Original Research

Associations Between Parental Guilt and Children's Internalizing and Externalizing Symptoms: The Mediating Role of Parental Self-Efficacy

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Submitted: 25 July 2026 Revised: 5 September 2026 Accepted: 11 September 2026 Published: 5 November 2026

Abstract

Parental guilt may represent an important yet understudied parental factor associated with children's emotional and behavioral adjustment. The present cross-sectional study examined whether parental self-efficacy mediates the association between parental guilt and children's internalizing and externalizing symptoms. The sample consisted of 211 mothers of children aged 6 to 18 years. Participants completed an online questionnaire assessing parental guilt, parental self-efficacy, and children's internalizing and externalizing symptoms. Two separate mediation analyses were conducted using PROCESS Model 4, controlling for mother age, maternal education, paternal education, child biological sex, child age group, special educational needs, and chronic illness. Higher parental guilt was significantly associated with lower parental self-efficacy. In turn, lower parental self-efficacy was associated with higher levels of both internalizing and externalizing symptoms. The indirect effect of parental guilt on internalizing symptoms through parental self-efficacy was significant, indicating partial mediation. A similar pattern emerged for externalizing symptoms, with parental self-efficacy also significantly mediating the association between parental guilt and externalizing problems. In both models, the direct effect of parental guilt remained significant, suggesting that parental self-efficacy explained part, but not all, of these associations. The findings identify parental self-efficacy as a relevant psychological mechanism associated with children's emotional and behavioral adjustment and underscore the importance of supporting parents as active partners in promoting children's well-being. From a Whole Schooling perspective, strengthening parental self-efficacy may facilitate coordinated support among families, schools, and educational professionals, particularly for children with diverse educational and developmental needs.

Keywords: parental guilt; parental self-efficacy; children's internalizing symptoms; children's externalizing symptoms

Introduction

Children's emotional and behavioral adjustment develops within interconnected family and educational contexts. Consequently, understanding parenting processes may inform collaborative approaches that support children's participation, learning, and well-being across home and school environments.

Whole Schooling has been conceptualized as a comprehensive approach to creating schools in which diverse learners are educated together through inclusive, collaborative, and supportive practices (Peterson, 2004). From a Whole Schooling perspective, children's development and adjustment should be understood within inclusive educational communities in which families, schools, and professionals share responsibility for supporting participation, learning, well-being, and inclusion. This perspective emphasizes meaningful participation, collaborative decision-making, strong family–school partnerships, and coordinated support rather than locating children's difficulties exclusively within the individual child. Accordingly, parents should be regarded as active partners in educational and support processes, particularly when children have diverse developmental, emotional, behavioral, or special educational needs (SEN).

Recent evidence further highlights the importance of family involvement in inclusive educational settings. Faki and

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Juma (2026) found that parental support can take multiple forms, including academic reinforcement at home, emotional encouragement, participation in school governance, and contributions to school resources. Such involvement was associated with more favorable student outcomes, including academic achievement, behavioral development, social integration, and school participation. In contrast, limited parental engagement was associated with poorer academic performance, greater isolation, and difficulties in social-emotional adjustment, particularly among learners with SEN. These findings underscore the importance of strong family–school partnerships as a central component of inclusive education. Earlier research within the Whole Schooling literature similarly emphasizes the importance of meaningful family–school collaboration in inclusive education. Ryndak et al. (2008), examining the experiences of a family of a student with significant disabilities, highlighted the importance of effective support systems and sustained collaboration between families and school personnel in facilitating successful inclusive educational experiences. Within this broader family–school framework, parents' capacity to support their children and participate effectively in educational processes may also be related to their own psychological resources and emotional experiences, including their perceived parenting competence and parenting-related guilt.

The quality of parent–child interactions and parental practices may substantially influence children's behavioral and emotional development. However, less attention has been given to parental emotional experiences, particularly parenting-related guilt, which may influence both parental functioning and children's adjustment. The present study focuses on parenting-related guilt, an understudied parental factor that may influence both parental functioning and children's emotional and behavioral symptoms.

Emotional and behavioral disorders (EBD) constitute an umbrella term encompassing two broad dimensions: externalizing symptoms (e.g., aggressive behavior) and internalizing symptoms (e.g., social withdrawal) (Kauffman & Landrum, 2013; Nikstat & Riemann, 2020), including any behavior that deviates from age-appropriate and socially expected norms (Ogundele, 2018). The Individuals with Disabilities Education Act (Individuals with Disabilities Education Improvement Act of 2004, 2004) defines emotional and behavioral disorder as a condition characterized by persistent and significant difficulties in learning, interpersonal relationships, emotional regulation, and behavior that negatively affect academic and social functioning. EBD symptoms have a multifactorial etiology involving biological predispositions and environmental influences, including family, school, and broader socio-cultural factors (Kauffman & Landrum, 2013; Patriquin & Mathew, 2017). Externalizing and internalizing symptoms often co-occur (Kauffman & Landrum, 2013), and externalizing problems are frequently associated with later internalizing issues; however, the reciprocal influence between the two symptom groups depends on the severity of the problem (Stone et al., 2015). Increasing internalizing symptoms is associated with negative emotional experiences (Davis et al., 2015), and poor family relationships are also considered risk factors (Luecken et al., 2013). This multifactorial framework suggests that relevant biological and environmental factors should be considered as potential covariates in the present model (Gergely et al., 2026).

Parenting guilt is a self-conscious emotional state that arises when parents perceive a discrepancy between their actual parenting behaviors and their own or socially prescribed standards and expectations of good parenting (Baldwin, 2014). It is characterized by feelings of guilt, self-blame, and perceived inadequacy regarding one's ability to adequately meet a child's needs. It reflects parents' perceptions that they are not providing sufficient time, care, attention, or emotional support to their child, or that competing demands, such as work or other personal responsibilities, interfere with their parenting role (Haslam et al., 2020).

Higher levels of parental guilt have been associated with less favorable emotional and behavioral outcomes in children, particularly with more severe externalizing symptoms (Haslam et al., 2020; Shalev et al., 2023). The development of challenging behaviors has been associated with multiple risk factors, including inconsistent or unresponsive caregiving, abuse, limited sensory stimulation, restricted social interactions, low socioeconomic status, and poverty (Ogundele, 2018). However, this association may be bidirectional, as children's externalizing symptoms can also elicit guilt in parents who perceive these difficulties as a reflection of their own parenting inadequacy (Neff & Faso, 2015).

Internalizing and Externalizing Symptoms and Parental Self-Efficacy

Parental self-efficacy is a multidimensional construct (Wittkowski et al., 2017) grounded in Bandura's theory of self-efficacy (Bandura, 1986; Versland, 2016). It refers to parents' beliefs in their ability to positively influence their children's development and well-being (Albanese et al., 2019) and reflects confidence in their parenting capabilities (Wittkowski et al., 2017).

While higher parental self-efficacy is associated with more adaptive parenting practices and fewer behavioral difficulties, children's externalizing symptoms may also undermine parents' sense of competence (Albanese et al., 2019; Mouton et al., 2018).

Parents who experience greater levels of parenting-related guilt may develop a reduced sense of confidence in their parenting abilities, as guilt is frequently associated with perceptions of inadequacy and difficulties in meeting personal expectations regarding the parental role (Haslam et al., 2020). In contrast, stronger parental self-efficacy may buffer against excessive guilt by enhancing parents' perceived competence and their sense of control when managing parenting challenges (Kestler-Peleg et al., 2025). Parental self-efficacy is a dynamic parental resource influenced by child characteristics, parenting stress, family functioning, and broader socio-contextual conditions (Fang et al., 2022). These findings suggest that parental self-efficacy may represent a plausible pathway through which parenting-related guilt contributes to children's internalizing and externalizing symptoms. Beyond behavioral outcomes, parental self-efficacy may also reflect parents' broader confidence in managing parenting demands and supporting children's development (Dockett et al., 2017; Lambert et al., 2022).

The association between parental self-efficacy and children's internalizing symptoms appears to be particularly evident during childhood and early adolescence, when higher parental self-efficacy is linked to lower levels of internalizing symptoms (Bodalski et al., 2023). However, low parental self-efficacy may still exacerbate emotional problems in children (Fass et al., 2018). Parental emotional support and warmth are important protective factors that contribute to children's positive self-esteem, psychosocial adjustment, and lower levels of internalizing and externalizing symptoms (Pinquart, 2017; Rothenberg et al., 2020).

Importance of Demographic Factors

Child and family characteristics may influence both children's emotional and behavioral symptoms and parents' psychological functioning. Previous studies (Freeze et al., 2014; Hayek et al., 2021) have examined parenting styles; however, demographic factors have received considerably less attention.

Children's gender may influence the appearance of internalizing or externalizing symptoms (Brooks Holliday et al., 2017). Girls with EBD tend to achieve higher academic performance and demonstrate better social and behavioral skills than their male counterparts (Novak et al., 2020).

Furthermore, children living with chronic illnesses are at increased risk of developing internalizing symptoms (Bakula et al., 2019; Lacomba-Trejo et al., 2020). Families raising children with chronic illnesses, requiring ongoing medical treatment (Nutting, 2015), face significant challenges in their daily lives (Oris et al., 2018).

Neurodiversity is a perspective that recognizes differences in neurological functioning as part of the natural diversity of human experiences rather than viewing them solely as impairments or limitations. Although many neurodivergent learners may have SEN, neurodivergence itself does not necessarily imply the need for additional educational support (Cook, 2024). Therefore, the present study adopts the concept of SEN, which refers to a needs-based educational construct rather than a diagnostic category and emphasizes the interaction between the learner and the educational environment (European Agency for Special Needs and Inclusive Education, n.d.).

Higher maternal education is associated with greater educational engagement and aspirations among children, while also supporting the development of their academic self-regulation and sense of control over learning (Cui et al., 2019). Less than half of parents from low socioeconomic backgrounds expect their children to graduate from high school, even though doing so could ensure a higher income, better health insurance coverage, and indirectly a better quality of life (Loughlin-Presnal & Bierman, 2017).

Taken together, these findings suggest that child- and family-related demographic characteristics may influence both parental functioning and children's emotional and behavioral outcomes. Therefore, these variables were considered potential covariates in the present study.

Previous research (Silva et al., 2022; Yang et al., 2024) has highlighted the relationship between child-related characteristics, such as gender, academic functioning, chronic health conditions, SEN, and parental psychological outcomes, including parenting-related guilt and self-efficacy. In addition, studies (Bodalski et al., 2023; Chen et al., 2021; Kochanova

et al., 2021; Ribas et al., 2024; Shalev et al., 2023) indicate that parents raising children with internalizing and externalizing difficulties tend to experience higher levels of parenting-related guilt and lower confidence in their parenting abilities.

However, despite evidence linking parental guilt and self-efficacy to children's adjustment, little is known about whether parental self-efficacy mediates the association between parenting-related guilt and EBD symptoms.

Therefore, the present study aims to examine whether parental self-efficacy mediates the association between parenting-related guilt and children's internalizing and externalizing symptoms.

Methods

Aim of the Study

The present study aimed to examine a mediation model in which parental self-efficacy explains the association between parental guilt and children's internalizing and externalizing symptoms. Specifically, we investigated whether higher parental guilt is associated with lower parental self-efficacy, which, in turn, is associated with higher levels of children's internalizing and externalizing symptoms. Children's internalizing and externalizing symptoms were examined as separate outcomes. The models accounted for other relevant influencing factors, including mother age, maternal and paternal educational level, child biological sex, child age group, SEN, and chronic illness. We expected parental self-efficacy to partially mediate the associations between parental guilt and both domains of child symptoms.

Power and Sample Size

An a priori power analysis was conducted using G*Power 3.1.9.7 (Franz Faul, Universität Kiel, Kiel, Germany) to determine the minimum sample size required for the planned regression-based mediation analyses. Because PROCESS mediation models are estimated through a series of multiple regression models, the most parameter-rich regression model was used for sample size estimation. Using a fixed model, R^2 deviation from zero, with nine predictors, a small-to-moderate effect size ($f^2 = 0.08$), $\alpha = 0.05$, and power = 0.80, the analysis indicated that a minimum sample of 205 participants was required. The final analytic sample comprised 211 mothers, thereby exceeding the recommended minimum.

Participants were recruited using a combination of convenience and snowball sampling. Data were collected online in Romania among members of the Hungarian ethnic minority residing in Transylvania. All measures were administered in Hungarian, the participants' native language, using Google Forms. The inclusion criteria were being at least 18 years of age, being the mother of a child aged between 6 and 18 years, and having sufficient Hungarian language proficiency to complete the questionnaire. The final analytic sample consisted of 211 mothers with complete data.

Mothers ranged in age from 23 to 57 years (Mean (M) = 41.83, Standard Deviation (SD) = 6.40). Regarding maternal education, 8 mothers had completed primary education (3.8%), 16 had completed secondary education without a baccalaureate degree (7.6%), 49 had completed secondary education with a baccalaureate degree (23.2%), 73 held a bachelor's degree (34.6%), 60 held a master's degree (28.4%), and 5 held a doctoral degree (2.4%). Fathers' educational level was also reported: 12 had completed primary education (5.7%), 52 had completed secondary education without a baccalaureate degree (24.6%), 53 had completed secondary education with a baccalaureate degree (25.1%), 47 held a bachelor's degree (22.3%), 43 held a master's degree (20.4%), and 4 held a doctoral degree (1.9%).

The children included 113 boys (53.6%) and 98 girls (46.4%). Most children were aged between 6 and 13 years (n = 146, 69.2%), while 65 were aged between 14 and 18 years (30.8%). Forty children had a chronic illness (19.0%), whereas 171 did not (81.0%). In addition, 47 children had a diagnosis of SEN (22.3%), while 164 did not (77.7%). Child age was collected as a categorical variable. When completing the questionnaire, mothers selected one of two predefined age categories (6–13 years or 14–18 years) corresponding to their child's age. Table 1 presents the descriptive statistics on the sample characteristics for both the parents and the children.

Measures

Sociodemographic Questionnaire

A brief sociodemographic questionnaire was developed based on previous literature to capture background variables relevant to child emotional and behavioral adjustment and parenting-related outcomes. Mothers reported their age and highest level of education, the father's highest level of education, the child's biological sex and age group, the presence

Table 1. Sample characteristics of participants and their children (n = 211).

Variable	n (%)/M (SD)
Mother characteristics	
Age, years (Range)	41.83 (6.40) (23–57)
Maternal education	
Primary education	8 (3.8%)
Secondary education without baccalaureate	16 (7.6%)
Secondary education with baccalaureate	49 (23.2%)
Bachelor's degree	73 (34.6%)
Master's degree	60 (28.4%)
Doctoral degree	5 (2.4%)
Paternal education	
Primary education	12 (5.7%)
Secondary education without baccalaureate	52 (24.6%)
Secondary education with baccalaureate	53 (25.1%)
Bachelor's degree	47 (22.3%)
Master's degree	43 (20.4%)
Doctoral degree	4 (1.9%)
Child characteristics	
Child biological sex	
Boys	113 (53.6%)
Girls	98 (46.4%)
Child age group	
6–13 years	146 (69.2%)
14–18 years	65 (30.8%)
Chronic illness	
Yes	40 (19.0%)
No	171 (81.0%)
SEN	
Yes	47 (22.3%)
No	164 (77.7%)

Percentages are based on the full analytic sample (n = 211). M, Mean; SD, Standard Deviation; SEN, special educational needs.

of chronic illness, and whether the child had a diagnosis of SEN. These variables were selected because previous studies have shown that parental age, parental education, child sex, and chronic illness may be associated with child adjustment and family functioning (Baroody & Dobbs-Oates, 2011; Brooks Holliday et al., 2017; Gergely et al., 2026; Lacomba-Trejo et al., 2020; Sourander et al., 2005). Child age was assessed categorically using two groups: 6–13 years and 14–18 years. Child sex, chronic illness, and SEN were treated as dichotomous variables in the analyses.

Brief Parental Self-Efficacy Scale (BPSES)

Parental self-efficacy was assessed using the BPSES (Woolgar et al., 2025), a short self-report measure designed to assess parents' perceived confidence in their ability to manage child-rearing demands and everyday parenting challenges. The scale consists of 5 items rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Total scores range from 5 to 25, with higher scores indicating greater perceived parental self-efficacy. The Hungarian version used in the present study was translated from the original English instrument by the authors following a forward–backward translation procedure. In the present sample, the scale demonstrated good internal consistency (Cronbach's $\alpha = 0.80$).

Child Behavior Checklist (CBCL)

Children's internalizing and externalizing symptoms were assessed using the CBCL (Achenbach, 1992; Rózsa et al., 1999). The CBCL is a parent-report measure designed to assess emotional and behavioral difficulties in children and adolescents. In the present study, mothers completed the 46-item Hungarian parent-report version of the questionnaire regarding their child's behavior. Items are rated on a three-point scale ranging from 0 (not true) to 2 (very true or often true), with higher scores indicating more severe emotional and behavioral problems. Although the questionnaire comprises

46 items, only the Internalizing Symptoms (15 items) and Externalizing Symptoms (10 items) scales were included in the present analyses. The Internalizing Symptoms scale assesses problems such as anxiety, depression, and social withdrawal, whereas the Externalizing Symptoms scale assesses aggressive and rule-breaking behaviors. In the present sample, both subscales demonstrated good internal consistency, with Cronbach's α = 0.89 for the Internalizing Symptoms scale and Cronbach's α = 0.90 for the Externalizing Symptoms scale.

Guilt About Parenting Scale (GAPS)

Parental guilt was assessed using the GAPS (Haslam et al., 2020), a 10-item self-report measure designed to assess parents' guilt-related thoughts and feelings in relation to their parenting role. Items are rated on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Total scores range from 10 to 70, with higher scores indicating greater parental guilt. In the present sample, the scale demonstrated good internal consistency (Cronbach's α = 0.89). The Hungarian version of the GAPS was translated from the original English instrument by the authors using a forward–backward translation procedure.

Procedure

Data were collected through an online self-administered questionnaire distributed to mothers of children aged between 6 and 18 years. The questionnaire was created in Google Forms and distributed electronically using convenience and snowball sampling. Data were collected in Romania among Hungarian-speaking mothers belonging to the Hungarian ethnic minority residing in Transylvania. All measures were administered in Hungarian, the participants' native language. The study was conducted in accordance with the ethical principles of the College of Psychologists of Romania (COPSI) and the Special Education program at Babeș-Bolyai University. Upon opening the questionnaire link, participants first read an information statement describing the purpose of the study, the conditions of participation, data handling procedures, confidentiality, and the voluntary nature of consent. Participants were informed that only individuals over 18 years of age were eligible to take part, that participation was voluntary, and that they could discontinue the questionnaire at any time without penalty.

Participants could proceed to the questionnaire only after confirming that they had read the study information, were over 18 years of age, and agreed to participate voluntarily. Thus, informed consent was obtained electronically from all participants. No data were collected directly from children; all child-related information was provided by mothers. The questionnaire required approximately 15 minutes to complete. Responses were collected anonymously, no personally identifiable information was requested or stored, and the data were used exclusively for scientific purposes. Data were handled in accordance with applicable data protection regulations, including the General Data Protection Regulation (GDPR; Regulation [EU] 2016/679).

Research Design

The present study employed a quantitative, non-experimental, cross-sectional correlational design. This design was considered appropriate because the aim of the study was to examine associations among parental guilt, parental self-efficacy, and children's internalizing and externalizing symptoms, rather than to manipulate variables or establish causal effects through experimental intervention. More specifically, the study used a cross-sectional design, as all variables were assessed at a single point in time. It also followed a correlational framework, because the primary objective was to investigate the relationships among the study variables and to test theoretically derived mediation models.

Within this design, parental guilt was examined as the predictor variable, parental self-efficacy as the mediator, and children's internalizing and externalizing symptoms as separate outcome variables. Two separate mediation models were tested to determine whether parental self-efficacy mediated the association between parental guilt and each domain of child symptoms. The analyses controlled for mother age, maternal and paternal education, child biological sex, child age group, SEN, and chronic illness.

Statistical Analyses

Statistical analyses were conducted using IBM SPSS Statistics version 25.0 (IBM Corp., Armonk, NY, USA). Descriptive statistics, including means, standard deviations, ranges, skewness, and kurtosis, were calculated to characterize

the study variables and examine their distributions. Frequencies and percentages were computed for categorical variables. Internal consistency of the multi-item scales was assessed using Cronbach's α coefficients.

Prior to the main analyses, data screening procedures were conducted to evaluate the assumptions of regression-based analyses. Normality was examined through skewness and kurtosis values, histograms, and normal P–P plots. Linearity and homoscedasticity were inspected using residual scatterplots. Multicollinearity was assessed using tolerance and variance inflation factor (VIF) values, and the independence of residuals was evaluated using the Durbin–Watson statistic. Potential outliers were inspected using standardized residuals and influence diagnostics. No substantial violations of the assumptions were identified. The final analytic sample included participants with complete data on all variables used in the analyses (n = 211).

Pearson product–moment correlation coefficients were computed to assess bivariate associations among the main study variables (Table 2). Statistical significance was set at $\alpha = 0.05$, and all reported p values are two-tailed.

To examine whether parental self-efficacy mediated the association between parental guilt and children's internalizing and externalizing symptoms, two separate mediation analyses were conducted using PROCESS macro version 4.2 for SPSS (Model 4; Hayes, 2022). In both models, parental guilt (GAPS) was specified as the independent variable and parental self-efficacy (BPSES) as the mediator. The dependent variable was children's internalizing symptoms in the first model and externalizing symptoms in the second model, as assessed by the CBCL.

Both mediation models controlled for mother age, maternal education, paternal education, child biological sex, child age group, SEN, and the presence of chronic illness. Indirect effects were estimated using 5000 bootstrap resamples, and mediation was considered statistically significant when the 95% percentile bootstrap confidence interval (CI) for the indirect effect did not include zero.

Table 2. Correlations among child and parental characteristics and children's emotional and behavioral symptoms (n = 211).

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Maternal age (years)	41.83	6.40	—											
2. Maternal education	-	-	.25**	—										
3. Paternal education	-	-	.20**	.51**	—									
4. Child biological sex (male = 1)	-	-	–.05	–.01	.02	—								
5. Child age group	-	-	.35**	.08	.02	.00	—							
6. SEN (yes = 1)	-	-	.08	.00	.04	.25**	–.09	—						
7. Chronic illness (yes = 1)	-	-	.05	.05	.07	.09	–.09	.35**	—					
8. CBCL total problems	20.49	15.87	.04	.00	.08	.22**	–.12	.44**	.31**	—				
9. CBCL externalizing	6.16	5.20	–.04	.01	.06	.29**	–.18**	.38**	.30**	.90**	—			
10. CBCL internalizing	7.31	6.34	.06	.02	.08	.11	–.10	.39**	.25**	.93**	.73**	—		
11. Parental guilt (GAPS)	45.90	13.68	–.15*	–.02	.07	.00	–.08	.08	–.06	.26**	.28**	.25**	—	
12. Parental self-efficacy (BPSES)	20.35	3.20	–.02	.09	.09	–.03	–.08	–.16*	.02	–.27**	–.29**	–.23**	–.23**	—

SEN, special educational needs; CBCL, Child Behavior Checklist; GAPS, Guilt About Parenting Scale; BPSES, Brief Parental Self-Efficacy Scale; M, Mean; SD, Standard Deviation. Child biological sex was coded as 0 = female and 1 = male; child age group as 0 = 6–13 years and 1 = 14–18 years; SEN and chronic illness as 0 = no and 1 = yes. $^{*}p < 0.05$. $^{**}p < 0.01$.

Results

Descriptive statistics were calculated for the main study variables prior to hypothesis testing (Table 3). Mean scores were 45.90 (SD = 13.68) for parental guilt, 20.35 (SD = 3.20) for parental self-efficacy, 7.31 (SD = 6.34) for children's internalizing symptoms, and 6.16 (SD = 5.20) for children's externalizing symptoms. The observed minimum and maximum values indicated adequate variability across the main study variables. Skewness and kurtosis values were within acceptable ranges, suggesting no severe departures from normality. Two separate mediation analyses were conducted to examine whether parental self-efficacy (BPSES) mediated the association between parental guilt (GAPS) and children's internalizing and externalizing symptoms, as assessed by the CBCL. In both models, parental guilt was specified as the independent variable and parental self-efficacy as the mediator. Children's internalizing symptoms were entered as the outcome variable

in the first model, whereas children's externalizing symptoms were entered as the outcome variable in the second model. The hypothesized pathway assumed that higher parental guilt would be associated with lower parental self-efficacy, which, in turn, would be associated with higher levels of child symptoms. Both models controlled for maternal age, maternal education, paternal education, child biological sex, child age group, SEN, and the presence of chronic illness. The final analytic sample comprised 211 mothers. Indirect effects were tested using 5000 bootstrap resamples with 95% percentile bootstrap CIs.

Table 3. Descriptive statistics and internal consistency coefficients for the main study variables (n = 211).

Variable	Min	Max	M	SD	Skewness	Kurtosis	α
Parental guilt (GAPS)	10.00	70.00	45.90	13.68	–0.45	–0.54	.89
Parental self-efficacy	8.00	25.00	20.35	3.20	–0.88	1.73	.80
Internalizing symptoms	0.00	30.00	7.31	6.34	1.05	0.55	.89
Externalizing symptoms	0.00	24.00	6.16	5.20	1.08	0.58	.90

GAPS, Guilt About Parenting Scale; M, Mean; SD, Standard Deviation. Reliability coefficients are rounded to two decimal places.

Internalizing Symptoms

The mediation model predicting children's internalizing symptoms was statistically significant, $F(9, 201) = 7.31$, $p < 0.001$, explaining 24.7% of the variance in internalizing symptoms ($R^2 = 0.247$), indicating a moderate level of explanatory power. The mediator model predicting parental self-efficacy was also statistically significant, $F(8, 202) = 2.99$, $p = 0.004$, explaining 10.6% of the variance in parental self-efficacy ($R^2 = 0.106$). Parental guilt was negatively associated with parental self-efficacy (a path: B = –0.055, Standard Error (SE) = 0.016, $p = 0.001$), indicating that higher levels of parental guilt were associated with lower parental self-efficacy. Parental self-efficacy, in turn, was negatively associated with children's internalizing symptoms (b path: B = –0.302, SE = 0.128, $p = 0.020$), such that lower parental self-efficacy was associated with more internalizing symptoms. The indirect effect of parental guilt on internalizing symptoms through parental self-efficacy was significant, B = 0.017, 95% CI [0.001, 0.043], indicating that higher parental guilt was indirectly associated with more internalizing symptoms via reduced parental self-efficacy. The completely standardized indirect effect (effect size) was 0.036 (95% bootstrap CI [0.001, 0.093]). Although modest in magnitude, this effect was statistically significant, indicating that parental self-efficacy accounted for a meaningful proportion of the association between parental guilt and children's internalizing symptoms. The direct effect of parental guilt on internalizing symptoms remained significant after accounting for parental self-efficacy (B = 0.091, SE = 0.030, $p = 0.003$), as did the total effect (B = 0.108, SE = 0.030, $p < 0.001$), indicating partial mediation (Figure 1). Among the covariates, SEN was a significant predictor in the outcome model (B = 4.113, SE = 1.054, $p < 0.001$), indicating that children with SEN showed higher internalizing symptom scores. Chronic illness was also a significant covariate (B = 2.471, SE = 1.067, $p = 0.022$), indicating that children with chronic illness showed higher internalizing symptom scores. Child age group ($p > 0.05$), child biological sex ($p > 0.05$), maternal age, maternal education, and paternal education were not significant predictors. In the path-a model predicting parental self-efficacy, SEN was the only significant covariate (B = –1.320, SE = 0.570, $p = 0.022$), indicating that mothers of children with SEN reported lower parental self-efficacy. This proportion of explained variance indicates a moderate level of explanatory power, suggesting that parental guilt, parental self-efficacy, and the included covariates together accounted for a meaningful proportion of individual differences in children's internalizing symptoms. Nevertheless, a substantial proportion of variance remained unexplained, indicating that additional child-, parent-, and context-related factors are also likely to contribute to internalizing difficulties. Results are presented in Table 4.

Externalizing Symptoms

The mediation model predicting children's externalizing symptoms was statistically significant, $F(9, 201) = 11.91$, $p < 0.001$, explaining 34.8% of the variance in externalizing symptoms ($R^2 = 0.348$), indicating relatively strong explanatory power. The mediator model predicting parental self-efficacy was also statistically significant, $F(8, 202) = 2.99$, $p = 0.004$, explaining 10.6% of the variance in parental self-efficacy ($R^2 = 0.106$). Parental guilt was negatively associated with parental self-efficacy (Path a: B = –0.055, SE = 0.016, $t = -3.44$, $p = 0.001$), indicating that higher parental guilt was associated with lower parental self-efficacy. Parental self-efficacy, in turn, was negatively associated with children's

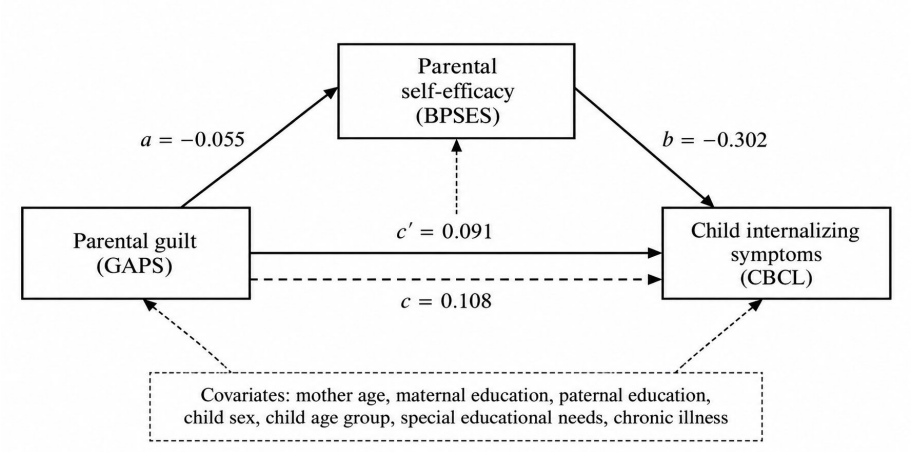


Figure 1. Mediation analysis of the association between parental guilt and children's internalizing symptoms through parental self-efficacy (n = 211). Unstandardized regression coefficients are shown. Path a represents the association between parental guilt and parental self-efficacy; path b represents the association between parental self-efficacy and children's internalizing symptoms while controlling for parental guilt; c' represents the direct effect of parental guilt on internalizing symptoms after accounting for parental self-efficacy; and *c* represents the total effect of parental guilt on internalizing symptoms. Solid arrows represent the paths estimated in the mediation model, whereas the dashed arrow represents the total effect before the mediator was included. Dotted arrows indicate the covariates included in the model. The analysis controlled for mother age, maternal education, paternal education, child biological sex, child age group, SEN, and chronic illness. GAPS, Guilt About Parenting Scale; BPSES, Brief Parental Self-Efficacy Scale; CBCL, Child Behavior Checklist.

Table 4. Mediation analysis of the association between parental guilt and children's internalizing symptoms through parental self-efficacy (n = 211).

Path	B	SE	*t*	*p*	95% CI [LL, UL]
Parental guilt → Parental self-efficacy (Path a)	–0.055	0.016	–3.44	.001	[–0.087, –0.024]
Parental self-efficacy → Internalizing symptoms (Path b)	–0.302	0.128	–2.35	.020	[–0.555, –0.049]
Direct effect (Path c′)	0.091	0.030	3.04	.003	[0.032, 0.151]
Total effect	0.108	0.030	3.66	< .001	[0.050, 0.166]
Indirect effect					
Path	Effect	Boot SE	95% CI [LL, UL]		
Parental guilt → Parental self-efficacy → Internalizing symptoms	0.017	0.011	[0.001, 0.043]		

Unstandardized coefficients are shown. The indirect effect was estimated using 5000 bootstrap resamples with 95% percentile bootstrap CIs. The model controlled for maternal age, maternal education, paternal education, child biological sex, child age group, special educational needs, and chronic illness. SE, Standard Error; CI, confidence interval; LL, Lower Limit; UL, Upper Limit.

externalizing symptoms (Path b: B = –0.368, SE = 0.098, t = –3.76, $p < 0.001$), such that lower parental self-efficacy was associated with higher externalizing symptom scores. The indirect effect of parental guilt on externalizing symptoms through parental self-efficacy was significant, B = 0.020, Boot SE = 0.012, 95% percentile bootstrap CI [0.002, 0.048]. The completely standardized indirect effect (effect size) was 0.053 (95% bootstrap CI [0.006, 0.127]). Although modest in magnitude, this effect was statistically significant, indicating that parental self-efficacy accounted for a meaningful proportion of the association between parental guilt and children's externalizing symptoms. Thus, higher parental guilt was indirectly associated with more externalizing symptoms through reduced parental self-efficacy. The direct effect of parental guilt on externalizing symptoms remained significant after accounting for parental self-efficacy (B = 0.079, SE = 0.023, t = 3.46, $p = 0.001$), as did the total effect (B = 0.099, SE = 0.023, t = 4.33, $p < 0.001$), indicating partial mediation. Among the covariates, child biological sex (B = 2.273, SE = 0.614, $p < 0.001$), SEN (B = 2.190, SE = 0.803, $p = 0.007$), chronic illness (B = 2.903, SE = 0.814, $p < 0.001$), and child age group (B = –1.801, SE = 0.695, $p = 0.010$) were significant predictors of externalizing symptoms. Maternal age, maternal education, and paternal education were not significant predictors. In the Path a model predicting parental self-efficacy, SEN was the only significant covariate (B = –1.320, SE = 0.570, p =

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0.022), indicating that mothers of children with SEN reported lower parental self-efficacy (Table 5). Although parental self-efficacy emerged as a significant mediator, the partial mediation observed suggests that additional family-, child-, and environmental factors are also likely to contribute to children's externalizing behaviors.

Table 5. Mediation analysis of the association between parental guilt and children's externalizing symptoms through parental self-efficacy (n = 211).

Path	B	SE	*t*	*p*	95% CI [LL, UL]
Parental guilt → Parental self-efficacy (Path a)	–0.055	0.016	–3.44	.001	[–0.087, –0.024]
Parental self-efficacy → Externalizing symptoms (Path b)	−0.368	0.098	–3.76	< .001	[–0.561, –0.175]
Direct effect (Path c′)	0.079	0.023	3.46	.001	[0.034, 0.124]
Total effect	0.099	0.023	4.33	< .001	[0.054, 0.145]
Indirect Effect					
Path	Effect	Boot SE	95% CI [LL, UL]		
Parental guilt → Parental self-efficacy → Externalizing symptoms	0.020	0.012	[0.002, 0.048]		

Unstandardized coefficients are shown. The indirect effect was estimated using 5000 bootstrap resamples with 95% percentile bootstrap CIs. The model controlled for maternal age, maternal education, paternal education, child biological sex, child age group, SEN, and chronic illness. SE, Standard Error; CI, confidence interval; LL, Lower Limit; UL, Upper Limit.

Discussion

The present study examined whether parental self-efficacy is involved in the association between parental guilt and children's internalizing and externalizing symptoms among Hungarian-speaking mothers living in Transylvania, Romania.

Rather than locating children's emotional and behavioral difficulties solely within the child, the present findings support an ecological perspective in which children's adjustment is shaped through interactions among family processes, educational environments, and coordinated professional support. From this perspective, strengthening parental self-efficacy may contribute not only to family functioning but also to more effective collaboration between parents and schools in addressing children's emotional and behavioral needs. These findings are therefore consistent with Whole Schooling principles that emphasize inclusive participation, shared responsibility, family–school partnership, and sustained collaboration among families, schools, and educational professionals.

Overall, the findings supported the proposed mediation model. Higher parental guilt was associated with lower parental self-efficacy, and lower parental self-efficacy was, in turn, associated with higher levels of both internalizing and externalizing symptoms in children. Significant indirect associations were observed for both symptom domains, while the direct associations between parental guilt and child symptoms remained significant. This pattern suggests partial statistical mediation, indicating that parental self-efficacy accounts for part, but not all, of the association between parental guilt and children's emotional and behavioral symptoms.

These findings are consistent with previous research showing that parenting-related guilt is associated with child internalizing and externalizing difficulties (Shalev et al., 2023), and with studies highlighting parental self-efficacy as an important correlate of both parental functioning and child adjustment (Albanese et al., 2019; Bodalski et al., 2023; Fass et al., 2018). In the present study, mothers who reported higher guilt also tended to report lower confidence in their ability to manage parenting demands. This is clinically meaningful because parental guilt often involves self-blame, perceived inadequacy, and the feeling that one is failing to meet personal or socially prescribed standards of good parenting (Haslam et al., 2020). When such guilt is accompanied by lower parental self-efficacy, everyday child-related difficulties may be experienced as less manageable and more emotionally burdensome.

Parental self-efficacy was associated with both domains of child symptoms. This suggests that mothers' perceived parenting competence may be relevant not only in relation to children's behavioral difficulties, such as aggression or rule-breaking, but also in relation to emotional symptoms, including anxiety, withdrawal, and depressive features. This interpretation is consistent with social-cognitive approaches to parenting, in which parents' beliefs about their own competence are viewed as important for how they understand, respond to, and cope with child-related challenges (Bandura, 1986; Wit-

tkowski et al., 2017). However, because the present study used a cross-sectional correlational design, these results should not be interpreted as evidence that parental guilt causes lower parental self-efficacy or that lower parental self-efficacy causes child symptoms. It is also plausible that children's emotional and behavioral symptoms are associated with increased parenting-related guilt and reduced parental confidence over time. Thus, these associations may be reciprocal or transactional rather than unidirectional (Kochanova et al., 2021; Mouton et al., 2018; Shalev et al., 2023).

The persistence of significant direct associations between parental guilt and both internalizing and externalizing symptoms indicates that parental self-efficacy only partially accounted for these relationships. This suggests that other psychological and contextual factors may also be involved. Parenting stress, parental reflective functioning, emotion regulation, perceived social support, parental warmth, and family communication may further explain why parenting-related guilt is associated with children's adjustment difficulties. Previous research has emphasized the role of parental reflective functioning in the association between parental guilt and child behavior (Shalev et al., 2023), while other studies have highlighted parenting stress as an important correlate of child internalizing and externalizing problems (Kochanova et al., 2021; Ribas et al., 2024). Future studies should examine these variables together in more complex models to better understand how parental emotional experiences, parental cognitions, and child symptoms are linked.

The covariate findings provide clinically and educationally relevant contextual information. SEN and chronic illness were associated with higher levels of both internalizing and externalizing symptoms. This pattern is consistent with a broader developmental and biopsychosocial understanding of child adjustment, in which emotional and behavioral functioning is shaped by individual vulnerabilities, health-related demands, educational needs, family resources, and caregiving contexts (Kauffman & Landrum, 2013; Lacomba-Trejo et al., 2020; Ogundele, 2018). Children with SEN or chronic health conditions may experience increased emotional burden, difficulties in self-regulation, social challenges, or greater dependence on adult support, all of which may be associated with elevated symptom scores (Bakula et al., 2019; Lacomba-Trejo et al., 2020; Oris et al., 2018). At the family level, these conditions may also require sustained emotional, educational, and practical involvement from mothers.

Importantly, SEN was also associated with lower parental self-efficacy. From the results it appears that mothers raising children with additional educational needs may experience reduced confidence in managing everyday parenting challenges. Clinically, this highlights the importance of assessing not only child symptoms but also parental perceived competence and support needs. From an educational perspective, the finding also suggests that children's difficulties should not be understood only as individual problems located within the child. Rather, they should be interpreted in relation to the quality of support available across home, school, and community contexts. Families may benefit when schools and professionals work collaboratively with parents, recognize children's behavioral and emotional difficulties as expressions of underlying needs, and provide coordinated support rather than relying only on individual responsibility or deficit-based explanations. This interpretation is consistent with Faki and Juma (2026), who showed that active parental involvement in inclusive educational settings was associated with better academic engagement, behavioral development, social integration, and participation, whereas limited parental engagement was linked to poorer adjustment and greater isolation, particularly among students with SEN. Their findings further emphasize that effective inclusion depends not only on individual child support but also on sustained and structured collaboration between families and schools.

In the externalizing model, child biological sex and child age group were also significant correlates. Boys showed higher externalizing symptom scores than girls, and younger children showed higher externalizing symptoms than older children. These findings are consistent with previous research indicating that externalizing behaviors may differ according to child sex and developmental stage (Brooks Holliday et al., 2017; Novak et al., 2020). From a clinical perspective, externalizing symptoms should therefore be interpreted in relation to developmental expectations, gender-related behavioral patterns, and the child's broader social and educational environment. Younger children may have fewer developed self-regulatory skills, while boys may be more likely to express distress through overt behavioral difficulties. However, these interpretations should remain cautious because the present study used broad age categories and relied exclusively on maternal reports. Future research should examine whether the associations among parental guilt, parental self-efficacy, and child symptoms differ across more specific developmental periods or between boys and girls.

The results provide further support for practical implications for parent-focused and school-linked support. Because lower parental self-efficacy was associated with higher levels of child symptoms in both models, parental self-efficacy may

represent an important target for prevention and intervention. Supporting parents in developing a more realistic, compassionate, and competence-oriented understanding of parenting challenges may be useful, especially when guilt is accompanied by feelings of inadequacy, helplessness, or self-blame. Parent-focused interventions may benefit from components that strengthen confidence, problem-solving skills, emotion regulation, and perceived competence in responding to children's needs. Accordingly, interventions targeting parental self-efficacy should be viewed as one component of a broader support framework rather than as a stand-alone solution, given that the observed mediation effects indicate only partial explanation of the association between parental guilt and children's adjustment. At the same time, such support should not be limited to the parent alone. Children with emotional, behavioral, health-related, or educational difficulties may need coordinated support across family and school contexts, including flexible learning environments, individualized support, meaningful participation, and collaboration among parents, teachers, and specialized professionals.

This broader support-oriented perspective is especially relevant for families of children with SEN or chronic illness. In such cases, parent-focused work should be integrated with educational and community-based support systems. Strengthening parental self-efficacy may be more effective when parents are not left to manage complex child needs in isolation, but are instead included as partners in planning, decision-making, and support processes. Similarly, children's emotional and behavioral symptoms should be addressed through inclusive and responsive practices that consider the child's strengths, needs, relationships, and learning environment. Assessment should therefore be used not merely to identify difficulties, but to guide support, adaptation, and developmentally appropriate intervention.

Several limitations should be acknowledged. First, the cross-sectional design prevents conclusions about causality or temporal ordering among parental guilt, parental self-efficacy, and child symptoms. Therefore, the observed indirect associations should be interpreted as statistical mediation rather than evidence of causal mechanisms. Second, all variables were assessed using maternal self-report, which may increase the risk of shared method variance and reporter bias. Mothers who experience higher guilt or lower self-efficacy may perceive, interpret, or report their child's symptoms differently. Future studies should include multi-informant assessments, such as reports from fathers, teachers, clinicians, or children themselves when developmentally appropriate. Third, the sample consisted of Hungarian-speaking mothers from the Hungarian ethnic minority in Transylvania, Romania, which may limit the generalizability of the findings to other cultural, linguistic, and family contexts. Fourth, the study focused exclusively on mothers; therefore, future research should also examine fathers and other caregivers, as parenting-related guilt and self-efficacy may differ across caregiving roles. Although both translated instruments demonstrated good internal consistency, the Hungarian versions of the GAPS and BPSES have not yet undergone comprehensive psychometric validation. Future studies should evaluate their factorial structure as well as their construct, convergent, and discriminant validity.

Future research should use longitudinal designs to clarify the directionality and temporal ordering of the associations observed in this study. Such studies could examine whether higher parental guilt precedes lower parental self-efficacy and elevated child symptoms, whether child emotional and behavioral symptoms are associated with later increases in parental guilt and reduced parental confidence, or whether these processes operate reciprocally over time. Future studies should also examine additional mediators and moderators, such as parenting stress, parental reflective functioning, perceived social support, parental emotion regulation, parental warmth, family communication, and school-based support. Finally, intervention studies could test whether programs designed to strengthen parental self-efficacy, improve family–school collaboration, and provide coordinated support for children's diverse needs are associated with more adaptive parenting-related emotional experiences and better child adjustment.

Conclusions

The present study extends the existing literature by highlighting parental self-efficacy as a relevant psychological factor in the association between parental guilt and children's internalizing and externalizing symptoms. The present findings also support an ecological perspective on children's emotional and behavioral adjustment, suggesting that these outcomes should be understood within the broader interactions among families, schools, and other support systems rather than solely as characteristics of the child. From this perspective, parental self-efficacy represents not only an individual parental resource but also a factor that may facilitate effective collaboration between families and educational professionals. Strengthening parents' confidence in managing everyday parenting challenges may enhance communication with schools, encourage parental engagement in educational decision-making, and support coordinated responses to children's emotional and behav-

ioral needs. Consequently, parent-focused interventions may be most beneficial when implemented as part of collaborative support involving families, teachers, school psychologists, and special education professionals. Such partnerships may promote children's emotional well-being, active participation, and successful inclusion within educational settings, particularly for children with SEN who often require coordinated support across home and school contexts. Among Hungarian-speaking mothers living in Transylvania, higher parental guilt was associated with lower parental self-efficacy, which was, in turn, associated with higher levels of both emotional and behavioral symptoms in children. The findings suggest partial statistical mediation, indicating that parental self-efficacy accounted for part, but not all, of the association between parenting-related guilt and children's internalizing and externalizing symptoms. The completely standardized indirect effects were modest in magnitude (0.036 for internalizing symptoms and 0.053 for externalizing symptoms), suggesting that parental self-efficacy represents a meaningful, although not exclusive, psychological mechanism underlying these associations. The partial mediation observed in both models further indicates that additional parent-, child-, and context-related factors are likely to contribute to children's emotional and behavioral adjustment. These findings underline the importance of considering parental emotional experiences and perceived parenting competence when understanding children's adjustment difficulties. They also suggest that families of children with SEN or chronic illness may require additional support, not only in relation to children's symptoms but also in strengthening parental confidence and perceived competence. This finding suggests that parental self-efficacy represents one important psychological mechanism linking parental guilt with children's emotional and behavioral symptoms, but it does not fully explain these associations. Consequently, other parental characteristics (e.g., parenting stress, emotion regulation, or social support), as well as child- and family-level contextual factors, are also likely to contribute to children's adjustment. This pattern further suggests that additional individual, family, and contextual factors are likely to contribute to children's emotional and behavioral adjustment.

From educational, clinical, and family-support perspectives, interventions that strengthen parental self-efficacy, promote realistic and compassionate understandings of parenting challenges, and support collaboration between families, schools, and professionals may be particularly valuable. Given the cross-sectional and correlational design of the study, the findings should not be interpreted as evidence of causal relationships. Future longitudinal and intervention-based research is needed to clarify the directionality of these associations and to examine whether strengthening parental self-efficacy is associated with more adaptive parental experiences, better child adjustment over time, and stronger family–school partnerships that support children's participation, well-being, and inclusion within educational settings. Taken together, these findings support a Whole Schooling framework in which children's emotional well-being, meaningful participation, and inclusion are promoted through shared responsibility and coordinated collaboration among families, schools, and professionals.

Author Contributions

Conceptualization, methodology and resources: RHG, RO, and KKJ; software: RHG, KKJ; validation, investigation, and writing—review and editing: RHG, RO, KKJ, and BD; formal analysis, data curation, visualization, project administration: RHG; writing—original draft preparation: RHG, RO; supervision: RO and KKJ. All authors have read and agreed to the published version of the manuscript. All authors have participated sufficiently in the work and agree to be accountable for all aspects of the work.

Ethics Approval and Consent to Participate

This study did not require a separate institutional ethics approval or ethics approval number. The research was conducted in accordance with the ethical guidelines of the Bachelor's programme under which the study was carried out, and our institution does not issue separate ethics approval documents for this type of research. The research adhered to the ethical guidelines established by the Babeș-Bolyai University and the Code of Ethics of the Romanian College of Psychologists. All participants were adult mothers ($\geq$18 years of age). Electronic informed consent was obtained from every participant before questionnaire completion. No data were collected directly from children.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Availability of Data and Materials

Open Data: The information needed to reproduce all of the reported results is available at https://doi.org/10.6084/m9.figshare.33081089.

Conflict of Interest

The authors declare that they have no conflicts of interest.

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