., Savchenko, D. V., and Shulga, A. I. (2022). Telehealth for autism spectrum disorder: A systematic review. *International Journal of Environmental Research and Public Health*, 19(15), 9636. <https://doi.org/10.3390/ijerph19159636>.
- Şahin Büyük, D., ve Özmen, D. (2025). Effectiveness of a Parent Empowerment Program for Parents of Children with Autism: A Randomized Controlled Trial. *Child: Care, Health and Development*.
- Tabachnick, B. G., ve Fidell, L. S. (2013). *Using multivariate statistics* (6. baskı). Pearson.
- Tabatabaei, S. H., Shahrokhi, H., Gholipour, K., Iezadi, S., Rezapour, R., Naghibi, D., ve Azami-Aghdash, S. (2022). The Characteristics and Results of Parent Training Interventions in Children with Autism Spectrum Disorder: A Systematic Review. *Iran Journal of Public Health*, 51(3), 518-530.
- Ting, V., ve Chu, S. Y. (2023). The effect of telehealth intervention on parental stress and self-efficacy in parents of children with autism spectrum disorder. *Journal of Telemedicine and Telecare*, 29(4), 289-298. <https://doi.org/10.1177/1357633X20986034>.
- Tomasello, N. M., Manning, A. R., & Dulmus, C. N. (2010). Family-centered early intervention for infants and toddlers with disabilities. *Journal of Family Social Work*, 13(2), 163-172. <https://doi.org/10.1080/10522150903487019>.
- Wuang, Y. P., Huang, C. L., y Tsai, H. Y. (2022). Effectiveness of telehealth-delivered parent training on behavioral problems in children with autism spectrum disorder. *Journal of Autism and Developmental Disorders*, 52(5), 2200-2212.
- Yıldırım Sarı, H., ve Başbakkal, Z. (2008). Aile yükü değerlendirme ölçeğinin psikometrik özelliklerinin incelenmesi. *Atatürk Üniversitesi Hemşirelik Yüksekokulu Dergisi*, 11(2), 1-9.