

Parental Socioeconomic Status, Home Involvement, and School Adjustment in Adolescence

Estatus Socioeconómico Parental, Involucramiento en el Hogar y Ajuste Escolar en la Adolescencia

Miguel Morales-Castillo¹

¹ Department of Psychology, Faculty of Human Sciences, National University of Colombia

Parental socioeconomic status (SES) is recognized as a factor affecting adolescent performance in school contexts, although parenting practices may need to be considered to understand its effect. Through the application of questionnaires to 810 mothers and their adolescent children (mean age=12.74; standard deviation=0.871) data were collected in 11 cities in Colombia, to analyze in a cross-sectional design the relation between socioeconomic status, parental involvement, and school adjustment in adolescence. Using structural equation models, it is found that parental SES has a smaller direct effect on adolescents' school adjustment than the indirect effect through parental involvement. Considering the findings, it is possible to state that parental involvement at home statistically mediates the effect of parental socioeconomic status on school adjustment.

Keywords: Socioeconomic Status, Parental Involvement, School Adjustment, Parenting, Adolescence

El estatus socioeconómico (SES) parental es reconocido como un factor que afecta el desempeño de los adolescentes en contextos escolares, aunque podría ser necesario considerar las prácticas de crianza para comprender su efecto. A través de la aplicación de cuestionarios a 810 madres y a sus hijos adolescentes (media de la edad=12,74; desviación estándar=0,871) se recolectaron datos en 11 ciudades de Colombia, para analizar en un diseño transversal la relación entre el estatus socioeconómico, el involucramiento parental en el hogar y el ajuste escolar en la adolescencia. Con el uso de modelos de ecuaciones estructurales, se encuentra que el SES parental tiene un efecto directo sobre el ajuste escolar de los adolescentes menor que el efecto indirecto a través del involucramiento parental. Considerando los hallazgos, es posible plantear que el involucramiento parental en el hogar media estadísticamente el efecto del estatus socioeconómico parental sobre el ajuste escolar.

Palabras clave: Estatus Socioeconómico, Involucramiento Parental, Ajuste Escolar, Prácticas de Crianza, Adolescencia

Living conditions and parental actions are embedded in the parenting process, contributing to the explanation of behavioral tendencies during adolescence (Duan et al., 2018; Erola et al., 2016; Fryer, 2017). Socioeconomic status (SES) has been defined as a multidimensional measure of the capital that parents can offer to their offspring (Hoff & Laursen, 2019), which facilitates the expression of specific behavioral repertoires in everyday situations (Davis-Kean et al., 2019; Morales-Castillo, 2021).

Common indicators of SES include parents' level of education, the amount of income they earn and the characteristics of the housing they live in (Bhargava & Witherspoon, 2015; Davis-Kean et al., 2019; Hoff & Laursen, 2019). Parental education is often understood in terms of the number of years parents have devoted to educational training which translates into academic attainment (Davis-Kean et al., 2019), while parental income reflects the amount of money received in a given time with its consequent ability to access resources

Miguel Morales-Castillo  <https://orcid.org/0000-0001-6626-6694>

This study received financial support from the CEiBa Foundation, Bogotá (Colombia). The article has been developed within the activities of the research group on Socialization and Parenting, in the work line of Social Psychology, Department of Psychology, Faculty of Human Sciences, National University of Colombia. There is no conflict of interest to disclose.

Correspondence concerning this article should be addressed to Miguel Morales-Castillo, Departamento de Psicología, Universidad Nacional de Colombia. E-mail: jmmoralesc@unal.edu.co

(Carneiro et al., 2021) and parental dwelling characteristics often reflect environments with different possibilities for the enjoyment of goods and services (Bhargava & Witherspoon, 2015) and the potential perception of threat in specific settings (Davis et al., 2015).

Taken together, parents' education, income and dwelling characteristics could influence their decision-making and the courses of action manifested when interacting with their children (Erola et al., 2016; Hoff & Laursen, 2019; Ryabov, 2020), since they affect the complexity with which parents interpret their reality (Davis-Kean et al., 2019), the possibility of accessing cultural goods that enrich the life experience (Carneiro et al., 2021) and support growth in environments that hinder or favor the comprehensive development of children (Bhargava & Witherspoon, 2015). However, it is possible that when considering the joint contribution of different SES indicators, one may stand out in its contribution over others in assessing the consequences on children's behavior (Chevalier et al., 2013; Erola et al., 2016).

SES and Parental Involvement

The effects of SES can focus on both parental behavior and on the behaviors and outcomes achieved by children (Roksa & Potter, 2011). One of the parenting practices that have been analyzed in relation to SES is parental involvement (Bhargava & Witherspoon, 2015), which is defined as the set of parental actions that express availability, direct interaction and/or responsiveness to children's needs (Phares & Rojas, 2018).

Faced with the academic demands that adolescents receive, involvement can be expressed at home or at school (Morales-Castillo, 2021), so that the first alternative refers to the efforts of parents to participate in the academic life of their children from the everyday life of the family and the second refers to the activities in which parents participate in the school context (James et al., 2019). In this regard, parental involvement at home may be of greater relevance for understanding adolescent performance in school contexts (Morales-Castillo & Aguirre-Dávila, 2018).

Three expressions of home-based parental involvement stand out for their influence on adolescent behavior in the educational environment: support, communication, and monitoring. Support has to do with parents' positive emotional disposition towards their children and the activities in which they are involved (Davis et al., 2015); communication includes interactions in which parents show their willingness to actively listen to their children (Hollmann et al., 2016); and monitoring refers to parents' orientation towards accompanying or being aware of their children's activities (Anderson & Branstetter, 2012).

Parental socio-economic status is related to parental involvement in several ways (Benner et al., 2016; Tan et al., 2020). Thus, for example, parents with higher levels of education may be more intellectually open to their children's experiences than parents with lower levels of education (Altschul, 2012). Also, lower-income parents may be more concerned with meeting their children's basic needs than with the quality of interaction with them (Rockwell, 2011). In addition, parents from vulnerable residential sectors experience difficulties in sharing rewarding experiences with their children (Bhargava & Witherspoon, 2015). In any case, taking SES as a composite measure, it is possible to assume variations in both parental actions and their impact on adolescent children's performance (Duan et al., 2018).

SES and School Adjustment

In adolescence, adjustment is generically related to the fit between the adolescent's behavior and the demands of his or her context of reference (Levesque, 2018), and specifically, it is possible to consider school adjustment as the way in which adolescents behave when assuming a role in situations specific to the teaching-learning device (Wentzel, 2013), which is evident in terms of engagement to activities in the school context (Wang & Eccles, 2013), interest in academic activities (Gogol et al., 2016) and identification with the approach to school work (White & Lowenthal, 2011).

Together, these expressions show the tendency of adolescents to link themselves positively with their social context of reference, such as the school.

Studies on school adjustment are characterized both by the multidimensionality of the concept and by the attention paid to the associated variables, which implies a complex approach (Serna & Martínez, 2019). In the study of school adjustment, it is important to consider its behavioral, motivational, and cognitive expressions (Wentzel, 2013).

From this point of view, school adjustment as academic engagement refers to the level of effective engagement in educational activities (Wang & Eccles, 2013; Wang et al., 2019); as personal academic interest it has to do with the relatively long-lasting preference for academic subjects (Gogol et al., 2016; Luo et al., 2019), and as academic identity it is manifested as the incorporation of academic values and practices in the students' definition of themselves (Butler-Barnes et al., 2017; Miller & Wang, 2019).

The relation between SES and school adjustment in adolescence is complex (Devenish et al., 2017), despite which it has been established that parents with lower levels of education, low income and in vulnerable dwelling environments tend to have adolescents with lower levels of school adjustment (Benner, 2018), while families with better SES indicators have children with better profiles of adjustment to the educational environment (Martin, 2012). Thus, the conditions of origin of adolescents and their families, addressed as parental SES, constitute a crucial reference that allows them to participate to a greater or lesser extent in educational activities (Veiga et al., 2016), to connect at different levels with educational content (Roksa & Potter, 2011) and to validate or not the methods of the educational context through their self-definition (Butler-Barnes et al., 2017).

SES, Parental Involvement and School Adjustment

In adolescence, students' performance in the school context is often characterized by a marked tendency to decline (James et al., 2019; Wang & Eccles, 2013), making factors associated with school adjustment of high interest. Strikingly, across different socio-economic statuses, variations in school adjustment are recorded as well as in overt parenting practices (Roksa & Potter, 2011).

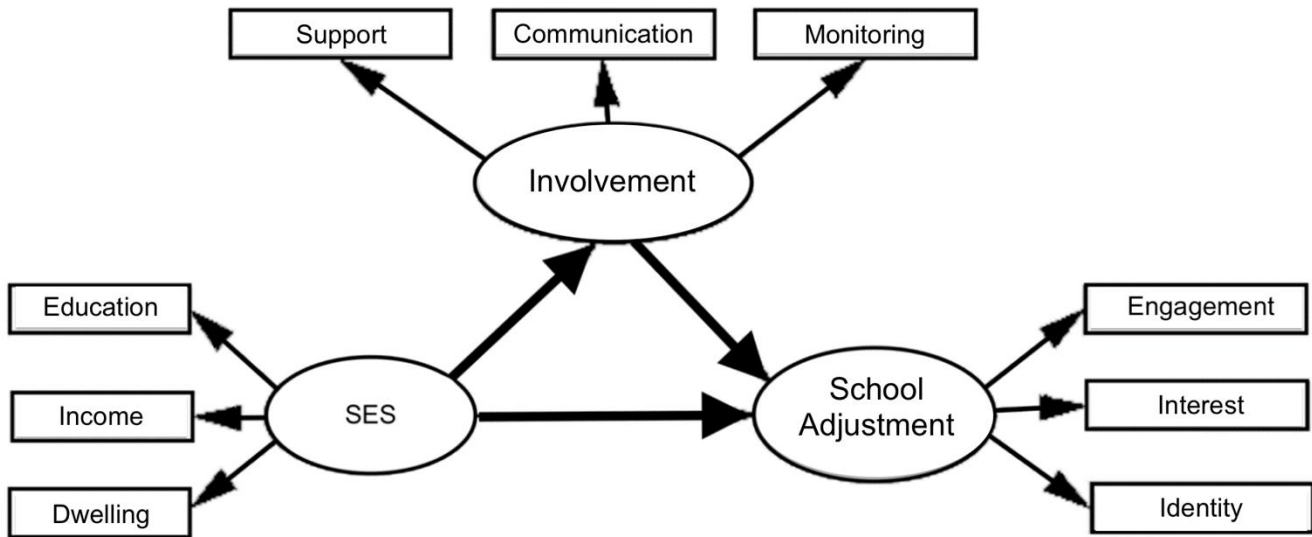
It is then relevant to consider that parental involvement affects adolescents' school adjustment (Boonk et al., 2018; Serna & Martínez, 2019), so that involvement as support can favor their level of engagement to school activities (Benner et al., 2008), in terms of communication it is often associated with better adolescent tendencies in the educational environment (Trung & Ducreux, 2013) and as monitoring it generally favors adolescents' school adjustment when focused on academic demands (Affuso et al., 2016). Similarly, the relationship between parental involvement and school adjustment tends to be maintained over time, so that, although it may present variations, its relationship remains significant (Barger et al., 2019). Thus, there is reason to assume that both socioeconomic status and parental involvement are related to adolescents' school adjustment (Benner et al., 2016).

However, joint analysis of these three variables has been insufficiently explored, especially in contexts such as Latin America. In particular, the study of the effects of SES tends to focus on the role of parental education (Davis-Kean et al., 2019), although it is recognized that its expressions are multiple (Hoff & Laursen, 2019). Similarly, parental involvement is often addressed in a general way, neglecting the contribution of its specific manifestations (Boonk et al., 2018). Likewise, multivariate analysis of school adjustment is of value in understanding its complexity (Wentzel, 2013), even though attention may usually focus on partial or negative aspects (Levesque, 2018). Similarly, there are many studies that have addressed the relationship between parents and adolescents (Jeynes, 2017), with little data from Latin American participants from countries such as Colombia.

In the Colombian context, multiple socio-economic changes have affected parent-child relationships, particularly the role of parental education and income level (Di Giunta & Uribe, 2019). However, little progress has been made in understanding the relation between socioeconomic status and its consequences for specific parenting practices, such as involvement, among the Colombian population.

In this context, Colombian adolescents experience a critical period in their adjustment during early adolescence (10-14 years), which may be associated with different factors, including the quality of the relationship with their parents (Kapetanovic et al., 2020). However, little is known about the contribution of socioeconomic status and parental involvement to adolescent adjustment in Colombia, particularly focusing on school environment.

According to the above, the present study poses the question: what is the relationship between socioeconomic status, parental involvement, and school adjustment in adolescence? Among the hypotheses, as illustrated in Figure 1, it is hypothesized that: (H1) parental SES has significant effects on school adjustment in adolescence; (H2) parental SES has significant effects on parental involvement; (H3) parental involvement has significant effects on school adjustment in adolescence; and (H4) the effect of SES on school adjustment is mediated by parental involvement.

Figure 1*Model of possible relationships between variables***Method****Participants**

The participants in this research inhabited the Sabana Centro region of Cundinamarca, central Colombia, a province composed of 11 cities integrated to the north with the Metropolitan Region of Bogotá, Colombia, with a population that in 2020 amounted to 631,467 people distributed predominantly in urban areas (69.4%) (Sabana Centro Cómo Vamos, 2021). Although this region has high educational levels among its population, school coverage rates close to 100% and high levels of employment, there are also sectors of the population with low educational levels and difficult economic situations (Sabana Centro Cómo Vamos, 2019). The Colombian population, including the inhabitants of the center of the country, is characterized by a central importance of family relationships despite the constant change related to regional socio-economic dynamics (Di Giunta & Uribe, 2019).

Adequate sample size was estimated using stratified random sampling with a 95% confidence interval (Scheaffer et al., 2007), considering the distribution of students in seventh and eighth grades of basic secondary education in public and public schools (Ministry of National Education, 1994). Thus, the present study included a sample of 810 mothers (mean age=38.56; standard deviation=6.521) and their adolescent children (mean age=12.74; standard deviation=0.871), who at the time of the study were in the seventh and eighth grades of secondary education, in public (65.43%) and public schools of the school network in the Sabana Centro region of the department of Cundinamarca, in the outskirts of Bogotá, the capital of Colombia. The group of adolescents included boys (44.81%) and girls (38.89%) from rural and urban areas.

The sample of the present study included mothers with different maximum educational levels: no education (0.12%), incomplete primary (5.93%), complete primary (8.4%), incomplete secondary (10.62%), complete secondary (30.12%), technical/technological education (21.48%), undergraduate (16.05%), specialization (5.93%), master's (1.23%) and doctorate (0.12%). Similarly, there were participants with different income levels: less than US \$249.99 (43.7%), between US \$249.99 and US \$749.86 (42.1%); between US \$749.87 and US \$1,249.89 (8.02%); between US \$1,249.9 and US \$1,999.82 (4.69%) and between US \$1,999.83 and US \$3,999.40 (1.49%).

Instruments

Parental socio-economic status. This variable was measured through a socio-demographic survey that asked mothers about their highest level of education, the approximate amount of monthly personal income and the classification of their dwelling according to the national stratification system used by the authorities in Colombia (Congress of the Republic, 1994). Thus, the parental educational level was coded considering the classification of educational levels of the Colombian Ministry of National Education (1994), from "No studies" to "Doctorate". Thus, on a scale of 1 to 10, higher scores represent higher levels of education.

Parental income was coded by taking ranges of monthly income presented to respondents in local currency, from "*Less than US \$249.99*" to "*More than US \$3,999.4*". Thus, on a scale of 1 to 6, higher scores represent higher levels of income. In terms of housing location, local authorities rate dwellings based on the physical condition of the house and the neighborhood in which it is located, categorized into one of the following levels: low-low, low, medium-low, medium, medium-high, and high (DANE, 2021). For the present study, a numerical code from 1 to 6 was assigned, where the highest values of this indicator represent the highest levels of housing.

Parental involvement. This variable was assessed through an adapted questionnaire (Morales-Castillo, 2022) that was completed by the participating adolescents. A Confirmatory Factor Analysis (CFA) was used to test the validity of the construct, obtaining acceptable fit indicators: (CMIN/DF=4.648; RMSEA=0.067; SRMR=0.0203).

Against the question "*How much does your mother do the following things?*", there were six items grouped into three subscales and scored on a four-way Likert-type scale, from "*Never, almost never*" (scored 1) to "*Always, almost always*" (scored 4): Support ("*Encourage me when I have difficulties at school*" and "*Help me take things at school in stride*"), Communication ("*Ask me about things that happen at school*" and "*Give me advice on how to do well at school*"), and Monitoring ("*Watch me do my homework*" and "*See that I do my school work well*"). The instrument showed acceptable reliability with the data from the present study (Support: $\alpha=0.727$; Monitoring: $\alpha=0.736$; Communication: $\alpha=0.669$; Global Parental Involvement: $\alpha=0.849$). Higher scores on each manifestation of involvement represented greater involvement.

School Adjustment. This variable was measured with the items of the school adjustment scale of the Multifactorial Self-Assessment Test of Child Adjustment (TAMAI) for level II (Hernández, 2015). Considering that school adjustment can have behavioral, motivational and cognitive expressions, the TAMAI was used in the present study with three subscales (AFC: CMIN/DF=6.119; RMSEA=0.080; SRMR=0.0778), which were: Academic Engagement, composed of six items that address the adolescents' willingness to participate in the activities of the school context (i.e. "Academic Interest, composed of ten items covering adolescents' preference for teaching-learning activities (e.g., "*I really like doing mathematics homework*"); and Academic Identity, composed of six items asking about the validation of school practices experienced (e.g., "*My teachers teach well*"). Acceptable reliability indicators were found (Engagement: $\alpha=0.773$; Interest: $\alpha=0.708$; Identity: $\alpha=0.668$; Global School Adjustment: $\alpha=0.816$).

For each item in this instrument, adolescents were asked to select "Yes" or "No", depending on their approval of each statement. In the scoring of the instrument, responses indicating less fit were scored as "1" and those indicating more fit were scored as "2". Scores were aggregated for each subscale, so that higher values represented better levels of adjustment to the school context in each of the subscales.

Procedure

The present study complied with the parameters and recommendations for research with human participants at the local (Congreso de la República, 2006) and international (American Psychological Association, 2010) levels, including the principles and guidelines established in the Helsinki declaration. Considering the above, participants filled out and signed an informed consent form, had the voluntary option to participate and their responses were analyzed anonymously, in addition to being informed about the intentions and implications of the study.

In the first semester of 2019, a letter of invitation supported by the research group's university was sent to 166 secondary schools in the 11 municipalities of the region known as Sabana Centro. After receiving a positive response from principals and teachers in 30 schools, through explicit authorization, the details of the data collection were agreed upon. At the beginning of the second school semester, the research team, accompanied by the teachers, oriented the adolescents to give their mothers a letter of introduction to the study, an informed consent form and a socio-demographic survey.

Teachers collected the signed documents, verifying that the personal data matched those registered at school. During regular school hours, the research team gave the authorized adolescents the instruments to be completed with the accompaniment of their teachers. Students who did not receive parental authorization were involved in alternative academic activities.

The data were systematized and analyzed within the research group. To preserve the anonymity of the participants, each of the forms received was coded in such a way that it was not necessary to know the names and surnames of each participant (each form related to the same person had the same code), and that the computer software used could cross-reference the different data sources in an appropriate way (the related answers were recorded against each code).

Data Analysis

The data collected are analyzed quantitatively with a cross-sectional design. To verify the fulfilment of assumptions to develop a multivariate data analysis, an exploratory analysis of the data was performed, considering the values of skewness and kurtosis close to zero as suggestive of normality in the distribution (Katz, 2011). Bivariate associations were analyzed with Pearson correlations, where the assumption of non-collinearity is accepted with correlations below .90 (Tabachnick & Fidell, 2019).

In order to establish the magnitude of the simultaneous relationships between the variables, structural equation models were used, where the lowest values of the normalized Chi-square (CMI/DF), values above 0,90 in the comparative fit index (CFI), the goodness-of-fit index (GFI) and the Tucker-Lewis index (TLI), values equal to or lower than 0.80 in the root mean square error of approximation (RMSEA) and the lowest values in the Akaike information criterion (Hair et al., 2019). SPSS v.26 (IBM, 2019a) was used for data exploration and correlations, and Amos v.26 (IBM, 2019b) was used for structural equation modelling.

Results

As Table 1 shows, the observable variables that were measured in the present study are close to a normal distribution and show optimal correlations that guarantee the assumption of non-collinearity. The correlation values between the indicators of SES (r between 0.483 and 0.558, all with $p < 0.01$), between the indicators of parental involvement (r between 0.538 and 0.671, all with $p < 0.01$) and between the indicators of school adjustment (r between 0.229 and 0.519, all with $p < 0.01$), suggest adequate associations between the indicators grouped in each latent variable.

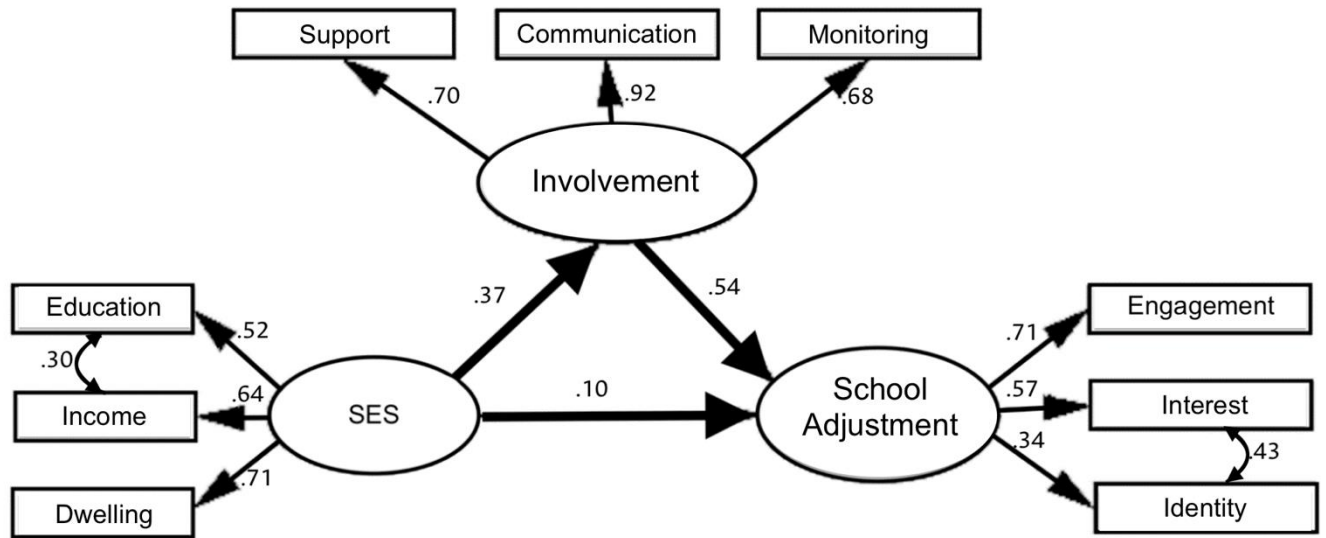
The structural equation model initially proposed (Figure 1) showed a poor fit (CMIN/DF=13.680; GFI=0.898; TLI=0.765; CFI=0.804; RMSEA=0.125; AIC=440.412). By re-specifying the model, considering the modification indices provided by the computer software used and the theoretical relationships between the variables according to the reference literature, two covariations are included as shown in Figure 2, obtaining a model with acceptable fit indices (CMIN/DF=6.128; GFI=0.956; TLI=0.905; CFI=0.926; RMSEA=0.080; AIC=205.589).

Table 1
Descriptive data and correlations of the variables studied

Variable	1	2	3	4	5	6	7	8	9
Parental Education Revenue	0,558**								
Housing Support	0,483**	0,489**							
Communication Monitoring	0,062	0,044	0,091**						
Engagement Interest	0,064	0,030	0,068	0,671**					
Identity	0,073*	-0,001	0,022	0,538**	0,598**				
Media	0,065	0,020	0,077*	0,244**	0,231**	0,232**			
Standard deviation	-0,114**	-0,103**	-0,083*	0,211**	0,196**	0,229**	0,348**		
Asymmetry	-0,039	-0,040	-0,007	0,160**	0,119**	0,171**	0,229**	0,519**	
Kurtosis	5,31	1,78	2,37	6,303	6,625	6,4395	10,167	16,836	10,815
	1,591	0,893	0,786	1,626	1,535	1,550	1,885	2,335	1,393
	-0,177	1,324	0,778	-0,865	-1,077	-0,940	-0,788	-0,676	-1,107
	-0,132	1,902	0,984	0,000	0,466	0,274	-0,566	-0,158	0,571

Note. * $p < .05$; ** $p < .01$.

Figure 2
Structural equation modelling of the relationships between variables



Note. All relationships with $p < 0.001$.

(H1) Relationship between SES and school adjustment

According to Figure 2, parental SES has a direct and significant effect on adolescents' school adjustment ($\beta=0.10$; $p<0.001$), which provides support for hypothesis H1, such that parental socio-economic status has a statistical effect on adolescents' school adjustment.

(H2) Relationship between SES and parental involvement

Continuing with Figure 2, parental SES has a direct and significant effect on parental involvement ($\beta=0.37$; $p<.001$), which allows supporting hypothesis H2, so that socioeconomic status has a statistical effect on parental involvement.

(H3) Relationship between parental involvement and school adjustment

Consistent with those shown in Figure 2, parental involvement has a direct and significant effect on school adjustment ($\beta=0.54$; $p<0.001$), supporting hypothesis H3, such that parental involvement has a statistical effect on adolescents' school adjustment.

(H4) Mediation between SES and school adjustment

Calculating the indirect effect of SES on school adjustment through parental involvement (β SES-Involvement \times β Involvement-Adjustment= 0.1998), it is established that the direct effect is smaller than the indirect effect (β SES-Adjustment= $0.10 < \beta$ Indirect= 0.1998), which allows supporting hypothesis H4, so that the relationship between socioeconomic status and adolescents' school adjustment is mediated by parental involvement.

Factor contributions of observable variables

On the socio-economic status side, the factor loading of housing ($\lambda=0.71$; $p<.001$) outweighs the other SES indicators, while education and parental income show a significant correlation ($r=0.30$; $p<.001$). In the case of parental involvement, the contribution of mother-child communication stands out, with a factor loading of 0.92 ($p<.001$), followed by support with 0.70 ($p<.001$) and monitoring with 0.68 ($p<.001$). Additionally, on the school adjustment side, academic engagement stands out with a loading of 0.71 ($p<0.001$), while academic interest and academic identity show a significant correlation ($r=0.43$; $p<0.001$).

Discussion

According to the findings of the present study, socioeconomic status has a direct statistical effect on adolescents' school adjustment, but the value of this relationship is smaller than the indirect effect obtained by including parental involvement. In this sense, there is reason to conclude that the relationship between socio-economic status and adolescent school adjustment is statistically mediated by parental involvement at home.

Previous work has suggested that the direct effect of SES on adolescent behaviors and outcomes may be insignificant or small (Hoff & Laursen, 2019; Morales-Castillo, 2021), which implies considering the inclusion of other variables to clarify the nature of this relationship (Altschul, 2012; Devenish et al., 2017). In this regard, parental involvement is a parenting practice with positive consequences when it corresponds to the specific situation of the children (Serna & Martínez, 2019), as happens when they reach adolescence (Boonk et al., 2018; Morales-Castillo & Aguirre-Dávila, 2018).

Considering this, on the one hand, the direct association of SES with school adjustment may be insufficient to explain adolescent behavior (Altschul, 2012; Fryer, 2017), while the inclusion of involvement at home offers an important element for understanding the parental role in adolescent adjustment (Benner et al., 2016; Boonk et al., 2018). Additionally, it is also possible that involvement allows parents to pass on to their children the social advantages offered by accumulated cultural capital (Roksa & Potter, 2011), which in turn transfers to the school context in terms of smooth integration in the face of academic demands (Duan et al., 2018).

Despite the close relation between parental education, income and place of residence (Hoff & Laursen, 2019), the latter may stand out for the conditions it provides for exposure to community role models (Ryabov, 2020) and access to spaces that promote family and individual well-being (Tandon et al., 2012), which may have an impact on alleviating everyday stresses (DeCarlo et al., 2011), affecting both parents and their adolescent children.

At this point, it is worth noting that the contributions of education and parental income to the model support previous work on the importance of these in defining SES and its implications for the parent-child relationship (Erola et al., 2016; Hoff & Laursen, 2019). In this sense, it is possible to assert that parental SES represents a complex contribution that operates through different mechanisms (McLaughlin & Sheridan, 2016).

In the analysis of parental involvement at home, it has been established that this parenting practice persists even when children reach adolescence (Bhargava & Witherspoon, 2015). In this regard, it is relevant to consider the contribution of communication as a fundamental expression of direct interaction between parents and children (Phares & Rojas, 2018), to the extent that improvements in communicative interactions between parents and children are related to improvements in adolescent outcomes (Trung & Decreaux, 2013). Through engagement as communication, parents can share beliefs and values about education with their children (Roksa & Potter, 2011; Smith et al., 2020), guiding the development of plans that affect adolescents' current and future decisions (Choi et al., 2015), and generally guiding the appropriate behaviour expected of adolescents (Wentzel, 2013). In a similar vein, according to the findings, the manifestation of involvement in the home as both supportive and monitoring may be important in sizing the contribution of parenting to the relationship between SES and adolescent adjustment, so that together they shape a particular way in which parents and adolescents relate to each other (Anderson & Branstetter, 2012; Davis et al., 2015).

Reported findings empirically confirm that the parental variables addressed affect adolescent school adjustment especially in terms of academic engagement (Veiga et al., 2016), a central aspect in defining adjustment in educational contexts (Wentzel, 2013). Adolescence is often characterized as a period of life marked by declining school outcomes (Wang & Eccles, 2013), so that academic engagement is closely linked to both general participation in school activities and academic achievement of adolescents (Wang & Hofkens, 2020), becoming an opportunity in challenging situations (Smith et al., 2020). In a similar vein, the parental variables analyzed contribute to school adjustment in terms of both academic interest and identity, albeit with lower factor loadings, confirming the role of parents in how adolescents behave in the educational environment (Benner et al., 2016; Veiga et al., 2016).

Among the limitations, it is necessary to consider the results in the light of the proposed design, which suggests relationships between variables situated in a temporal context, so that future work can enrich the state of knowledge in the field with alternative methodological approaches, such as longitudinal designs, which may allow confirmation of the results obtained. In a similar sense, the findings should be judged with reference to the particularities of the sample, especially considering its cultural background and the ages of the participants, so that the knowledge of the behavior of the variables could be extended by considering other contexts and age groups. Similarly, it may be relevant to consider the voluntary process of participant engagement, with its consequences for the randomness of the sample, so it is suggested to explore incentives to encourage higher levels of participation for the development of probability sampling.

Among the contributions of the present study, it is necessary to consider that previous studies have suggested the absence of significant relationships between parental involvement and the behaviour of adolescents in their school process (Jeynes, 2017). Despite this, according to the results of the present research, it is possible that the relationship between parental involvement and adjustment should be dimensioned by including parental socioeconomic status, to obtain an adequate understanding of the phenomenon. It is also important to note that the consequences of parenting may be relative to the cultural context of reference (Pinquart & Kauser, 2018), so that the reported findings are particularly relevant for understanding the relationship between socioeconomic status, parental involvement and school adjustment in the Latino population in countries such as Colombia.

Similarly, according to the findings of this research, it is necessary to consider a complex approach to school adjustment to achieve a better understanding of it (Wentzel, 2013). Thus, the consideration of parental factors involved in school adjustment implies the need for comprehensive approaches, in which the existence of social precursors that facilitate or inhibit adjustment is considered. In the same context, the recognition of the multiplicity of expressions of school adjustment raises the need for multivariate analyses and comprehensive intervention proposals.

In general terms, works such as the one proposed contribute to the understanding of the role of parent-child relationships at home and their implications for adolescent behavior in school contexts, which can be considered critical at present for different societies (Knopik et al., 2021; Ribeiro et al., 2021; Treviño et al., 2021). Given the implications of the findings, it is possible to suggest the orientation of institutional support in pursuit of better well-being and development for families and their adolescent children by addressing both the socio-economic conditions of the parental context and the assistance needed in strengthening relationships in the home (Morales-Castillo et al., 2019). Specifically, approaching home involvement as a mediator of parental socioeconomic status and considering its value in understanding adolescent adjustment implies the need to focus on the quality of parent-child relationships as a central focus for understanding and intervening in the psychosocial factors that affect adolescent behavior.

References

- Affuso, G., Bacchini, D. & Miranda, M. (2016). The contribution of school-related parental monitoring, self-determination, and self-efficacy to academic achievement. *The Journal of Educational Research*, 110(5), 565-574. <https://doi.org/10.1080/00220671.2016.1149795>
- Anderson, R. & Branstetter, S. (2012). Adolescents, parents, and monitoring: A review of constructs with attention to process and theory. *Journal of Family Theory & Review*, 4, 1-19. <https://doi.org/10.1111/j.1756-2589.2011.00112.x>
- Altschul, I. (2012). Linking socioeconomic status to the academic achievement of Mexican American youth through parent involvement in education. *Journal of the Society for Social Work and Research*, 3(1), 13-30. <https://doi.org/10.5243/jsswr.2012.2>
- American Psychological Association. (2010). *Principios éticos de los psicólogos y código de conducta*. http://www.psicologia.unam.mx/documentos/pdf/comite_etica/Codigo_APA.pdf
- Barger, M. M., Kim, E. M., Kuncel, N. R. & Pomerantz, E. M. (2019). The relation between parents' involvement in children's schooling and children's adjustment: A meta-analysis. *Psychological bulletin*, 145(9), 855-890. <https://doi.org/10.1037/bul0000201>
- Benner, R. (2018) Academic achievement: Contextual influences. En: R. Levesque (Ed.), *Encyclopedia of Adolescence* (pp. 29-38), Springer. https://doi.org/10.1007/978-3-319-33228-4_286
- Benner, A., Boyle, A. & Sadler, S. (2016). Parental involvement and adolescents' educational success: The roles of prior achievement and socioeconomic status. *Journal of Youth and Adolescence*, 45, 1053-1064. <https://doi.org/10.1007/s10964-016-0431-4>
- Benner, A., Graham, S. & Mistry, R. (2008). Discerning direct and mediated effects of ecological structures and processes on adolescents' educational outcomes. *Developmental Psychology*, 44(3), 840-854. <https://doi.org/10.1037/0012-1649.44.3.840>
- Bhargava, S. & Witherspoon, D.P. (2015). Parental involvement across middle and high school: Exploring contributions of individual and neighborhood characteristics. *Journal of Youth and Adolescence*, 44, 1702-1719. <https://doi.org/10.1007/s10964-015-0334-9>
- Boonk, L., Gijssels, H., Ritzenb, H. & Brand-Gruwel, S. (2018). A review of the relationship between parental involvement indicators and academic achievement. *Educational Research Review*, 24, 10-30. <https://doi.org/10.1016/j.edurev.2018.02.001>
- Butler-Barnes, S. T., Varner, F., Williams, A. & Sellers, R. (2017). Academic identity: A longitudinal investigation of African American adolescents' academic persistence. *Journal of Black Psychology*, 43(7), 714-739. <https://doi.org/10.1177/0095798416683170>
- Carneiro, P., López, I., Salvanes, K. & Tominey, E. (2021). Intergenerational mobility and the timing of parental income. *Journal of Political Economy*, 129(3), 1-58. <https://doi.org/10.1086/712443>
- Chevalier, A., Harmon, C., O' Sullivan, V. & Walker, I. (2013). The impact of parental income and education on the schooling of their children. *IZA Journal of Labor Economics*, 2(8), 1-22. <https://doi.org/10.1186/2193-8997-2-8>
- Choi, N., Chang, M., Kim, S. & Reio, T. (2015). A structural model of parent involvement with demographic and academic variables. *Psychology in the Schools*, 52, 154-167. <https://doi.org/10.1002/pits.21813>
- Congreso de la República. (1994). *Estratificación socioeconómica, Régimen de servicios públicos domiciliarios*. Ley 142, Diario Oficial del mes de julio. Bogotá, Colombia.
- Congreso de la República. (2006). *Código Deontológico y Bioético para el Ejercicio de la Profesión de Psicología*, Ley 1090, Diario Oficial del mes de septiembre. Bogotá, Colombia.
- DANE. (2021). Preguntas frecuentes sobre estratificación socioeconómica. https://www.dane.gov.co/files/geoestadistica/Preguntas_frecuentes_estratificacion.pdf
- Davis, T., Ammons, C., Dahl, A. & Kliewer, W. (2015). Community violence exposure and callous-unemotional traits in adolescents: Testing parental support as a promotive versus protective factor. *Personality and Individual Differences*, 77, 7-12. <https://doi.org/10.1016/j.paid.2014.12.024>
- Davis-Kean, P., Tang, S. & Waters, N. (2019). Parent education attainment and parenting. En: M. H. Bornstein (ed.), *Handbook of Parenting*, volume II (pp.400-420). <https://doi.org/10.4324/9780429401459-12>
- DeCarlo, C., Wadsworth, M. & Stump, J. (2011). Socioeconomic status, neighborhood disadvantage, and poverty-related stress: Prospective effects on psychological syndromes among diverse low-income families. *Journal of Economic Psychology*, 32(2), 218-230. <https://doi.org/10.1016/j.joep.2009.10.008>
- Devenish, B., Hooley, M. & Mellor, D. (2017). The pathways between socioeconomic status and adolescent outcomes: A systematic review. *American Journal of Community Psychology*, 59(1-2), 219-238. <https://doi.org/10.1002/ajcp.12115>
- Di Giunta, L. & Uribe, L. (2019). Education and Parenting in Colombia. En: E. Sorbring & J. Lansford (eds), *School Systems, Parent Behavior, and Academic Achievement*. (pps. 29-42), Springer. https://doi.org/10.1007/978-3-030-28277-6_3
- Duan, W., Guan, Y. & Bu, H. (2018). The effect of parental involvement and socioeconomic status on junior school students' academic achievement and school behavior in China. *Frontiers in Psychology*, 9(952), 1-8. <https://doi.org/10.3389/fpsyg.2018.00952>
- Erola, J., Jalonen, S. & Lehti, H. (2016). Parental education, class and income over early life course and children's achievement. *Research in Social Stratification and Mobility*, 44, 33-43 <https://doi.org/10.1016/j.rssm.2016.01.003>

- Fryer, R. (2017). The production of human capital in developed countries: Evidence from 196 randomized field experiments. En E. Dufló & A. Banerjee (Eds.), *Handbook of economic field experiments* (pp. 95-322). Elsevier. <https://doi.org/10.1016/bs.hefe.2016.08.006>
- Gogol, K., Brunner, M., Preckel, F., Goetz, T. & Martin, R. (2016). Developmental dynamics of general and school-subject-specific components of academic self-concept, academic interest, and academic anxiety. *Frontiers in Psychology*, 7, 356, 1-15. <https://doi.org/10.3389/fpsyg.2016.00356>
- Hair, J.F., Black, W.C., Babin, B.J. & Anderson, R.E. (2019). Structural equation modelling: An introduction. En: *Multivariate Data Analysis*, (pp. 603-657). Cengage.
- Hernández, P. (2015). *Test Autoevaluativo Multifactorial de Adaptación Infantil*. Madrid: Ediciones TEA
- Hoff, E. & Laursen, B. (2019). Socioeconomic status and parenting. En: M. H. Bornstein (ed.), *Handbook of Parenting*, volume II (pp. 421-447). <https://doi.org/10.4324/9780429401459-13>
- Hollmann, J., Gorges, J. & Wild, E. (2016). Motivational antecedents and consequences of the mother-adolescent communication. *Journal of Child and Family Studies*, 25, 767-780. <http://doi.org/10.1007/s10826-015-0258-8>
- IBM. (2019a). *Statistical Package for the Social Sciences* (SPSS), version 26. IBM.
- IBM. (2019b). *Analysis of Moment Structure* (AMOS), version 26. IBM.
- James, A., Rudy, D. & Dotterer, A. (2019). Longitudinal examination of relations between school- and home-based parent involvement and GPA across ethnic groups. *Journal of Child and Family Studies*, 28, 3000-3010. <https://doi.org/10.1007/s10826-019-01475-9>
- Jeynes, W. H. (2017). A meta-analysis: The relationship between parental involvement and Latino student outcomes. *Education and Urban Society*, 49(1), 4-28. <https://doi.org/10.1177/0013124516630596>
- Kapetanovic, S., Rothenberg, W. A., Lansford, J. E., Bornstein, M. H., Chang, L., Deater-Deckard, K., Di Giunta, L., Dodge, K. A., Gurdal, S., Malone, P. S., Oburu, P., Pastorelli, C., Skinner, A. T., Sorbring, E., Steinberg, L., Tapanya, S., Uribe Tirado, L. M., Yotanyamaneewong, S., Peña Alampay, L., Al-Hassan, S. M. & Bacchini, D. (2020). Cross-cultural examination of links between parent-adolescent communication and adolescent psychological problems in 12 cultural groups. *Journal of youth and adolescence*, 49(6), 1225-1244. <https://doi.org/10.1007/s10964-020-01212-2>
- Katz, M. (2011). Setting up a multivariable analysis. En: *Multivariable Analysis A Practical Guide for Clinicians and Public Health Researchers*, (pp. 93-117). Cambridge University Press.
- Knopik, T., Błaszczak, A., Maksymiuk, R. & Osza, U. (2021). Parental involvement in remote learning during the COVID-19 pandemic: Dominant approaches and their diverse implications. *European journal of education*, 56(4), 623-640. <https://doi.org/10.1111/ejed.12474>
- Levesque, R. (2018) Adjustment. En: R. Levesque (Ed.), *Encyclopedia of Adolescence* (pp. 91-94), Springer. https://doi.org/10.1007/978-3-319-33228-4_487
- Luo, Z., Dang, Y. & Xu, W. (2019). Academic interest scale for adolescents: Development, validation, and measurement invariance with Chinese students. *Frontiers in Psychology*, 10(2301), 1-14. <https://doi.org/10.3389/fpsyg.2019.02301>
- Martin, M. (2012). Family structure and the intergenerational transmission of educational advantage. *Social Science Research*, 41(1), 33-47. <https://doi.org/10.1016/j.ssresearch.2011.07.005>
- McLaughlin, K. A. & Sheridan, M. A. (2016). Beyond cumulative risk: A dimensional approach to childhood adversity. *Current Directions in Psychological Science*, 25(4), 239-245. <https://doi.org/10.1177/0963721416655883>
- Miller, R., & Wang, M. (2019). Cultivating adolescents' academic identity: Ascertaining the mediating effects of motivational beliefs between classroom practices and mathematics identity. *Journal of Youth and Adolescence*, 48(10), 2038-2050. <https://doi.org/10.1007/s10964-019-01115-x>
- Ministerio de Educación Nacional de Colombia (1994). *Ley 115, Ley General de Educación*. Bogotá, Colombia.
- Morales-Castillo, M. (2022). Family contributions to school performance of adolescents: The role of fathers' perceived involvement. *Journal of Family Issues*, 43(3), 793-808. <https://doi.org/10.1177/0192513X21994143>
- Morales-Castillo, M. & Aguirre-Dávila, E. (2018). Involucramiento parental basado en el hogar y desempeño académico en la adolescencia. *Revista Colombiana de Psicología*, 27(2), 137-160. <https://doi.org/10.15446/rcp.v27n2.66212>
- Morales-Castillo, M., Aguirre-Dávila, E. & Durán-Urrea, L. (2019). Los contenidos de la formación parental y sus implicaciones para el comportamiento de los adolescentes: Elementos desde una revisión. *Saude e Sociedade*, 28(3), 224-238. <http://doi.org/10.1590/s0104-12902019181111>
- Phares, V. & Rojas, A. (2018). Parental involvement. En: R. Levesque (Ed.), *Encyclopedia of adolescence* (pp. 2661-2666). Springer. https://doi.org/10.1007/978-3-319-33228-4_205
- Pinquart, M. & Kauser, R. (2018). Do the associations of parenting styles with behavior problems and academic achievement vary by culture? Results from a metaanalysis. *Cultural Diversity and Ethnic Minority Psychology*, 24(1), 75. <https://doi.org/10.1037/cdp0000149>
- Ribeiro, L.M., Cunha, R.S., Silva, M.C.A.e., Carvalho, M. & Vital, M.L. (2021). Parental involvement during pandemic times: Challenges and opportunities. *Education Sciences*, 11(6), 302. <https://doi.org/10.3390/educsci11060302>
- Rockwell, C. (2011). Factors affecting parental involvement with children's education: A qualitative study of parents' socioeconomic status, level of education, and parental school relationship. *Perspectives*, 3(1), 92-96. <https://scholars.unh.edu/perspectives/vol3/iss1/1>
- Roksa, J. & Potter, D. (2011). Parenting and academic achievement: Intergenerational transmission of educational advantage. *Sociology of Education*, 84(4), 299-321. <https://doi.org/10.1177/0038040711417013>
- Ryabov, I. (2020). Intergenerational transmission of socio-economic status: The role of neighborhood effects. *Journal of Adolescence*, 80, 84-97. <https://doi.org/10.1016/j.adolescence.2020.02.007>
- Sabana Centro Cómo Vamos (2019). *Informe de Calidad de Vida*. Recuperado el 30 de enero de 2021 de: <http://sabanacentrocomovamos.org/home/wp-content/uploads/2020/11/Informe-de-Calidad-de-Vida-Sabana-Centro-2019.pdf>
- Sabana Centro Cómo Vamos (30 de enero de 2021). *Informe de Calidad de Vida de Sabana Centro*. Documento de trabajo institucional. <http://sabanacentrocomovamos.org/home/indicadores-icv/>
- Serna, C. & Martínez, I. (2019). Parental involvement as a protective factor in school adjustment among retained and promoted secondary students. *Sustainability* 11(24), 1-16. <https://doi.org/10.3390/su11247080>

- Scheaffer, R., Mendenhall, W. & Ott, L. (2007). Muestreo aleatorio simple. En: *Elementos de Muestreo* (pp. 81-124). International Thompson.
- Smith, N., Brown, J., Tran, T. & Suárez-Orozco, C. (2020). Parents, friends and immigrant youths' academic engagement: A mediation analysis. *International Journal of Psychology*, 55(5), 743-753. <https://doi.org/10.1002/ijop.12672>
- Tabachnick, B. & Fidell, L. (2019). Cleaning up your act. En: *Using multivariate statistics*, (pp. 52-98). Pearson Education.
- Tan, C. Y., Lyu, M. & Peng, B. (2020). Academic benefits from parental involvement are stratified by parental socioeconomic status: A meta-analysis. *Parenting*, 20(4), 241-287. <https://doi.org/10.1080/15295192.2019.1694836>
- Tandon, P.S., Zhou, C., Sallis, J.F., Cain, K., Frank, L. & Saelens, B. (2012). Home environment relationships with children's physical activity, sedentary time, and screen time by socioeconomic status. *International Journal of Behavioral Nutrition and Physical Activity*, 9(88), 1-9. <https://doi.org/10.1186/1479-5868-9-88>
- Treviño, E., Miranda, C., Hernández, M. & Villalobos, C. (2021). Socioeconomic status, parental involvement and implications for subjective well-being during the global pandemic of covid-19. *Frontiers in Education*, 6, 1-10. <https://doi.org/10.3389/educ.2021.762780>
- Trung, B. & Ducreux, E. (2013). Parental influence and academic achievement among middle school students: Parent perspective. *Journal of Human Behavior in the Social Environment*, 23(5), 579-590. <http://doi:10.1080/10911359.2013.765823>
- Veiga, F., Robu, V., Conboy, J., Ortiz, A., Carvalho, C. & Galvão, D. (2016). Students' engagement in school and family variables: A literature review. *Estudos de Psicologia*, 33(2), 187-197. <http://doi.org/10.1590/1982-02752016000200002>
- Wang, M. & Eccles, J. (2013). School context, achievement motivation, and academic engagement: A longitudinal study of school engagement using a multidimensional perspective. *Learning and Instruction*, 28, 12-23. <https://doi.org/10.1016/j.learninstruc.2013.04.002>
- Wang, M., Fredricks, J., Ye, F., Hofkens, T. & Linn, J. S. (2019). Conceptualization and assessment of adolescents' engagement and disengagement in school: A Multidimensional School Engagement Scale. *European Journal of Psychological Assessment*, 35(4), 592-606. <https://doi.org/10.1027/1015-5759/a000431>
- Wang, M. & Hofkens, T. (2020). Beyond classroom academics: A school-wide and multi-contextual perspective on student engagement in school. *Adolescent Research Review*, 5, 419-433. <https://doi.org/10.1007/s40894-019-00115-z>
- Wentzel, K. R. (2013). School adjustment. En: W. M. Reynolds, G. E. Miller, & I. B. Weiner (Eds.), *Handbook of psychology: Educational psychology* (p. 213-231). John Wiley & Sons, Inc. <https://doi.org/10.1002/9781118133880.hop207010>
- White, J. W., & Lowenthal, P.R. (2011). Academic discourse and the formation of an academic identity: Minority college students and the hidden curriculum. *Review of Higher Education*, 34(2), 1-47. <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=db4a9b2aa40c527f8fc1556ad43ffb608dba98a8>

Date of receipt: April 2021

Acceptance date: September 2023