

# Psychosocial Predictors of Family Communication, Cohesion and Adaptability of Mothers and Fathers of a Child With Autism Spectrum Disorders

Janusz Kirenko<sup>1</sup>, Anna Prokopiak<sup>2</sup>

<sup>1</sup> Department of Pedagogics and Health Education, Maria Curie-Skłodowska University in Lublin, Poland

<sup>2</sup> Department of Special Psychopedagogy and Sociopedagogy, Maria Curie-Skłodowska University in Lublin, Poland

## HOW TO CITE:

Kirenko, J., & Prokopiak, A. (2025). Psychosocial Predictors of Family Communication, Cohesion and Adaptability of Mothers and Fathers of a Child with Autism Spectrum Disorders. *International Journal of Special Education*, 40(1), 37-48.

## CORRESPONDING AUTHOR:

Anna Prokopiak;  
anna.prokopiak@mail.umcs.pl

## DOI:

<https://doi.org/10.52291/ijse.2025.40.4>

## COPYRIGHT STATEMENT:

Copyright: © 2022 Authors.  
Open access publication under the terms and conditions of the Creative Commons Attribution (CC BY) license (<http://creativecommons.org/licenses/by/4.0/>).

## ABSTRACT:

Families of children on the autism spectrum frequently experience heightened stress levels and psychological difficulties. David Olson's Circumplex Family Model, as applied to research on dysfunctional family dynamics, appears to respond well to the growing need for understanding and therapy for such families.

This study aims to identify psychosocial predictors of family communication, cohesion, and adaptability in mothers and fathers of children with autism spectrum disorders in the area of the following personal resources: post-traumatic growth, sense of gratitude, and coping styles.

The study uses a diagnostic survey method combining FACES III to assess family cohesion, Parent-Adolescent Communication Scale, Post-Traumatic Growth Inventory, GQ-6 Gratitude Questionnaire, Mini-COPE to assess stress coping mechanisms, and an interview questionnaire.

The results indicate a complex structure of cohesion among fathers, shaped by diverse aspects of interpersonal relationships and self-perception. Mothers, conversely, show strong links between cohesion, coping mechanisms, and emotional support.

The study revealed that fathers and mothers of children with autism spectrum disorders differ in terms of factors affecting their family cohesion, adaptability, and communication. Consequently, supportive interventions should be tailored individually, considering predictive variations in the parenting experiences of these mothers and fathers.

**Keywords:** Family with a Child on the Autism Spectrum, Personal Predictors, Family Cohesion, Family Adaptability, Family Communication

## INTRODUCTION

This study addresses the growing need to understand and support families of individuals on the autism spectrum (Pisula, 2017; Schmidt & Bosa, 2003). Raising a child with a disability poses significant parental challenges, often associated with higher levels of stress for both mothers and fathers compared to parents of neurotypical children. Stress-inducing factors include severe behavioral problems in the child, increased caregiving demands, financial difficulties, lack of effective collaboration with institutions, and insufficient support. Additionally, these families may face social stigmatization, leading to isolation (Liao et al., 2019).

The literature highlights differences in the reactions of mothers and fathers to their child's disability; for instance, mothers are more likely to experience stress, depression, and caregiving burden. However, research consistently shows that parents of children on the autism spectrum generally report higher stress levels than other parent groups (Bonis, 2016; Kuhlthau et al., 2020). Furthermore, these parents face various mental health consequences, including depression (31%), anxiety disorders (33%), obsessive-compulsive disorders (10%), personality disorders (4%), substance abuse (2%), and schizophrenia spectrum disorders (1%) (Schnabel et al., 2020).

The functioning of families with a child on the autism spectrum is more problematic than in families with neurotypical children. These difficulties are related to increased caregiver demands, limited resources, and insufficient support after the child's diagnosis (Desquenue Godfrey et al., 2023; Burton & Fox, 2023).

Despite the significant practical demand, theoretical models enabling the assessment of family functioning in both empirical research and clinical practice are relatively scarce in the scientific literature. One of the most commonly used frameworks is the Circumplex Model of Marital and Family Systems, developed by Olson, along with the Family Adaptability & Cohesion Evaluation Scales (FACES). This model, initially published by Olson, Sprenkle, and Russell in 1979, was introduced to the Polish academic community by Radochoński in 1987 and has been extensively utilized in studies by authors such as Zwoliński (1992), Braun-Gałkowska (1992), Margasiński (1996), and Kornacka-Skwara (2004). The advanced simplicity and functionality of the Circumplex Model and the FACES questionnaire have contributed to their popularity and widespread application in scientific research (cf. Margasiński, 2015).

Although the FACES tool has undergone several

modifications over the years (FACES I, II, and III), over 1,200 empirical studies using this tool have identified certain limitations (Dundas, 1994). The most recent version, FACES IV, was adapted for Polish use by Margasiński (2015). However, due to its established position in the literature, the FACES III version continues to be applied in parallel studies (Cong et al., 2022; Grigoriopoulos, 2022) and has also been employed in the present research.

This study aims to identify predictors of family cohesion, adaptability, and communication among mothers and fathers of children on the autism spectrum. The research focuses on the personal resources of parents, such as post-traumatic growth, gratitude, and coping styles, to better understand their impact on family functioning under challenging conditions.

## Research problem and aim

This study focuses on the personal predictors of family cohesion, adaptability, and communication, centered around the experiences of mothers and fathers raising a child with an autism spectrum disorder. The research problem can be expressed in the following question: Do, and if so, which indicators of the explanatory variables of post-traumatic growth, gratitude dispositions, and coping styles determine the relationships of the response variable of family cohesion, adaptability, and communication of mothers and fathers of children with autism spectrum disorders? Due to the diagnostic nature of the research problem, no hypotheses were formulated.

The aim of the study is, therefore, to identify predictors of the response variable of family cohesion, adaptability, and communication of mothers and fathers of children with autism spectrum disorders, from among personal resources such as post-traumatic growth, gratitude, and coping styles.

## RESEARCH METHODOLOGY

### Methods

The research material required to analyze the research problem thus posed was obtained using the diagnostic survey method using the following research tools:

- Family Adaptability and Cohesion Scales (FACES III) containing 20 statements measuring levels of cohesion and adaptability, assessed on a five-point scale;
- Parent-Adolescent Communication Scales containing 20 items assessed on a five-point scale;

Both scales by Olson et al. (1985) were translated and adapted by Radochoński (2000). The FACES III scale

distinguishes two fundamental dimensions of the family: cohesion and adaptability, and family communication as an elementary trait that enables the formation of the other variables. Based on FACES III, a typology was developed comprising 16 family types belonging to three categories: balanced, intermediate, and extreme (Margasiński, 2015)

- Post-Traumatic Growth Inventory (PTGI) adapted by Ogińska-Bulik and Juczyński (2010) to measure post-traumatic growth; the Polish version of the PTGI has satisfactory psychometric properties. The Cronbach's alpha index is 0.93, and internal stability (test-retest assessment) is 0.74. Exploratory and confirmatory factor analysis justify adopting the four-factor structure of the PTGI, including 1) Changes in self-perception, 2) Changes in relationships with others, 3) Greater appreciation of life, and 4) Spiritual changes. These factors explain 57.7% of the total variance. Provisional norms were calculated for the Polish version of the PTGI;
- Gratitude Questionnaire 6 (GQ-6) in the Polish adaptation by Kossakowska and Kwiatek (2014) for the study of gratitude as a disposition. The psychometric parameters of the Polish version of the GQ-6 questionnaire included reliability, validity, and preliminary norms for the Polish population. Confirmatory factor analyses (CFI) conducted on the responses of 511 individuals confirm good agreement with the original one-factor solution of the GQ-6 questionnaire structure, but item number 6 is still under discussion. Psychometric parameters were found to be relatively good, with internal consistency – Cronbach's alpha reliability of 0.72;

- Carver's Mini-COPE Stress Coping Inventory, adapted by Juczyński and Ogińska-Bulik (2012) to measure stress coping strategies. The Polish version of the Mini-COPE inventory consists of 28 statements comprising 14 stress-coping strategies (2 statements in each). Due to the fact that each scale consists of two statements, the internal consistency of the Polish version of the inventory was established as a split-half reliability, with an index of 0.86 (Guttman index of 0.87). Consistency is satisfactory for most scales, with the highest for Turning to religion (0.94) and Psychoactive substance use (0.82) and the lowest for the strategy of preoccupation with something else (0.32). The theoretical accuracy of the Polish version is justified by the adoption of a seven-factor scale structure, with these factors explaining a total of 66% of the variance; along with an interview questionnaire, including metric data such as age and residence.

The study included 164 full families raising at least one child with autism or other holistic developmental disorders, i.e., 164 mothers and the same number of fathers. The age of the mothers ranged between 24 and 57 years, with a mean of 41.36 years, while that of the fathers ranged between 27 and 66 years, with a mean of 43.78 years. Conversely, the children ranged between 3 and 24 years of age, with a mean of 12.69 years. For a comprehensive list of sociodemographic data, see Table 1.

### Data analysis procedure

The following statistical methods were used: difference analysis with dependent samples t-test and stepwise multiple regression, which allows for estimating the strength

Table 1 . Sociodemographic data of the studied mothers and fathers with a child on the autism spectrum

Variable	Class	Mothers		Fathers	
		N	%	N	%
Education	Basic	5	3.05	7	4.27
	Vocational	18	10.97	33	20.12
	Secondary	64	39.02	64	39.02
	Higher	71	43.30	51	31.10
	No data available	6	3.66	9	5.49
Professional situation	Full-time employment	73	44.51	102	62.20
	Contract-based	46	28.05	34	20.73
	Unemployed	24	14.63	18	10.97
	Other	12	7.32	7	4.27
	No data available	9	5.49	3	1.83
Material situation	Very good	12	7.32	14	8.54
	Good	67	40.85	68	41.46
	Average	65	39.63	68	41.46
	Bad	7	4.27	7	4.27
	Very bad	4	2.44	3	1.83
	No data available	9	5.49	4	2.44

Variable	Class	Together with the child	
		N	%
Place of residence	Rural area, small town (up to 20,000 residents)	87	53.05
	Medium-sized city (up to 50,000 residents)	32	19.51
	Large city (over 50,000 residents)	41	25.00
	No data available	4	2.44
Number of children	One	54	32.93
	Two	76	46.34
	Three	39	23.78
	More than three	5	3.05
Number of children on the autism spectrum	One	152	92.68
	More than one	12	7.32
Statement of Disability	Not	21	12.80
	Yes	139	84.76
	No data available	4	2.44
Statement of the need for special education	Not	35	21.34
	Yes	123	75.00
	No data available	6	3.66
Diagnosis	Asperger's syndrome	19	11.58
	Early childhood autism	131	79.88
	Atypical autism	7	4.27
	Other holistic disorders	7	4.27
Additional therapy	Not	31	18.90
	Yes	126	76.83
	No data available	7	4.27
Education	Mainstream class	49	29.88
	Special class	57	34.76
	Integrated class	32	19.51
	Mainstream and special classes	7	4.27
	Mainstream and integrated classes	6	3.66
	Special and integrated classes	5	3.05
	Other	8	4.88
Individual teaching	Not	153	93.30
	Yes	6	3.66
	No data available	5	3.05

and form of the relationship between variables and predicting one variable based on knowledge of the values of other variables correlated with it. The data analysis procedure was conducted as follows:

#### *Characteristics of Input Data*

The data were derived from various research tools, including FACES III, Parent-Adolescent Communication Scales, PTGI, GQ-6, Mini-COPE, and an interview questionnaire. The variables studied included family cohesion, adaptability, and communication, which were assessed separately for mothers and fathers of autistic children.

#### *Data Preparation for Analysis*

The data were cleaned and prepared, ensuring completeness and compliance with statistical assumptions. Data categorization was implemented based on questionnaire

and scale results, distinguishing dependent variables (e.g., cohesion, adaptability, communication) and independent variables (e.g., post-traumatic growth, coping styles, gratitude).

#### *Paired Samples t-Test*

A paired samples t-test was employed to analyze differences between mothers and fathers regarding the studied variables (cohesion, adaptability, communication, and scores from specific scales). Comparative analysis facilitated the identification of differences in mean scores between groups, highlighting distinct mechanisms and needs for mothers and fathers.

#### *Stepwise Multiple Regression*

A stepwise multiple regression model was applied, enabling 1) estimation of the impact of predictors (independent

dent variables, such as coping styles and post-traumatic growth) on dependent variables (e.g., family cohesion, adaptability, communication) and 2) consideration of interdependencies among multiple variables within a single model. Stepwise regression allowed for the gradual inclusion of predictors into the model to determine the optimal set of independent variables that best explain the variability of independent variables.

#### Model Fit Indicators

- The coefficient of determination ( $R^2$ ) was calculated for each regression model, indicating the proportion of variance in the dependent variable explained by the included predictors.
- $R^2$  values for the various models ranged from 0.13 (mothers' adaptability) to 0.36 (fathers' cohesion), demonstrating moderate explanatory power of the models.

#### Analysis of Predictor Differences Between Mothers and Fathers

Regression models for mothers and fathers were analyzed separately, enabling the identification of differences in key predictors of family cohesion, adaptability, and communication. Among mothers, active coping mechanisms and emotional support emerged as dominant predictors,

whereas fathers more frequently relied on defensive strategies, such as denial.

#### Reporting Results

The results were presented in tables categorized by mothers and fathers, facilitating comparison of predictor influences on various aspects of family functioning. The findings from the stepwise regression analysis were interpreted within a theoretical context, underscoring key gender differences and their practical implications. This comprehensive approach ensured that the analysis accounted for distinct influences on family dynamics and provided valuable insights into the differentiated needs of mothers and fathers.

## RESULTS

When comparing mothers and fathers, the t-test for dependent pairs was used. The analysis of the obtained data (see Table 2 and Table 3) shows that in the dimensions of *cohesion* and *difficulty* and in all the post-traumatic growth scales, as well as in the four stress coping strategies: *turning to religion* (TR), *seeking emotional support* (SEM), *seeking instrumental support* (SIS) and *blaming oneself* (BO), the average values in the group of mothers

Table 2. Comparison of studied mothers and fathers within the response variable and explanatory variables

Variable	Mean	Sd	N	t°	df	P	D
<b>Family Adaptability and Cohesion Scales - FACES III</b>							
Cohesion M	42.96	6.14					
Cohesion F	41.96	5.76	164	2.229	163	.027*	Weak
Adaptability M	29.75	4.55					
Adaptability F	29.26	4.90	164	1.336	163	.183	-
<b>Parent-Adolescent Communication Scales</b>							
Openness M	39.21	5.03					
Openness F	39.02	4.57	164	.546	163	.586	-
Difficulty M	34.66	5.40					
Difficulty F	33.73	5.11	164	2.247	163	.026*	Weak
<b>PTGI'</b>							
CSP M	31.24	8.61					
CSP F	30.05	8.21	164	2.013	163	.046*	Weak
CRO M	23.58	6.78					
CRO F	21.86	6.34	164	3.690	163	.000***	Moderate
GAL M	11.57	5.02					
GAL F	10.67	2.83	164	2.542	163	.012*	Weak

SC M	5.30	2.72					
SC F	4.33	2.68	164	4.970	163	.000***	Moderate
PG M	71.70	19.51					
PG F	66.97	17.67	164	3.615	163	.000***	Moderate
<b>GQ-6</b>							
Gratitude M	23.49	9.02					
Gratitude F	23.77	7.66	164	-.638	163	.525	-
<b>Mini COPE<sup>2</sup></b>							
AC M	2.23	.58					
AC F	2.24	.62	164	-.193	163	.847	-
P M	2.12	.63					
P F	2.13	.63	164	-.134	163	.893	-
PR M	1.69	.65					
PR F	1.63	.66	164	1.371	163	.172	-
A M	1.90	.59					
A F	1.89	.57	164	.216	163	.829	-
SH M	.65	.55					
SH F	.69	.54	163	-1.141	162	.255	-
TR M	1.33	.93					
TR F	1.02	.89	164	4.473	163	.000***	Weak
SES M	1.95	.74					
SES F	1.83	.73	163	2.214	162	.028*	Weak
SIS M	1.83	.64					
SIS F	1.58	.63	164	4.785	163	.000***	Weak
PSE M	1.67	.65					
PSE F	1.65	.65	164	.554	163	.580	-
D M	.88	.65					
D F	.88	.71	164	.058	163	.953	-
AO M	1.45	.59					
AO F	1.37	.62	164	1.512	163	.112	-
PSU M	.33	.60					
PSU F	.54	.65	164	-4.054	163	.000***	Weak
DA M	.76	.60					
DA F	.72	.59	164	.919	163	.360	-
BO M	1.43	.73					
BO F	1.29	.69	163	2.455	162	.015*	Weak

\*\*\* -  $p < .000$ ; \* -  $p < .05$

<sup>1</sup> Changes in self-perception (CSP), Changes in relationships with others (CRO), Greater appreciation of life (GAL), Spiritual changes (SC), Post-traumatic growth total score (PG)

<sup>2</sup> Active coping (AC), Planning (P), Positive re-evaluation (PR), Acceptance (A), Sense of humour (SH), Turning to religion (TR), Seeking emotional support (SES), Seeking instrumental support (SIS), Preoccupation with something else (PSE), Denial (D), Acting out (AO), Psychoactive substance use (PSU), Discontinuing activities (DA), Blaming oneself (BO)



Table 3. Personal predictors of cohesion and adaptability and family communication of the studied mothers and fathers.

Dependent variable	Predictors	b*	SE with b*	b	SE with b	t(162)	P
Cohesion – fathers	Intercept term			32.40	2.44	13.280	.000***
	CSP	-.25	.07	-2.20	.66	-3.344	.001**
	CRO	.29	.07	.27	.06	4.297	.000***
	P	.20	.07	1.82	.64	2.833	.005**
	GAL	.17	.07	.13	.05	2.651	.009**
	BO	-.16	.07	-1.31	.57	-2.299	.023*
	SIS	.16	.07	1.45	.69	2.096	.038*
	PSE	-.12	.07	-1.10	.62	-1.783	.077~
<b>R= .63; R2= .36; F(9.151)=1.93; p&lt; .000***.</b>							
Cohesion - mothers	Intercept term			29.60	2.54	11.652	.000***
	SES	.32	.09	2.63	.77	3.430	.001**
	SH	-.19	.07	-2.05	.80	-2.583	.011*
	CRO	.41	.24	.38	.22	1.750	.082~
	AC	.18	.08	1.89	.86	2.199	.029*
	P	.18	.09	1.71	.84	2.031	.044*
	GAL	.22	.13	.27	.16	1.678	.095
<b>R= .58; R2= .28; F(12.151)=6.31; p&lt; .000***.</b>							
Adaptability - fathers	Intercept term			24.23	2.01	12.041	.000***
	D	.38	.08	2.57	.50	5.087	.000***
	CSP	-.24	.08	-1.79	.60	-2.987	.003**
	CRO	.22	.07	.17	.06	3.013	.003**
	SH	.24	.07	2.19	.68	3.226	.002**
	PR	-.21	.08	-1.57	.58	-2.700	.008**
	P	.20	.09	1.53	.71	2.168	.032*
	PSE	-.12	.07	-.92	.56	-1.660	.099~
<b>R= .56; R2= .27; F(1.150)=6.99; p&lt; .000***.</b>							
Adaptability - mothers	Intercept term			22.77	2.19	1.406	.000***
	AC	.24	.08	1.84	.64	2.881	.005**
	D	.21	.08	1.45	.56	2.596	.010*
	A	-.15	.08	-1.13	.58	-1.949	.053~
	SES	.14	.08	.85	.49	1.725	.086~
	TR	-.17	.09	-.84	.42	-1.971	.051~
<b>R= .41; R2= .13; F(8.155)=3.99; p&lt; .000***.</b>							
Openness - fathers	Intercept term			39.47	2.24	17.584	.000***
	A	-.22	.08	-1.80	.63	-2.883	.005**
	SH	.22	.08	1.90	.68	2.795	.006**
	PSE	-.22	.08	-1.58	.56	-2.818	.005**
	SC	-.20	.08	-1.58	.65	-2.418	.017*
	GAL	.16	.08	.09	.05	2.048	.042*
<b>R= .48; R2= .16; F(12.148)=3.64; p&lt; .000***.</b>							
Openness – mothers	Intercept term			36.27	2.05	17.651	.000***
	GAL	.21	.08	.21	.08	2.656	.009**
	SES	.22	.08	1.47	.53	2.765	.006**
	A	-.15	.07	-1.23	.63	-1.944	.054~
	AO	.14	.08	1.23	.66	1.865	.064~
<b>R= .40; R2= .12; F(7.156)=4.27; p&lt; .000***.</b>							

Difficulty – fathers	Intercept term			41.05	1.96	2.994	.000***
	D	-.18	.08	-1.25	.58	-2.15	.033*
	PSE	-.23	.08	-1.77	.63	-2.82	.005**
	SES	.25	.10	1.72	.66	2.58	.011*
	GAL	-.15	.08	-.27	.14	-1.91	.058~
	TR	.14	.07	.77	.41	1.87	.063~
	SIS	-.16	.10	-1.29	.77	-1.67	.097~
	PSU	-.16	.09	-1.24	.67	-1.84	.067~
R= .51; R2= .21; F(1.150)=5.24; p< .000***.							
Difficulty – mothers	Intercept term			35.29	2.31	15.251	.000***
	PSU	-.16	.09	-1.48	.79	-1.877	.062~
	SES	.29	.10	2.14	.74	2.877	.005**
R= .42; R2= .14; F(8.155)=4.29; p< .000***.							

\*\*\* -  $p < .000$ ; \*\* -  $p < .01$ ; \* -  $p < .05$ ; ~ - close to significance

with a child on the autism spectrum were significantly higher than the corresponding values obtained in the group of fathers, although with a strength of effect that was at most moderate, whereas only for the strategy *psychoactive substance use* (PSU) it was significantly lower. The observed differences were predominantly associated with the mothers in the study, as 24 t-test indicators revealed only five differences in favor of the fathers, with just one reaching statistical significance.

We analyzed the models of personal cohesion, adaptability, and family communication among the mothers and fathers surveyed. The results suggest that not all indicators of the variables were equally crucial as predictors, but those that were statistically significant were described in detail.

For fathers, cohesion appears to be negatively associated with changes in relationships with others (CRO) at an extreme significance level. Variables such as changes in self-perception (CSP), planning (P), and greater appreciation of life (GAL) were also significant predictors. For mothers, cohesion is positively related to seeking emotional support (SES), but negatively related to the sense of humor (SH).

Thus, in the fathers' group, cohesion is inhibited by changes in self-perception (CSP), preoccupation with something else (PSE), and blaming oneself (BO). By contrast, it is strengthened by changes in relationships with others (CRO), greater appreciation of life (GAL), planning (P), and seeking instrumental support (SIS). The coefficient of determination  $R^2$  is 0.36, which means that these predictors explain 36% of the variation in fathers' cohesion.

By contrast, cohesion is inhibited only by the sense of humor (SH) among mothers. In contrast, it is strength-

ened by changes in relationships with others (CRO), greater appreciation of life (GAL), active coping (AC), planning (P), and seeking instrumental support (SIS). The coefficient of determination  $R^2$  is 0.28, which means that these predictors explain 28% of the variation in mothers' cohesion.

Regarding adaptability, denial (D) was the most important predictor for fathers, while active coping (AC) was crucial for mothers. This is interesting because it shows differences in coping and adaptation between mothers and fathers.

It is essential to recognize that adaptability in the fathers' group is thus inhibited by changes in self-perception (CSP), positive re-evaluation (PR), and preoccupation with something else (PSE). By contrast, it is strengthened by changes in relationships with others (CRO), planning (P), sense of humor (SH), and denial (D). The coefficient of determination  $R^2$  is 0.27, which means that these predictors explain 27% of the variation in fathers' adaptability.

Adaptability in the mothers' group is inhibited by acceptance (A) and turning to religion (TR), while it is strengthened by active coping (AC), seeking emotional support (SES), and denial (D). The coefficient of determination  $R^2$  is 0.13, which means that these predictors explain 13% of the variability in mothers' adaptability.

In terms of communication, different predictors were significant for fathers and mothers. For example, for fathers – acceptance (A) was negatively correlated with openness, whereas for mothers – a greater appreciation of life (GAL) revealed a positive correlation with transparency.

Thus, within family communication, in terms of openness, in the fathers' group, it is inhibited by accep-



tance (A), being preoccupied with something else (PSE), and discontinuing activities (DA). On the other hand, it is only strengthened by a greater appreciation of life (GAL).

In the mothers' group, family communication, in terms of openness, is inhibited, as in the fathers' group, by acceptance (A). At the same time, it is strengthened by a greater appreciation of life (GAL), seeking emotional support (SES), and acting out (AO).

Family communication in the fathers' group, in terms of difficulty, was inhibited by gratitude (G), seeking instrumental support (SIS), preoccupation with something else (PSE), denial (D), and psychoactive substance use (PSU). By contrast, it is strengthened by turning to religion (TR) and seeking emotional support (SES). By comparison, in the mothers' group, it is inhibited, as in the fathers' group, by psychoactive substance use (PSU), while it is strengthened by seeking emotional support (SES).

The coefficient of determination  $R^2$  in the Openness dimension is 0.16 and 0.12, respectively, which means that these predictors explain 16% of the variation in mothers' openness and 12% of the variation in fathers' openness. Meanwhile, for the Difficulty dimension, the  $R^2$  coefficient is 0.21 (fathers) and 0.14 (mothers), respectively.

In summary, this study provides information on differences in post-traumatic reactions and stress coping styles among parents of children on the autism spectrum. The present study explored potential predictors affecting cohesion, adaptability, and family communication in a population of fathers and mothers of children with autism spectrum disorders. This study used an interdisciplinary approach to understand complex family dynamics, focusing on the analysis of post-traumatic reactions and stress-coping strategies among parents of children on the autism spectrum. The results indicate differences between fathers and mothers in cohesion, adaptability, and family communication.

For fathers:

- Cohesion was negatively correlated with changes in relationships with others and is explained in 36% by various predictors.
- Adaptability was strongly associated with denial, with 27% of the variation explained by various factors.
- As for family communication, openness was negatively correlated with acceptance, and difficulty was associated with different predictors, explaining 16% and 21% of the variation.

For mothers:

- Cohesion was correlated with seeking emotional support and is explained in 28% by various predictors.
- Adaptability was strongly correlated with active coping, with 13% of the variation explained by various factors.
- Within the dimension of family communication, openness was positively correlated with a greater appreciation of life, while difficulty was associated with different predictors, explaining 12% and 14% of the variation.

These findings underscore the necessity of tailoring support interventions to parents based on gender. The analysis emphasizes the importance of recognizing and addressing the distinct challenges and needs faced by mothers and fathers as they cope with their child's autism. It also points to the need for further research and tailored clinical interventions.

## DISCUSSION OF THE RESULTS

The results indicate differences in the predictors of the studied variables: cohesion, adaptability, and communication between mothers and fathers of children on the autism spectrum.

In the first instance, the importance of cohesion for both parents is worth noting, but with different predictors. Fathers experience a negative impact on cohesion, especially in the context of changes in relationships with others, changes in self-perception, or preoccupation with something else. For mothers, cohesion is more complicated, associated with seeking emotional support, and negatively correlated with a sense of humor. It is worth looking for the sources of these differences and why these particular predictors affected cohesion in these two groups.

Adaptability also shows interesting gender differences. Fathers adapt mainly through denial, which may indicate an attempt to avoid the problem or inappropriately cope with difficulties. Mothers, on the other hand, rely on active coping, which may indicate a more proactive approach to dealing with difficulties.

Family communication, a critical aspect of family functioning, differs between mothers and fathers. This suggests that parents may perceive and respond to family communication dynamics differently, influencing parent-child relationships and the dynamics between the parents. In light of these findings, clinical interventions must be tailored to the specific needs and challenges fathers and mothers face. Moreover, further research could

focus on understanding why these differences occur and what other factors may influence post-traumatic reactions and coping strategies among parents of children on the autism spectrum.

Finally, the findings of this study highlight the importance of taking gender differences into account when surveying parents of children with autism spectrum disorders. They also offer important insights for clinical practices that can be tailored to the needs of each parent to provide them with the best possible support.

## CONCLUSION

The study has focused on analyzing post-traumatic reactions and stress-coping strategies among parents of children on the autism spectrum. It has highlighted three key aspects: cohesion, adaptability, and family communication, noting differences between mothers and fathers in these areas.

### *Cohesion*

Among fathers of children with autism spectrum disorders, cohesion appears to be a complex construct influenced by both positive and negative predictors. Different aspects of interpersonal relationships and self-perception influence cohesion, suggesting that support targeted at fathers should address a wide range of issues.

For mothers, coping mechanisms, emotional support, and self-perception play a key role in terms of cohesion. The coefficient of determination indicates that other factors not included in the study may also influence cohesion in this group.

### *Adaptability*

Fathers' adaptability is shaped by a variety of factors, both positive and negative. This highlights the need for a comprehensive approach to interventions to support adaptability in this group.

In the case of mothers, active coping and defense mechanisms such as denial play a key role, suggesting that interventions should focus on building coping skills and awareness of one's reactions.

### *Communication*

Family communication, in terms of openness and difficulties, is shaped by different factors among fathers and mothers. A sense of humor, acceptance, and seeking emotional support play a key role in shaping communication in both groups, but their impact differs between fathers and mothers.

Differences in communication between fathers and mothers may require an individualized approach to interventions in order to improve communication in families of children with autism spectrum disorders.

These findings point to the need for an individualized approach to support parents of children on the autism spectrum. Differences between mothers and fathers in terms of cohesion, adaptability, and communication may require different intervention and therapeutic strategies. Professionals working with families must recognize these differences and adapt their interventions accordingly.

## LIMITATIONS OF THE STUDY

The study carried out has some crucial limitations that require reflection. Firstly, the analysis did not account for essential moderator variables, such as the children's age, the disorder's severity, the level of social support provided to parents, and their economic situation. These omitted variables can significantly impact the interpretation of the results and the generalization of the conclusions.

Secondly, given the study's cross-sectional nature, it is important to stress that it is impossible to establish transparent causal relationships based on the present results. A longitudinal study could provide more precise information on the evolution of variables over time and the causal relationships between them.

In light of the findings of this study, it is essential to consider the potential impact of moderating variables, such as the severity of the disorder, the level of social support, and the parents' economic situation, when interpreting the results and planning future research.

### *Severity of the Disorder*

A high level of autism symptoms may exacerbate family functioning difficulties and intensify parental stress. Future research should account for variations in symptom severity to better understand its impact on family cohesion, adaptability, and communication.

### *Level of Social Support*

The results suggest that the availability of emotional and instrumental support plays a critical role in alleviating the effects of stress among parents of children with autism. Future analyses should explore which types of support are most effective in diverse family contexts.

### *Economic Situation*

Financial stability, which can influence both the availability of resources and internal family dynamics, should

be considered a crucial contextual factor in studies on the functioning of families with children on the autism spectrum.

Incorporating these variables can enhance the understanding of family dynamics and inform the design of more effective and tailored therapeutic interventions. Therefore, future research should utilize more complex analytical models that allow for considering these significant moderating factors simultaneously.

Including these variables in future studies, preferably longitudinal in nature, could provide more precise insights into their role in the functioning of families with children on the autism spectrum.

### *Practical Implications*

Considering such moderating variables is of substantial practical importance. Professionals working with families should consider individual contexts, such as the intensity of autism symptoms, the availability of social support, and the parents' financial situation. This approach facilitates the development of more tailored therapeutic interventions that address the diverse needs of mothers and fathers.

Further research integrating these variables could significantly enrich the scientific literature and provide a stronger foundation for designing effective support strategies. The findings of this study also underscore the need for analyses conducted across diverse cultural and socioeconomic contexts to improve the generalizability of conclusions and the adaptation of interventions to the unique characteristics of families with children on the autism spectrum.

It should also be emphasized that correlation does not imply direct causality. The existence of a correlation between two variables does not mean that one variable influences the other. In this context, there is a need for more detailed analyses to confirm or refute the postulated hypotheses.

Although the survey was conducted in Poland, the results may not be generalizable to other cultural or socioeconomic contexts. Cultural specificities may influence the perceptions and behaviors of respondents, which may limit the universality of the results.

Another important aspect is that the responses given by participants may have been influenced by various factors, such as their current mood, their expectations of the study, or their tendency to present themselves in a favorable light.

Despite the limitations mentioned above, this study provides a valuable contribution to understanding the experiences of parents of children with autism spectrum disorders in the Polish context. It also points to the need for further research that addresses the gaps and issues identified above.

### **ACKNOWLEDGEMENT**

None

### **DECLARATION OF INTEREST STATEMENT**

The author reported no potential conflict of interest

### **FUNDING**

None

### **REFERENCES**

- Bonis, S. (2016). Stress and parents of children with autism: A review of literature. *Issues in Mental Health Nursing*, 37(3), 153–163. <https://doi.org/10.3109/01612840.2015.1116030>
- Burton, L., & Fox, C. (2023). Are families supported to come to terms with an autism diagnosis? A service evaluation of referrals to family therapy for young people with autism in one NHS trust. *Journal of Family Therapy*, 45(2), 211–229. <https://doi.org/10.1111/1467-6427.12419>
- Braun-Galkowska, M. (1992). *Psychologiczna analiza systemów rodzinnych osób zadowolonych i niezadowolonych z małżeństwa*. [A psychological analysis of the family systems of people satisfied and dissatisfied with their marriage]. Towarzystwo Naukowe KUL.
- Cong, C. W., Tan, C. S., Noew, H. S., & Wu, S. L. (2022). Psychometric evaluation of the Malay version of the family adaptability and cohesion evaluation scale III for Malaysian adolescents. *International Journal of Environmental Research and Public Health*, 19(1), 56. <https://doi.org/10.3390/ijerph19010156>
- Desquenne Godfrey, G., Downes, N., & Cappe, E. (2023). A systematic review of family functioning in families of children on the autism spectrum. *Journal of Autism and Developmental Disorders*. <https://doi.org/10.1007/s10803-022-05830-6>

- Dundas I. (1994). The Family Adaptability and Cohesion Scale III in a Norwegian sample. *Family Process*, 33(2), 191–202. <https://doi.org/10.1111/j.1545-5300.1994.00191.x>
- Efstratopoulou, M., Sofologi, M., Giannoglou, S., & Bonti, E. (2022). Parental stress and children's self-regulation problems in families with children with autism spectrum disorder (ASD). *Journal of Intelligence*, 10(1), 56. <https://doi.org/10.3390/jintelligence10010004>
- Grigoropoulos, I. (2022). The influence of family's cohesion and adaptability in family satisfaction of parents with a child with autism spectrum disorder. *Psychiatrike = Psychiatriki*, 33(1), 34–42. <https://doi.org/10.22365/jpsych.2022.061>
- Juczyński Z., Ogińska-Bulik N. (2012). *Narzędzia Pomiaru Stresu i Radzenia Sobie ze Stressem. Podręcznik [Tools for Measuring Stress and Coping with Stress. Handbook]*. Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego.
- Kirenko, J., & Gindrich, P. A. (2020). Personal predictors of parents' educational aspirations for their children with disabilities. *International Journal of Special Education*, 35(1), 123–134. <https://doi.org/10.52291/IJSE.2020.35.8>
- Kossakowska, M., & Kwiatek, P. (2014). Polska adaptacja kwestionariusza do badania wdzięczności GQ-6 [The Polish adaptation of the Gratitude Questionnaire GQ-6]. *Przegląd Psychologiczny*, 57(4), 441–452.
- Kornacka-Skwara, E. (2004). *Psychologiczna analiza systemów rodzinnych mężczyzn bezrobotnych [Psychological analysis of family systems of unemployed men]*. Wyd. Wyższej Szkoły Pedagogicznej.
- Kuhlthau, K. A., Luberto, C. M., Traeger, L., Millstein, R. A., Perez, G. K., Lindly, O. J., Chad-Friedman, E., Proszynski, J., & Park, E. R. (2020). A virtual resiliency intervention for parents of children with autism: A randomized pilot trial. *Journal of Autism and Developmental Disorders*, 50(7), 2372–2384. <https://doi.org/10.1007/s10803-019-03976-4>
- Liao, X., Lei, X., & Li, Y. (2019). Stigma among parents of children with autism: A literature review. *Asian Journal of Psychiatry*, 45, 101–112. <https://doi.org/10.1016/j.ajp.2019.09.007>
- Marcinechová, D., Záhorcová, L., & Lohazarová, K. (2024). Self-forgiveness, guilt, shame, and parental stress among parents of children with autism spectrum disorder. *Current Psychology*, 43, 2277–2292. <https://doi.org/10.1007/s12144-023-04476-6>
- Margasiński, A. (1996). Analiza psychologiczna systemów rodzinnych z chorobą alkoholową [Psychological analysis of family systems of people with alcoholism]. Wydawnictwo WSP.
- Margasiński, A. (2015). The Polish adaptation of FACES IV-SOR. *Polish Journal of Applied Psychology*, 13(1), 1-24. <https://doi.org/10.1515/pjap-2015-0025>
- Ogińska-Bulik, N., & Juczyński, Z. (2010). Rozwój potraumatyczny – charakterystyka i pomiar [Post-traumatic growth: characteristics and assessment]. *Psychiatria*, 7(4), 129–142. <https://doi.org/10.5603/psych.29109>
- Pisula, E., & Porębowicz-Dörsmann, A. (2017). Funkcjonowanie rodziny, stres rodzicielski i jakość życia matek i ojców polskich dzieci z autyzmem wysokofunkcyjnym lub zespołem Aspergera [Family functioning, parental stress and life quality in mothers and fathers of Polish children with high-functioning autism and Asperger's syndrome]. *PLoS ONE*, 12(10), e0186536. <https://doi.org/10.1371/journal.pone.0186536>
- Schmidt, C., & Bosa, C.A. (2003). A investigacao do impacto do autismo na familia: Revisao critica da literatura e proposta de um novo modelo [Investigating the impact of autism on family life: a critical review of the literature and a proposal for a new model]. *Interação em Psicologia*, 7, 111-120. <http://dx.doi.org/10.5380/psi.v7i2.3229>
- Schnabel, A., Youssef, G. J., Halford, D. J., Hartley, E. J., McGillivray, J. A., Stewart, M., Forbes, D., & Austin, D. W. (2020). Psychopathology in parents of children with autism spectrum disorder: A systematic review and meta-analysis of prevalence. *Autism*, 24(1), 26–41. <https://doi.org/10.1177/1362361319844636>
- Radochoński, M. (1987). *Choroba a rodzina [Disease and the Family]*. Wydawnictwo WSP.
- Radochoński, M. (2000). *Osobowość antyspołeczna [Antisocial personality]*. Wydawnictwo WSP.
- Zwoliński, M. (1992). Właściwości funkcjonowania rodziny. In A. Pohorecka (Ed.), *Rodzina w terapii [Family therapy]* (pp. 17–31). Instytut Psychiatrii i Neurologii.