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Parent and child perceptions of homework practices and their associations with children's achievement

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Keywords

Parental involvement
Autonomy support
Homework help
Parent-child reports
Academic development

Abstract

The present study investigated the differences between parent- and child-reported perceptions of parental homework practices and their associations with children's achievement in Lithuania across grades three and four. A total of 446 parent-child dyads participated in the study. In grade 3, parents completed questionnaires on the frequency of their homework help and autonomy support, while children completed questionnaires about their perceptions of the frequency with which their parents provided homework help and autonomy support. Children's achievement was measured using literacy and math tests in grade 3. In grade 4, children's scores on the national standardized exam in literacy and math were obtained from school records. Hierarchical regressions were used to predict children's achievement (national standardized scores in literacy and math), after controlling for the autoregressors (literacy or math skills), child's gender, and the highest education level in the family. Children reported receiving more help and less autonomy support than was reported by parents. Additionally, parent-reported help negatively and parent-reported autonomy support positively predicted children's achievement in literacy and math. As for children's perceptions, only child-reported help negatively predicted math achievement. These findings indicate that parents and children may differently perceive parental homework practices: children feel more controlled than parents believe they are, and less autonomy supported than parents believe themselves to be.

Percepciones de los progenitores y sus hijos e hijas sobre las prácticas de tareas escolares y su relación con el rendimiento académico

Palabras clave

Participación parental
Apoyo a la autonomía
Ayuda con las tareas escolares
Autoinforme progenitores e hijos/as
Desarrollo académico

Resumen

El presente estudio investigó las diferencias entre las percepciones informadas por progenitores y sus descendientes sobre las prácticas parentales relacionadas con las tareas escolares y su asociación con el rendimiento académico de escolares lituanos, en tercero y cuarto curso de educación primaria. Un total de 446 díadas filo-parentales participaron en el estudio. En tercer curso, los progenitores completaron cuestionarios sobre la frecuencia con la que ofrecían ayuda con las tareas y apoyo a la autonomía, mientras que los escolares respondieron sobre su percepción de la frecuencia con la que sus progenitores ofrecían ayuda con las tareas y apoyo a su autonomía. El rendimiento académico se evaluó mediante pruebas de lecto-escritura y matemáticas. En cuarto curso, se obtuvieron las puntuaciones en el examen nacional estandarizado de lecto-escritura y matemáticas. Se realizaron regresiones jerárquicas para predecir el rendimiento académico (puntuaciones nacionales estandarizadas en lectura y matemáticas), controlando las variables autorregresivas (habilidades en lectura o matemáticas), género y nivel educativo más alto en la familia. Los escolares informaron recibir más ayuda y menos apoyo a la autonomía que sus progenitores. La ayuda informada por los progenitores predijo negativamente, y el apoyo a la autonomía positivamente, el rendimiento en lectura y matemáticas. Solo la ayuda informada por los escolares predijo negativamente el rendimiento matemático. Estos hallazgos indican que progenitores y sus descendientes pueden percibir de manera diferente las prácticas parentales respecto a la tarea escolar: los escolares se sienten más controlados y menos apoyados en su autonomía de lo que los progenitores perciben.

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One way parents become involved in their children's learning is via homework practices (Silinskas & Raiziene, 2024), which have been widely studied in relation to children's academic achievement outcomes (Núñez et al., 2015; Silinskas et al., 2015a, 2015b; Xu et al., 2024). Parental homework practices are diverse and differently relate to children's achievement in certain school subjects (Grolnick & Slowiaczek, 1994; Patall et al., 2008; Silinskas et al., 2013; Xu et al., 2024). Two forms of parental homework practices are homework help (i.e., direct teaching and frequency of involvement) and autonomy support (i.e., supporting the child's self-determination to do work independently while providing emotional support and rationales for learning; Dumont et al., 2012; Silinskas et al., 2022; Vasquez et al., 2015; Xu et al., 2024). Both forms have been a major focus of past homework research (for reviews, see Patall et al., 2008; Vasquez et al., 2015; Xu et al., 2024). Previous studies assessed parental homework involvement from perspectives of either parents (Cooper et al., 2000; Li & Hamlin, 2019) or children themselves (Núñez et al., 2015, 2019; Silinskas & Kikas, 2019a, 2019b), and the results suggest inconsistencies between parental homework help and child achievement using either parent reports (Li & Hamlin, 2019; Viljaranta et al., 2018) or child reports (Park et al., 2023). In contrast, parental autonomy support generally relates positively to child achievement as shown in a meta-analysis with studies using either child reports or parent reports (Vasquez et al., 2015). However, children's and parents' perceptions have not been investigated and contrasted in a single study, raising the question –do these perceptions align with one another? While a parent may perceive that they frequently help the child or support the child's autonomy during homework, children's perceptions of this support might differ; this difference in perception might play a role in the ways in which homework practices relate to child achievement. In this study, the aim is to fill this gap in research by investigating parent- and child-reported perceptions of parental homework practices (help and autonomy support) and their relation to child achievement in math and literacy in a sample of Lithuanian parents and their primary school-aged children (grades 3 to 4).

Homework help and autonomy support

Self-determination theory (Ryan & Deci, 2000, 2018) suggests that children's academic functioning and motivation can be strengthened by the provision of support for their basic psychological needs. These needs are autonomy, relatedness, and competence (Ryan & Deci, 2000). Different parental homework practices may promote or thwart these needs.

Homework help refers to the quantity of supportive behaviors provided to assist in homework (homework involvement), including actively teaching the child to solve problems, explaining concepts, and helping the child understand tasks (Pomerantz & Eaton, 2001; Silinskas et al., 2015a, 2015b). Homework help has been shown to inconsistently relate to child achievement (Dumont et al., 2012; Xu et al., 2024). While some studies have shown a positive association between homework help (e.g., involvement) (Castro et al., 2015; Fiskerstrand & Hannula, 2025), other studies have found negative associations between homework help and child academic outcomes (Park et al., 2023; Viljaranta et al., 2018). This inconsistency may be explained by variations in the characteristics of the homework help provided, such as level of control (e.g., telling the child what to do) or structure (e.g., providing clear rationales for tasks, scaffolding learning, and being sympathetic; Dumont et al., 2012; Grolnick & Pomerantz, 2009). In other words, when the help is controlling and uninvited (intrusive), it may be detrimentally related to child outcomes such as school achievement (Cooper et al., 2000; Núñez et al., 2015; Park et al., 2023), likely because it thwarts the need for autonomy in children (Park et al., 2023). However, when help is described more as providing structure and autonomy, children's achievement benefits (Lerner et al., 2022; Vasquez et al., 2015; Xu et al., 2024).

Autonomy support is described as the provision of freedom to do tasks in one's own way, with minimal or no use of coercion or control, while also being emotionally supportive and providing the child with rationale for why certain tasks are important (Deci & Ryan, 2012; Ryan & Deci, 2018). Autonomy support during homework assignments may be expressed as parents' encouragement of the child to express their perspective on how to solve the homework assignment and to support the child to do tasks in their own way (Vasquez et al., 2015). Autonomy-supportive parenting styles and homework support have been shown to positively relate to child school achievement (Bronstein et al., 2005; Cooper et al., 2000; Vasquez et al., 2015). This positive relationship may relate to how autonomy support enhances children's motivational resources, which in turn enhance their engagement in school tasks (e.g., Jiang & Tanaka, 2022; Pomerantz et al., 2007) and therefore promote achievement.

Child versus parent perceptions of homework practices and academic achievement

Previous research on homework practices has included parents' perceptions of support provided (Cooper et al., 2000; Hoover-Dempsey et al., 1995; Li & Hamlin, 2019) or children's perceptions (Núñez et al., 2015, 2019; Silinskas & Kikas, 2019a, 2019b; Xu, 2024), but rarely at the same time (for an exception, see Ahn et al., 2025). Studies on parent-reported homework practices have had inconsistent findings, with some showcasing a positive association between homework help and child achievement in school (Li & Hamlin, 2019), while others suggest a negative association (Cooper et al., 2000). As for child-reported perceptions of parental homework practices, there is evidence of a positive relationship between children's perceptions and school achievement (e.g., Dumont et al., 2014). In general, children's perception of parental homework support predicts better school outcomes, including higher motivation, engagement (Núñez et al., 2019), and effort; less procrastination; and generally higher achievement (when perceiving more autonomy: Xu, 2024). Furthermore, child-reported autonomy support is related to positive academic outcomes (task persistence while completing math homework; Silinskas & Kikas,

2019a, 2019b). However, there is also evidence that homework help can negatively impact achievement –when children with a fixed mindset (i.e., not believing their skills are changeable) report the parental homework help to be intrusive, they show poorer math achievement (Park et al., 2023). Therefore, for both parent-reports and child-reports, there are conflicting findings depending mostly on the quality of homework support provided.

Núñez et al. (2015) investigated how children's perceptions of parental homework practices (i.e., support and control) affected child homework behaviors (i.e., time on homework and its management and homework completion) and academic achievement in samples of primary, junior high, and high school students. They found that perceived parental homework support predicted students' homework behaviors and academic achievement for only the older students (junior high and high school), but the associations between parental homework behavior and student achievement were not significant for primary school students. The authors suggest that this may be due to the younger children not yet fully being able to understand the nature of their parents' homework involvement. Another explanation is that there is not sufficient differentiation between parental homework support in primary school children to enable the detection of statistical effects. Furthermore, younger children may have a need for higher parental control due to lower self-regulation skills (Núñez et al., 2015).

Indeed, just as children of different ages may perceive parental homework support differently (Núñez et al., 2015), children may also perceive these behaviors differently from their parents. A study by Ahn et al. (2025) investigated parent- and child-perceived autonomy support and control, finding that when parents reported only providing children with autonomy support (i.e., no control), children's perceptions were more closely aligned –in other words, they also perceived more autonomy support from parents. In contrast, when parents had both autonomy supportive and controlling styles of parenting, children perceived the styles as more controlling than did parents. Importantly, Ahn's study was outside of the specific context of homework practices, relating more to perceptions of parenting style in general. We narrow the scope in this study to explore how children's views of parental homework practices differ from those of parents, since children's own perception of the support or thwarting of their psychological needs (autonomy) possibly relates to their academic outcomes (e.g., Vasquez et al., 2015). Therefore, this study explored how parents and children perceive parental homework practices and how the practices are related to children's achievement in math and literacy.

The present study

The following research questions and hypotheses were investigated. Research question 1: To what extent do parents' and children's perceptions of the frequency of parental homework practices differ? Hypothesis 1: It is expected that while parents believe themselves to be more autonomy supportive, children will perceive receiving less autonomy support and more help than parents perceive providing. Research question 2: To what extent do parents' and children's perceptions of parent homework practices relate to children's achievement in math and literacy? Hypothesis 2: It is expected that both parents' and children's perception of high levels of homework help is detrimentally related to child achievement in math and literacy; in contrast, their perceptions of high levels of autonomy support are positively related to child achievement in both subjects.

Method

Participants

The participants for this study were 446 parent-child dyads. At the time of questionnaire administration in grade 3, children were between 101 and 134 months of age ($M = 115.52$, $SD = 4.04$). The sample of children consisted of 48% girls and 52% boys. Participating parents were mothers (89.5%), fathers (9.6%), or "other" (0.9%). Their age ranged from 28 to 68 ($M = 38.71$, $SD = 5.01$). The parents had varying educational backgrounds with the majority holding a master's degree (66.8%), followed by bachelor's degree (21.8%), polytechnic or college degree (8.1%), and some had a high school degree (1.3%).

Procedure

The children were recruited from 12 Lithuanian urban and rural schools in the *Get involved! Learning in primary school* longitudinal study (Silinskas & Raiziene, 2025). The study was approved by the Ethics Committee of the University of Jyväskylä, Finland (number 1599/13.00.04.00/2020; December 17, 2020). All participants provided their informed consent. Parents additionally provided informed consent for their child to participate and permission to obtain their children's math and literacy national exam scores from the school records. Data about children were collected at the ends of grade 3 (T1) and grade 4 (T2). In grade 3, children answered questionnaires about their perceptions of parental homework practices as well as completed math and literacy tests in small groups with the school psychologist. In grade 3 (T1), parents answered questionnaires about their homework practices over that school year. In grade 4, the school administration provided children's scores from the national literacy and math exam *Nacionalinis mokiniu pasiekimu patikrinimas* (NMPP). The NMPP exam was conducted in the second half of grade 4 and the results are stored in the school records.

Measures

Child and parent questionnaires (T1)

Perception of parent homework help (T1). Parent- and child-reported perceptions of parental homework help were measured using three items each (e.g., "How often do you get help from your parents to prepare for assignments?" for children, and "How often do you help your child prepare for their

assignments" for parents), based on previous research on the topic (e.g., Silinskas et al., 2015a, 2015b). The answer options ranged on a 5-point Likert scale (1 = *Never*, 5 = *Always*). Cronbach's alphas were .76 and .85 for child and parent reports, respectively.

Perception of parent autonomy support (T1). Parent- and child-reported perceptions of the autonomy support provided by parents were measured using the *Learning Climate Questionnaire* autonomy support subscale (LCQ; Black & Deci, 2000). Both children and parents answered six items each (e.g. "My parent provides me choices and options on how and when to do homework" for children, and "I provide choices and options for my child on how and when to do homework" for parents). Answer options ranged on a 5-point Likert scale (1 = *Never*, 5 = *Always*). Cronbach's alphas were .66 and .79 for child and parent reports, respectively.

Children's achievement

Achievement tests (T1). In grade 3, children completed tests of their math and literacy skills. The math test was based on the test battery of Aunola and Räsänen (2007): children were asked to solve as many subtraction and addition tasks as possible (40 tasks within 90 s each). Cronbach's alphas were .94 and .93 for addition and subtraction, respectively. The literacy test was based on the test batteries of Lerkkanen et al. (2006) and Gedutienė (2008), and consisted of word and sentence reading fluency tasks. For word reading fluency, the child completed 80 tasks wherein they silently read 4 words and had to connect the correct word to a picture (2 minutes). For sentence reading fluency, the child read 60 claims and decided if the claims were true or false (3 minutes). Cronbach's alphas were .98 and .97 for word reading fluency and sentence reading fluency, respectively.

Exams (T2). In grade 4, the children completed the Lithuanian national exams for math and literacy (NMPP). The literacy part of the exam assesses, among other things, children's reading comprehension; knowledge of culture and literature; and knowledge of words, synonyms, and antonyms (25 tasks). The math part of the exam assesses, among other things, geometry, mass, time, area, figure interpretation, and data interpretation (30 tasks). Thus, both exams measured a broader range of skills and knowledge than the achievement tests of grade 3 (T1). Schools provided only the total exam score for literacy and for math.

Analysis strategy

All analyses were performed with SPSS Statistics 30. The results were considered significant with the *p*-value below .05. Descriptive and correlational analyses were conducted. The normality of all main study variables was also evaluated. Formal normality tests (Kolmogorov-Smirnov and Shapiro-Wilk) tend to reject assumptions of normality in large samples. Thus, visual inspection of the distributions and criteria for skewness and kurtosis values to fall within ±2 was primarily relied upon.

To answer research question 1, the differences between parent and child reports of homework help and autonomy support were analyzed with paired-samples *t*-test, and Cohen's *d* effect sizes were calculated. To investigate research question 2, two hierarchical multiple regressions were run to predict children's achievement (national standardized exam scores in literacy and math) after controlling for the autoregressors, child's gender, and highest education level in the family. The control variables were entered in step 1, and parent and child reports of help and autonomy support were entered in step 2. Several assumptions for the hierarchical multiple regression were also tested: (lack of) multicollinearity (VIF < 5, tolerance > .2), independence of errors (Durbin-Watson statistic within 1.5–2.5), homoscedasticity (visual inspection of distribution of standardized residuals against standardized predicted values), and normality of residuals (visual inspection of histograms and Q-Q plots; normality tests of Kolmogorov-Smirnoff and Shapiro-Wilk).

Results

Preliminary analyses

The visual examination of the distributions of the main study variables suggested that they are quite normally shaped. The normality assumptions were supported by Skewness and Kurtosis values within the generally accepted range of ±2. That is, skewness across all variables ranged from –.44 to .23; kurtosis ranged from –.78 to .79. Thus, parametric tests were used. Descriptive statistics and Pearson product moment correlations were run between all study variables (see Table 1).

Main analyses

To answer research question 1, a paired-samples *t*-test was used. The results indicated that there was a significant difference between parent and child reports for homework help, such that children perceived receiving more help than parents perceived providing (parent $M = 3.04$, $SD = .88$; child $M = 3.43$, $SD = 1.05$; $t(438) = –6.86$, $p < 001$, $d = –.33$, suggesting a small effect). There was also a significant difference in parent and child reports of autonomy support, such that children perceived receiving less autonomy support than parents perceived providing (parent $M = 3.93$, $SD = .611$; child $M = 3.44$, $SD = .78$; $t(437) = 10.65$, $p < .001$, $d = .509$, suggesting a moderate effect).

To investigate research question 2, two hierarchical multiple regressions were employed. Several assumptions of hierarchical multiple regression were previously tested: multicollinearity, independence of errors, homoscedasticity, and normality of residuals. Multicollinearity was not a concern because all predictors had VIF values below 5 (1.04–3.35 for math exam model; 1.02–2.22) and tolerance values above .20 (.3–.96 for math exam model; .45–.98 for literacy exam model). Regarding independence of errors, the Durbin-Watson statistic indicated that residuals were independent (DW = 1.69 for math model; DW = 1.79 for literacy model), satisfying the assumption of independent errors (values within the range 1.5–2.5). To check

Table 1

Descriptive statistics and Pearson correlations for study variables

	N	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11
1. Child gender (0 = girl)	446	0.52	0.5	--										
2. Highest education in the family	444	4.66	0.63	.04	--									
3. Help (parents)	441	3.04	0.89	.04	-.13**	--								
4. Autonomy (parents)	440	3.94	0.61	-.09	-.07	.05	--							
5. Help (children)	445	3.44	1.05	.04	-.03	.27**	-.05	--						
6. Autonomy (children)	445	3.45	0.78	-.04	-.01	.11*	.05	.47**	--					
7. Addition	445	18.7	4.67	.24**	.09	-.26**	-.02	-.2**	-.02	--				
8. Subtraction	444	16.14	3.76	.18**	.12*	-.29**	.06	-.2**	-.03	.83**	--			
9. Word reading fluency	445	26.95	7.82	-.07	.11*	-.26**	-.02	-.08	-.05	.38**	.38**	--		
10. Sentence reading fluency	445	33.51	8.56	-.04	.11*	-.32**	.01	-.1*	-.02	.42**	.41**	.74**	--	
11.National standardized exam (mathematics)	428	25.53	5.22	.15**	.25**	-.34**	.1*	-.27**	-.1*	.5**	.53**	.31**	.39**	--
12.National standardized exam (literacy)	436	18.81	5.76	-.02	.2**	-.3**	.11*	-.13**	-.03	.27**	.30**	.37**	.51**	.45**

** $p < .01$, * $p < .05$.

the homoscedasticity, we plotted standardized residuals against standardized predicted values. In both math and literacy models, visual inspection of a scatterplot indicated that the residuals were approximately evenly distributed, supporting the assumption of homoscedasticity. It was also tested whether residuals are approximately normally distributed. Diagnostic plots (histograms and Q-Q plots) were used and normality tests were conducted (Kolmogorov-Smirnoff and Shapiro-Wilk). Tests of residual normality produced mixed results: the Kolmogorov-Smirnov test was nonsignificant for both math ($p = .15$) and literacy ($p = .13$), whereas the Shapiro-Wilk test indicated a significant deviation from normality for math ($p = .03$) but not for literacy ($p = .44$). Despite this, visual examination of the distributions (histograms and Q-Q plots) suggested that the residuals approximated a normal distribution. Given the results of visual inspection and the relatively large sample size, analyses were proceeded without transforming the variables.

The results indicated that the control variables explained a significant proportion of the variance (32.2%) in children's achievement in math. Parent- and child-reported homework help and autonomy support explained an additional 5.9% of the variance. In the final models, both parent-reported help negatively ($\beta = -.17$, $p < .001$) and autonomy support positively ($\beta = .104$, $p = .009$) significantly predicted child math achievement. Furthermore, child-reported parental homework help was negatively related to math achievement ($\beta = -.123$, $p = .008$), whereas child-reported autonomy support did not significantly predict math achievement ($\beta = -.006$, $p = .897$).

For literacy, the findings were similar. The control variables at step 1 explained a significant proportion (26.3%) of the variance in child achievement in literacy. At step 2, parent- and child-reported help and autonomy support explained a further 3.2% of the variance in literacy achievement. In the final models, only parent-reported homework help negatively ($\beta = -.138$, $p = .002$) and autonomy support positively ($\beta = .112$, $p = .008$) predicted child achievement in literacy. Child-reported homework help and autonomy support did not significantly predict literacy achievement ($\beta = -.041$, $p = .399$ for help and $\beta = .019$, $p = .688$ for autonomy support).

Moreover, parent and child reports were investigated in separate models for math and literacy. As including only parent or only child reports in the models yielded highly similar results to the ones reported in Table 2, only the models where both parent and child perceptions are entered together at step 2 are presented.

Discussion

This study investigated the difference between parents' and children's perceptions of homework practices and how they related to children's achievement. First, parent- and child-reported perceptions of homework practices significantly differed: children perceived receiving more homework help and less homework autonomy support than parents reported providing. Second, parent-reported homework help was negatively related to child achievement in literacy and math, while child-reported homework help was negatively related to only math achievement. Furthermore, only parent-reported homework autonomy support was positively related to children's achievement in both subjects. This study adds significantly to the literature by comparing parent and child reports of homework practices and their relations to child achievement.

Differences in parent and child perceptions of parental homework practices

A significant contribution of this study is that parent and child perceptions of parental homework practices differed: children perceived their parents as providing less autonomy support, but more homework help than did parents, in support of

Table 2

Hierarchical regression results predicting national standardized exams in Math and Literacy

	National standardized exam in math (n = 414)			
	Model 1		Model 2	
	β	*p*	β	*p*
Step 1				
Child gender (0 = girl)	.041	.324	.081	.049
Highest education in the family	.17	<.001	.162	<.001
Addition	.178	.016	.165	.022
Subtraction	.352	<.001	.279	<.001
Step 2				
Help, parent report			-.171	<.001
Autonomy support, parent report			.104	.009
Help, child report			-.123	.008
Autonomy support, child report			-.006	.897
R^2	.322		.382	
ΔR^2			.059	
	National standardized exam in literacy (n = 421)			
	Model 1		Model 2	
	β	*p*	β	*p*
Step 1				
Child gender (0 = girl)	-.01	.818	.008	.852
Highest education in the family	.144	<.001	.139	.001
Word reading fluency	-.044	.474	-.041	.496
Sentence reading fluency	.513	<.001	.462	<.001
Step 2				
Help, parent report			-.138	.002
Autonomy support, parent report			.112	.008
Help, child report			-.041	.399
Autonomy support, child report			.019	.688
R^2	.263		.288	
ΔR^2			.032	

hypothesis 1. There are several potential explanations for this finding. First, as discussed by Núñez et al. (2015), primary school children may still be too young to be able to truly reflect on the types of supportive behaviors that their parents provide them during homework situations. For example, if parents feel they are autonomy supportive, children might not either understand autonomy support (i.e., it is too abstract a concept) or they may perceive that their parents are in fact not autonomy supportive. The difficulty in recognizing autonomy support might be a developmental artefact, given that young children in primary school are still developing their theory of mind skills, that is, understanding other people's perspectives and intentions (e.g., Hofmann et al., 2016; Miller, 2012). Autonomy support might be a rather subtle way of approaching a child during homework, as it is related to giving the child freedom of choice and warm support (Vasquez et al., 2015), which might show up as intangible for the child –while the child may enjoy the autonomy supportive style, they might not yet recognize it as such. A developmentally appropriate way to study autonomy support in children might be to do parent-child observation during homework situations, in which the researcher may observe the style of homework support the parent is providing. Another way would be to possibly show a "puppet-show" or an acted scenario to the child, in which a "puppet parent" or an actor uses either an autonomy supportive style of support or provides homework help in homework situations. The child can then be asked to reflect on what they think of these different styles of homework support. That might make the study of autonomy support more tangible for the children. However, the children in this study were between grades 3 and 4 and might already be rather skillful in theory of mind, although the skills develop all through to adolescence (Hofmann et al., 2016; Miller, 2012).

Second, children might perceive parent homework practices as overall more controlling than the parents themselves perceive

them. While the explanation remains to be investigated in future studies, it is clear from our results that children perceive parents as less autonomy supportive than the parents believe themselves to be. In other words, while parents believe they are providing the child with autonomy support –giving them choices, letting the child make decisions and solve problems in their own way, being emotionally supportive, and using positive rationales for the reasons for task completion (e.g., Vasquez et al., 2015)–, children may perceive that these behaviors are not autonomy supportive. This suggests that children may interpret autonomy support differently from their parents, perhaps as providing even more freedom and choice than what parents provide them with. Alternatively, parental autonomy support may be practiced with a more controlling tone than parents themselves realize. Third, autonomy support and psychological control, or other types of homework help, might not be completely unrelated concepts, and might even co-occur. For example, Amoura et al. (2015) discussed that autonomy support and control are not opposite sides of a continuum but can co-occur, such that a parent can be more autonomy supportive with one task, while more controlling (or providing help) with another task. Therefore, it is possible that parent and child perceptions of homework practices differ because the actual practices are mixed.

Parent perceptions of homework practices related to child achievement

In answering the second research question, it was found that parent perceptions of homework practices related significantly to child achievement in math and literacy standardized exams in such a way that help was negatively related to achievement, while autonomy support was related positively to achievement, which supported hypothesis 2. This result is in support of previous findings regarding these relationships (Dumont et al., 2012; Vasquez et al., 2015; Xu et al., 2024). As for child perceptions of homework practices, only one relationship was significant: homework help was negatively related to child math achievement (see similar results in Park et al., 2023). Contrary to our expectations, child-perceived autonomy support did not relate to their achievement (unlike, e.g. Xu, 2024).

There are several explanations for the parent results. First, homework help may be more controlling than supportive, which can in turn negatively affect achievement (Park et al., 2023; Xu et al., 2024). Alternatively, the negative association between parental help and child achievement in math and literacy may be the result of parents' own attitudes towards the subject they are helping the child with –for example, Retanal et al. (2021) found that for parents high in math anxiety, helping with math homework detrimentally predicted child math achievement. Retanal et al. (2021) showed that parental controlling-supportive helping style mediated the relation between parent math-anxiety and child math achievement. Parents' subject-related attitudes or anxiety were not measured, but it might have played a role in the study' results. Third, parents do not necessarily provide help or other types of homework support for children whose academic achievement is high already. Instead, Silinskas et al. (2013) showed that parent-reported homework help increased as a result of children's poor skills in math and literacy at grades 1 and 2, suggesting that children's poor achievement may awaken in parents more homework practices. In such cases, children who are not performing optimally in math might have low motivation for math homework and therefore may feel that help is frustrating.

The fact that parent-perceived autonomy support related positively to children's achievement aligns well with some previous findings (Vasquez et al., 2015) and suggestions of the SDT (Ryan & Deci, 2018). However, interestingly, child-perceived autonomy support had no relation to achievement. For the parent result, it is possible that parents' homework practices are a reaction to child achievement, meaning that the practices they report are also related to achievement (e.g., Silinskas et al., 2013). For child results, it is possible that children understand autonomy supportiveness differently from parents –for children, feeling like one is receiving autonomy support requires even more freedom than what parents provide them. This is supported by our correlational analyses, given that for the children's reports, autonomy support and help were positively intercorrelated; this indicates that children find both styles similarly intrusive. However, further studies are required to understand these associations more deeply.

Limitations

There are several limitations to acknowledge in this study. First, since this study involved Lithuanian children and parents, it is possible that the results have limited generalizability to other cultural contexts. Second, although this study is longitudinal, it is correlational, and therefore no clear causality can be inferred. Third, given that both parent and child perceptions were collected through self-report scales, it is possible that social desirability could have influenced the results. In future studies, it may be appropriate to use also teacher-reported data, as well as use observational studies to investigate parental homework support styles. Lastly, it is acknowledged as a limitation that children's achievement was measured in different ways during two measurement occasions. During grade 3, the children completed literacy and math tests, while in grade 4 their achievement was obtained from school records for the national standardized exam. However, it is important to notice that such national exams are not conducted in grade 3 in Lithuania yet. Future studies should measure children's achievement in a more consistent manner.

Practical implications

As practical recommendations, two actions are suggested based on the results—one for research and one for parents. The research recommendation is to further study the discrepancy between parent and child perceptions of homework practices. As children may understand autonomy supportiveness and homework help in a different manner from how parents understand these practices, investigating the factors contributing to this discrepancy is needed. It is interesting that despite parents' best intentions, not all children whose parents report high autonomy

support during homework may feel that their autonomy is supported. These may be interesting future research endeavors. As a practical recommendation, it is suggested that parents engage with autonomy supportive styles of homework practices with their children to assist in children's better achievement in math and literacy.

Conclusion

This study answered two research questions: 1) are there differences between parent- and child-reported perceptions of parental homework practices, and 2) do the parent and child perceptions relate to child achievement in math and literacy? The results indicated that there were significant differences between parents' and children's perceptions –children perceived receiving more help and less autonomy support than their parents perceived providing. Moreover, parent-perceived help was negatively related to math and literacy achievement, and child-perceived help was negatively related to only math achievement. Only parent-perceived autonomy support (not child-perceived) was positively related to child achievement in both subjects. Therefore, there are significant differences between how parents and children perceive parental homework practices –children feel more controlled than parents believe they are, and less autonomy supported than parents believe themselves to be. This suggests that children understand help and autonomy supportiveness differently from parents. However, the results also showed that only parent-reported autonomy support was actually associated with child achievement, suggesting that the concept of autonomy may be too abstract for evaluation by primary school-aged children.

Author contributions

Conceptualization: M.M., G.S.
Data curation: G.S.
Formal analysis: G.S.
Acquiring funding: G.S.
Writing – original draft: M.M., G.S.
Writing – review and editing: M.M., G.S.

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Declaration of interests

The authors declare that there is no conflict of interest.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author.

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