

## Parental Involvement in Mexican Elementary Students' Homework: Its Relation with Academic Self-Efficacy, Self-Regulated Learning, and Academic Achievement

Christian S. Grijalva-Quiñonez<sup>a</sup>, Angel A. Valdés-Cuervo<sup>a</sup>, Lizeth G. Parra-Pérez<sup>b</sup>, and Fernanda I. García Vázquez<sup>a</sup>

<sup>a</sup>Technological Institute of Sonora, Mexico; <sup>b</sup>Colorado State University, Fort Collins, CO, United States

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### A B S T R A C T

This study analyzed the relationship between the types of parental involvement in homework, psychological resources, and academic achievement in Mexican elementary students. In total, 823 children participated, 51% were female, and 49% males. The age of participants ranged from 9 to 12 years old ( $M = 11.12$ ,  $SD = 0.63$ ). Structural equations were calculated. The first model indicated parental autonomy support had a direct positive relation with academic self-efficacy and self-regulated learning; it also had an indirect positive effect on academic achievement. On the other hand, parental control was directly and indirectly negatively related to academic self-efficacy, self-regulated learning, and academic achievement. The second model showed that children psychological resources and academic achievement influenced types of parental involvement in homework. A multi-group analysis indicated that gender did not moderate the proposed relations in the model. Overall findings suggest a reciprocal relationship between parental involvement in homework and children academic functioning.

### La participación de los padres en los deberes de los estudiantes de Educación Primaria en México: su relación con la autoeficacia académica, el aprendizaje autorregulado y el logro académico

### R E S U M E N

El estudio analizó la relación entre los tipos de involucramiento parental en las tareas, los recursos psicológicos y el desempeño académico en niños mexicanos. En total participaron 823 estudiantes, 51% niñas, and 49% niños. La edad de los participantes variaba desde los 9 a los 12 años ( $M = 11.12$ ,  $DE = 0.63$ ). Se calcularon dos modelos estructurales. El primero indicó que el apoyo parental a la autonomía posee una relación directa positiva con la autoeficacia académica y el aprendizaje autorregulado, además de mostrar que afecta indirectamente de forma positiva el desempeño académico. Por otra parte el control parental afecta directa e indirectamente de forma negativa la autoeficacia académica, el aprendizaje autorregulado y el desempeño académico. En el segundo modelo se encontró que los recursos psicológicos y el desempeño académico del niño influyen en el tipo de involucramiento parental en las tareas. Un análisis multigrupo indicó que el género no modera las relaciones propuestas en el modelo. De forma global los hallazgos sugieren una relación recíproca entre el involucramiento parental en las tareas y el funcionamiento académico del niño.

Parental involvement in education enhances children's academic outcomes and the psychological resources that support achievement, such as academic self-efficacy and self-regulated learning (Holloway et al., 2016; Pino-Pasternak & Whitebread, 2010; Sha et al., 2016). Parental involvement refers to parental activities with children and schools aimed to promote students' academic achievement (Fan & Williams, 2010; Fantuzzo et al., 2004; Park & Holloway, 2013). Some scholars have identified two types of family involvement:

school-based and home-based involvement (Fantuzzo et al., 2000; Green et al., 2007). Although both of them are considered important throughout the literature, home-based involvement may have the strongest relation to positive academic outcomes for children (Altschul, 2011; Boonk et al., 2018; Castro et al., 2015; Suizzo et al., 2014).

Home-based involvement comprises parental activities aimed to provide structure and support students learning at home (Boonk et

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Correspondence: [angel.valdes@itson.edu.mx](mailto:angel.valdes@itson.edu.mx) (A. A. Valdés-Cuervo).

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al., 2018; Epstein, 2011). Homework represents the most frequent form of home-based involvement because parents perceive it as an important role of parenting; they also perceive that homework is a valuable tool that leads children to strengthen the learning process (Cunha et al., 2015; Núñez et al., 2015; Wei et al., 2019; Wilder, 2014). Despite its relevance, parental involvement in children's homework remains as a controversial topic among scholars who have not met a consensus on its effects on academic achievement (Dumont et al., 2012; Hill & Tyson, 2009; Moroni et al. 2015). While some scholars (Fernández-Alonso et al., 2016; Xu et al., 2018) report parental involvement in homework as a consistent variable leading students to academic success, others have reported either a weak or a negative association (Barger et al., 2019; Hill & Tyson, 2009; Silinskas et al., 2013; Valle et al., 2015).

Current contradictions in the literature may be associated with study design issues. Specifically, most prior research put special emphasis on analyzing the effects of parental involvement in children's homework in terms of quantity and frequency. Therefore, as suggested by several scholars (Fernández-Alonso et al., 2016; Gonida & Cortina, 2014; Silinskas & Kikas, 2019), further research is needed to also explore the effects of the different types of parental involvement in homework.

In order to analyze the effect parental involvement in academic outcomes, we adopted the Self-Determination Theory (SDT; Ryan & Deci, 1987). This theory posits that the development of psychological resources and positive outcomes in children are associated with satisfying their basic needs (autonomy, competence, and relatedness). According to the SDT, parenting is a contextual factor that can either support or thwart the satisfaction of these basic needs.

In the SDT context, scholars argue that autonomy support is a critical dimension of parenting (Grolnick & Apostoleris, 2002; Ryan & Deci, 2017). In fact, parental autonomy support has been related to the mastery-oriented learning approach for children, intrinsic motivation to learning, and academic achievement (Diaconu-Ghe-rasim & Mairean, 2016; Doctoroff & Arnold, 2017; Froiland, 2010; Gonida & Cortina, 2014; Joussemet et al., 2005).

### Types of Parental Involvement with Homework

The current literature suggests that academic performance is often influenced by the types of parental involvement in homework (Dumont et al., 2012; Dumont et al., 2014; Moroni et al., 2015; Núñez et al., 2015). Within the SDT framework, research distinguishes between parental autonomy support and control. Parents support autonomy when they take their children's perspective into account, while encouraging self-expression and self-engagement in homework (Ryan & Deci, 2017; Tian et al., 2014). On the other hand, parents exerting control on their children often coerce outstanding academic performance but at the cost of excessive and even unwanted help in academic settings (Dumont et al., 2012; Gonida & Cortina, 2014).

The effects of both these parental involvement types in homework are inconclusive in the literature. For instance, while some studies found a positive relation of parental autonomy support and academic performance (Doctoroff & Arnold, 2017; Dumont et al., 2012; Moroni et al., 2015; Núñez et al., 2015), others report contradictory results (e.g., Karbach et al., 2013; Silinskas & Kikas, 2019; Valle et al., 2016). Some scholars (Dinkelmann & Buff, 2016; Fan & Williams, 2010; Gonida & Cortina, 2014; Hoover-Dempsey et al., 2001; Karbach et al., 2013; Luo et al., 2016; Pomerantz et al., 2005) argue these contradictions are because parental involvement in homework has a stronger association with children's psychological resources than with academic achievement. In the academic context psychological resources refer to beliefs, skill, and personality factors that influence how children manage an academic task (Donaldson et al., 2011; Taylor & Stanton, 2007). Both academic self-efficacy and

self-regulated learning are critical psychological resources related to children's academic achievement (Lee & Jonson-Reid, 2016; Xia et al., 2016).

### The Role of Children's Characteristics in Parental Involvement in Homework

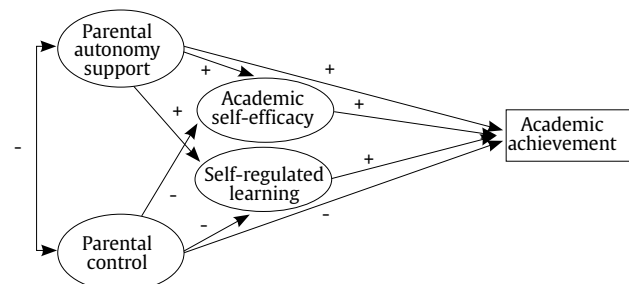
Studies adopting a bi-directional model of socialization (Belsky, 1984; Pastorelli et al., 2016) to analyze the reciprocal effects of parent-children relations in homework are relatively scarce. However, some scholars (Dumont et al., 2014; Luo et al., 2016; Núñez et al., 2017; Silinskas & Kikas, 2019; Valle et al., 2015) have reported that children's academic performance can be a behavioral driver leading parents to different types of involvement in homework. For example, previous studies show that children's low academic achievement is associated with more parental control in homework, whereas high achievement has lower parental control (Dumont et al., 2014; Núñez et al., 2017).

### Moderating Role of Gender

Parent involvement may also be different for boys and girls (Daniel et al., 2016; Dumont et al., 2012; Freund et al., 2018; Muntoni & Retelsdorf, 2019; Yurk, 2015). Research concerning the moderating effect of gender in parental involvement in homework has been inconsistent (Dumont et al., 2012; Luo et al., 2016; Silinskas & Kikas, 2019; Tárraga et al., 2017; Xu et al., 2018). Furthermore, studies have shown mixed findings concerning gender differences regarding the relationship between parental involvement in homework and student achievement (Rogers et al., 2009; Silinskas & Kikas, 2019). Additionally, no studies known by the authors have documented the effect among these variables in Latin American countries. Thus, it is important to advance the current understanding of the moderated effects of gender on the relationship between the types of parental involvement in homework, children's psychological resources, and academic achievement.

### The Present Study

Analyzing the direct and indirect effects between the types of parental involvement in homework, children's psychological resources and academic achievement are essential to understanding the influence of parental involvement in children's academic success. Despite its relevance, only a few scholars have analyzed the relations among these variables (Gonida & Cortina, 2014; Luo et al., 2016); therefore, more studies are necessary to better understand these relations.



**Figure 1.** Theoretical Model of the Relations between Parental Autonomy Support, Parental Control, Academic Self-efficacy, Self-regulated Learning and Academic Achievement in Elementary Students.

In this context, this study intended to: (1) exam direct and indirect relationships between parental autonomy support and control in

homework with academic self-efficacy, self-regulated learning, and academic achievement in Mexican elementary students (see Figure 1); (2) explore the effects of children's academic characteristics on the types of parental involvement in homework; and (3) test the moderate role of gender in these relations.

To accomplish this intent, the following hypotheses were used:

Hypothesis 1a (direct effects): A positive relationship between parental autonomy support, academic self-efficacy, self-regulated learning, and academic achievement was anticipated (Dinkelmann & Buff, 2016; Dumont et al., 2012; Núñez et al., 2015). Also, parental control involvement was expected to be negatively associated to academic self-efficacy, self-regulated learning, and academic achievement (Dumont et al., 2014; Gonida & Cortina, 2014; Núñez et al., 2015).

Hypothesis 1b (indirect effects): Parental autonomy support has a positive indirect effect on academic achievement by their effects on promoting both academic self-efficacy and self-regulate learning. Also, we expected parental control to have a negative indirect relation with academic achievement as it hinders both academic self-efficacy and self-regulated learning (Gonida & Cortina, 2014).

Hypothesis 2: Children's academic self-efficacy, self-regulated learning, and academic achievement have positive influences on parental autonomy support; it likewise has a negative effect on parental control (Luo et al., 2016; Pino-Pasternak & Whitebread, 2010).

Hypothesis 3: Finally, researchers also expect gender would be moderated by the relations proposed in the model (Rogers et al., 2009; Silinskas & Kikas, 2019; Tárraga et al., 2017).

## Method

### Participants

Research participants from fifth and sixth grade were targeted for the purpose of the study. We selected 44 public elementary schools from four different cities in the state of Sonora, Mexico. In total, 823 students were included ( $p = .50$ ,  $q = 95\%$ ), 49% of them were male and 51% female. Research participants were aged between 9 and 12 years old ( $M = 11.12$ ,  $SD = 0.63$ ). Elementary school in Mexico comprises six grades, at the time of the study; 46% of the students attended fifth grade and 54% were enrolled in sixth grade.

In total, 57.3% of parents reported their families had a low socio-economic status (SES) and 42.7% middle-SES. In regard to parental level of education, 44.7% of parents had an elementary education, 30.3% had a high school diploma, and 25% had a bachelor's degree. These characteristics are similar to those reported by the National Institute of Statistics and Geography (INEGI for the Spanish acronym; INEGI, 2018) for the Mexican urban population.

### Measures

**Parental involvement in children's homework.** Drawing on the work conducted by Gonida and Cortina (2014), this study developed a scale to measure two dimensions of parental involvement in homework: Parental Autonomy Support (6 items, e.g., 'When I refer to mistakes in homework, my parents encourage me to review it and correct it',  $\alpha = .84$ ,  $\omega = .86$ ) and Control (5 items, e.g., 'My parents solve some tasks that I cannot solve',  $\alpha = .85$ ,  $\omega = .88$ ). The Likert-type format was used (0 = *never*, 4 = *always*). Confirmatory factor analysis (CFA) showed a good fit of the model to the data ( $\chi^2 = 59.21$ ,  $df = 42$ ,  $p = .041$ ; SRMR = .08, AGFI = .96, TLI = .99, CFI = .99, RMSEA = .03, CI 90% [0.01, 0.05]).

**Academic self-efficacy.** The Patterns Adaptive Learning Scales (PALS; Midgley et al., 2000) were used to assess students' academic self-efficacy. This scale assesses students' self-perceptions about their efficacy to achieve academic goals (5 items, e.g., 'Even if the work is hard, I can learn it',  $\alpha = .82$ ,  $\omega = .86$ ). A Likert scale with five options

from 0 (*completely disagree*) to 4 (*completely agree*) was used. The CFA results suggest the model fit to the data ( $\chi^2 = 7.70$ ,  $df = 5$ ,  $p = .174$ ; SRMR = .02, AGFI = .98, TLI = .99, CFI = .99, RMSEA = .03, CI 90% [0.01, 0.07]).

**Self-regulated learning.** The Self-Efficacy for Self-Regulated Learning (Zimmerman et al., 1992) was adapted to measures students' perceptions about the frequency of their own self-regulated learning strategies usage. This scale comprises 11 items with a Likert scale response (0 = *never*, 4 = *always*) (e.g., 'Finish homework assignments by deadlines',  $\alpha = .80$ ,  $\omega = .83$ ). The CFA showed adequate fit to the model ( $\chi^2 = 22.61$ ,  $df = 14$ ,  $p = .067$ ; SRMR = .03, AGFI = .96, TLI = .98, CFI = .98, RMSEA = .03, CI 90% [0.02, 0.06]).

**Academic achievement.** Academic achievement was obtained from teacher records, using the grades from all the subjects during the last evaluation.

### Procedure

On receiving approval from the University's Ethics Committee, principals and teachers from the 47 elementary schools across the state of Sonora were invited to participate in the study. In total, 44 (94%) elementary schools accepted this invitation. Later, a consent letter was sent to parents to explain the purpose of the study and to ask permission for students' participation, after ensuring confidentiality of the information collected. Only 2% of parents refused to allow their children to participate in the study. Despite having consent letters from parents, students were also explained that their participation was voluntary; therefore, they could withdraw at any time. All of the students accepted the invitation to participate in the study. The study's tests were carried out by one of the researchers in participants' classrooms.

### Statistical Analysis

The total percentage of missing data was 3%. In all cases, missing items were treated using the SPSS multiple imputation method. Structural equations models were calculated with the AMOS software. The maximum likelihood estimation (ML) with bootstrap (with 5,000 replicates and a 95% confidence interval) was used to determine the goodness of fit for the model. Indirect effects were calculated using the AMOS bootstrap method with a 95% confidence interval. The bootstrap is an AMOS method to approach multivariate normality issues (Byrne, 2016; Hancock & Liu, 2012; Hayes, 2018).

In order to evaluate goodness of fit the models, we used fit indices proposed by past researchers (Byrne, 2016; Kline, 2016): (a) chi-squared and associated probability ( $\chi^2$  with  $p > .001$ ), standardized root mean square residual (SRMR  $\leq .08$ ), Tucker-Lewis index (TLI  $\geq .95$ ), adjusted goodness of fit index (AGFI  $\geq .95$ ), comparative fit index (CFI  $\geq .95$ ), and root mean square error of approximation (RMSEA  $\leq .05$ ).

Finally, a multi-group analysis was performed to examined gender structural invariance. First, multigroup analyses (Byrne, 2016; Millsap & Olivera-Aguilar, 2012; Schumacker & Lomax, 2016) were utilized by testing gender invariance in the measurements. In the analysis of invariance, configurational invariance (baseline model), metric invariance (factor loading), and scalar (measurement intercept) were evaluated. Then, the invariance of the gender in the structural model was verified using indicators  $\Delta\chi^2$  with  $p > .001$ ,  $\Delta CFI < .01$ , and  $\Delta RMSEA < .015$  (Byrne, 2016; Sass & Smith, 2013).

## Results

### Preliminary Analysis

Table 1 shows that parental autonomy support correlated positively with academic self-efficacy and self-regulated learning; however, it did not correlate with academic achievement. Also, findings suggest

**Table 1.** Mean's, Standard Deviations, Correlations, and Comparison Mean between Groups of Males and Females in Study Variables

Variable	M	SD	1	2	3	4	5
1. Autonomy support	2.90	0.96	-				
2. Control	1.23	1.17	-0.23**	-			
3. Academic self-efficacy	3.25	.82	0.41**	-0.23**	-		
4. Self-regulated learning	3.09	0.70	0.31**	-0.05	0.44**	-	
5. Academic achievement	8.38	1.16	0.03	-0.30**	0.25**	0.33**	-
M/SD Male			2.85/0.94	1.38/1.18	3.14/.87	3.03/0.74	8.27/1.25
Female			2.95/0.98	1.08/1.13	3.37/.74	3.10/0.74	8.49/1.07
Student's <i>t</i>			-1.09	2.67**	-2.92**	-1.02	-2.01*
Cohen's <i>d</i>			0.10	0.26	0.28	0.09	0.19

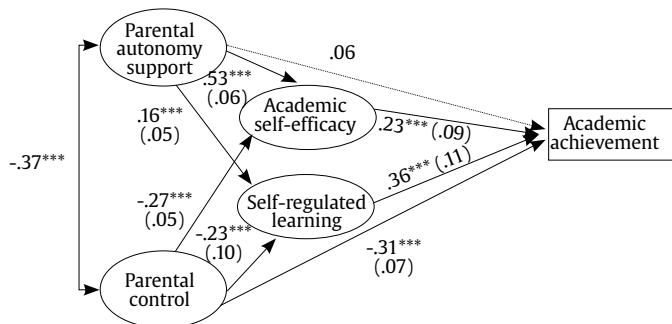
\**p* < .05, \*\**p* < .01.

parental control was negatively correlated to academic self-efficacy, self-regulated learning, and academic achievement. Finally, there was a positive correlation between the students' academic self-efficacy, self-regulated learning, and academic achievement.

The association between gender and the variables included in the study were also analyzed (Student's *t* and Cohen' *d*). Results suggest males perceived more parental control in homework and minor academic self-efficacy than females, although the size of the effect was small in both cases.

**Structural Model**

The structural model results are presented in Figure 2. Values of the fit indices suggested that the model is adjusted to the data ( $\chi^2 = 157.70$ , *df* = 113, *p* = .06; SRMR = .06; AGFI = .95; TLI = .98; CFI = .98; RMSEA = .03; CI 90% [0.01, 0.04]). It explained 34% of the variance in the academic achievement of students.



**Figure 2.** Results of the Structural Model of the Relations between Parental Autonomy Support, Parental Control, Academic Self-efficacy, Self-regulated Learning and Academic Achievement in Elementary Students. Standardized coefficients are presented. \*\*\**p* < .001.

In Figure 2, the standardized coefficients and standard errors of the structural model are presented. The results showed that parental autonomy support was positively associated with children's academic self-efficacy and self-regulated learning ( $\beta = .53$ , *p* < .000 and  $\beta = .16$ , *p* < .000, respectively), but did not affect

academic achievement ( $\beta = .06$ , *p* = .346). On the other hand, parental control was negatively related to academic self-efficacy, self-regulated learning, and academic achievement ( $\beta = -.23$ , *p* < .000,  $\beta = -.27$ , *p* < .000 y  $\beta = -.31$ , *p* < .000, respectively). Finally, academic self-efficacy ( $\beta = .23$ , *p* < .000) and self-regulated learning ( $\beta = .36$ , *p* < .000) positively influenced academic achievement.

Regarding indirect effects, results indicated that parental autonomy support in homework ( $\beta = .16$ , CI [0.12, 0.17], *p* < .000) favored academic achievement by the positive influence exerted on academic self-efficacy and self-regulated learning. On the other hand, parental control on homework negatively influenced academic achievement due to its detrimental effects on childrens' psychological resources ( $\beta = -.18$ , CI [0.14, 0.22], *p* < .000).

**Alternative Structural Model**

The alternative models explored the possibility that children's academic achievement, academic self-efficacy, and self-regulated learning affect the type of parental involvement in homework (see Figure 3). The fit of this model was acceptable ( $\chi^2 = 177.75$ , *df* = 114, *p* < .000; SRMR = .08; AGFI = .94; CFI = .97; TLI = .96; RMSEA = .03; CI 90% [0.02, 0.04]). The results suggest that the children's academic self-efficacy ( $\beta = -.18$ , *p* < .000), self-regulated learning ( $\beta = -.15$ , *p* < .000) and academic achievement ( $\beta = -.33$ , *p* < .000), decreased parental control. They also show that academic self-efficacy ( $\beta = .37$ , *p* < .000) and self-regulated learning ( $\beta = .28$ , *p* < .000) were positively related to parental autonomy support in homework, and that academic achievement has not affected autonomy support ( $\beta = .08$ , *p* < .256).

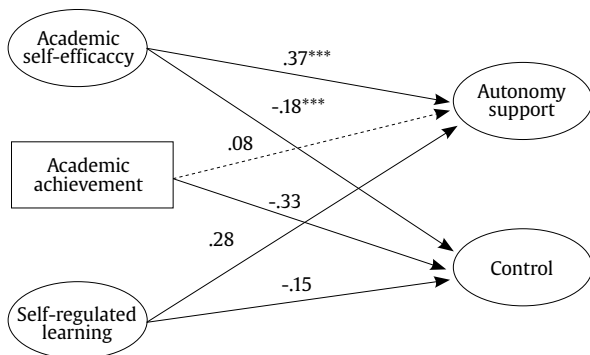
**Multi-Group Analysis by Gender**

A multi-group analysis was conducted to compare the effects of the students' gender on the relationships of the theoretical model. Results indicate the existence of invariance in both genders in the structural model ( $\chi^2 = 301.98$ , *df* = 226, *p* = .05; SRMR = .08; AGFI = .90; CFI = 0.97; TLI = .96; RMSEA = .03; CI [0.02, 0.04]). The differences between the values of the chi-square tests ( $\Delta\chi^2$ ) was *p* < .001, the comparative goodness of fit indexes ( $\Delta$ CFI) was < .01 and the root mean square error of approximation ( $\Delta$ RMSEA) was

**Table 2.** Results of the Invariance Analysis by Gender

Invariance	$\chi^2$	<i>df</i>	$\Delta\chi^2$	$\Delta$ <i>df</i>	<i>p</i>	$\Delta$ CFI	$\Delta$ RMSEA
Configurational	301.98	226			.005		
Metrics	320.78	240	18.8	14	.17	.002	.005
Structural weigh	332.48	244	30.5	18	.03	.005	.004
Structural residual	338.98	249	37.0	23	.03	.006	.003

< .015. The results confirmed that the relationships proposed in the model are similar in both genders (see Table 2).



**Figure 3.** Results of the Structural Alternative Model of the Relations between Children Academic Achievement, Self-efficacy, Self-regulated Learning and Parental Autonomy Support, and Control in Homework. Standardized coefficients are presented.

\*\*\* $p < .001$ .

## Discussion

These findings extend previous research on the influence of the types of parental involvement in homework on academic achievement. Even though parental involvement is clearly important, the direct and indirect relationships between the types of parental involvement, children's psychological resources, and academic achievement had barely been explored throughout the literature and results were inconclusive (Gonida & Cortina, 2014; Luo et al., 2016). The underpinning of these relationships is essential, as the current body of literature suggests that parental home-based involvement is critical to assist students' academic performance. Overall, parental autonomy support or control were differentially associated with children's academic self-efficacy, self-regulated learning, and academic achievement.

### The Effects of Parental Involvement Type on Homework

Findings partially supported the hypothesis on parental autonomy support. Consistent with the literature, our data suggested that parental autonomy support predicts students' academic self-efficacy and self-regulated learning (Fan & Williams, 2010; Gonida & Cortina, 2014; Luo et al., 2016). Contrary to what was reported in some studies (Doctoroff & Arnold, 2017; Moroni et al., 2015; Núñez et al., 2015; Vasquez et al., 2015), we found that the parental autonomy support did not have a direct effect on academic achievement. In fact, its effect on academic achievement was mediated by its positive influence on academic self-efficacy and self-regulated learning.

Although unexpected, these findings match reports by other authors suggesting that parental autonomy support was more related to the development of children's psychological resources than to academic achievement (Gonida & Cortina, 2014; Hoover-Dempsey et al., 2001; Karbach et al., 2013; Núñez et al., 2015; Pomerantz et al., 2005). Moreover, results can be also explained within the cultural context, as suggested by other scholars (Helwig, 2006; Karbach et al., 2013). In this regard, we posit that children's perception about parental autonomy support is influenced by the set of values that Mexican families promote, such as obedience, fear of authority, or promotion of success. As a result, the support of autonomy by parents might be perceived as a non-positive strategy not only by children but also by adults (Bridges et al., 2012; Díaz-Loving et al., 2011; Infante & Martínez, 2016).

Further, consistent with the literature, these findings showed parental control in homework negatively impacted not only academic achievement, but also the psychological resources related to academic achievement (Dumont et al., 2012; Fernández-Alonso et al., 2017; Moroni et al., 2015; Pino-Pasternak & Whitebread, 2010). Results matched the theoretical predictions of SDT (Ryan & Deci, 1987), which states that parental control undermines children's innate needs for competence and autonomy, restricting the opportunities for children to independently engage in cognitive tasks and self-regulated learning.

### The Role of Children' Characteristic on Parental Involvement in Homework

The results of the alternative model confirmed the value of the bi-directional model of socialization (Belsky, 1984; Pastorelli et al., 2016) in the analysis of parental involvement in homework. Consistent with previous literature, the study indicated that students' academic characteristics affect the types of parental involvement (Dinkelmann & Buff, 2016; Silinskas et al., 2010; Wang et al., 2019). In this study, it was noticeable that children's psychological resources favoured parental autonomy support and decreased the parental control in homework involvement. On the other hand, children academic achievement hindered parental control, but did not affect parental autonomy. Overall, results suggest that the form of parental involvement in homework was influenced by the academic functionality of their children.

### Moderating Role of Gender

Finally, contrary to our hypothesis, the results suggested that gender does not have a moderating effect on the relationship proposed in the model. Specifically, we found that parental autonomy support and parental control had a similar relationship with psychological resources and academic achievement in both genders. This result is contradictory to the current literature (Luo et al., 2016; Tárraga et al., 2017). Despite the lack of the literature within the Mexican context in the field of parental involvement in homework, these findings were not consistent with studies that reported differences on parenting practices in both genders in Mexican families (Casais et al., 2017; Raffaelli & Ontai, 2004; Schalla, 2015; Updegraff et al., 2009). Further research is necessary to clarify the moderated effects of gender on parental involvement types in homework and academic performance within the Mexican context.

## Conclusions

From a theoretical perspective, the study confirms the value of the SDT (Ryan & Deci, 1987). Consistent with the theory, results showed that the quality of parenting is key to promoting positive development in children. Further, the study supported autonomy as a critical dimension of parenting. In this regard, data suggest that autonomy support and control had a different effect on children psychological resources and academic achievement. In particular, the study showed that the effects of parental autonomy support on academic achievement are mediated by their positive influence on psychological resources. This effect remains important because it allows children to acquire knowledge and skills in different learning contexts (Bandura, 1986; Kitsantas & Zimmerman, 2009; Zimmerman, 2002). On the other hand, results showed that parental control negatively affected the development of psychological resources and academic achievement in children. Finally, findings regarding the effects of characteristics of children on parental involvement in homework underline the importance of focusing on the study of reciprocal influences between children and parents.

From a practical point of view, the type of parental involvement in elementary students' homework is related to psychological resources and academic achievement. In this regard, findings suggest that parents should: (a) promote children's autonomy in homework, (b) encourage children's academic self-efficacy and self-regulated learning strategies, and (c) not exert control in children's homework. It also highlights the benefits of informing parents about how their children's performance may affect the type of parental involvement adopted in children's homework. It is necessary, therefore, for parents to foster a self-regulate behavior, in such a way that the autonomy support they provide is not altered by their children's previous performance.

## Limitations

The present study provides relevant data for understanding the effects of the type of parental participation in children's homework. However, these findings have limitations. First, a transversal design does not allow establishing causal relationships between the variables. Longitudinal or experimental designs that allow deepening the variables' causal relationships is suggested. Second, the study focused on academic performance in general. In this regard, it is important to investigate how these relationships are presented in various academic topics, given that some authors asserted that parental participation varies in different subjects (Trautwein et al., 2006). Finally, the sample came from urban public schools. Although it is similar to public schools in most urban regions in México, it is not representative of the diversity (for example, indigenous and rural students) of students in the entirety of Mexico.

## Conflict of Interest

The authors of this article declare no conflict of interest.

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