



Parenting and shared time: impact on children's emotional regulation

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KEYWORDS

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Socio-emotional
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Early childhood
Mediation

ABSTRACT

Learning experiences, the family context, and parent-child interactions are fundamental to children's emotional development. This study examined the relationship between parents' educational level, parenting attitudes, and shared family time with children's emotional regulation and social skills. The research was conducted with a sample of 91 Mexican families, using validated instruments. The results indicated that a higher parental educational level is associated with better emotional and social development in children, an effect mediated by parenting attitudes and the amount of time mothers spend with their children. These findings highlight the importance of considering both educational factors and the quality of family bonding.

Crianza y tiempo compartido: Impacto en la regulación emocional infantil

PALABRAS CLAVE

Nivel educativo parental
Desarrollo socioemocional
Primera infancia
Mediación

RESUMEN

Las experiencias de aprendizaje, el contexto familiar y las interacciones entre familias y niños y niñas son fundamentales en el desarrollo emocional infantil. Este estudio analizó la relación entre el nivel educativo de los padres y madres, sus actitudes de crianza y el tiempo compartido en familia, con la autorregulación emocional y las habilidades sociales de los infantes. Se trabajó con una muestra de 91 familias morelianas (México), utilizando instrumentos validados. Los resultados mostraron que un mayor nivel educativo de padres y madres se asocia con un mejor desarrollo emocional y social en los niños y niñas, efecto que se ve mediado por las actitudes parentales y el tiempo que las madres dedican a sus hijos e hijas. Estos hallazgos resaltan la importancia de considerar tanto factores educativos como la calidad del vínculo familiar.

Emotional regulation (ER) is defined as an adaptive process that influences the experience, intensity, duration, and expression of emotions using functional regulation strategies (McMahon et al., 2017). In recent years, ER in childhood has become an important focus of research (Kong & Yasmin, 2022), as studies have shown that emotional dysregulation is a significant factor in the emergence of various emotional disorders in children, adolescents, and youth (Beauchaine & Cicchetti, 2019).

Emotional regulation and social skills (SS) are fundamental in child development, as they play a key role in psychological

well-being and social adaptation of children (Eisenberg, 2014). The development of skills to respond to social, academic, and emotional demands is driven by emotional management, which must be developed during the early years of life (Kawka & Molek-Winiarska, 2022). Studies such as those by Eisenberg et al. (2010) indicate that the development of these skills is essential not only for internal emotional regulation but also for interaction with others and the development of identity and personality. Additionally, individuals who possess tools that promote the development of ER and SS tend to evolve emotionally and

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cognitively in a healthy manner, facilitating adaptation to different environments and challenges (Jitaru et al., 2023).

The family context is the first environment in which a person develops, learns, and practices skills; therefore, parenting style or dedicated time is fundamental to their emotional life (Nasution et al., 2023). Time dedicated to emotionally positive interactions, such as play or support during moments of frustration, reinforces learning about how to manage complex emotions and contributes to the development of adequate ER. Likewise, spending little time of low quality, or even with interrupted interactions (by the adults' use of smartphones), is associated with greater emotional difficulties in children (Bodrožić Selak & Žulec Ivanković, 2024).

Morris et al. (2007) pointed out that families act as models for their children, and emotional reactions to various situations and challenges teach infants how to proceed emotionally. In this vein, the Tripartite Model of Morris et al. (2007) provides a central explanatory framework for understanding how families shape children's ER development. This model posits that parental influence operates through three interrelated pathways: (1) emotional socialization practices, such as support or minimization in response to the infant's emotional expressions; (2) the family emotional climate, which includes parenting style, level of affection, and quality of relationships within the home; and (3) modeling, that is, the vicarious learning that infants engage in by observing their parents' expressions and regulation strategies. These pathways collectively allow for understanding how parental attitudes and behaviors shape regulation skills and, consequently, children's socio-emotional adaptation.

Previous research, such as that by Denham et al. (2012), has demonstrated that family communication or parenting style, among others, has a relevant impact on building ER and the general psychological health of children (Day et al., 2023). Permissive, authoritarian, or even negative styles, characterized by harsh discipline along with controlling and punitive behaviors, can hinder the acquisition of these emotional skills (Morris et al., 2007) and generate behavioral problems (Goagoses et al., 2023; Rademacher et al., 2025).

A higher educational level of parents has been positively associated with better emotional development and a more enriching environment (Erola et al., 2016; Horoz et al., 2022). Additionally, these parents tend to have positive attitudes toward parenting (Bornstein & Bradley, 2014; Smith & Johnson, 2023), so educational level determines more positive parenting styles (Bornstein, 2021; Rademacher et al., 2025). Specifically, mothers' educational level has been, in research such as that by Duyile et al. (2025), a predictor of emotional self-regulation level in childhood. Moreover, the type of parental attitude and its consistency over the years will shape children's emotional competence (Grusec & Davidov, 2010). Understanding these relationships is fundamental for developing effective educational interventions for healthy emotional development in childhood (Baumrind, 1991; Belsky, 1984). In this regard, classic theoretical models describe how dimensions of parental affection and control shape children's socio-emotional development. Belsky (1984) and Baumrind (1991) emphasize that parenting

styles decisively influence ER and children's adaptation. Macoby and Martin (1983) developed a two-dimensional model that combines these dimensions and results in four parenting styles: authoritative, authoritarian, indulgent, and neglectful, providing a key reference framework for interpreting parenting practices and their effects on child development.

The impact of parents' educational level on child development, considered independently of factors such as parenting practices or time spent with children, has been examined by Usán et al. (2022). While analyses have been conducted on how parental attitudes and educational level influence parenting practices, the specific mechanisms through which these practices impact children's socio-emotional development have not received as much attention (Rademacher et al., 2025).

On the other hand, the sociocultural characteristics of the Morelia region in Mexico make the study of parenting in this area of great importance. Specifically, the predominant role of women in the care and education of children arouses great interest due to its potential impact on the emotional development of the household's children. Additionally, characteristics such as intergenerational relationships and the participation of grandparents and other family members in parenting also influence child development (Osher et al., 2018). Factors such as poverty and limited access to health and education services influence parenting practices and families' ability to provide an emotionally stimulating environment (Martínez et al., 2017).

The present study

This study, based on the model by Morris et al. (2007), aims to analyze the influence of educational level and time of interaction with the child on parenting attitudes and how this predicts ER. The specific objectives are: a) To describe the ER and SS of infants, as well as parenting attitudes (PA) in families from Morelia, Mexico; b) To analyze differences in ER, SS, and PA based on families' educational level; and c) To examine the influence of educational level on ER dimensions directly and indirectly through interaction time and PA. Based on the evidence, the hypotheses to be tested in this study are: 1) Parents' educational level is positively associated with positive PA (H1); 2) Interaction time with children is positively associated with infants' ER and SS (H2); and 3) Parents' educational level influences children's ER, both directly and indirectly, mediated by the effect of interaction time and PA (H3).

Method

Participants

The present study was conducted between October and December 2023, during which data were collected from 91 participating families from the Morelia region, a rural area in Mexico. There was a balance in the sex of the participants (49.5% girls), the average age of the children was 56.9 months (approximately 4 years and 9 months; $SD = 14.28$). The average age of parents was 35.5 years ($SD = 5.67$). Although the invita-

tion to participate in the study was extended to both public and private schools, participation was predominantly from private schools (77%); this may be due to the greater autonomy of these institutions to decide on collaboration in external research. A 93.4% of the infants had no clinical diagnoses, and of the 5.5% with disorders, it was specified that they had diagnoses of language delay and autism spectrum disorder (see Table 1).

Procedure

Once approval was obtained from the institutional IRB, schools in the city of Morelia were identified for participation in the research. Schools of different types (public and private) and locations (urban and rural areas) were invited during September to October 2024. The sampling was non-probabilistic by convenience, based on access possibilities.

After acceptance by the management team and the signing of informed consents by participating teachers and families, questionnaires were distributed electronically to families, with a 15-day deadline for anonymous response. In case of technological difficulties, printed versions were provided. The approximate completion time was 16 minutes. The exact return rate could not be determined, as the researchers were unaware of the total number of families contacted by the educational centers.

Instruments

The following instruments were included in the questionnaires to evaluate the variables of interest:

Sociodemographic Questionnaire: Variables related to relationship, gender and age of children, as well as parents, were

included. The maximum educational level of parents was also collected, and daily interaction time with children was scored on a five-point scale (1 = *very little time* to 5 = *almost all the time*).

El *The Early Parenting Attitudes Questionnaire* (Hembacher & Frank, 2020) was used to evaluate PA in parenting, including affection/attachment, promotion of learning, and implementation of rules and respect. This instrument assesses how parents show affection, involvement, and clear rules toward children, promoting a positive environment for their socio-emotional and cognitive development. It consists of 24 items grouped into three eight-item dimensions (affection and attachment, early learning, and rules and respect). Additionally, a global PA score can be obtained. Parents rate on a seven-point Likert scale (1 = *Totally disagree* to 7 = *Totally agree*). An example item is: "I dedicate time to talk with my child about their daily activities to foster their learning". For the present study, the global PA score was used. The original version showed high reliability ($\alpha = .9$), and in our study internal consistency values were $\omega = .91$ and ordinal alpha = .9, supporting its robustness.

The *Emotion Regulation Checklist* (ERC; Shields & Cicchetti, 1997) adapted in Spain by Lucas-Molina et al. (2022) from the translated version by Riquelme (2013), was used to evaluate children's emotional self-regulation, understood as the ability of children to manage their emotions adaptively, regulating both the intensity and expression of emotional responses in different situations. The scale consists of 24 items distributed into two subscales: emotional regulation (ER; with 16 items) and lability/negativity (LN; with eight items). Responses are on a four-point Likert scale (1 = *Never* a 4 = *Almost always*). The ER subscale measures the child's ability to control and modulate emotions,

Table 1

Characteristics of the participants

Variable	Category	N	%
Type of school	Private	70	76.9
	Public	21	23.1
Relationship	Mother	75	82.4
	Father	16	17.6
Educational level	No school graduate	12	13.2
	Secondary studies	12	13.2
	University graduate	23	25.3
	Higher education	13	14.3
	Master's degree	29	31.9
	Doctorate (Ph.D.)	2	2.2
Child's sex	Girl	45	49.5
	Boy	46	50.5
Diagnosis	No	85	93.4
	Yes	5	5.5
Diagnosis type	ASD	2	40
	Language delay	2	40
	Doesn't answer	1	20

while the LN subscale evaluates the frequency and intensity of negative or unstable emotional responses. An example item from the ER subscale is: “My child can calm down alone when upset”, while an example from LN is: “My child gets angry easily without apparent reason”. The scale’s original reliability has been robust ($\alpha = .83-.96$), and in our sample, it showed acceptable consistency (ordinal $\alpha = .74$; $\omega = .72$).

Finally, the *Social Interaction Skills Questionnaire* (Monjas, 1995) was used to evaluate infants’ interpersonal skills (their ability to establish, maintain, and regulate social interactions appropriately with peers and adults). It consists of 60 items organized into six subscales of 10 items each, measuring different dimensions of social behavior, such as cooperation, communication, assertiveness, and conflict resolution. Responses are on a five-point Likert scale (1 = *Never* to 5 = *Always*). An example item is: “My child shares their toys with other children without being asked”. The scale has shown high reliability in various versions ($\alpha = .72-.98$), and in the present study it showed internal consistency values of ordinal $\alpha = .98$ and $\omega = .98$, confirming its good performance and robustness for evaluating social competencies in childhood.

Data analysis

Descriptive analyses were performed with SPSS v.25, and the internal consistency and reliability of the scales were evaluated using ordinal α and McDonald ω , using R software and JASP (JASP Team, 2024). Given the ordinal nature of the data, the internal consistency of the parenting style, shared time, and child ER scales was analyzed. The ω coefficient, more precise than Cronbach’s α in non-normal distributions, confirmed the reliability of the measurements, with values close to 1 indicating excellent consistency. Pearson correlations were applied to explore linear relationships between quantitative variables, and analysis of variance (ANOVA) to identify differences according to parents’ educational level in ER, LN, and SS. Effect sizes were calculated using partial eta squared ($\eta_p^2 < 0.15$ as small, $.15 > \eta_p^2 < 0.25$ as medium, $\eta_p^2 > 0.37$ as large; Goss-Sampson, 2020), and post-hoc analyses with Bonferroni correction were performed for greater precision. For the mediation model, the Diagonally Weighted Least Squares (DWLS) estimator was used, recommended for ordinal data with standardized coefficients to facilitate comparison of direct and indirect effects (Kline, 2023). These methods ensured a robust, valid, and reliable analysis of the relationships between variables.

Results

To address the first objective, describing the ER and SS of children, as well as parenting attitudes in families from Morelia, Mexico, the PA, ER, and SS scores reported by participating families were analyzed. Social skills showed a medium-high average of 3.75 out of 5 ($DT = 0.71$), while attitudes toward parenting had a mean of 5.76 out of 7 ($DT = 0.9$), indicating positive perceptions with moderate variability. Regarding ER, the global index was 2.4 out of 4 ($DT = 0.27$), reflecting a low-mo-

derate level and low dispersion in responses. The specific ER dimension had a mean of $M = 3.29$ ($DT = 0.43$), indicating moderate capacity, while LN recorded a lower mean ($M = 1.93$, $DT = 0.52$), as a consequence of the inverse formulation of the items. Overall, the data reflect a favorable trend in SS and attitudes, along with general emotional stability.

Regarding the second objective, analyzing scores according to families’ educational level, this variable was recoded into three groups: up to secondary studies, higher education, and postgraduate training. The comparisons showed statistically significant differences in ER [$F(2, 89) = 17.871$, $p < .001$, $\eta_p^2 = 0.29$], and in LN [$F(2, 89) = 20.943$, $p < .001$, $\eta_p^2 = 0.32$] y en HS [$F(2, 89) = 4.181$, $p = .018$, $\eta_p^2 = 0.09$], evidencing a clear impact of educational level on these variables. Post-hoc analyses with Bonferroni correction indicated that individuals with secondary education scored lower in ER than those with higher education ($M_{\text{Dif}} = -0.53$, $p < .001$, $d = -1.46$) and postgraduate education ($M_{\text{Dif}} = -0.45$, $p < .001$, $d = -1.37$), with large effect sizes. In LN, the secondary studies group showed higher (more negative) scores than the university level ($M_{\text{Dif}} = 0.7$, $p < .001$, $d = 1.61$) and postgraduate ($M_{\text{Dif}} = 0.62$, $p < .001$, $d = 1.43$). Regarding SS, significant differences were only found between the secondary and postgraduate groups ($M_{\text{Dif}} = -0.54$, $p = .015$, $d = -0.77$), with moderate to large effect sizes. There were no significant differences between higher education and postgraduate in any variable.

To address the third objective, examining the influence of parental educational level on infants’ ER dimensions through interaction time and PA, the mediating role of SS and interaction time in the relationship between PA, educational level, and ER and LN dimensions was analyzed. Correlation analyses showed that ER and LN are negatively correlated ($r = -0.63$, $p < .001$), indicating that higher ER corresponds to lower LN. Social skills correlated positively with ER ($r = 0.48$, $p < .001$) and negatively with LN ($r = -0.59$, $p < .001$). Educational level also showed positive correlations with ER ($r = 0.46$, $p < .001$) and negative with LN ($r = -0.47$, $p < .001$), indicating that higher educational level is associated with better emotional outcomes. Parenting attitudes correlated positively with ER ($r = 0.51$, $p < .001$) and with higher educational levels ($r = 0.42$, $p < .001$) and negatively with LN ($r = -0.48$, $p < .001$).

The time the father spends with his child showed weak to moderate correlations, being negatively correlated with LN ($r = -0.25$, $p = .029$) and positively with SS ($r = 0.34$, $p = .002$) and educational level ($r = 0.32$, $p = .004$). There was no significant correlation with PA. The time spent by mothers with her child showed stronger correlations, especially with ER ($r = 0.48$, $p < .001$) and educational level ($r = 0.37$, $p < .001$). It was also positively correlated with SS ($r = 0.31$, $p = .003$) and negatively with LN ($r = -0.54$, $p < .001$), suggesting that greater mother-infant interaction time favors better ER and lower emotional instability.

After assessing the linear relationship, the predictive effect of educational level on ER and SS was explored, as well as the moderating role of mother-child interaction time and PA. Families reported that, in terms of interaction with their children,

mothers ($M = 4.25$; $DT = 1.04$) spent more interaction time than fathers ($M = 3.37$; $DT = 1.41$).

Table 2 indicates that educational level exerts a significant direct effect on ER ($\beta = 0.22$, $p = .005$), showing a positive association whereby higher educational level enhances ER. Additionally, a negative and significant relationship was found between educational level and LN ($\beta = -0.23$, $p = .008$), indicating that higher educational level is associated with lower LN scores. However, educational level did not explain SS ($p = .147$).

Regarding the indirect effects, it was found that educational level influences the dependent variables through the mediators of mother-infant interaction time and PA. The indirect effect of educational level on ER was significant both through mother-infant time ($\beta = 0.12$, $p = .022$) and PA ($\beta = 0.14$, $p = .005$). Additionally, educational level negatively impacted LN through both mediators: greater mother-infant time ($\beta = -0.14$, $p = .015$) and better attitudes ($\beta = -0.10$, $p = .032$). A relevant indirect effect of educational level on SS through PA ($\beta = 0.09$, $p = .045$), was also observed, despite the direct effect (educational level on SS) not being relevant ($p > .05$) indicating that better PA favor better SS. This result suggests that PA acts as a complete mediator in this case.

The total and indirect effects of educational level on ER and SS were significant. Educational level showed a positive influence on ER ($\beta = 0.46$, $p < .001$) and SS ($\beta = 0.31$, $p = .003$),

indicating that as educational level increases, so do these outcomes. In contrast, the total effect on LN was negative and significant ($\beta = -0.48$, $p < .001$), indicating that higher educational level corresponds to lower LN.

Regarding total indirect effects, educational level also significantly influenced the three outcomes, with a positive and significant effect on ER ($\beta = 0.24$, $p < .001$) and SS ($\beta = 0.15$, $p = .021$), and a negative effect on LN ($\beta = -0.24$, $p = .002$). These results underscore the importance of the mediating variables, which complement the direct effect of educational level. The path coefficients highlight some relevant relationships, especially the positive effect of PA on mother-infant interaction time ($\beta = 0.33$, $p = .002$) and the influence of maternal interaction time on ER ($\beta = 0.37$, $p < .001$). These results indicate that both mother-child interaction time and PA are key for improving ER in isolation. Additionally, educational level has a positive influence on mother's time with her child ($\beta = 0.4$, $p < .001$) and PA ($\beta = 0.42$, $p < .001$), indicating that higher educational level facilitates these factors, contributing indirectly to the observed outcomes.

Globally, the model explained 40% of the variance in ER and 42% in LN, indicating considerable capacity to explain changes in these variables. Regarding SS, the model explained 17.2% of the variance, with similar percentages for mother-infant interaction time (16.3%) and PA (17.3%), suggesting satisfactory explanatory capacity in the study context.

Table 2

Direct, indirect, and total effects of the mediation model

Path / Effect	β	SE	z	p	95% CI	95% CI
					Lower	Upper
Direct effects						
Educ. Level → ER	0.22	0.08	2.799	.005	0.07	0.37
Educ. Level → LN	-0.23	0.09	-2.648	.008	-0.41	-0.06
Educ. Level → SS	0.16	0.11	1.45	.147	-0.06	0.38
Indirect effects						
Educ. Level → Int. Time → ER	0.12	0.05	2.283	.022	0.02	0.2
Educ. Level → Attitudes → ER	0.14	0.05	2.777	.005	0.04	0.23
Educ. Level → Int. Time → LN	-0.14	0.06	-2.439	.015	-0.26	-0.03
Educ. Level → Attitudes → LN	-0.1	0.05	-2.142	.032	-0.2	-0.01
Educ. Level → Int. Time → SS	0.06	0.06	1.102	.271	-0.05	0.17
Educ. Level → Attitudes → SS	0.09	0.05	2.009	.045	0.002	0.18
Total effects						
Educ. Level → ER	0.46	0.09	5.266	< .001	0.29	0.63
Educ. Level → LN	-0.48	0.12	-4.533	< .001	-0.68	-0.27
Educ. Level → SS	0.31	0.12	2.98	.003	0.11	0.52
Total indirect effects						
Educ. Level → ER (Indirect)	0.24	0.07	3.46	< .001	0.11	0.38
Educ. Level → LN (Indirect)	-0.24	0.08	-3.099	.002	-0.4	-0.09
Educ. Level → SS (Indirect)	0.15	0.07	2.299	.021	0.02	0.28

Nota. Educ. = Educational level; ER = Emotional regulation; LN = Lability/Negativity; SS = Social skills; Time = Mother-infant interaction time; SE = standard error; CI = confidence interval.

Discussion

The results of this study support and expand the existing literature on the role of the family environment in children's emotional development. First, a positive relationship was found between parental educational level and infants' ER, mediated by PA and mother-child interaction time. These findings align with previous research that has indicated that parents with higher educational levels tend to show more empathetic and less coercive parenting attitudes (Usán et al., 2022), which is associated with greater ER skills and lower LN in children (Erola et al., 2016).

This pattern confirms that warm parental environments, characterized by emotional support and structure, promote greater emotional stability in childhood. Likewise, it was observed that positive attitudes toward parenting are associated with higher levels of ER and lower levels of LN, in line with recent findings (Smith & Johnson, 2023). These findings align with the theoretical models described in the introduction, particularly the proposals by Belsky (1984) and Baumrind (1991), which highlight the influence of parenting styles on children's socio-emotional development. Similarly, the two-dimensional model by Maccoby and Martin (1983), which combines dimensions of affection and control, helps explain how empathetic and less coercive parenting attitudes favor ER in childhood.

It is worth noting that there is a debate in the literature about which parenting style is optimal for promoting children's socio-emotional development; for example, classic studies argue that the authoritative style (high affection and high imposition) is the most beneficial for infants' psychosocial adjustment (Steinberg et al., 1994; Steinberg, 2001). However, subsequent research shows that this style is not universally optimal; in ethnic minorities in the United States and in Arab countries, the authoritarian style (high imposition and low affection) is associated with better outcomes, while in European and Latin American contexts, the indulgent style (high affection and low imposition) is the most beneficial (Alcaide et al., 2023; Chao, 2001; Dwairy & Achoui, 2006; Garcia et al., 2024). Therefore, although parenting styles provide a useful framework for understanding the influence of parenting on child development, their evaluation must be contextualized, considering that the optimal style may vary according to the social and cultural group to which families belong.

In this framework, affection reflects involvement and expression of love toward the infant, while imposition refers to control and supervision of the infant's behavior (Lamborn et al., 1991; Martinez et al., 2021). Likewise, Darling and Steinberg (1993) proposed an integrative model that emphasizes how parenting style acts as a context that moderates the relationship between parenting practices and children development. Recent studies also highlight that warm and consistent PA have lasting effects on emotional competence in childhood (Grusec & Davidov, 2010).

The mediating role of mother-infant interaction time was another relevant finding. It was found to significantly mediate the relationship between educational level and infant emotio-

nal development. Mothers with higher educational levels tend to show greater responsiveness and sensitivity in interaction, generating better emotional and self-regulation skills, being a relevant predictor (Duyile et al., 2025).

Regarding children's SS, a medium-high profile was observed in general, and its relationship with ER was positive, while with LN it was negative. This suggests that SS development can be a protective factor against emotional instability. These relationships coincide with previous studies that highlight the regulatory role of SS in challenging emotional contexts (Eisenberg, 2014; Kawka & Molek-Winiarska, 2022). Therefore, the results show that parental educational level does not directly impact the child's SS, but it does influence their ER and emotional stability, especially when mediated by positive PA and greater mother-infant interaction.

Limitations

The present study is not without limitations. First, it focused on interaction time and its direct and indirect impact on ER factors; however, the quality of these interactions was not controlled. Future studies could explore how this qualitative dimension modulates the effect of parental educational level on ER. Nevertheless, the findings expand knowledge about the influence of educational level and offer a novel approach by considering parental attitudes and shared time as mediating factors. The data collected in the Morelia region provide valuable evidence for understanding family dynamics in specific cultural contexts. This research does not represent the entirety of Morelia's population, and therefore this study should be considered a pilot and exploratory investigation of the relationships between parental variables and children's emotional development. Future studies could consider validating these results with more representative samples from other regions and propose longitudinal studies to determine if there is truly a predictive effect. These results, however, reinforce the need to design public policies that provide resources to promote emotionally positive parenting strategies.

Practical implications

The main implication of this study is the need to identify alternative strategies that promote children's ER, especially in communities with limited resources. Interventions should focus on reducing social gaps in childhood without relying exclusively on family educational level, promoting factors that, according to this study's findings, can mediate and enhance its influence, such as attitudes toward parenting.

One of the most promising avenues is the design of community support programs based on positive parenting. These programs can focus on teaching emotional communication, self-control, and empathy skills in accessible contexts, especially for families with lower academic attainment. By strengthening parental competencies and fostering quality interactions, children's emotional lability can be reduced and their self-regulation favored (Bodrožić Selak & Žulec Ivanković, 2024).

Schools and community centers also play an essential role. Implementing socio-emotional programs in school settings allows infants to develop interpersonal and emotional skills, even when their homes have educational limitations. Including socio-emotional education modules, such as those proposed by the SEP in Mexico, can provide tools for managing emotions from early stages.

Another relevant finding is the importance of mother-child interaction time. In limited-resource contexts, it is recommended to implement programs that raise awareness about the quality of these interactions, providing practical tools to strengthen affective bonds and enhance the impact of that time on children's emotional development. Training mothers on how to make the most of daily routines can have a significant effect, even when available time is limited.

Finally, the study's results can guide local policies such as investment in family educational programs, as well as family strengthening interventions or community awareness campaigns on the importance of parental education in child development, encouraging resource-seeking and family connection with educational and socio-health services to promote emotional development from an integral perspective (Sonsuphap et al., 2024). Workshops such as *Incredible Years y Triple P* (Webster-Stratton & Reid, 2018) have shown efficacy in similar contexts and could be adapted to Morelia's sociocultural reality.

Conclusions

Overall, the findings of this study confirm that parental educational level, PA, and mother-infant interaction time constitute decisive factors for children's emotional development, particularly for favoring ER and reducing LN. These results support theoretical models that underscore the influence of parenting style but also invite consideration of cultural variability in defining the "optimal style". In applied terms, the data reinforce the need for family and educational intervention programs that enhance parental competencies and daily interactions to strengthen children's socio-emotional well-being, even in limited-resource contexts.

Author contributions

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Conflict of interests

The authors declare no conflict of interest.

Data availability statement

The data from this study are available upon request from the corresponding author.

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