

RESEARCH REPORT

School and Educational Psychology

Editor

Raquel Souza Lobo Guzzo

Support

Coordenação de Aperfeiçoamento
de Pessoal de Nível Superior (CAPES).
Funding Code 001.

Conflict of interest

The authors declare that there is no
conflict of interest.

Data availability

The research data are available from
the corresponding author upon
reasonable request.

Received

January 1, 2024

Approved

July 8, 2025

Educational social skills and school inclusion: an associative and predictive study

Habilidades sociais educativas e inclusão escolar: um estudo de associações e previsões

Eliza França Silva¹ , Luciana Carla dos Santos Elias² , Susana Maria Gonçalves Coimbra³ 

¹ Universidade de São Paulo, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Programa de Pós-Graduação em Psicologia. Ribeirão Preto, SP, Brasil. Correspondence to: E. F. SILVA. E-mail: <elizafs@usp.br>.

² Universidade de São Paulo, Faculdade de Filosofia, Ciências e Letras de Ribeirão Preto, Departamento de Psicologia. Ribeirão Preto, SP, Brasil.

³ Universidade do Porto, Faculdade de Psicologia e Ciências da Educação, Departamento de Psicologia, Programa Doutoral em Psicologia. Porto, Portugal.

Article based on the thesis by E. F. SILVA, entitled “Educação inclusiva no ensino fundamental: recursos, dificuldades, relacionamentos interpessoais e as habilidades sociais”. Universidade de São Paulo, 2024. Doi: <https://doi.org/10.11606/T.59.2024.tde-21082024-075250>

How to cite this article: Silva, E. F., Elias, L. C. S., & Coimbra, S. M. G. (2026). Educational social skills and school inclusion: an associative and predictive study. *Estudos de Psicologia* (Campinas), 43, e10696. <https://doi.org/10.1590/1982-0275202643e10696>

Abstract

The aim of this study was to identify associations between the social skills, behavioral problems, and academic competence of students with intellectual disabilities in the context of school inclusion and the educational social skills of their parents and teachers. In addition, the study sought to examine the predictive role of sociodemographic variables and the educational social skills of caregivers and teachers on students' social skills and behavioral problems. Participants were 42 caregivers and 34 teachers of 44 students with intellectual disabilities enrolled in regular public schools in a city in the state of Minas Gerais, Brazil. This was a quantitative, correlational, and predictive study with a cross-sectional design. Specific instruments and a sociodemographic questionnaire were used for data collection. The results indicated significant correlations between students' behavioral repertoires and educators' practices; age and educational social skills were found to predict children's social skills; and negative parenting practices predicted behavioral problems. These findings highlight the importance of investigating these variables to inform possible interventions in the context of inclusive education.

Keywords: Mainstreaming, education; Parents; School teachers; Social skills.

Resumo

Objetivou-se identificar associações entre as habilidades sociais, problemas de comportamento e competência acadêmica de alunos com deficiência intelectual em inclusão escolar e as habilidades sociais educativas dos pais e professores e; verificar a predição das variáveis sociodemográficas e das habilidades sociais educativas de responsáveis e professores sobre as habilidades sociais

e problemas de comportamento dos alunos. Participaram 42 responsáveis e 34 professoras de 44 alunos com deficiência intelectual matriculados em escolas públicas regulares de uma cidade do interior Minas Gerais. Tratou-se de estudo quantitativo, correlacional e preditivo com recorte transversal. Foram utilizados instrumentos específicos e questionário sociodemográfico. Os resultados apontaram: correlações significativas entre o repertório comportamental dos alunos e práticas dos educadores; idade e as habilidades sociais educativas foram capazes de prever as habilidades sociais infantis e; práticas educativas negativas predizem problemas de comportamento. Destaca-se a importância de investigar as variáveis para possíveis intervenções no contexto da educação inclusiva.

Palavras-chave: Inclusão escolar; Pais; Professores escolares; Habilidades sociais.

The family and school environments are important microsystems in child development, contributing to the promotion of learning and the transmission of cultural values and norms (Dessen & Polonia, 2007). According to Bronfenbrenner (2011), human development occurs through reciprocal interaction processes between the evolving organism and the people, objects, and symbols in the immediate environment. These enduring, reciprocal interactions are referred to as proximal processes, which drive development. In the context of the development of children with disabilities, proximal processes and microsystems have specific characteristics and fluctuate in dynamics of challenges and resources (Cunha et al., 2017; Maturana et al., 2019; Silva & Elias, 2022).

Inclusive education is based on the principle of educating all children regardless of their difficulties and differences (United Nations Educational, Scientific and Cultural Organization [UNESCO], 1994) and is a right guaranteed by the Brazilian Inclusion Law No. 13,146/2015 (Presidência da República, 2015). Intellectual disability, the focus of the present study, is characterized by impairments in cognitive and social skills (American Association on Intellectual and Developmental Disabilities [AAIDD], 2021) and is addressed within the framework of inclusion. In this context, the family and school microsystems and their interactions are of great importance and represent one of the goals of the National Special Education Policy from the Perspective of Inclusive Education (Ministério da Educação & Secretaria de Educação Especial, 2008). The literature indicates that this relationship is a significant factor influencing the inclusion process, and it is important that it occurs positively to ensure its effectiveness and success (Cabral et al., 2021; Coelho et al., 2017; Garcia et al., 2022).

Educational agents such as parents and teachers within these contexts need to possess a repertoire of educational social skills to support the development of the children under their care. Educational social skills consist of behaviors intentionally employed by educators to promote the learning and development of others, whether in informal or formal situations (Z. A. P. Del Prette & Del Prette, 2008). With regard to parents, these are referred to as parental educational social skills and are defined as a set of skills applicable to positive parenting practices (Bolsoni-Silva, 2008). They are classified into: communication (engaging in conversation, asking questions); expression of feelings and coping (expressing positive and negative feelings, giving opinions, showing affection, playing); and setting limits (establishing rules, identifying and applying consequences to children's behaviors, recognizing one's own mistakes and apologizing) (Bolsoni-Silva et al., 2016). However, negative parenting practices can also occur, characterized by punitive and aggressive behaviors such as hitting, yelling, insulting, as well as by neglect and inconsistent or lax discipline (Gomide, 2006).

Parental educational social skills have been shown to be correlated with and predictive of children's social repertoires and social performance, and can therefore serve as protective factors against behavioral problems (Bolsoni-Silva & Loureiro, 2011; 2019; 2023; Z. A. P. Del Prette & Del Prette, 2013a; Maia et al., 2022; Rovaris & Bolsoni-Silva, 2020). Conversely, the use of negative parenting practices predicts behavioral problems and a decrease in skilled behaviors (Assis-Fernandes

& Bolsoni-Silva, 2020; Bolsoni-Silva et al., 2016; Bolsoni-Silva & Marturano, 2008; Bolsoni-Silva & Loureiro, 2023; Campos et al., 2019; Ferreira & Marturano, 2002; Fonseca et al., 2021; Sidman, 1995).

With regard to teachers' educational social skills, these are classified as: creating contexts conducive to learning (organizing materials, adjusting distance and proximity); conveying or presenting content related to social skills (posing probing or challenging questions, stating objectives); positive monitoring (showing attentiveness to students' accounts); and setting limits and discipline (calling attention to appropriate peer behavior) (Z. A. P. Del Prette & Del Prette, 2008). Socially skilled teachers can teach and foster students' social skills, thereby contributing to cognitive and academic performance (Achkar et al., 2019; Fonseca et al., 2021; Rosin-Pinola et al., 2017; Yunes et al., 2018). They can also help reduce the incidence of behavioral problems and serve as protective factors in this regard (Bolsoni-Silva & Loureiro, 2021; Soares et al., 2021).

Social skills are social behaviors valued within a given culture that have a high probability of producing positive outcomes for the individual, their group, and the broader community, contributing to more competent social performance in interpersonal tasks (A. Del Prette & Del Prette, 2017). With regard to children's social skills, these are classified into different categories, such as: self-control and emotional expressiveness, civility, empathy, assertiveness, ability to make friends, problem solving, and academic social skills (Z. A. P. Del Prette & Del Prette, 2013a).

A well-developed social repertoire and socially competent performance support social relationships, developmental trajectories over the years, and academic performance and competence. Conversely, deficits in this repertoire – and consequently in social performance and interpersonal relationships – tend to lead to behavioral problems and interpersonal difficulties (Z. A. P. Del Prette & Del Prette, 2013a; Elias & Amaral, 2016; Gresham & Elliot, 1990; Hukkelberg et al., 2019; Lima et al., 2023). Behavioral problems refer to deficits and/or excesses in behavior that hinder children's interactions with peers and adults (Z. A. P. Del Prette & Del Prette, 2013a). These are generally classified into two broad groups: externalizing and internalizing problems (Achenbach & Rescorla, 2001).

Given this context, the importance of the family and school microsystems, as well as the resources and challenges of those who participate in them and the proximal relationships that occur within them, becomes evident. A positive and supportive environment with close, positive, and competent relationships – in which educational social skills are present – tends to foster proximal processes that enable social development and the construction of a more robust social skills repertoire in childhood (Leme et al., 2013; Mariano & Bolsoni-Silva, 2018; Rosin-Pinola et al., 2017).

When the focus is on children with disabilities and other developmental disorders in the context of inclusive education, studies show that these well-established relationships remain relevant, but it is essential that they be specifically examined within this population (Abrahão & Elias, 2021; Agostini & Freitas, 2022; Benitez et al., 2020; Ribas & Abramides, 2022; Silva & Elias, 2020; Souza et al., 2022). The literature indicates that children with intellectual disabilities often demonstrate a social skills repertoire below what is expected for their age and should be supported by educators in this development, who themselves may benefit from programs aimed at fostering educational social skills (Benitez et al., 2020; Quitério et al., 2021; Silva & Elias, 2020).

In the developmental context, beyond the educational social skills already discussed, a dynamic interplay of factors also influences proximal processes (Bronfenbrenner, 2011), such as sociodemographic characteristics. Among sociodemographic variables, family income and parental education stand out for their influence on parenting practices and children's behaviors (Bolsoni-Silva & Loureiro, 2018; 2019). The present study focuses on the sociodemographic variables from both the family and school microsystems in relation to the child (the developing person).

In this context, the aim of this study was to identify associations between the social skills, behavioral problems, and academic competence of students with intellectual disabilities in the context of school inclusion and the educational social skills of their parents and teachers, as well as to examine the predictive role of caregivers' and teachers' sociodemographic variables and educational social skills on students' social skills and behavioral problems. The use of predictive models is highlighted as a means to better understand the relationships among these variables in research focused specifically on students with intellectual disabilities in inclusive settings – an area still scarce in the literature – underscoring the study's scientific and social relevance.

Method

This is a quantitative, correlational, and predictive study with a cross-sectional design.

Participants

A total of 42 caregivers, 40 mothers, one father, and one grandmother (two mothers had two children included in the study, resulting in 42 caregivers for 44 children) of 44 children participated. The caregivers had a mean age of 34 years ($SD = 6.73$). Regarding sociodemographic data, 47.61% were in a common-law marriage, 42.85% were employed at the time of the study, 47.62% had not completed primary education, and 45.24% belonged to socioeconomic classes D–E (with an average household income of R\$708.19, according to the Brazilian Economic Classification Criteria).

Among the participating teachers, nine out of the 34 had more than one student in their classroom diagnosed with an intellectual disability. The teachers' mean age was 42.25 years ($SD = 9.15$) and their average length of professional experience was 16.27 years ($SD = 7.68$). Regarding education, the majority (79.41%) held a specialization degree, with 44.12% specializing in inclusive education. In terms of socioeconomic status, 47.09% were classified as belonging to class B2 (with an average household income of R\$5,363.19, according to the Brazilian Economic Classification Criteria).

Of the 44 participating children, 30 were boys (68.18%) and 14 were girls (31.82%), with a mean age of 9.68 years ($SD = 1.62$). Four were enrolled in the first year, five in the second year, 11 in the third year, 15 in the fourth year, and nine in the fifth year of elementary school. Regarding diagnosis, 33 children (75.00%) had a diagnosis of intellectual disability only, while 11 (25.00%) had additional associated diagnoses.

Instruments

Roteiro de Entrevista de Habilidades Sociais Educativas Parentais (RE-HSE-P, Parental Educational Social Skills Interview Guide) (Bolsoni-Silva et al., 2016): This instrument aims to describe, through spontaneous reports, the interactions established between parents and children. Responses to the questions are categorized and coded into the following subcategories: parental educational social skills (HSE-P; positive parenting practices), negative parenting practices, children's social skills, contextual variables, children's behavioral problems, total positive, and total negative scores. The instrument demonstrates satisfactory psychometric properties, with a total Cronbach's alpha of 0.846. Factor analysis indicates two factors: total positive ($\alpha = 0.827$) and total negative ($\alpha = 0.646$).

Inventário de Habilidades Sociais Educativas de Professores (IHSE-Prof, Teachers' Educational Social Skills Inventory; Z. A. P. Del Prette & Del Prette, 2013b): This is a self-report instrument in

which teachers rate items using a Likert scale, describing social behaviors exhibited in interactions with students. It is divided into two scales comprising seven factors. Scale 1: Organizing interactive activities (Factor 1 [F1] – Providing instructions for the activity; F2 – Selecting and providing materials and content; and F3 – Organizing the physical environment). Scale 2: Conducting interactive activities (F1 – Cultivating warmth, support, and a positive attitude; F2 – Presenting, explaining, and evaluating in an interactive way; F3 – Approving and valuing behaviors; and F4 – Disapproving, restricting, or correcting behaviors). This instrument shows good internal consistency, with Cronbach's alpha values ranging from 0.73 to 0.96.

Social Skills Rating System (SSRS) – Teacher and parent questionnaire (Z. A. Del Prette et al., 2016): assesses social skills, behavioral problems, and academic competence (teacher form only) through Likert-scale questionnaires for children, parents, and teachers. In this study, the parent and teacher versions were used. For the teacher version, internal consistency analyses indicated Cronbach's alpha values between 0.91 and 0.94. For the parent version, values ranged from 0.73 to 0.92.

Sociodemographic Questionnaire: collected data on caregivers' and teachers' sociodemographic variables (sex, age, marital status, socioeconomic level, and educational attainment).

Data Collection Procedure

The study was conducted in public schools in a city of approximately 90,000 inhabitants, located in the state of Minas Gerais, Brazil. The municipality has 20 public primary schools. After approval by the Research Ethics Committee (CAAE no 86636918.9.0000.5407) and relevant local authorities, meetings were held with each school principal to present the study's objectives and identify students diagnosed with intellectual disabilities. Fourteen schools agreed to participate. After that, each identified student's caregiver and teacher were contacted. The inclusion criterion was having a medical report specifying the International Classification of Diseases (ICD) diagnosis.

Each student's caregiver and teacher completed instruments to assess their own educational social skills and the student's social skills. Data collection took place through individual meetings with each participant in private rooms at the schools. At each meeting, the study was explained, and upon agreement and signing of the informed consent form, the instruments were administered.

Data Analysis Procedure

The data were coded according to the instructions provided in the instruments and analyzed using the statistical software IBM®SPSS®. After verifying the assumptions of normality, independence, and multicollinearity, multiple linear regression analyses (enter method) were conducted, preceded by the calculation of Pearson's correlation coefficients among the variables. Correlations were considered weak when values were below 0.30, moderate between 0.30 and 0.69, and strong above 0.70 (Hair et al., 2009). For the multiple linear regression analyses, the dependent variables were the children's social skills, behavior problems, and academic competence, as assessed by the SSRS (according to caregivers and teachers) and the RE-HSE-P (according to caregivers). The independent variables related to caregivers were: sociodemographic variables (age, marital status, educational attainment, and socioeconomic level), negative parenting practices, parental educational social

skills, and contextual variables (both frequency and diversity of behaviors), as assessed by the RE-HSE-P. The independent variables related to teachers were: sociodemographic variables (age, years of experience, educational attainment, and socioeconomic level) and educational social skills, measured by the two general scales (Organizing Interactive Activities and Conducting Interactive Activities) from the IHSE-Prof.

Results

Table 1 presents the significant correlations found between students' social skills, behavior problems, and academic competence with parental educational social skills, negative parenting practices, and contextual variables.

Table 1

Significant Associations Between Students' Social Skills, Behavior Problems, and Parents' Behavioral Repertoire

Students' Variables	COM	SENT	HSEP-F	CONT-D	CONT-F	PNEG-D	PNEG-F
Self-control						-0.33*	
Social Assertiveness					0.30*		
Social Skills (Diversity)		0.34*	0.37*	0.49***			
Social Skills (Frequency)			0.32*	0.42**			
Total Behavior Problems		-0.38**				0.44**	
Externalizing	-0.34*	-0.44**	-0.33*			0.48**	0.40**
Internalizing					0.40**		
Behavior Problems (Diversity)		-0.44**	-0.32*			0.57***	

Note: n : 42 caregivers and 44 students; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$. COM: Parental Educational Social Skill: Communication and Negotiation; CONT-D: Context Variable, Behavior Diversity Category; CONT-F: Context Variable, Behavior Frequency Category; HSEP-F: Parental Educational Social Skill, Behavior Frequency Category; PNEG-D: Negative Parenting Practice, Behavior Diversity Category; PNEG-F: Negative Parenting Practice, Behavior Frequency Category; SENT: Parental Educational Social Skill: Feeling Good.

In Table 1, a moderate negative correlation is observed between children's Self-control and Negative Parenting Practices (behavior diversity category); a moderate positive correlation appears between social assertiveness and the frequency of the family context variable; moderate positive correlations are found between children's social skills (behavior diversity category) and the parental educational social skill of feeling good, the frequency of parental educational social skills, and the context variable (diversity category); and there are moderate positive correlations between the frequency of children's social skills and both the frequency of parental educational social skills and the diversity of the context variable. The total child behavior problems score showed a moderate negative correlation with the parental educational social skill of feeling good and a moderate positive correlation with negative parenting practices. Externalizing behavior problems showed a moderate negative correlation with the parental educational social skills of communication, feeling good, and frequency; and a moderate positive correlation with the frequency and diversity of negative parenting practices. Internalizing behavior problems were moderately positively correlated with the context variable (frequency category). Behavior problems in the diversity category were negatively correlated with the parental educational social skill of feeling good and its frequency, and positively correlated with the diversity category of negative parenting practices.

Table 2 shows the associations between students' social skills, behavior problems, and teachers' educational social skills.

Table 2*Significant Associations Between Students' Social Skills, Behavior Problems, and Teachers' Educational Social Skills*

Students' Variables	Organize Interactive Activities	Select and Provide Materials and Content	Organize the Physical Environment	Approve and Value Behavior
Responsibility	0.30*			
Total Behavior Problems	-0.42*	-0.39**		-0.32*
Externalizing	-0.43***	-0.37*	-0.33*	-0.37*
Hyperactivity	-0.35*	-0.39**		

Note: n : 42 caregivers and 44 students; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

It can be seen that the responsibility skill was moderately positively associated with organizing interactive activities. The total behavior problems score was moderately negatively associated with organizing interactive activities and with the factors selecting and providing materials and content and approving and valuing behaviors. Externalizing behavior problems were moderately negatively associated with organizing interactive activities, selecting and providing materials and content, organizing the physical environment, and approving and valuing behaviors. Hyperactivity showed a moderate negative correlation with organizing interactive activities and selecting and providing materials and content. There were no associations between academic competence and teachers' educational social skills.

Table 3 presents the caregivers' predictive variables for students' social skills and behavior problems.

Table 3*Parental Predictors of Children's Social Skills and Behavior Problems*

Predictors	B	SE B	β	T	p
Caregiver's age	0.012	0.004	0.418	3.103	0.004
Parental Educational Social Skill (diversity)	0.298	0.144	0.278	2.066	0.045
Negative Parenting Practice (diversity)	-0.157	0.146	-0.145	-1.075	0.289
Total Adjusted R^2					0.23
Parental Educational Social Skill (frequency)	-0.381	0.137	-0.476	-2.785	0.008
Negative Parenting Practice (frequency)	-0.344	0.203	-0.284	-1.691	0.099
Parental Educational Social Skill (diversity)	0.312	0.166	0.313	1.884	0.067
Negative Parenting Practice (diversity)	0.683	0.164	0.678	4.175	< 0.001
Total Adjusted R^2					0.39

Note: n : 42 caregivers and 44 students; B: Unstandardized regression coefficient; β : Standardized regression coefficient; R^2 : Coefficient of determination between the predictor and predicted variables; SE B: Standard Error; T: t-value.

Regarding social skills, the significant model ($F(3.40) = 5.271, p = 0.004$) indicates that caregivers' age and parental educational social skills explain 23% of students' social skill repertoire, with positive associations. Caregivers' age had the greatest predictive weight in the model. For behavior problems, the significant model ($F(4.39) = 8.114, p = 0.001$) shows that parental educational social skills and negative parenting practices explain 39% of students' behavior problems. The negative standardized coefficient (β) indicates an inverse relationship between parental educational social skills (frequency) and behavior problems. The variable with the greatest predictive weight was Negative Parenting Practices (diversity).

Regarding teachers' predictive variables for students' social skills and behavior problems, no significant predictive model was found for students' social skills or academic competence. However,

for behavior problems, a significant model was found ($F(5.38) = 2.876, p = 0.021$), indicating that the skill of organizing interactive activities explained 18% of the variance in students' behavior problems. The negative standardized coefficient (β) indicated an inverse relationship.

Discussion

This study aimed to identify associations between the social skills, behavioral problems, and academic competence of students with intellectual disabilities in the context of school inclusion and the educational social skills of their parents and teachers, as well as to examine the predictive role of caregivers' and teachers' sociodemographic variables and educational social skills on students' social skills and behavioral problems. Important results consistent with the literature were found.

Regarding the associations between students' social skills and parental educational social skills, moderate positive correlations were found in both the diversity and frequency categories, as measured by the RE-HSE-P. The diversity category refers to the range of behavior repertoire reported by the caregiver during the interview, while the frequency category indicates how often these behaviors occur (Bolsoni-Silva et al., 2016). Thus, in the family context of children with intellectual disabilities, those with a broader repertoire of social skills and higher frequency of these skills tend to have parents who also engage more frequently in skillful parenting behaviors – consistent with the literature in this area (Agostini & Freitas, 2022; Benitez et al., 2020; Bolsoni-Silva & Loureiro, 2023; Silva & Elias, 2020).

There were also moderate, significant positive associations between students' social skills and context variables, in both the frequency and diversity categories. The context variables refer to the quality of positive interactions, indicating that caregivers who create more relationship contexts with their children tend to have children with stronger social skills (Bolsoni-Silva & Loureiro, 2021). The diversity of positive situations in family interactions – such as moments of play, conversation, and support with tasks – can promote better social interactions, which may extend to other contexts as well (Bolsoni-Silva & Loureiro, 2011; Bolsoni-Silva & Loureiro, 2023).

Inverse relationships were also observed: children's self-control skills were negatively correlated with negative parenting practices – that is, when caregivers use such negative practices, they do not foster the development of self-control in their children. It is understood that when caregivers engage in coercive behaviors such as hitting, yelling, and similar actions, they also demonstrate low self-control in these interactions, thereby modeling these behaviors for their children (Campos et al., 2019). Within the family microsystem, in some cases, these established interactions can be detrimental to development; punitive and coercive parents may lead their children to adopt behaviors that are harmful in both the short and long term (Assis-Fernandes & Bolsoni-Silva, 2020; Dessen & Polonia, 2007; Ferreira & Marturano, 2002).

Regarding associations with behavior problems, negative correlations were found with parental educational social skills. There is a consensus in the literature that parental educational social skills can serve as resources for addressing and mitigating behavior problems (Bolsoni-Silva & Loureiro, 2021; Bolsoni-Silva et al., 2016), which was confirmed in this study involving children with intellectual disabilities.

Behavior problems were positively associated with negative parenting practices – in other words, children who exhibited more behavior problems also had caregivers who more frequently used negative parenting practices. The fact that negative practices increase the likelihood of behavior problems is well established in the literature (Assis-Fernandes & Bolsoni-Silva, 2020; Bolsoni-Silva

et al., 2016; Bolsoni-Silva & Loureiro, 2023; Ferreira & Marturano, 2002). According to Sidman (1995), parents often interact with their children primarily when correcting or criticizing them, which can lead these children to learn coercive behaviors themselves, and consequently, to present more behavior problems. Furthermore, behavior problems can also be explained by inconsistent discipline, limited positive interaction, and insufficient monitoring of children's activities by parents (Bolsoni-Silva & Marturano, 2008).

The context variable – referring to situations in which parent-child relationships and parenting practices occur – was also positively associated with internalizing behavior problems. This may be explained by parents, even if unintentionally, reinforcing internalizing behavior problems, as such behaviors do not immediately affect the surrounding environment – a finding consistent with the literature on children without disabilities (Benitez et al., 2020; Bolsoni-Silva et al., 2016).

Regarding the correlations between teachers' educational social skills and students' social skills, positive correlations were also found. Students' responsibility skills were positively associated with teachers' ability to organize interactive activities, suggesting that teachers with these skills can better foster students' interest and engagement, thereby promoting responsibility. It is understood that a broader repertoire of educational social skills enables teachers to create environments more conducive to students' social relationships and learning (Z. A. P. Del Prette & Del Prette, 2008; Yunes et al., 2018).

This study assessed only the teachers' educational social skills relevant to the school setting, not those specifically needed for inclusive education. In the context of inclusive education, Quitério et al. (2021) highlight the need to develop programs to promote teachers' social skills, given their role in fostering students' social skills and, consequently, their socio-emotional and cognitive development.

No correlations were found between teachers' educational social skills and students' academic competence, as reported by the teachers themselves, which does not align with the literature. It is well established that teachers' classroom practices are closely linked to students' academic success (Rosin-Pinola et al., 2017).

Students' externalizing, internalizing, and hyperactivity problems were negatively correlated with teachers' educational social skills. It is known that a solid repertoire of educational social skills, along with a closer teacher-student relationship marked by warmth and open dialogue, can help minimize problem behaviors (Bolsoni-Silva & Loureiro, 2021; Soares et al., 2021). Such practices contribute to better classroom management and help reduce behavior problems.

Regarding the predictive model for caregivers' variables and students' social skills, it was found that educational social skills and caregiver age explained 23% of the students' social skills repertoire. As mentioned, the educational social skills that parents employ are important variables in promoting their children's social repertoires – a relationship confirmed in this study, as in other predictive studies (Bolsoni-Silva & Loureiro, 2023; Rovaris & Bolsoni-Silva, 2020). As for caregivers' age, older mothers were found to contribute more positively to their children's social skills, which may be due to life experience. Other national studies (Bolsoni-Silva & Loureiro, 2018; 2019) have identified significant predictive models involving other sociodemographic variables, such as income and marital status, but in the present study these variables did not yield significant models.

Regarding the prediction of children's behavior problems by caregivers' variables, it was found that the diversity of parental educational social skills and the frequency of negative parenting practices predicted 39% of behavior problems, with an inverse relationship found between educational social skills and behavior problems. Such relationships, found in other studies (Bolsoni-Silva & Loureiro, 2011; 2018; Campos et al., 2019; Rovaris & Bolsoni-Silva, 2020), confirm

that negative parenting practices predict behavior problems, while educational social skills act as protective factors. This reinforces the importance of family interactions.

Finally, regarding the prediction of teachers' variables for students' behavior problems, the tested model identified only one significant variable: the ability to organize interactive activities, which showed an inverse relationship and explained 18% of the variance in behavior problems. Organizing interactive activities involves providing instructions about the activity, selecting and making materials and content available, and arranging the physical environment (Z. A. P. Del Prette & Del Prette, 2013b). These skills can create more stimulating learning environments and foster better classroom interactions, helping to minimize behavior problems. Teachers often struggle to manage students' behavior problems (Mariano & Bolsoni-Silva, 2018). Thus, these findings highlight the relevance of teachers' educational social skills, which is particularly important in the context of inclusion. Although teachers' sociodemographic variables were not significant in the model, factors such as years of experience and specialization remain important and should be explored in future studies.

In this study, the relationships established within both the family and educational microsystems, including the inclusive education context, underscore the importance of educational social skills (of both parents and teachers) and the detrimental impact of negative parenting practices. These findings were supported by the correlation and prediction analyses. It is evident that these relationships, well established in the broader literature, also hold true for students in inclusive education settings.

Research involving the target population of inclusive education – with analyses of correlations and predictions among educational social skills, children's social skills, and behavior problems – remains relatively scarce. In this context, Benitez et al. (2020) emphasize the importance of educational social skills for fostering strong parent-child relationships and creating a more supportive family environment for children's development, promoting greater social autonomy. Rosin-Pinola et al. (2017) highlight the importance of teachers' educational social skills for promoting more positive interactions between students and their peers and teachers, which in turn can enhance academic performance.

The findings therefore converge on the importance of promoting the educational social skills of educators within inclusive education, given the challenges often faced in this context (Cunha et al., 2017; Maturana et al., 2019; Silva & Elias, 2022; Souza et al., 2022). It is expected that parents with stronger social skills will be better able to create more positive family environments, supporting their children both at home and at school in the context of inclusion. Teachers who receive support to develop their educational social skills can, in turn, foster students' social skills, supporting various aspects of inclusion. This underscores the importance of programs aimed at promoting the educational social skills of both parents and teachers in this context (Benitez et al., 2020; Quitério et al., 2021; Souza et al., 2022).

Moreover, the role of family and school microsystems as drivers of child development is paramount (Dessen & Polonia, 2007; Ferreira & Marturano, 2002). In inclusive education, an effective family-school relationship is essential (Cabral et al., 2021; Coelho et al., 2017; Garcia et al., 2022) and can be further strengthened through the development of educational social skills.

Conclusion

This study addressed its proposed objectives by examining associations and predictions among the analyzed variables. It contributes to the literature by discussing specific relationships

within the context of the inclusion of students with intellectual disabilities – an area with limited research in Brazilian studies. As limitations, this study had a relatively small number of participants and instruments for assessing educational social skills, and it did not examine relationships between the microsystems. Future studies should include larger samples of individuals with intellectual disabilities or other disorders and disabilities, and should consider relationships between the family and school systems.

References

- Abrahão, A. L. B., & Elias, L. C. S. (2021). Students with ADHD: Social Skills, Behavioral Problems, Academic Performance, and Family Resources. *Psico-USF*, 26(3), 545-557. <https://doi.org/10.1590/1413-82712021260312>
- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for the ASEBA School-Age Forms & Profiles*. University of Vermont, Research Center for Children, Youth, & Families.
- Achkar, A. M. N. E., Leme, V. B. R., Soares, A. B., & Yunes, M. A. M. (2019). Life Satisfaction and Academic Performance of Elementary School Students. *Psico-USF*, 24(2), 323-335. <https://doi.org/10.1590/1413-82712019240209>
- American Association on Intellectual and Developmental Disabilities. (2021). *Intellectual disability: definition, classification, and systems of supports* (12th ed). AAIDD.
- Agostini, J. M. G., & Freitas, L. C. (2022). Habilidades sociais educativas de pais de crianças com autismo: revisão de literatura. *Psicologia Escolar e Educacional*, 26, e234495. <https://doi.org/10.1590/2175-3539202234495>
- Assis-Fernandes, R. P., & Bolsoni-Silva, A. T. (2020). Educational social skills and repertoire of children differentiated by behavior and sex. *Paidéia*, 30, e3015. <https://doi.org/10.1590/1982-4327e3015>
- Benitez, P., Kirchner, L. F., Ribeiro, G. W., & Tatmatsu, D. I. B. (2020). Educational social skills of parents of children with and without intellectual disability. *Psico-USF*, 25(3), 415-424. <https://doi.org/10.1590/1413-82712020250302>
- Bolsoni-Silva, A. T. (2008). Roteiro de Entrevista de Habilidades Sociais Educativas Parentais (RE-HSE-P): Categorias e testagem preliminares. In L. D. Weber (Org.), *Família e desenvolvimento: visões interdisciplinares* (pp. 145-158). Juruá.
- Bolsoni-Silva, A. T., & Loureiro, S. R. (2011). Práticas educativas parentais e repertório comportamental infantil: comparando crianças diferenciadas pelo comportamento. *Paidéia*, 21(48), 61-71. <https://doi.org/10.1590/S0103-863X2011000100008>
- Bolsoni-Silva, A. T., & Loureiro, S. R. (2018). Predictors of social skills and behavioral problems in children. *Arquivos Brasileiros de Psicologia*, 70(1), 86-97.
- Bolsoni-Silva, A. T., & Loureiro, S. R. (2019). Práticas parentais: conjugalidade, depressão materna, comportamento das crianças e variáveis demográficas. *Psico-USF*, 24(1), 69-83. <https://doi.org/10.1590/1413-82712019240106>
- Bolsoni-Silva, A. T., & Loureiro, S. R. (2021). Educational practices and child behaviors: mothers' and teachers' evaluation. *Psicologia: Teoria e Pesquisa*, 37, e372114. <https://doi.org/10.1590/0102.3772e372114>
- Bolsoni-Silva, A. T., & Loureiro, S. R. (2023). Associations between sociodemographic and behavioral variables, and educational practices on mother-child dyads. *Acta Colombiana de Psicología*, 26(2), 11-22. <https://doi.org/10.14718/acp.2023.26.2.2>
- Bolsoni-Silva, A. T., & Marturano, E. M. (2008). Habilidades sociais educativas parentais e problemas de comportamento: comparando pais e mães de pré-escolares. *Aletheia*, 27(1), 126-138.
- Bolsoni-Silva, A. T., Loureiro, S. R., & Marturano, E. M. (2016). *Roteiro de entrevista de habilidades sociais educativas parentais (RE-HSE-P): manual técnico*. Hogrefe/CETEP.
- Bronfenbrenner, U. (2011). *Bioecologia do desenvolvimento humano: tornando os seres humanos mais humanos*. Artmed.

- Cabral, C. S., Falcke, D., & Marin, A. H. (2021). Relação família-escola-criança com transtorno do espectro autista: percepção de pais e professoras. *Revista Brasileira de Educação Especial*, 27, e0156. <https://doi.org/10.1590/1980-54702021v27e0156>
- Campos, J. R., Silva, A. T. B., Zanini, M. R. G. C., & Loureiro, S. R. (2019). Predictors of behavioral problems in adolescents: family, personal and demographic variables. *Psico-USF*, 24(2), 273-285. <https://doi.org/10.1590/1413-82712019240205>
- Coelho, G., Campos, J. A. P. P., & Benitez, P. (2017). Relatos de pais sobre a inclusão e a trajetória escolar de filhos com deficiência intelectual. *Psicologia em Revista*, 23(1), 22-41. <https://doi.org/10.5752/P.1678-9563.2017v23n1p22-41>
- Cunha, K. C., Pontes, F. A. R., & Silva, S. S. C. (2017). Pais de Crianças com Paralisia Cerebral Pouco Estressados. *Revista Brasileira de Educação Especial*, 23(1), 111-126. <https://doi.org/10.1590/S1413-65382317000100009>
- Del Prette, Z. A. P., & Del Prette A. (2008). Um sistema de categorias de habilidades sociais educativas. *Paidéia*, 18(41), 517-530. <https://doi.org/10.1590/S0103-863X2008000300008>
- Del Prette, Z. A. P., & Del Prette A. (2013a). *Psicologia das habilidades sociais na infância: teoria e prática* (6a ed.). Vozes.
- Del Prette, Z. A. P., & Del Prette, A. (2013b). *Inventário de habilidades Sociais Educativas – versão Professor (IHSE-Prof): dados psicométricos preliminares* (Relatório não publicado, disponível com os autores).
- Del Prette, A., & Del Prette, Z. A. P. (2017). *Competência social e habilidades sociais: manual teórico-prático*. Vozes.
- Del Prette, Z. A., Freitas, L. C., Bandeira, M., & Del Prette, A. (2016). *Inventário de habilidades sociais, problemas de comportamento e competência acadêmica para crianças - SSRS: manual de aplicação, apuração e interpretação*. Casa do Psicólogo.
- Dessen, M. A.; & Polonia, A. C. (2007). A família e a escola como contextos de desenvolvimento humano. *Paidéia*, 17(36), 21-32. <https://doi.org/10.1590/S0103-863X2007000100003>
- Elias, L. C. S., & Amaral, M. V. (2016). Habilidades sociais, comportamentos e desempenho acadêmico em escolares antes e após intervenção. *Psico-USF*, 21(1), 49-61. <https://doi.org/10.1590/1413-82712016210105>
- Ferreira, M., & Marturano, E. (2002). Ambiente familiar e os problemas de comportamento apresentados por crianças com baixo desempenho escolar. *Psicologia Reflexão e Crítica*, 15(1), 35-44. <https://doi.org/10.1590/S0102-79722002000100005>
- Fonseca, B. C. R., Bolsoni-Silva, A. T., & Ebner, L. M. (2021). Práticas educativas de genitores e professores e repertório comportamental infantil. *Gerais: Revista Interinstitucional de Psicologia*, 14(1), 1-27. <http://dx.doi.org/10.36298/gerais202114e15656>
- Garcia, L. M., Cia, F., & Capellini, V. L. M. F. (2022). A relação família e escola na visão de professores após curso de formação continuada. *Revista Educação Especial*, 35, e41-1. <http://dx.doi.org/10.5902/1984686X65571>
- Gomide, P. I. C. (2006). *Manual do inventário de estilos parentais: modelo teórico, manual de aplicação, apuração e interpretação*. Vozes.
- Gresham, F. M., & Elliot, S. N. (1990). *Social Skills Rating System: manual*. American Guidance Service.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2009). *Análise Multivariada de dados* (6a ed.). Bookman.
- Hukkelberg, S., Keles, S., Ogden, T., & Hammerstrøm, K. (2019). The relation between behavioral problems and social competence: a correlational Meta-analysis. *BMC Psychiatry*, 19(354), 1-14. <https://doi.org/10.1186/s12888-019-2343-9>
- Leme, V. B. R., Del Prette, Z. A. P., & Coimbra, S. (2013). Práticas educativas parentais e habilidades sociais de adolescentes de diferentes configurações familiares. *Psico*, 44(4), 560-570. <https://revistaseletronicas.pucrs.br/revistapsico/article/view/12559>
- Lima, K., Oliveira, A., Lellis, I., Tavares, E., & Bagata, E. (2023). Social skills in the educational context: a systematic study. *Concilium*, 23(14), 132-146. <https://doi.org/10.53660/CLM-1628-23J36>

- Maia, F. M., Soares, A. B., & Monteiro, M. (2022). Estudo longitudinal sobre as relações entre práticas parentais, habilidades sociais, problemas de comportamento e desempenho acadêmico. *Revista de Estudios e Investigación en Psicología y Educación*, 9(2), 285-300. <https://doi.org/10.17979/reipe.2022.9.2.9297>
- Mariano, M., & Bolsoni-Silva, A. T. (2018). Social Interactions between teachers and students: a study addressing associations and predictions. *Paidéia*, 28, e2816. <https://doi.org/10.1590/1982-4327e2816>
- Maturana, A. P. P. M., Mendes, E. G., & Capellini, V. L. M. F. (2019). Schooling of students with intellectual disabilities: family and school perspectives. *Paidéia*, 29, e2925. <https://doi.org/10.1590/1982-4327e2925>
- Ministério da Educação, & Secretaria de Educação Especial (Brasil). (2008). *Política Nacional de Educação Especial na Perspectiva da Educação Inclusiva*. MEC/SEESP.
- Presidência da República (Brasil). (2015). *Lei n. 13.146, de 6 de julho de 2015. Institui a Lei Brasileira de Inclusão da Pessoa com Deficiência (Estatuto da Pessoa com Deficiência)*. Presidência da República.
- Quiterio, P. L., Nunes, L. R. O. P., Camelo, B. L., Silva, J. P., & Carmo, M. M. I. B. (2021). Promoção das habilidades sociais de futuros Professores com foco na Educação Inclusiva. *Estudos e Pesquisas em Psicologia*, 21(2), 611-631. <http://dx.doi.org/10.12957/epp.2021.61060>
- Ribas, M. C., & Abramides, D. V. M. (2022). Treinamento de habilidades sociais educativas com mães de pré-adolescentes com deficiência auditiva. *Psicologia em Estudo*, 27, 1-15. <https://doi.org/10.4025/psicolestud.v27i0.47686>
- Rosin-Pinola, A. R., Marturano, E. M., Elias, L. C. S., & Del Prette, Z. A. P. (2017) Ensinando habilidades sociais educativas para professores no contexto da inclusão escolar. *Revista Educação Especial*, 30(59), 737-749. <https://doi.org/10.5902/1984686X28430>
- Rovaris, J. A., & Bolsoni-Silva, A. T. (2020). Práticas educativas maternas e repertórios comportamentais infantis: um estudo de comparação e predição. *Revista de Psicologia*, 38(1), 243-273. <http://dx.doi.org/10.18800/psico.202001.010>
- Sidman, M. (1995). *Coerção e suas implicações*. Editorial Psy II.
- Silva, E. F., & Elias, L. C. S. (2020). Habilidades sociais de pais, professores e alunos com deficiência intelectual em inclusão escolar. *Revista Brasileira de Educação Especial*, 26(4), 605-622. <https://doi.org/10.1590/1980-54702020v26e0142>
- Silva, E. F., & Elias, L. C. S. (2022). Inclusão de alunos com deficiência intelectual: recursos e dificuldades da família e de professoras. *Educação em Revista*, 38, e26627. <https://doi.org/10.1590/0102-469826627>
- Soares, A. B., Rodrigues, P. V. S., & Mourão, L. (2021). Indicadores críticos para avaliação de habilidades sociais educativas em situações interpessoais difíceis. *Psicologia: Teoria e Pesquisa*, 37, e37303. <https://doi.org/10.1590/0102.3772e37303>
- Souza, I. F., Ferreira, B. C., Lima, D. C., & Del Prette, Z. A. P. (2022). Habilidades sociais educativas de professores de alunos público-alvo da educação especial. *Interação em Psicologia*, 26(2), 221-231. <http://dx.doi.org/10.5380/riep.v26i2.76622>
- United Nations Educational, Scientific and Cultural Organization. (1994). *Declaração de Salamanca sobre princípios, política e práticas na área das necessidades educativas especiais*. Salamanca.
- Yunes, M. A. M., Fernandes, G., & Weschenfelder, G. V. (2018). Intervenções psicoeducacionais positivas para promoção de resiliência: o profissional da educação como tutor de desenvolvimento. *Educação*, 41(1), 83-92. <https://doi.org/10.15448/1981-2582.2018.1.29766>

Contributors

Conceptualization: E. F. SILVA, L. C. S. ELIAS, and S. M. G. COIMBRA. Formal analysis: E. F. SILVA, L. C. S. ELIAS, and S. M. G. COIMBRA. Investigation: E. F. SILVA. Data curation: E. F. SILVA. Writing – original draft: E. F. SILVA and L. C. S. ELIAS. Writing – review and editing: L. C. S. ELIAS and S. M. G. COIMBRA.