Soc Work Soc Welf, 2026, 7(1): 327-337
DOI: 10.25082/SWSW.2026.01.001

RESEARCH ARTICLE

The Emotional States and Quality of Parent–Child Interactions Among Parents of Children with Autism Spectrum Disorder (ASD) Before and After the Cygnet Psychoeducational Program

Efstathia Lefkaditi[1*] **Katerina Maniadaki**[1]

[1] Department of Social Work, School of Administrative, Economic and Social Sciences, University of West Attica, Athens, Greece

Correspondence to: Efstathia Lefkaditi, Department of Social Work, School of Administrative, Economic and Social Sciences, University of West Attica, Athens, Greece; E-mail: e.lefkaditi@gmail.com

Received: November 17, 2025;
Accepted: January 28, 2026;
Published: February 4, 2026.

Citation: Lefkaditi E, Maniadaki K. The Emotional States and Quality of Parent–Child Interactions Among Parents of Children with Autism Spectrum Disorder (ASD) Before and After the Cygnet Psychoeducational Program. *Soc Work Soc Welf*, 2026, **7**(1): 327-337. https://doi.org/10.25082/SWSW.2026.01.001

Abstract: **Aim:** The aim of the present research was the investigation of the emotional state of parents of children with Autism Spectrum Disorder (ASD), as well as the quality of their interactions with their children and the quality of the couple's relationship, before and after the implementation of the Cygnet psychoeducational program. **Methods:** The sample consisted of 30 pairs of parents of children with ASD aged 4-8 years at functional levels 2 and 3. Twenty pairs (40 parents) participated in the intervention program, while 10 pairs (20 parents) formed the control group. The intervention was implemented in six 2-hour group sessions over a period of six months, followed by a follow-up assessment 18 months later. Data were collected using the General Health Questionnaire (GHQ-28), Parental Stress Index/Short Form (PSI-SF), BDI, SCL-90, Parental Self-Efficacy Scale, Parenting Self-Agency Measure, Barrett-Lennard Relationship Inventory (Form OS-40), Self-Expressiveness in the Family Questionnaire, and a semi-structured interview. **Results:** Statistically significant improvements were observed in the intervention group across multiple domains, including reductions in parental stress, anxiety, and depressive symptoms, as well as increases in parental self-efficacy and perceived parental competence. Improvements were also found in the quality of couple relationships, particularly in Respect and Authenticity. All key gains were maintained at the 18-month follow-up. **Conclusion:** The findings support the effectiveness of the Cygnet psychoeducational program as a family-centered intervention that reduces parental distress, enhances parental self-efficacy, and strengthens couple relationships. Integrating structured psychoeducational programs into social work and early intervention services may provide a sustainable and equitable support option for families of children with ASD.

Keywords: Autism Spectrum Disorder, Cygnet program, parental stress, early intervention, couple relationship quality, psychoeducation

1 Introduction

Autism Spectrum Disorder (ASD) is a lifelong neurodevelopmental condition characterized by persistent deficits in social communication and interaction, alongside restricted and repetitive patterns of behavior neurodevelopmental characteristics of ASD [1,2]. The demands associated with raising a child with ASD are substantial and often exceed those encountered in typical developmental contexts. As a result, parents frequently experience elevated levels of psychological distress, including anxiety, depressive symptoms, and heightened parental stress psychological burden in ASD care-giving [3]. These challenges can adversely affect not only the mental and physical health of caregivers but also the quality of the marital relationship and the overall functioning of the family system [4,5].

In Greece, the burden experienced by families is further intensified due to limited availability of public early intervention services and the high financial cost of private therapeutic programs early intervention challenges in Greece [6–8]. Consequently, many families face unmet needs, insufficient support, and fragmented service provision, which collectively exacerbate parental strain and reduce opportunities for empowerment [9].

Internationally, several structured psychoeducational programs–such as EarlyBird, Triple P–Stepping Stones, and Cygnet–have been developed to support parents of children with ASD psychoeducational programs for ASD [10,11]. These interventions aim to enhance parental self-efficacy, reduce psychological distress, and improve the quality of parent–child interactions [12]. The Cygnet program, developed by Barnardo's Autism Service in the United Kingdom, is a

structured, evidence-based psychoeducational intervention designed specifically for parents of children with ASD [13]. It focuses on increasing parental understanding of autism, strengthening coping strategies, and promoting more effective communication within the family Cygnet program principles.

The purpose of the present research is to investigate the emotional state of parents of children with ASD, the quality of their interactions with their children, and the perceived quality of the couple's relationship before and after participation in the Cygnet psychoeducational program research focus on parental well-being. The study specifically aims to explore whether participation in the Cygnet program contributes to: (a) the reduction of psychological burden and negative emotions, (b) the enhancement of positive emotions and parental self-efficacy, and (c) the improvement of the quality of the parental role and the cohesion of the family system, with a positive effect on the couple's relationship.

2 Materials and Methods

2.1 Sample

The sample consisted of 30 pairs of parents (60 individuals) of children with ASD aged 4 to 8 years, classified at functional levels 2 and 3 according to the DSM-5 diagnostic criteria [14]. Twenty pairs were included in the intervention group, while 10 pairs of parents formed the control group.

2.2 Research Tools

Data were collected using the following validated tools: General Health Questionnaire (GHQ-28), Parental Stress Index/Short Form (PSI-SF), Beck Depression Inventory (BDI), Symptom Checklist-90 (SCL-90), Parental Self-Efficacy Scale (PSES), Parenting Self-Agency Measure (PSAM), Barrett-Lennard Relationship Inventory (Form OS-40) (measuring perceived Respect, Empathy, Unconditional Acceptance, and Congruence (Authenticity) from the partner), Self-Expressiveness in the Family Questionnaire, and a semi-structured interview. All instruments not originally available in Greek were translated using a forward–backward translation procedure, in accordance with standard cross-cultural research guidelines.

2.3 Intervention Procedure

The Cygnet psychoeducational program was delivered in six structured, two-hour group sessions by a certified coordinator. Core sessions content included psycho-education about ASD, stress management and coping strategies, communication skills, behavior understanding, and strengthening parental collaboration and couple communication [15]. A follow-up assessment was conducted 18 months after completion of the intervention to evaluate the long-term sustainability of outcomes.

2.4 Ethics Statement

The research was approved by the Research Ethics and Deontology Committee (RED-C) of the University of West Attica (Protocol No. 51078/15-07-2020). Written informed consent was obtained from all participants, ensuring compliance with ethical standards regarding anonymity and voluntary participation.

2.5 Statistical Analysis

Statistical analyses were conducted using IBM SPSS Statistics 24.0. Group comparisons were performed using Student's t-test or Mann–Whitney U test, depending on data distribution. Repeated-measures ANOVA was used to examine changes over time and interaction effects between groups repeated-measures analysis. Pearson's or Spearman's correlation coefficients were applied depending on data distribution. Bonferroni correction was used to control for Type I error. Effect sizes (Cohen's d and partial η^2) were calculated to estimate practical significance. Statistical significance was set at $p < 0.05$.

3 Results

3.1 Socio-demographic and Baseline Characteristics

The total sample included 60 parents (50% male, 50% female), with a mean age of 43.7 years (SD 8.5). Baseline differences were observed in educational level and number of children; however, these differences did not undermine post-intervention outcomes, as the intervention

group demonstrated significantly greater improvements over time. (see Table 1)

Table 1 Socio-demographic and Family Characteristics of the Participants

Characteristics	Control Group (N = 20) N (%)	Intervention Group (N = 40) N (%)	Total (N = 60) N (%)
Gender			
Male	10 (50.0)	20 (50.0)	30 (50.0)
Female	10 (50.0)	20 (50.0)	30 (50.0)
Age			
Mean (SD)	43.5 (9.6)	43.8 (8.0)	43.7 (8.5),
Median (Range)	42.0 (37-46.5)	42.5 (39-47)	42 (38-47)
Education			
Primary School	0 (0.0)	1 (2.6)	1 (1.7)
Lower Secondary (Gymnasium)	2 (10.0)	2 (5.3)	4 (6.9)
Upper Secondary (Lyceum)	0 (0.0)	18 (47.4)	18 (31.0)
University (Bachelor's)	16 (80.0)	15 (39.5)	31 (53.4)
Master's Degree	2 (10.0)	2 (5.3)	4 (6.9)
Number of Children			
1	5 (25.0)	21 (53.8)	26 (44.1)
2	15 (75.0)	16 (41.0)	31 (52.5)
4	0 (0.0)	2 (5.1)	2 (3.4)
Family Support (Extended Family)			
Not at all	5 (25.0)	7 (17.9)	12 (20.3)
A little	8 (40.0)	16 (41.0)	24 (40.7)
Satisfactorily	6 (30.0)	12 (30.8)	18 (30.5)
Very much	1 (5.0)	4 (10.3)	5 (8.5)
Number of Family Members			
3	6 (30.0)	20 (52.6)	26 (44.8)
4	14 (70.0)	16 (42.1)	30 (51.7)
6	0 (0.0)	2 (5.3)	2 (3.4)
First Child's Age			
Mean (SD)	6.5 (1.3)	9.8 (7.7)	8.5 (6.2)
Median (Range)	6.8 (6-7.5)	8 (5.4-12)	7 (6-8)
First Child's Gender			
Boy	12 (60.0)	27 (96.4)	39 (81.3)
Girl	8 (40.0)	1 (3.6)	9 (18.8)
Second Child's Age			
Mean (SD)	4.2 (2.7)	9.1 (7.8)	7.1 (6.7)
Median (Range)	4.5 (2-5)	7.0 (6-8)	6.0 (4.5-8)
Second Child's Gender			
Boy	8 (57.1)	9 (45.0)	17 (50.0)
Girl	6 (42.9)	11 (55.0)	17 (50.0)
Hours Spent with Child Daily			
Mean (SD)	5.6 (5.3)	5.5 (1.8)	5 (4-7)
Median (Range)		5.5 (3.5)	

Note: Values are presented as N (%) for categorical variables and Mean (SD), Median (Range) for continuous variables.

3.2 Impact on Parental Stress (PSI)

The Control Group had significantly lower levels of parental stress at baseline compared to the Intervention Group. (see Figure 1)

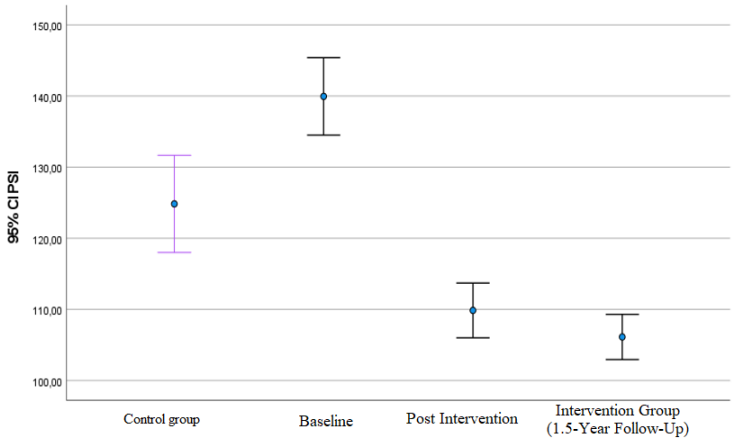

Figure 1 Mean Total PSI Scores per Group and Time Point

At baseline, the Control Group exhibited significantly lower levels of parental stress compared to the Intervention Group. Following the intervention, the Intervention Group demonstrated a statistically significant reduction in total PSI scores and all subscales, indicating parental stress reduction. This improvement was not only maintained but further strengthened at the 18-month follow-up, indicating robust long-term effects of the Cygnet program.

No significant gender differences were observed in the degree of improvement ($p = 0.577$), suggesting that the intervention was equally effective for both mothers and fathers gender-neutral intervention effects.

3.3 Impact on General Health (GHQ-28)

Baseline GHQ-28 scores showed no significant differences between groups. Post-intervention, the intervention group showed significant improvement across all health subscales. (see Figure 2)

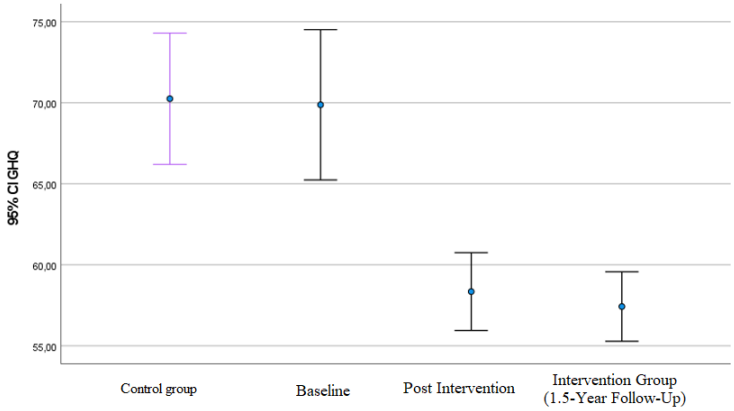

Figure 2 General Health Scores per group and time point

Statistically significant score reductions occurred in the intervention group post-test and follow-up, indicating improved mental health. Severe depression scores showed further significant reduction at follow-up ($p = 0.014$).

3.4 Impact on Parental Efficacy and Competence

The Intervention Group demonstrated significant increases in both parental self-efficacy (PSES) and perceived parental competence immediately after the intervention and at follow-up parental efficacy gains ($p < 0.001$). (see Figure 3 and 4)

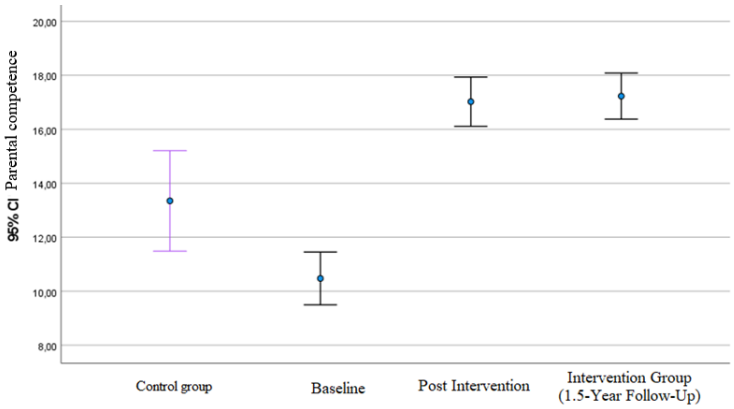

Figure 3 Change in Parental Competence scores by group and time points

Although the control group had higher baseline competence scores ($p = 0.003$*), the intervention group surpassed them post-intervention, with improvements maintained at 18 months. This suggests that the Cygnet program effectively enhances parents' confidence and perceived ability to manage their child's needs competence development.

3.5 Impact on Couple's Relationship (Barrett-Lennard Inventory)

Analysis of the BarrettLennard Relationship Inventory revealed significant improvements in Respect, Authenticity, Empathy, and Unconditional Acceptance within the intervention group.

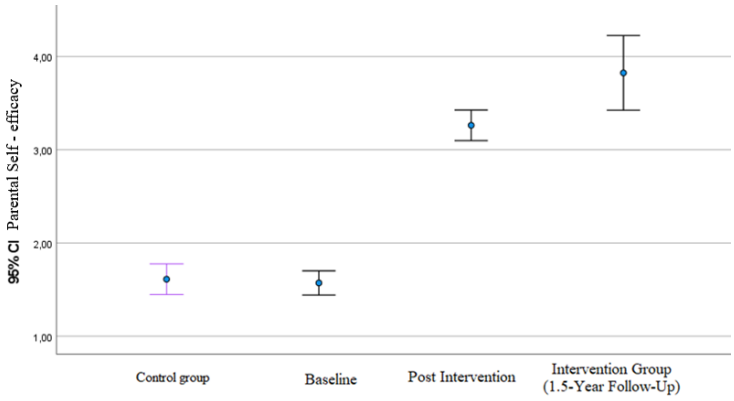

Figure 4 The variation in parental self-efficacy scores across groups and time points

Improvements in Authenticity were significantly associated with reductions in depressive symptoms (r = -0.32, p = 0.043), indicating the mediating role of couple relationship quality in parental well-being. (see Table 2)

Respect: At baseline, the Intervention Group had a significantly lower score in perceived Respect from their partner compared to the Control Group. This dimension significantly increased after the intervention and at the 1.5-year follow-up, eliminating the significant baseline difference between the groups.

Authenticity (Congruence): This dimension showed a significant increase after the intervention and a further significant increase at the 1.5-year follow-up, leading the Intervention Group to score higher than the Control Group at both post-intervention time points.

Empathy and Unconditional Acceptance: These dimensions also increased significantly in the Intervention Group after the program.

Table 2 Changes in Barrett-Lennard Relationship Inventory Scores Across Time in the Intervention Group

Dimension / Time Point	Male Mean (SD)	Female Mean (SD)	p+	p++
Respect (Regard)			0.373	0.909
Baseline (Pre)	1.5 (13.2)	5.0 (11.3)		
Post-intervention	8.6 (10.6)	12.5 (7.6)	0.196	
1.5-year follow-up	9.7 (10.5)	13.1 (7.3)	0.234	
p (baseline-post)	0.006	0.004		
p (post-follow up)	0.024	0.276		
p (baseline-follow up)	< 0.001	0.001		
Empathy			0.847	0.747
Baseline (Pre)	-8.1 (10.3)	-8.6 (7.4)		
Post-intervention	0 (8.8)	-1.7 (8.5)	0.538	
1.5-year follow-up	1 (8.7)	-0.2 (8.2)	0.670	
p (baseline-post)	< 0.001	0.002		
p (post-follow up)	0.248	0.023		
p (baseline-follow up)	< 0.001	< 0.001		
Unconditional Acceptance			0.002	0.063
Baseline (Pre)	-11.3 (5.0)	-6.7 (3.7)		
Post-intervention	-7.7 (4.5)	-5.9 (4.1)	0.179	
1.5-year follow-up	-8.0 (4.4)	-6.3 (4.1)	0.212	
p (baseline-post)	0.002	> 0.999		
p (post-follow up)	> 0.999	0.450		
p (baseline-follow up)	0.010	> 0.999		
Authenticity (Congruence)			0.172	0.175
Baseline (Pre)	3.1 (8.4)	-0.6 (8.2)		
Post-intervention	7.2 (6.1)	6.8 (5.6)	0.809	
1.5-year follow-up	8.2 (6.2)	8.4 (5.8)	0.917	
p (baseline-post)	0.081	< 0.001		
p (post-follow up)	0.095	0.002		
p (baseline-follow up)	0.021	< 0.001		

3.6 Key Correlations and Change Analysis

The statistical analysis of change scores (from Baseline to follow-up) revealed powerful systemic interdependencies, highlighting how improvements in individual mental health and

marital quality are intrinsically linked to family functionality.

Reductions in depressive symptoms were strongly correlated with reductions in parental stress (r = 0.64, $p < 0.001$) and improvements in general health (r = 0.81, $p < 0.001$). Decreases in somatization were significantly associated with increases in positive family expressiveness (r = -0.50, p = 0.001). Improvements in parental competence were positively correlated with increases in parental self-efficacy (r = 0.32, p = 0.045).

3.6.1 Interrelation of Psychological Distress and Parental Stress

A strong, statistically significant positive correlation was identified between the reduction in depressive symptoms (BDI) and the decrease in total parental stress (PSI) (r = 0.64, $p < 0.001$). This finding suggests that the alleviation of maternal and paternal distress is a primary driver for reducing the perceived burden of care-giving. (see Figure 5 and 6)

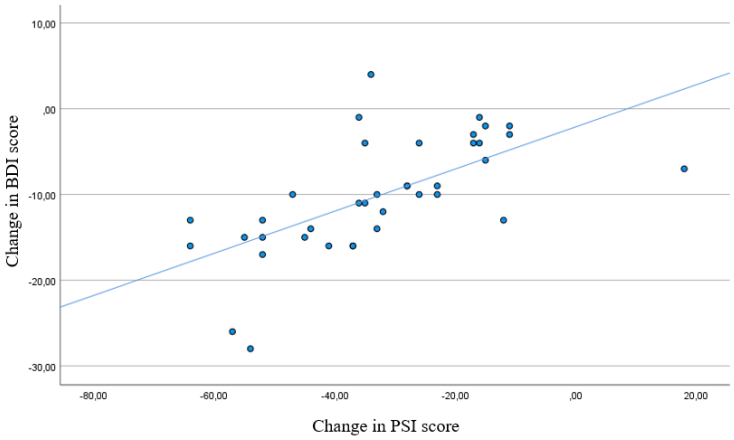

Figure 5 Correlation between changes in BDI depression scores and PSI parenting stress scores

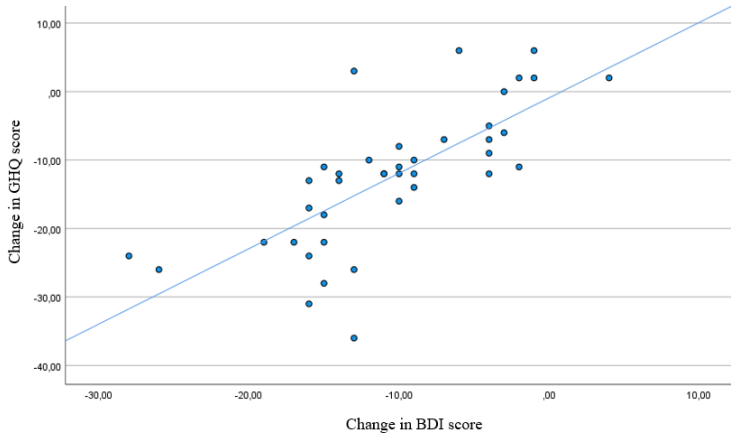

Figure 6 Correlation between changes in BDI depression scores and GHQ28 general health scores

Additionally, the improvement in depression scores was significantly linked to an overall improvement in General Health (GHQ-28) (r = 0.81, $p < 0.001$). This indicates that the psychological benefits of the intervention extend to the parents' general well-being. (see Figure 7 and 8)

The study identified a consistent pattern between psycho-pathological indicators (SCL-90) and family dynamics:

(1) Health and Expressiveness: Improvements in almost all psychopathology dimensions were positively correlated with gains in General Health (GHQ-28) and reductions in Negative Family Expressiveness ($p < 0.001$). Conversely, parents who reported an increase in symptoms also exhibited a significant rise in negative emotional expression within the home.

(2) Parental Competence**:** Deterioration in somatization, depression, and paranoid ideation was strongly linked to a decrease in the sense of Parental Competence ($p < 0.05$). Furthermore, increased phobic anxiety was marginally associated with lower Parental Self-Efficacy.

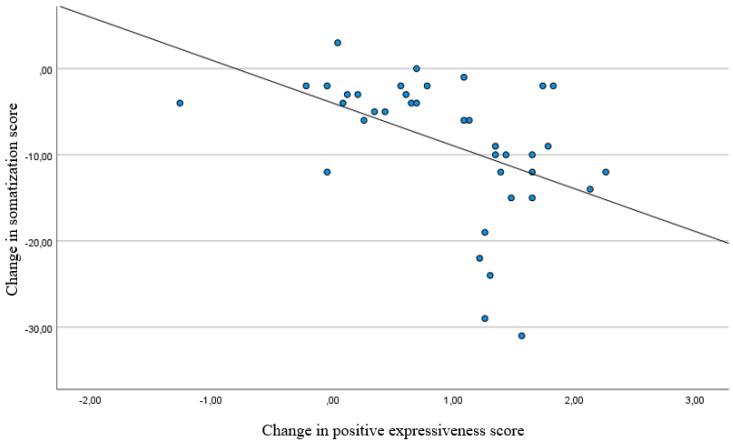

Figure 7 Correlation between changes in somatization and positive expressiveness

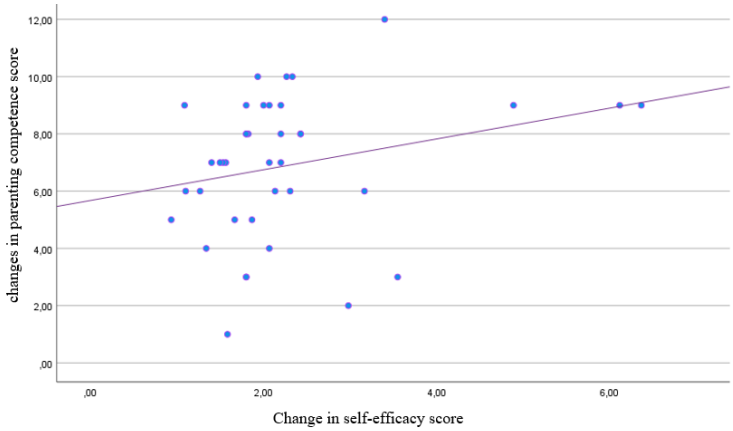

Figure 8 Correlation between changes in parenting competence and self-efficacy scores

(3) Somatization and Positive Communication**:** A notable finding was the negative correlation between changes in Somatization and Positive Expressiveness (r = -0.50, p = 0.001). This demonstrates that as parents' physical manifestations of stress (somatization) decrease, their capacity for positive emotional exchange within the family environment increases.

The analysis confirmed that gains in Parental Competence are positively associated with an increased sense of Self-Efficacy (r = 0.32, p = 0.045). This suggests that as parents acquire practical management skills through the Cygnet program, their internal confidence in their parental role is bolstered

3.6.2 Impact of Baseline Life Satisfaction

A significant interaction effect was observed regarding the parents' initial quality of life. Participants who entered the program reporting low to no satisfaction across various domains of daily life exhibited a significantly steeper rate of improvement in parental stress and competence compared to those with high initial satisfaction. This suggests that the Cygnet intervention is particularly effective for families experiencing the highest levels of initial systemic burden. (see Figure 9 and 10)

Changes in psychopathology (SCL-90) were positively correlated with changes in general health (GHQ-28) and negative family expressiveness ($p < 0.001$). Specifically:

(1) An exacerbation of symptoms was associated with health deterioration and increased negative expressiveness.

(2) Deterioration in somatization, depression, and paranoid ideation was linked to a significant decrease in parental competence.

(3) Increased phobic anxiety was marginally associated with a reduction in parental self-efficacy.

(4) Relational Quality and Distress: Greater improvement in perceived relational dimensions (Respect, Empathy, Authenticity) was significantly and negatively correlated with greater reduction in depression (BDI) and stress (PSI) (e.g., Authenticity-BDI r= -0.32, p = 0.043). This

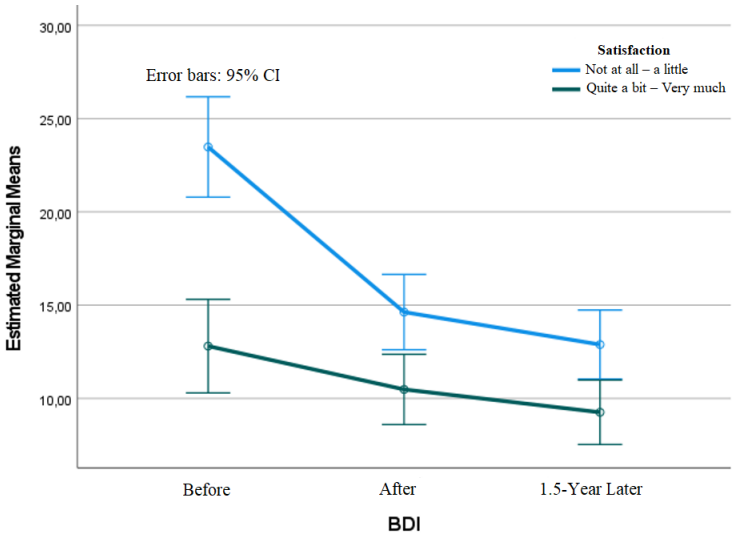

Figure 9 Changes in depression scores (BDI) across different satisfaction levels

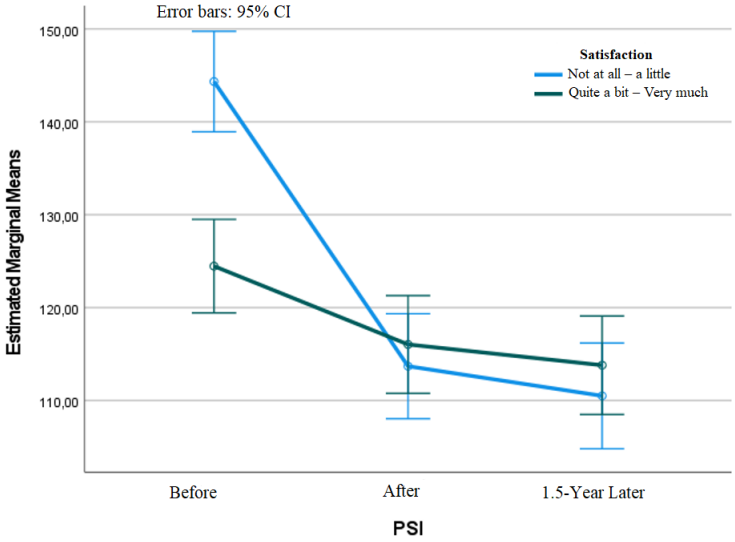

Figure 10 The variation in Parenting Stress Index (PSI) scores across different satisfaction levels

demonstrates that improved partner communication and emotional connection directly mediates reduced psychological distress.

(5) Relational Quality and Health: An improvement in Respect and Authenticity was associated with an improvement in General Health (GHQ-28).

(6) Efficacy and Distress: Greater reduction in BDI and PSI scores was significantly and negatively correlated with the change in Parent Competence and Positive Expressiveness (r = -0.47/-0.73, $p < 0.001$).

(7) Impact of Baseline Satisfaction: The group of participants who reported low to no satisfaction from various areas of daily life showed a significantly greater improvement in almost all scale scores (parental stress, parent competence) compared to the satisfied group, suggesting the intervention is more effective for individuals with lower initial satisfaction levels.

4 Discussion and Conclusion

The findings of the present study provide strong evidence for the effectiveness of the Cygnet psychoeducational program in supporting parents of children with Autism Spectrum Disorder (ASD) in Greece. Beyond the acquisition of practical management strategies, the intervention facilitates systemic improvements in parental mental health, couple relationship quality, and family communication. This study represents a pioneering effort as the first systematic evaluation of the Cygnet program in Greece [16], addressing a critical regional gap where public early

intervention support is scarce and private care often remains cost-prohibitive [6].

4.1 Impact on Parental Distress and General Health

The significant reduction in parental stress (PSI) and depressive symptoms (BDI) observed in the intervention group confirms that structured support can mitigate the chronic burden associated with ASD care-giving. A primary statistical observation is the clinical significance of the change in depression levels; the intervention group began at a "Mild-to-Moderate Depression" level (M = 20.6) and concluded within "Normal/Mild" limits (M = 10.1).

The strong positive correlation identified between BDI and PSI (r = 0.64, $p < 0.001$) and between BDI and General Health (GHQ-28) (r = 0.81, $p < 0.001$) highlights the multifaceted nature of parental distress. Notably, at the baseline measurement, the intervention group presented significantly lower satisfaction levels across nearly all domains ($p < 0.05$) compared to the control group, underlining their urgent need for psychoeducational support. As parents gain an understanding of their child's condition through the program, their internal emotional state follows a path of recovery, leading to broader improvements in overall well-being.

4.2 Relational Quality as a Mediator of Distress

A primary contribution of this research is the identification of the couple's relationship as a critical mediator of psychological well-being. The findings revealed that greater improvements in perceived relational dimensions–specifically Respect, Empathy, and Authenticity–were significantly and negatively correlated with reductions in depression and stress.

The significant correlation between Authenticity and BDI scores (r = -0.32, p = 0.043) suggests that when parents feel they can be genuine and congruent with their partner, their emotional burden is significantly lightened. Furthermore, Authenticity was the only dimension significantly correlated with the reduction of social withdrawal/psychoticism (r = -0.47, p = 0.002), suggesting that deep marital connection buffers against alienation. This association reinforces systemic theory: a supportive marital environment acts as a "buffer" against caregiver burnout, necessitating that social work move toward holistic family resilience models.

4.3 Gender Dynamics and Differential Evolution

The study also highlights distinct "learning curves" and rates of change between genders:

(1) Fathers as "Late Bloomers": Statistically, only fathers showed significant improvement between the post-intervention and 1.5-year follow-up measurements ($P_{post-followup} < 0.05$) in both efficacy and respect. This suggests fathers may require more time to internalize and implement new skills, but once they do, their confidence continues to grow.

(2) Closing the Efficacy Gap: The intervention functioned as an equalizer, bringing fathers to the same level of perceived parental competence as mothers, despite their initial lag.

(3) Continuous Evolution in Mothers: Women continued to improve significantly in Empathy and Authenticity between the second and third measurements, indicating they may utilize supportive networks or communication skills more actively over time.

4.4 Family Dynamics and Expressiveness

The study reveals a vital link between individual psychopathology and family communication. The negative correlation between Somatization and Positive Expressiveness (r = -0.50, p = 0.001) is telling: as physical manifestations of stress decrease, the capacity for positive emotional exchange increases. Indeed, the high correlation (-0.73) between PSI and Positive Expressiveness identifies the latter as a "central hub" for family health. This shift from "crisis mode" to a communicative environment is essential for the long-term development of both the child and parents.

4.5 Parental Agency and Initial Satisfaction

The positive association between Parental Competence and Self-Efficacy (r = 0.32, p = 0.045) confirms that the Cygnet program successfully bolsters the parents' internal confidence. Baseline Life Satisfaction measurements revealed that the intervention is most impactful for those experiencing the highest initial systemic burden.

The success of the intervention is also attributed to the therapeutic alliance. High scores in coordinators' Empathy (M = 24.5) and Unconditional Acceptance (M = 22.8) created a "safe base". The homogeneity of these positive ratings suggests that the supportive, non-judgemental group format was a universal benefit for participants.

4.6 Limitations

While the results are robust, certain limitations must be noted:

(1) Sample Size: The sample (30 pairs) is small, though offset by significant effects and long-term follow-up.

(2) Control Group Differences: The control group had higher baseline education and fewer children, likely contributing to their higher initial satisfaction scores.

(3) Social Desirability: There was a potential for "faking good" (social desirability) in the control group's self-reports.

(4) Geographic Dispersion: The 1.5-year follow-up for the control group was not feasible due to their wide geographic distribution.

4.7 Implications for Social Work Practice

From a social work perspective, these results advocate for a family-centered approach to ASD. Providing parents with a space to improve relational authenticity and respect can lead to more sustainable outcomes than skill-building alone. The stability of results at the 1.5-year follow-up supports the institutional integration of programs like Cygnet into Greek public welfare frameworks.

4.8 Future Research

(1) Implementing multi-center studies with larger samples;

(2) Extending evaluations beyond the 1.5-year threshold;

(3) Utilizing qualitative observation to assess parent-child interaction and the subjective couple experience.

In conclusion, the present study demonstrates that structured psychoeducational interventions can significantly reduce parental distress, enhance self-efficacy, and strengthen marital and family functioning. These findings highlight the systemic benefits of psycho-education in supporting the long-term resilience of families of children with ASD.

Acknowledgements

The author would like to thank the parents who participated in the study for their valuable contribution, as well as the parent associations and social services that facilitated access to the sample. Special thanks are extended to the supervising professor for her guidance and scientific support throughout the study. The author also acknowledges the assistance of colleagues in data analysis and organizational support.

Funding Statement

The Article Processing Charges (APC) was fully funded by the Special Account for Research Grants of the University of West Attica.

Conflicts of Interest

The authors declare no conflicts of interest.

References

[1] Bozkus-Genc G, Sani-Bozkurt S. How parents of children with autism spectrum disorder experience the COVID-19 pandemic: Perspectives and insights on the new normal. Research in Developmental Disabilities. 2022, 124: 104200. https://doi.org/10.1016/j.ridd.2022.104200

[2] Fukuda J, Matsuda K, Sato G, et al. Effects of Betahistine on the Development of Vestibular Compensation after Unilateral Labyrinthectomy in Rats. Brain Sciences. 2021, 11(3): 360. https://doi.org/10.3390/brainsci11030360

[3] Anyanwu JI, Onuigbo LN, Obiyo NO, et al. Parenting Stress in Families of Children With Autism Spectrum Disorder: The Roles of the Extended Family. Global Journal of Health Science. 2019, 11(8): 51. https://doi.org/10.5539/gjhs.v11n8p51

[4] Israel AC, Malatras JW, Wicks-Nelson R. Abnormal child and adolescent psychology. Routledge, 2020.

[5] Zablotsky B, Anderson C, Law P. The Association Between Child Autism Symptomatology, Maternal Quality of Life, and Risk for Depression. Journal of Autism and Developmental Disorders. 2012, 43(8): 1946-1955.
https://doi.org/10.1007/s10803-012-1745-z

[6] Soukakou EP, Beloyianni V, Touloumakos AK. Early Childhood Intervention in Greece: Current Practices and Future Directions. Infants & Young Children. 2025, 38(4): 306-321.
https://doi.org/10.1097/iyc.0000000000000301

[7] Petinou K, Vogindroukas I, Christopoulou M. Autism Prevalence Information And Diagnosis Processes In Cyprus, Greece And Malta. Neuropsychiatric Disease and Treatment. 2024, Volume 20: 2499-2505.
https://doi.org/10.2147/ndt.s468557

[8] Soukakou EP, Beloyianni V, Touloumakos AK. Early Childhood Intervention in Greece: Current Practices and Future Directions. Infants & Young Children. 2025, 38(4): 306-321.
https://doi.org/10.1097/iyc.0000000000000301

[9] Baio J, Wiggins L, Christensen DL, et al. Prevalence of Autism Spectrum Disorder Among Children Aged 8 Years — Autism and Developmental Disabilities Monitoring Network, 11 Sites, United States, 2014. MMWR Surveillance Summaries. 2018, 67(6): 1-23.
https://doi.org/10.15585/mmwr.ss6706a1

[10] National Autistic Society. EarlyBird Programme: Supporting parents of young autistic children, 2017.
https://www.autism.org.uk

[11] Sanders MR, Mazzucchelli TG, Studman LJ. Stepping Stones Triple P: the theoretical basis and development of an evidence-based positive parenting program for families with a child who has a disability. Journal of Intellectual & Developmental Disability. 2004, 29(3): 265-283.
https://doi.org/10.1080/13668250412331285127

[12] Dawson G, Rogers S, Munson J, et al. Randomized, Controlled Trial of an Intervention for Toddlers With Autism: The Early Start Denver Model. Pediatrics. 2010, 125(1): e17-e23.
https://doi.org/10.1542/peds.2009-0958

[13] Stuttard L, Beresford B, Clarke S, et al. An evaluation of the Cygnet parenting support programme for parents of children with autism spectrum conditions. Research in Autism Spectrum Disorders. 2016, 23: 166-178.
https://doi.org/10.1016/j.rasd.2015.12.004

[14] Lenroot RK, Yeung PK. Heterogeneity within Autism Spectrum Disorders: What have We Learned from Neuroimaging Studies? Frontiers in Human Neuroscience. 2013, 7.
https://doi.org/10.3389/fnhum.2013.00733

[15] Powell G, Wass SV, Erichsen JT, et al. First evidence of the feasibility of gaze-contingent attention training for school children with autism. Autism. 2016, 20(8): 927-937.
https://doi.org/10.1177/1362361315617880

[16] Stuttard L, Beresford B, Clarke S, et al. An evaluation of the Cygnet parenting support programme for parents of children with autism spectrum conditions. Research in Autism Spectrum Disorders. 2016, 23: 166-178.
https://doi.org/10.1016/j.rasd.2015.12.004