

Influence of the parental skills on the manifestation of behavioral problems, in children from 8 to 11 years old, who reside in the province of San José, Costa Rica

Influencia de las competencias parentales en la manifestación de problemas de conducta, en niños de 8 a 11 años, que residen en la provincia de San José, Costa Rica

Beatriz Durán Monge

Psychologist (Costa Rica)

(beadumo@gmail.com) (<https://orcid.org/0009-0008-8594-9376>)

Juan Luís Martín Ayala

Universidad Europea del Atlántico (España)

(editorinchief.psychres@mlsjournals.com) (<https://orcid.org/0000-0002-7461-2857>)

Manuscript information:

Received/Recibido: 24/05/24

Reviewed/Revisado: 02/10/24

Accepted/Aceptado: 14/10/24

ABSTRACT

Key words:

parenting skills, mental health, behavior problems, child development

The study explores behavioral problems in children aged 8 to 11 in San José, Costa Rica, and their relationship with parenting skills. These problems, which have significantly increased over the past decades (APA, 2014), affect family dynamics as well as academic and social performance. Despite their impact, there remains a lack of knowledge regarding their proper management (Gómez & Contreras, 2019). Recent studies indicate that behavioral problems are the third most common mental disorder in childhood, with an estimated prevalence of 3.3% (Barican et al., 2021; Vasileva et al., 2021)

To evaluate the relationship between parenting skills and problematic behaviors, the E2P scale and the ESPERI test were used with 150 parents of children with and without behavioral issues. The analysis, conducted using SPSS, included cross tables, chi-square, and contingency coefficient. The results show that high-frequency parenting skills have a significant impact on reducing problematic behaviors. The higher the parenting skill, the lower the likelihood of developing dissocial or challenging behaviors. The data reflect that, in general, high parenting skills are associated with an oppositional behavior probability of around 13%, while approximately 30-40% of cases show a low likelihood of developing such behaviors. This suggests a clear tendency towards reducing negative behavioral reactions in the presence of stronger parenting skills.

Although the results were positive, the correlations did not reach statistical significance, highlighting the need for further research. However, the descriptive analysis suggests that strengthening parenting skills could be key to addressing childhood behavioral problems.

RESUMEN

Palabras clave:

competencias parentales, salud mental, problemas de conducta, desarrollo infantil.

El estudio explora los problemas de conducta en niños de 8 a 11 años en San José, Costa Rica, y su relación con las competencias parentales. Estos problemas, que han aumentado significativamente en las últimas décadas (APA, 2014), afectan la dinámica familiar y el rendimiento académico y social. A pesar de su impacto, persiste una falta de conocimiento sobre su manejo adecuado (Gómez & Contreras, 2019). Estudios recientes señalan que los problemas de conducta son el tercer trastorno mental más común en la infancia, con una prevalencia estimada del 3,3 % (Barican et al., 2021; Vasileva et al., 2021)

Para evaluar la relación entre competencias parentales y conductas problemáticas, se utilizaron la escala E2P y la prueba ESPERI en 150 padres de niños con o sin problemas de conducta. El análisis, realizado con SPSS, incluyó tablas cruzadas, chi cuadrado y coeficiente de contingencia.

Los resultados muestran que las competencias parentales de alta frecuencia tienen un impacto significativo en la reducción de comportamientos problemáticos, cuanto más alta es la competencia parental, la probabilidad de desarrollar conductas disociales o desafiantes se reduce de manera notable. Los datos reflejan que, en general, las altas competencias parentales están asociadas con una probabilidad de conductas oposicionistas cercana al 13 %, mientras que aproximadamente el 30-40 % de los casos presentan una baja probabilidad de desarrollar estas conductas. Esto indica una clara tendencia a la disminución de reacciones conductuales negativas en presencia de mayores competencias parentales.

Aunque los resultados fueron positivos, las correlaciones no alcanzaron significancia estadística, subrayando la necesidad de futuras investigaciones. Sin embargo, el análisis descriptivo sugiere que fortalecer las competencias parentales podría ser clave para abordar los problemas de conducta infantil.

Introduction

Human physical and mental health are the result of a process of adaptation from the molecular to the systems that allow the body to function; this adaptation begins at conception and extends throughout life (Boyce et al, 2021)

Adaptive capacity is influenced by internal and external factors; the fluidity of the interaction between these two factors will determine physical and mental health (Shonkoff et al., 2021). The greater the adaptive capacity, the greater the cognitive flexibility and the greater the interaction between these factors (Masten et al., 2021)

The prenatal, perinatal, postnatal, childhood and adolescence stages are critical periods of development, in which the interaction of these factors acquire greater relevance in brain architecture, since they can modify its structure, causing lasting biological consequences over time (Boyce et al., 2021)

During early childhood, emotional needs are many and the way in which children, due to their immaturity, usually seek to satisfy these needs is through primitive behaviors such as an emotional outburst or tantrum, which are intense and frequent between 12 and 38 months of age. Around the age of 3.5 years, a decrease in the presence, intensity and duration of tantrums is expected (Deichmann & Ahnert, 2021; Manning et al, 2019; Sisterhen & Paulette, 2023).

Thus, the question arises: why are some children more irritable than others? what external factors could sustain or enhance the presence of temper tantrums and their continuity at ages when greater adaptive skills are expected? is interaction and bonding with parents or caregivers a factor that enhances or decreases the development of behavioral problems?

According to the DSM-V (APA, 2014), behavioral disorders are increasingly frequent in childhood, likewise Matali et al (2016), adds that "92.7% of pediatricians consider that behavioral problems or disorders represent one of the main demands in the field of mental health of children and adolescents" (p. 23) and that in recent years a significant increase in the presence of these behavioral disorders has been noted.

Definition of Behavioral Disorders:

The DSM-V classifies conduct problems as disruptive impulse control and behavioral disorders. This category includes disorders such as Negative Defiant Disorder (NDD), intermittent explosive disorder (IED), conduct disorder (CD), antisocial personality disorder (ASPD), pyromania, kleptomania and other specified and unspecified disruptive impulse control and behavioral disorders.

Each of these has specific characteristics, which in the DSM-V, are indicated as criteria. To establish such a diagnosis, a specific number of criteria must be met and the pattern must be persistent over a period, which can be variable depending on the disorder, however, it is generally expected that the behavior will be persistent for an average of 6 months to be considered a clinically significant trait.

The difference between developmental tantrums and behaviors associated with conduct disorders is that the latter usually manifest difficulty in self-control, irritability and difficulties in assuming responsibility for their actions, as a daily response pattern, which does not evolve, i.e., does not change in intensity, duration and frequency despite the fact that chronological development continues its course.

These features of disruptive behavior make it difficult to manage, not only in the family context, but also in educational and social settings (APA, 2014; Sisterhen & Paulette, 2023)

Generally, there is a lack of knowledge about the management of behavioral problems and emotional outbursts in general, not only on the part of parents and adults

involved in the parenting process, but also on the part of primary care professionals, which sometimes leads to the implementation of actions that tend to increase hostile behaviors and behavioral problems. A topic that has become more popular has to do with paying attention to the way of parenting and hand in hand with it the theory of parental competencies (Gómez and Contreras, 2019). There is now greater understanding that lack of parenting skills has a direct impact on children's neurodevelopment, but this knowledge is insufficient to address behavioral problems. For this reason, it is necessary to deepen in those essential aspects that have a direct impact on parenting and the way in which parents can access this knowledge and put it into parenting practice (Figueroba, 2020).

Causes of behavioral disorders:

APA (2014) and other authors (Barican et al., 2021; Dalsgaard et al., 2020), have referred to these facts as risk factors, dividing them into two: genetic and environmental components.

-Biological Factors: APA (2014), has referred to these factors as genetic, physiological and temperamental. Temperamental factors are related to problems with emotional regulation.

In neuroscience research (Zelazo, 2020) it has been determined that children with behavioral problems present an immaturity in the frontal lobes, which derives at the behavioral level in an alteration of the functioning of executive functions.

-Socio-environmental factors: The family context is considered a factor of great influence on the development of adaptive or maladaptive behaviors, as well as cognitive, personal, emotional and socio-affective development (Paez & Rovella, 2019). Studies on epigenetics (O'Donnell & Meaney, 2020) have revealed that environmental conditions are capable of not only altering, but enhancing the development of psychopathology, thus highlighting the power of the environment to impact the plasticity of brain functions, it has been found that epigenetic signals are modified by environmental conditions, epigenetics is the result of the interaction between individual life and the environment and how this interaction modulates the information contained in genomes.

Modern paradigms interpret genomes as "an adaptive device that responds to environmental needs by regulating gene expression" (Bottaccioli & Bottaccioli, 2023, p. 74), i.e., beyond representing an instruction for the organism, genomes turn out to be an adaptive mechanism that functions as a biomarker; this concept is relevant to the present research because, unlike mutations, biomarkers can be reversible. Among the socio-environmental factors, we can mention elements such as:

Effect of stress on the development of behavioral problems:

Stress can be considered a biological marker, which directly influences the development of behavioral problems in childhood. Its impact can start from the prenatal stage, excess maternal stress during pregnancy can alter the stress response system of the fetus affecting its neurological development (O'Donnell & Meaney, 2020). Factors such as environmental stressors and maternal stress modify both the genetic expression of the fetus and its microbiome, increasing predisposition to behavioral disorders (Monk et al., 2019). In childhood, family conflict and weak parental bonds elevate cortisol levels, affecting brain structure and increasing the risk of behavioral problems (Xerxa et al., 2020; Riquelme et al., 2020)

Adverse Childhood Experiences (ACES)

The ACES is the existing relationship between childhood abuse and adult diseases, the experiences accumulated in childhood remain as an imprint in the memory and the accumulation of them (determined by the intensity and quantity), generate a

predisposition to pathology. This relationship is important, since it has been identified as one of the causes of mortality and physical diseases such as diabetes, cancer and substance abuse. Ten ACEs are listed, which have been determined to be relevant in the germination of pathologies and where it is indicated that the greater the number of adversities in childhood, the greater the risk of pathology. (Finkelhor, 2018 and 2020), these are abuse:

- 1) Emotional
- 2) Physicist
- 3) Sexual
- 4) Physical negligence
- 5) Emotional neglect
- 6) A mother treated violently
- 7) Substance abuse in caregivers
- 8) Incarceration
- 9) Mental health disorders
- 10) Not raised by both biological parents

Studies have documented how ACEs function as biomarkers that have a direct impact not only on the individual, but also on subsequent generations. Sun et al., (2017) sampled 1253 mothers of whom 56% had suffered at least one or more adverse experiences, this study demonstrated a direct relationship between mothers who had presented ACEs and the development of developmental disturbances in their children.

Riquelme et al. (2020) conducted a comparative study between the experience of maltreatment and the presentation of mental disorders, with a sample of 1558 Chilean children and adolescents between 4 and 18 years of age, from which it was concluded that the most prevalent disorders related to maltreatment are disruptive disorders in first place and anxious disorders in second place.

Afifi et al. (2019) gathered 36 309 male and female participants, of whom 46.7% were victims of any child maltreatment, to prove that there is a direct relationship between childhood abuse and the presence of antisocial behaviors in adulthood.

For Ureña (2015) cited by UNICEF (2017), a trigger for violence against children and adolescents is the reproduction of learned patterns in the use of violence as a way of life. According to these statistics, almost 3 out of every 4 children, or 300 million children between the ages of 2 and 4, are victims of physical punishment or psychological violence on a regular basis.

According to UNICEF data (2023) between 2013 and 2018 the Patronato Nacional de la Infancia PANI, received an annual average of 54 962 complaints, with physical, sexual, psychological aggression, neglect and family conflicts being the main reasons for attention.

Attachment and Psychopathology

The affective bond established between parents and children during early childhood is decisive for the constitution of the personality. For this bonding relationship to produce positive effects, a secure bond must be established from gestation, during the first years of life and sustained over time; there are vital or critical periods in which the secure bond is paramount, this stage is constituted by the first three years of life, which is where there is greater brain activity (Villero & Rodriguez, 2015; Xerxa et al., 2020)

The literature suggests that external factors that may impact children's development are secure parent-child bonding and discipline methods. Exploring child development theories, we find repeated authors referring to the research of John Bowlby and Mary Ainsworth, on the incidence of healthy attachment and bonding in the formation of a personality. Authors such as Winston y Chicot (2016) compared the results of studies

asserting that neglect, inconsistency, and lack of love in primary attachments lead to long-term mental health problems, as well as reduced overall potential and happiness, characteristics evidenced in children with behavioral problems. They also add that a child's ability to form and maintain healthy relationships throughout life may be significantly affected by having an insecure attachment to a primary caregiver.

Definition of parental competencies:

The concept of Parental Competence emerged about 20 years ago (Gómez & Contreras, 2019), however, the first studies on parenting can be found since 1950 (Verduzco & Morrow, 2001)

It is common to find in the literature references to various concepts related to parenting, all of them referring to the participation of parents and/or caregivers in the process of child development. Babies are fragile and dependent beings; paternal and maternal care is what makes it possible for their healthy development (Barudy & Dantagnan, 2010)

On the other hand, Barudy and Dantagnan (2005 and 2010) introduce the concept of parental competence. The authors allude to the fact that parentality or marentality are concepts that involve the actions of fathers and mothers directed towards the benefit of child development, which is different from biological parentality; they emphasize that one of the great challenges of parents is to evolve together with the needs of their children and it is here where a concept different from parenting style begins to be defined.

The parental competence model aims to promote effective strategies for the care of children and adolescents. It is a multidimensional model that has been used to explore and defend the well-being of children and adolescents (Gómez & Contreras, 2019).

Parental competencies are the set of knowledge, attitudes, and practices of bonding, formative, protective, and reflective parenting, learned and updated from a history and the opportunities offered by the ecology of parenting; they allow organizing one's own experience and conducting parental behavior through various situations of family life and parenting, accompanying, protecting, and promoting positive development trajectories in the baby, child, or adolescent, with the ultimate aim of ensuring their well-being and the full exercise of their human rights (Gómez & Contreras, 2019, p. 23)

Thus, following the research of Gómez and Contreras (2019) parental competencies could be defined as knowledge, attitudes, skills and actions, influenced by learning, one's own attachment and parenting history, and which promote physical, emotional, social and psychological well-being. These authors have proposed four types of parental competencies:

1. They promote emotional connection, regulate stress and suffering, and protect mental health.
2. In the formative ones, the adult is constituted as a positive guide to promote learning and organization.
3. Protective, creating conditions conducive to development by reducing or eliminating sources of stress
4. Reflective, self-evaluation of parenting, so that it always remains constructive and flexible.

Method

Participants

The sample consisted of 150 parents with children between 8 and 11 years of age living in the province of San José, Costa Rica. Families with children with or without behavioral problems were selected by chance in order to compare and analyze the influence of parental competencies on the manifestation of these behaviors. The sample was selected by chance. The participation of the subjects was free and voluntary.

Instruments

Two instruments were used: the E2P Scale to assess parental competencies and the ESPERI test to obtain a behavioral profile of the children.

E2P V.2, Positive Parenting Scale (Gómez & Contreras, 2019)

It is a questionnaire developed by the America for Children Foundation, recently revised and edited, to be used with parents of children from 0 months to 18 years of age. E2P is a 56-item questionnaire, where each item has 5 response options ranging from Never, Almost Never, Sometimes, Almost Always and Always.

The objective of the E2P v2 scale is to measure parenting practices in different dimensions: Vincular, Formative, Protective and Reflective. The results obtained are classified in frequency categories, evaluating the degree to which parents implement each of these practices. The classification is made in three levels: high frequency, intermediate frequency and low frequency. The high frequency indicates that the practices are applied consistently and habitually, suggesting a strong presence of the assessed competency. Intermediate frequency reflects sporadic or moderate application, while low frequency denotes infrequent or scarce implementation of the parental practices analyzed (Gómez and Contreras, 2019)

This test has content validity indexes above 0.9; the internal consistency indexes remain above 0.7. It is an instrument that was born in Latin America and has become more and more popular, expanding more and more in the continent.

The scale stems from the ODISEA assessment model Opportunities for the Development of Sensitive, Effective, Affectionate Interactions and as a model seeks to bring together four essential theoretical frameworks in the assessment of positive parenting: The Attachment theory, the Ecological theory of Human Development, Positive Parenting Theory and the theory of Human Resilience. Through this assessment model, developmental trajectories are studied, which allow us to foresee two possible scenarios, that of good treatment, which is the basis for mental health, and that of maltreatment, which leads to psychopathology (Gómez & Contreras, 2019)

ESPERI Test (Parellada et al., 2009)

Questionnaire for the detection of behavioral disorders in children and adolescents, when the scale was developed the authors paid special attention to the psychometric properties to address the categories proposed by ICD 10 and DSMV. It consists of three versions:

- a) Questionnaire for children from 8 to 11 years of age
- b) Teacher questionnaire
- c) Questionnaire for parents

The research used the version for parents, which allows the identification of three categories of behavior: Inattention, Oppositional Defiant and Predisocial, as well as an

overall average of problem behavior. These results are shown in three possibilities Highly probable, probable and not probable.

It should be noted that specifically for the ESPERI questionnaire for parents, which was used in the research, it is still in an initial phase, since a reduced sample has been used. This questionnaire gathers the same items as the teacher questionnaire, which has a high reliability, with a total Alpha Coefficient of 0.987 and a specific one of 0.975 for the predissociative-disocial factor, 0.950 Oppositionalism, 0.975 Inattention Hyperactivity.

Specifically in the parent questionnaire, the statistical approximation dictates the following Alpha coefficient values of 0.91 for inattention-impulsivity-hyperactivity, 0.92 Predisocial-Disocial; 0.91 Oppositional-Defiant.

Aquehua (2018) proposes the ESPERI as the best tool for the analysis of behavioral problems because it takes into account elementary behavioral points such as impulsivity and severity of behaviors. For this reason, a study was carried out to check the reliability of the scale in the Latin American community, specifically in Peru, which is an input for the present research, since it has been used in the Spanish-speaking population of the American continent.

Procedure

Participants were recruited through partnerships with educational institutions in the province of San José.

Specifically, the data collection process involved the following steps:

1) Selection of subjects: A sample of 150 parents was used, composed of fathers and/or mothers with children between 8 and 11 years of age. Children may or may not exhibit features of behavioral problems. The selection was by chance. Public schools were used to disseminate information on the project, coordinating in advance with the institution a space to provide information through a workshop, the focus of which was the promotion of parental competencies. Parents were motivated, creating awareness that their collaboration is a contribution to the development and improvement of therapeutic processes.

2) Informed consent is requested, explaining the potential risks and benefits of participating in the project.

3) Application of behavioral screening: The ESPERI questionnaire for the Detection of Behavioral Disorders in Children and Adolescents was used. To complete it, the parent accesses the questions through the Google forms platform.

4) Application of the instrument E2P V.2, Positive Parenting Scale, through a questionnaire that can be answered digitally through the Google forms platform.

5) Data analysis using SPSS (Statistical Package for the Social Sciences): IBM SPSS Statistics 25

Data Analysis

The data collected were subjected to categorical analysis using SPSS statistical software. Comparisons were carried out using cross-tabulations and the statistical relationship was evaluated using the chi-square and contingency coefficient between parental competencies, classified according to their frequency (high and low) and the behavioral profiles of the children, categorized according to their probability (high, medium and low) of presenting oppositional defiant and predispositional behavioral problems. The purpose of this comparison of variables was to identify possible associations and significant relationships.

Results

The sample, composed of 150 parents residing in the province of San José, is distributed among 79 parents of girls (52.7%) and 71 parents of boys (47.3%).

Global Analysis of Parental Competencies

In the sample represented by 150 parents evaluated through the E2P scale, it reveals that at least 50% of Costa Rican households show a highly favorable scenario for raising children.

Of the four parental competencies, protective competencies have the highest incidence in the population with 60% high frequency, followed by formative competencies with 57%, bonding competencies with 50% and reflective competencies with 45%.

As for low frequency indicators, it is notably higher in reflective competencies, i.e. parents and caregivers who participated in the study show a low ability in reflective competencies, with a percentage of 31.3%, followed by formative competencies with 30%, bonding competencies with 25% and protective competencies with 24%.

The data can be visualized in the following figure:

Table 1

Comparison of percentages in Parental Competences

| Parental Competencies | High Frequency (%) | Intermediate Frequency (%) | Low Frequency (%) |
|-----------------------|--------------------|----------------------------|-------------------|
| Links | 50 | 25.3 | 24.7 |
| Training | 57.3 | 12 | 30.7 |
| Protectors | 60 | 16 | 24 |
| Reflective | 45.3 | 23.3 | 31.3 |

Note: Distribution of the percentages obtained by parental competence and the result obtained in the E2P test.

Number of Children in the Sample with Indicators of Behavioral Problems

A transcendental aspect of the research is the monitoring of disruptive behaviors in the children who participated in the sample, for this purpose the ESPERI test (parent version) was used, this instrument evaluates some behavioral variables, for the purposes of the research, it is of interest to visualize the number of subjects who present a group of behaviors that could be related to disruptive behavior towards parents. It is important to note that, with the information gathered, it cannot be asserted that the subjects have a diagnosis of a behavioral problem because the information provided is only from the parents' perspective.

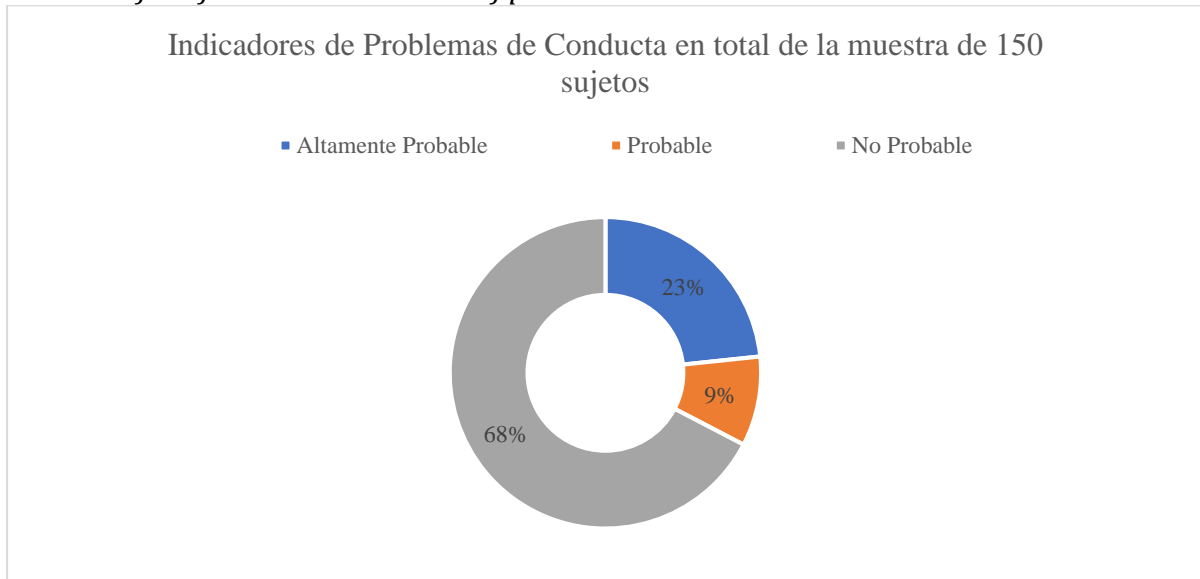
Although the subjects under analysis cannot be categorized with a definitive diagnosis, the test sheds light on how the child interacts with his or her mother, father or caregiver. This relationship reflects an immediate reality in the bonding interaction, i.e., what is of interest for the research is to typify the child's behavior with the parent and it is not necessary that this behavior corresponds to a behavioral disorder that meets all the DSM-V criteria.

Of the number of subjects analyzed through the questionnaires completed by the parents, the analysis of the variables shows that 23% of the sample presents a high

probability of presenting a behavioral problem and 9% present a probable possibility of manifesting it.

That is to say, in total, the sample is made up of overall percentages where 68% of the participants present an absence of indicators of behavioral problems and 32% present some probability of manifesting behavioral problems. As shown in Figure 1:

Figure 1
Number of subjects with indicators of problem behavior



Note: The graph above illustrates in percentage terms the number of participating subjects and the results obtained through the ESPERI test, in terms of behavioral disturbance indicators.

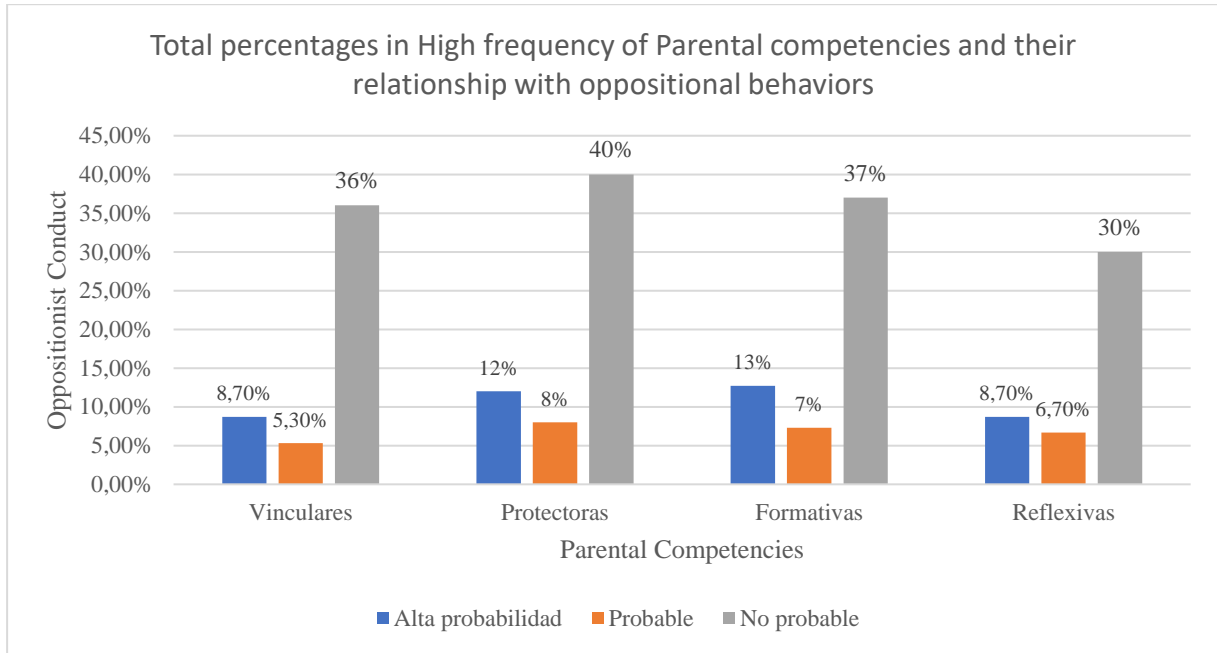
Relevance of Parental Competencies in the Reduction of Behaviors Disruptive

When comparing the indicators of behavioral problems with the parental competencies through the cross tables, it is shown that the high frequency of parental competencies is a protective factor in the manifestation of behavioral problems in children.

This protective factor was clearly observed in the analysis of the four parental competencies, as can be seen in the figure below.

Figure 2

High-frequency totals in parental competencies and their relationship to oppositional defiant behaviors



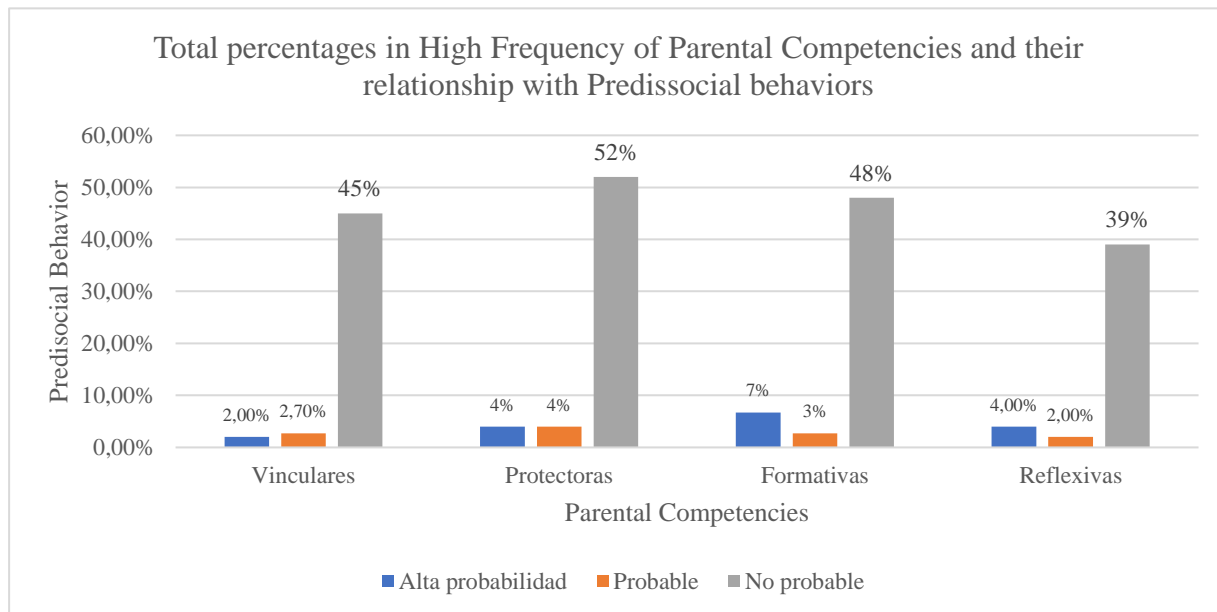
Note: Figure 4 shows the percentages of high parental competencies and their relationship with oppositional defiant behavior problems.

In the previous figure, we can also observe that at the percentage level the most influential competency in promoting adaptive behaviors in children is the protective competency with a total of 40% of absence of disruptive behaviors in children; followed by the formative competencies with 37%, the bonding competencies with 36% and the reflective competencies with 30%.

Figure 3 shows the comparison of the predissociative factor with the parental competencies, this factor indicates a higher level of aggressiveness that involves the possibility of transgressing the rights of others. In this figure, it can again be observed that at the percentage level the most influential competency in the promotion of adaptive behaviors in children is the protective competency with a total of 52% of absence of disruptive behaviors in children; followed by the formative competencies with 48%, the bonding competencies with 45% and the reflective competencies with 39%.

It is interesting to see the relationship between the caregiver's protective variable as a model of adaptive behaviors in children, thus decreasing the emotional and/or behavioral need to react violently or transgress the rights of others.

Figure 3
High-frequency totals in parental competencies and their relationship to predissocial behaviors



Note: Figure 20 shows the percentages of high parental competencies and their relationship with predissociative behavioral problems.

Significance Level in the Correlation of the Variables

For the analysis of the relationship between parental competencies and behavioral problems, the Chi-square test was used. This test determines whether there is a significant relationship between categorical variables. According to the results obtained using the SPSS program, different levels of significance were observed in the parental competencies: the bonding competencies presented a value of .000, indicating a non-significant relationship, while the formative competencies showed a significance of .047. The protective and reflective competencies also showed values of .019 and .009, respectively, indicating non-significant relationships.

The analysis was also complemented with Pearson's contingency coefficient, which measures the strength of the relationship between categorical variables. As in the Chi-square, the coefficients obtained were .000 for bonding competencies, .047 for formative, .019 for protective and .009 for reflective, confirming the existence of non-significant associations in all the competencies evaluated.

In summary, the results show a statistically non-significant relationship between parental competencies and the probability of presenting behavioral problems.

Table 2
Contingency Coefficient and Chi-square results

| Parental Competencies | Chi-Square | Contingency ratio |
|------------------------------|-------------------|--------------------------|
| Links | .000 | .000 |
| Training | .047 | .047 |
| Protectors | .019 | .019 |
| Reflective | .009 | .009 |

Note: Results of the chi-square and contingency coefficient on the relationship between behavioral problems and attachment skills

Discussion and Conclusions

The results obtained reveal that most of the parents in the sample present a remarkably high frequency in parental competencies, with 50% in bonding competencies, 57.3% in formative competencies, 60% in protective competencies and 45.3% in reflective competencies. This finding is significant because the literature indicates that active parental involvement, particularly in formative and protective competencies, is associated with a lower prevalence of disruptive behaviors, and better social and emotional adjustment in children (Bernal-Ruiz et al., 2018). This is consistent with attachment theory, which highlights how the quality of the affective relationship can influence the child's behavior and socioemotional development (Bowlby, 1986).

It is important not to overlook the percentages of parents who present low frequency in parental competencies, which is a cause for concern. In particular, it is observed that 30.7% of parents have a low frequency in formative competencies, suggesting that a significant part of the sample could be facing difficulties in providing an adequate educational environment for their children. In addition, the 31.3% low frequency in reflective competencies indicates that many parents may lack the necessary tools to self-assess and adapt their parenting approaches. These deficiencies in parenting competencies, as pointed out by Pacheco and Osorno (2021), not only affect the ability to develop cognitive skills in children, but can also foster disruptive behaviors by failing to correct and improve inappropriate parenting patterns.

From the perspective of descriptive statistics, a significant impact is evident in the relationship between children's adaptive behaviors and the high frequency of parental competencies. The relationship observed in this study shows that the high frequency of protective and formative competencies seems to be related to the absence of disruptive behaviors. The data reflect that a greater presence of parental competencies acts as a protective factor in the manifestation of behavioral problems. In particular, the protective competence stands out as the most influential, with 40% absence of disruptive behaviors, followed closely by the formative (37%), bonding (36%) and reflective (30%) competencies. These findings underscore the importance of fostering and strengthening these competencies in parents, as their development can contribute to a healthier family environment and the promotion of adaptive behaviors in children, thus decreasing the risk of behavioral problems.

Despite the apparent relationship between parental competencies and children's adaptive behaviors, the correlation tests performed, such as Chi-square and contingency

coefficient using SPSS software, revealed a correlation of low significance. This result is surprising considering previous studies (Leijten et al., 2018) that found a strong correlation between increased parental competencies and reduced disruptive behaviors. However, this discrepancy could be explained by uncontrolled confounding variables, such as the influence of the socioeconomic context, the quality of education received, or even the interaction of children with educational figures. These results indicate that, statistically, no significant relationship can be established between the variables analyzed in the population studied. It is essential to consider that several factors, such as the sample size, the methodology used for data collection and the presence of uncontrolled variables, could have influenced the lack of significance of the findings. In the future, it would be useful to use a larger and more diverse sample, as well as longitudinal analyses, to examine the evolution of parental competencies and their relationship with children's behavioral development over time. This suggests that, although trends are identified in the data, further research is required to fully understand the dynamics between parental competencies and behavioral problems in children.

The results of this research differ from the results of the study conducted Leijten et al (2018) who examined the effectiveness of parenting programs in reducing disruptive behavior in children through two meta-analyses. This finding highlights the need to contextualize the results obtained in local research with respect to global trends, adjusting interventions to the specific needs of the population studied. Likewise, there are other studies that highlight the relationship between adaptive skills such as executive functions with the high frequency of parental competencies. Bernal-Ruiz et al. (2018) highlights the relationship between executive functions in 8-year-old children and parental competencies, finding that children whose parents exhibited more developed protective, reflective, and formative skills had better executive function development.

References

- Aquehua, C. (2018). Confiabilidad y validez de las puntuaciones del Cuestionario ESPERI de Trastornos del Comportamiento en Adolescentes escolarizados en S.J.L 2018 [Tesis de pregrado, Universidad César Vallejo]. Repositorio Institucional de la Universidad César Vallejo.
- Barudy, J., & Dantagnan, M. (2005). *Los buenos tratos a la infancia: Parentalidad, apego y resiliencia*. Barcelona: Gedisa.
- Barudy, J., & Dantagnan, M. (2010). *Los desafíos invisibles de ser madre o padre*. Barcelona: Gedisa.
- Bernal-Ruiz, F., Rodríguez-Vera, M., González-Campos, J., & Torres-Álvarez, A. (2017). Competencias parentales que favorecen el desarrollo de funciones ejecutivas en escolares. *Revista Latinoamericana de Ciencias Sociales, Niñez y Juventud*, 16(1), 163-176. <http://158.69.118.180/rlicsnj/index.php/Revista-Latinoamericana/article/view/3116>
- Bottaccioli, A., & Bottaccioli, F. (2023). Los estados psíquicos se traducen en moléculas biológicas: Las consecuencias para la medicina y la psicología. *Pinelatinoamericana*, 3(1), 71-89.
- Boyce, T., Levitt, P., Martinez, F., McEwen, B., & Shonkoff, J. (2021). Genes, environments, and time: The biology of adversity and resilience. *Pediatrics*, 147(2).

- <https://doi.org/10.1542/peds.2020-1651> Monk, C., Lugo-Candelas, C. & Trumpff, C. (2019). Prenatal Developmental Origins of Future Psychopathology: Mechanisms and Pathways. *The Annual Review of Clinical Psychology*, 15, 317-44.
- Bowlby, J. (1986). Vínculos afectivos: Formación, desarrollo pérdida. Morata.
- Dalsgaard, S., Thorsteinsson, T., Trabjerg, B., et al (2020). Incidence Rates and Cumulative Incidences of the Full Spectrum of Diagnosed Mental Disorders in Childhood and Adolescence. *JAMA Psychiatry*. 77(2):155-164.
- Barican, J., Yung, D., Schwartz, C., Zheng, Y., Georgiades, K., & Waddell, C. (2022). Prevalence of childhood mental disorders in high-income countries: A systematic review and meta-analysis to inform policymaking. *BMJ Mental Health*, 25, 36-44. <https://doi.org/10.1136/bmjmh-2021-000259>
- De la Fuente-Fernandez, S. (2016). Aplicaciones de la chi-cuadrado: tablas de contingencia, homogeneidad dependencia e independencia. Madrid: Universidad Autonoma de Madrid.
- Finkelhor, D. (2018). Screening for adverse childhood experiences (ACEs): Cautions and suggestions. *Child Abuse & Neglect*, 85, 174-179. <https://doi.org/10.1016/j.chiabu.2017.07.016>
- Finkelhor, D. (2020). Trends in Adverse Childhood Experiences (ACEs) in the United States. *Child Abuse & Neglect*, 108. <https://doi.org/10.1016/j.chiabu.2020.104641>
- Sun, J., Patel, F., Rose-Jacobs, R., Frank, D. A., Black, M. M., & Chilton, M. (2017). Mothers' Adverse Childhood Experiences and Their Young Children's Development. *American journal of preventive medicine*, 53(6), 882-891. <https://doi.org/10.1016/j.amepre.2017.07.015>
- Gómez, E and Contreras, L. (2019). Manual Escala de Parentalidad Positiva E2P V.2. Ediciones Fundación América por la Infancia
- Gómez, E and Contreras, L. (2019). Manual Escala de Parentalidad Positiva E2P V.2. Ediciones Fundación América por la Infancia
- Leijten, P., Gardner, F., Melendez-Torres, G. J., van Aar, J., Hutchings, J., Schulz, S., Overbeek, G. (2018). What to Teach Parents to Reduce Disruptive Child Behavior: Two Meta-Analyses of Parenting Program Components. *Journal of the American Academy of Child & Adolescent Psychiatry*. doi:10.1016/j.jaac.2018.07.900
- 10.1016/j.jaac.2018.07.900
- Manning, B., Roberts, M., Estabrook, R., Petitclerc, Burns J., Briggs-Gowan, M., & Norton, E. (2019). Relations between toddler expressive language and temper tantrums in a community sample. *Journal of Applied Developmental Psychology*, 65(2). <https://doi.org/10.1016/j.appdev.2019.101070>
- Matali et al (2016) Asociación Americana de Psiquiatría. (2014). Manual diagnóstico y estadístico de los trastornos mentales (DSM-5). (5th revised ed.). Arlington, VA: American Psychiatric Association World Health Organization (WHO). (2019). ICD-11. Trastornos Mentales y del Comportamiento: Décima Revisión de la Clasificación Internacional de las Enfermedades. Descripciones Clínicas y pautas para el diagnóstico.
- Matalí, J., Andiñ, O., Valls, C., Cañete, T., Pardo, M., Ferrer, M., et al. (2016). Adolescentes con trastornos de comportamiento. ¿Cómo podemos detectarlos? ¿Qué se debe hacer? *Observatorio de la Infancia*. https://www.observatoriodelainfancia.es/ficherosoia/documentos/4856_d_adolescetes-con-trastornos-de-comportamiento.pdf
- Pacheco Marimon, M., & Osorno Álvarez, G. Y. (2021). Incidencia de competencias parentales en el desarrollo de habilidades sociales en hijos únicos.

- Interdisciplinaria, 38(1), 101-116.
<https://dx.doi.org/10.16888/interd.2021.38.1.7>
- Ramírez Ríos, A., & Polack Peña, A. M. (2020). Estadística inferencial. Elección de una prueba estadística no paramétrica en investigación científica. *horizonte e ciencia*, 10(19), 191-208.
<https://doi.org/10.26490/uncp.horizonteciencia.2020.19.597>
- Sisterhen, L. L. L., & Wy, P. A. W. (2023). Temper Tantrums. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing.
<https://www.ncbi.nlm.nih.gov/books/NBK544286/>
- Villero, S. & Rodríguez, C. (2015). Evaluación del apego en la edad escolar: aproximación teórica a la relación entre las experiencias de privación materna y la constitución de un patrón de apego inseguro y análisis desde la clínica de una serie de casos. *Revista electrónica de Psicoterapia CeIR* 9(1), 231-270. Retrieved from https://www.psicoterapiarelacional.es/Portals/0/eJournalCeIR/V9N1_2015/11_Villero-Rodriguez_Evaluacion%20del%20apego%20en%20la%20edad%20escolar_CEIR%20V9N1.pdf
- Winston, R. & Chicot, R. (2016). The importance of early bonding on the long-term mental health and resilience of children. *London Journal of Primary Care*, 8, 12-14. Retrieved from <https://www.tandfonline.com/doi/full/10.1080/17571472.2015.1133012>
- Verduzco, M. & Morrow, E. (2001). *Cómo poner límites a tus niños sin dañarlos*. Mexico: Paidós
- Xerxa, Y., Delaney, S., Rescorla, L., Hillegers, M., White, T., Verhulst, F., Muetzel, R. & Tiemeler, H. (2020). Association of Poor Family Functioning From Pregnancy Onward With Preadolescent Behavior and Subcortical Brain Development. *JAMA Psychiatry*, E1-E9. Available at <https://jamanetwork.com.ezproxy.sibdi.ucr.ac.cr/journals/jamapsychiatry/fullarticle/2770791>
- Riquelme, N., Bustos, C. & Vicente, B. (2020). Impacto del Maltrato Infantil en la Prevalencia de Trastornos Mentales en Niños y Adolescentes Chilenos. *Ciencia y Enfermería* 26. <http://dx.doi.org/10.29393/ce26-12imnc30012>
- Zelazo, P. (2020). Executive Function and Psychopathology: A Neurodevelopmental Perspective. *Annual Review of Clinical Psychology* 16, 431-454. <https://www-annualreviews-org.ezproxy.sibdi.ucr.ac.cr/doi/full/10.1146/annurev-clinpsy-072319-024242>
- Paez & Rovella. (2019). Vínculo de apego, estilos parentales y empatía en adolescentes. *Interdisciplinaria*, 36(2), 23-38. <https://dx.doi.org/10.16888/interd.2019.36.2.2>
- O'Donnell, K. & Meaney, M. (2020). Epigenetics, Development, and Psychopathology. *Annual Review of Clinical Psychology* 16, 327-350. <https://www-annualreviews-org.ezproxy.sibdi.ucr.ac.cr/doi/full/10.1146/annurev-clinpsy-050718-095530>