

Research Paper

Investigating the relationship between parental abuse and adolescent antisocial behaviors with the moderating role of effortful control



Mohammad Abbasi ^{1*} , Reza Ghasemi Jobaneh ²  & Mohammad amin Musaie ³ 

1. Associate Professor, Department of Psychology, Lorestan University, Khorramabad, Iran.

2. Assistant Professor, Department of Psychology, Lorestan University, Khorramabad, Iran.

3. Phd student, Department of Psychology, Lorestan University, Khorramabad, Iran.



Citation: Abbasi, M., Ghasemi Jobaneh, R. & Musaie, M. (2026). Investigating the relationship between parental abuse and adolescent antisocial behaviors with the moderating role of effortful control. *Journal of Family Relations Studies*, 6 (1): 1-8. <https://doi.org/10.22098/jfrs.2025.15847.1207>



doi [10.22098/jfrs.2025.15847.1207](https://doi.org/10.22098/jfrs.2025.15847.1207)

ARTICLEINFO:

Received: 2024/09/15

Revised: 2025/02/02

Accepted: 2025/03/02

Available Online: 2026/02/15

Key words:

Antisocial behaviors,
Effortful control,
Parental abuse,
Teenagers

ABSTRACT

Objective: The present study was conducted to investigate the relationship between parental abuse and adolescent antisocial behaviors, with the moderating role of effortful control behavior in students.

Methods: This study was a descriptive-correlation type. The research population included the students of KhorramAbad city in the academic year of 2023-2024, of which 171 people were selected by a multi-stage cluster sampling method. Data collection tools included the Demare Parental Abuse Questionnaire (2000), Donnellan and Burt's Antisocial Behavior Questionnaire (2009), and Ellis and Rothbart's Effortful Control Questionnaire (2001). Pearson's correlation coefficient and hierarchical regression were used to analyze the data.

Results: The results of structural equations showed that there is a significant relationship between parental maltreatment and students' antisocial behavior. Also, effortful control has a moderating role in the relationship between parental abuse and antisocial behavior.

Conclusion: Based on the results, it can be said that parental abuse significantly increases students' tendency toward antisocial behavior. Meanwhile, high effortful control can reduce the negative effects of this misbehavior, while low effortful control leads to the strengthening of these effects.

1. Introduction

Adolescence is a transitional stage between childhood and adulthood that developmental psychologists recognize as a time of storm and stress. During this period, adolescents encounter adult responsibilities before fully reaching adulthood (Suleiman, 2023). The mental state of adolescents during this time is precarious, and most behavioral and emotional problems emerge during this stage (Rezapour et al., 2023). Consequently, due to the psychological pressures they experience, the

likelihood of engaging in antisocial behaviors increases during this period. In today's world, antisocial behaviors that conflict with social norms and order can create serious problems for society (Beelmann et al., 2023). Adolescence is a critical stage for the onset of risk-taking behaviors, including antisocial behaviors. Most individuals may occasionally exhibit aggressive or antisocial behaviors; for instance, children may disobey adults, lie, fight, or intimidate their peers.

*Corresponding Author:

Mohammad Abbasi

Address: Department of Psychology, Lorestan University, Khorramabad, Iran.

E-mail: Abasi.mo@lu.ac.ir



Copyright © 2026 by Authors. Published by University of Mohaghegh Ardabili. This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International license](https://creativecommons.org/licenses/by-nc/4.0/). Non-commercial purposes uses of the work are permitted, provided the original work is properly cited.

Therefore, antisocial behaviors are unacceptable because everyone has the right to live in an environment free from such behaviors (Moor et al., 2024). Antisocial behavior is characterized by a persistent pattern in which the basic rights of others are violated or age-appropriate social norms and laws are disregarded (American Psychiatric Association, 2023). Consequently, antisocial behavior is considered harmful actions performed with overt hostility and a violation of others' rights and safety (Tielbeek, 2022). In other words, these behaviors involve the infringement of social norms and the rights or property of others (Liu, 2022). Studies show that antisocial behaviors peak during adolescence (ages 10 to 18) (Van De Grupp et al., 2023). However, research by Suleiman (2023) demonstrated that antisocial behaviors are among the most common mental disorders in adolescents, occurring up to eight times more frequently in boys than in girls. This disorder typically appears in boys before the age of 10 and in girls between the ages of 13 and 16. The persistence of this disorder is greater in boys than in girls, and these behaviors are linked to physical, occupational, educational, and mental health problems in the future (Canino, 2022). Another study by Huang (2021) noted that antisocial behavior is associated with academic problems, lack of school engagement, major risks for future adjustment, early school dropout, involvement in criminal activities, and unemployment. Thus, the interplay of these risk factors has long been of interest to researchers, educators, and policymakers. Additionally, various studies have explored the causes of these behaviors and found a significant relationship between antisocial behaviors in childhood and adulthood and experiences of abuse and maltreatment of children and parental violence. Adverse childhood experiences such as family violence, substance abuse, divorce, or imprisonment of a family member are associated with repeated criminal activity and antisocial behaviors during adolescence (Espinoza-Romero et al., 2022).

Given the aforementioned points and the importance of parenting style and family environment in the emergence of antisocial behaviors, it can be concluded that maltreatment of children and adolescents has very negative effects on their adjustment, and early identification of at-risk families is crucial. A longitudinal study reported a high correlation between positive parenting and a reduced risk of antisocial behaviors in children and adolescents (Huang, 2020). Numerous studies in recent decades have shown that parental abuse of children leads to negative physical, cognitive, psychological, and social outcomes for children and adolescents (Lang, 2022). The World Health Organization defines child maltreatment as any form of abuse and neglect towards individuals under 18 years of age,

including physical, emotional, and sexual abuse, as well as neglect, which causes harm to them (Mikaeili et al., 2023). According to the organization's report, child abuse is highly prevalent globally, with one in four adults having experienced physical abuse during childhood (Fernandes, 2021). The most common types of child abuse include physical, emotional, and sexual abuse, as well as physical neglect and disregard by parents or other caregivers, which can result in harm or threats to the child's and adolescent's development (Quail-Mamani et al., 2023). Research by Afifi et al. (2019) has shown that the more children experience violence during childhood, the higher the likelihood of antisocial behaviors in adulthood (Afifi et al., 2019). Therefore, parents who face mental health issues often see various problems in their children, such as depression, anxiety, substance abuse, eating disorders, behavioral problems, and academic decline. One study has indicated that one in five children has a parent with a mental illness, and between 44% and 74% of these children experience psychological-social problems or mental health issues (vis et al., 2022). Furthermore, high rates of physical punishment at home and school have been reported in various countries; even in advanced societies, instances of violence are observed. A study in Kenya found that over 40% of individuals aged 13 to 17 were subjected to teacher assault in the 12 months preceding the research, and 13% to 15% experienced parental violence (Allahi et al., 2024). According to the latest available data in the United States, approximately 620,000 children were subjected to abuse or neglect between October 2019 and September 2020 (Lee, 2023). Therefore, protecting children from the early consequences of maltreatment in high-risk families is a crucial goal in supporting children and adolescents. Another important goal is to access at-risk families and encourage their participation in preventive services, as parenting programs and early childhood interventions can reduce child maltreatment (Lang, 2022). Other research has also indicated that, in addition to the impact of parenting styles and parental behavior on children's propensity for antisocial behaviors, one effective way to reduce these behaviors is to strengthen effortful control (Mikaeili et al., 2025). When an individual is able to better control their impulses and desires, the likelihood of engaging in antisocial behaviors decreases (Winbrink et al., 2024). Effortful control is defined as the ability of self-regulation to inhibit the dominant response in favor of a secondary response, recognize errors, and engage in planning. It is considered one of the main aspects of temperament, including dimensions such as inhibitory control, focus, and shifting attention (Travián et al., 2024). Therefore, these self-regulation abilities typically emerge between the ages of 2

and 3 and are reinforced during the preschool years (Musso et al., 2023). This means that individuals who are unable to control their behavior often exhibit behavioral problems and aggressive tendencies in school, family, and among peers (Travián et al., 2024). In other words, adolescents with low effortful control are more influenced by peer pressure and seek immediate gratification of their needs. These individuals generally have less persistence and find it difficult to delay gratification. In contrast, adolescents with higher levels of effortful control are able to resist peer pressure and remain committed to their long-term goals (Travián et al., 2024). Some studies have shown that children with low effortful control lack the necessary self-regulation tools and, as a result, react more intensely in aggressive environments (Del Porto-Gelsari, 2022). Thus, effortful control, as an aspect of self-regulation, predicts various life outcomes, including academic performance, alcohol and drug use, and more (Robson et al., 2020). Another study indicates that parents help their children regulate emotions and behaviors; therefore, parenting is often associated with the development of effortful control (Lecheile et al., 2020). For example, harsh parental behaviors may overly stimulate children who are less able to focus or shift attention, whereas parents who are warm and supportive can raise children with greater self-regulation and less susceptibility to frustration or anger (De Witt De Visser et al., 2023). In other words, parental monitoring is associated with self-regulation skills such as effortful control, while parental hostility undermines these skills (Atherton, 2021). However, some studies have noted that children living in chaotic homes (Gert-Peters et al., 2019) or with low income show poorer effortful control (Lecheile et al., 2020). In expressing the importance and necessity of this research, it can be stated that adolescents under the influence of various family factors, including parental abuse, may exhibit antisocial behaviors such as violence and delinquency. In the meantime, effortful control, as one of the key dimensions of self-regulation, can play a moderating role in reducing the negative consequences of this abuse. However, research has mainly focused on the direct relationship between parental abuse and antisocial behaviors, and the moderating role of effortful control has been less studied, especially in specific cultural contexts such as Iran. By examining this scientific gap, this study can help provide effective strategies for prevention and intervention in reducing adolescent antisocial behaviors and strengthening self-regulation skills.

2. Materials and Methods

The research method was descriptive-correlational. The statistical population of the study comprised middle

school students in Khorramabad for the academic year 1402–1403 (2023–2024). Cochran's formula was used to determine the sample size, and 171 students were selected using a multistage cluster sampling method. This process involved randomly selecting one educational district out of two. Then, five schools were randomly chosen from the selected district, and ten classes were randomly selected from these schools. Finally, students from these classes were chosen based on inclusion criteria. The inclusion criteria for the study included an age range of 12 to 15 years, consent to participate, no psychiatric disorders, and no medication use. The exclusion criteria were a lack of participant consent and incomplete questionnaires. Ethical principles of the study, including confidentiality and privacy, were adhered to. Data were analyzed using hierarchical regression analysis in SPSS version 26.

Instruments

Demare Parental Abuse Questionnaire (2000): This questionnaire was designed by Demare (2000) to assess parental abuse. It consists of 32 items covering three dimensions of abuse: physical abuse, emotional abuse, and neglect. The questionnaire uses a five-point Likert scale and includes questions such as, "Have you ever been hit hard enough to cause bruising, swelling, or bleeding?" Fourteen questions (items 1 to 14) assess physical abuse, 12 questions (items 15 to 26) assess emotional abuse, and six questions (items 27 to 32) address neglect. In a study titled "Child Abuse and Neglect" conducted by Al-Rashoud (1997) in Saudi Arabia, this questionnaire was utilized. Al-Rashoud reported a Cronbach's alpha coefficient of 0.81 for the questionnaire, with reliability coefficients for the subscales of physical abuse, emotional abuse, and neglect being 0.90, 0.93, and 0.61, respectively. In the study by Mohammadi et al. (2018), the content, face, and criterion validity of this questionnaire were evaluated as suitable, and the Cronbach's alpha for the questionnaire was estimated to be over 0.70 (Mohammadi et al., 2018).

Burt and Donnellan Antisocial Behavior Questionnaire (2009): This questionnaire was developed by Burt and Donnellan (2009) and consists of 32 questions that measure physical aggression, social aggression, and lawbreaking based on their prevalence in the past year. Responses are rated on a five-point Likert scale from 1 (never) to 5 (always). Reliability for the physical aggression subscale is between 0.84 and 0.91, for social aggression between 0.83 and 0.90, and for lawbreaking between 0.71 and 0.87. The validity of this questionnaire has also been reported to be acceptable (Donnellan & Burt, 2009). In addition, in the study by Ensafadaran et al. (2019), the overall reliability of the

antisocial behavior questionnaire was determined to be 0.88 using Cronbach's alpha. In the present study, Cronbach's alpha was also calculated to be 0.87.

Effortful Control Scale by Ellis and Rothbart (2001): This scale was designed by [Ellis and Rothbart \(2001\)](#) to measure the effortful control dimension in adolescents. It consists of 20 items that are scored on a five-point Likert scale from rarely (0) to almost always (5). A higher score (100) indicates more effortful control, while a lower score (20) indicates less effortful control. Items 1, 2, 4, 5, 11, 12, 14, 15, 17, and 20 are reverse-scored. The Cronbach's alpha coefficient in the original sample was 0.85. The test-retest reliability coefficient after two weeks was also reported to be 0.82. In the study by [Evans and Rothbart \(2007\)](#), the reliability of this scale was reported to have a Cronbach's alpha of 0.90 for the overall scale.

Table 1. Mean and standard deviation of research variables

Variables	Mean	SD
Parental abuse	97.959	14.301
Effortful control	64.625	23.815
Antisocial behavior	99.163	12.039

In Table 1, descriptive statistics were used, and the Kolmogorov-Smirnov test was applied to examine the normality of the data distribution. Since the Kolmogorov-Smirnov test statistic was greater than 0.05, the result of the test indicated no significance, thus confirming the normality

In addition, in the study of [Keramati et al. \(2019\)](#), the construct validity of the questionnaire was confirmed using confirmatory factor analysis. The fit indices (CFI, TLI, and RMSEA) showed that the factor structure of the questionnaire is appropriate in Iranian society. The reliability of the questionnaire was also evaluated using Cronbach's alpha method, and Cronbach's alpha coefficient was reported to be 0.83, indicating the high reliability of the instrument. In the present study, Cronbach's alpha was also calculated to be 0.83.

3. Results

In this study, 171 people aged 12 to 15 years participated, with a mean and standard deviation of 14.03 and 1.12 years, respectively. Descriptive statistics of the studied variables are presented in Table 1.

Table 2. Pearson correlation test between research variables

Variables	1	2	3
1. Parental abuse	-		
2. Effortful control	0.272**	-	
3. Antisocial behavior	0.622**	0.282**	-

The results in Table 2 show that there is a significant correlation between all research variables. Additionally, hierarchical regression was used to examine the

of the data distribution. Based on the research hypotheses, the Pearson correlation coefficient test was employed to examine the relationship between parental abuse, effortful control, and the tendency toward antisocial behavior. The results of the analysis are presented in Table 2.

moderating role of the effortful control variable in the relationship between parental abuse and antisocial behavior, with the results presented in Table 3.

Table 3. Hierarchical regression analysis results based on research variables

Variables	Beta	B	R	R Square	R Square Change	F Change	P value
1. Parental abuse	0.622	0.625	0.622	0.387	0.387	106.675	0.001
2. Effortful control	-0.122	-0.120	0.633	0.401	0.014	3.854	0.051
3. Parental abuse \times Effortful control	-0.219	-0.230	-0.665	0.442	0.041	12.252	0.001

According to Table 3, the test for the change in R^2 is significant. This value is 0.387 and 0.401 for parental abuse and effortful control, respectively. In the next step, by including the interaction between the two variables, this value increased to 0.442, which remains significant. Therefore, effortful control plays a moderating role in the relationship between parental abuse and the tendency toward antisocial behavior. Considering the increase in the explained variance of the tendency toward antisocial behavior due to the inclusion of the interaction variable between parental abuse and effortful control, it can be

concluded that effortful control is capable of moderating the relationship between these two variables. In other words, the relationship between parental abuse and the tendency toward antisocial behavior differs at high and low levels of effortful control. To clarify the nature of the moderating effect, the interaction graph was plotted using standardized regression coefficients, and regression lines for individuals with high and low levels of effortful control were drawn. Figure 1 illustrates the interaction between parental abuse and effortful control in relation to the tendency toward antisocial behavior.

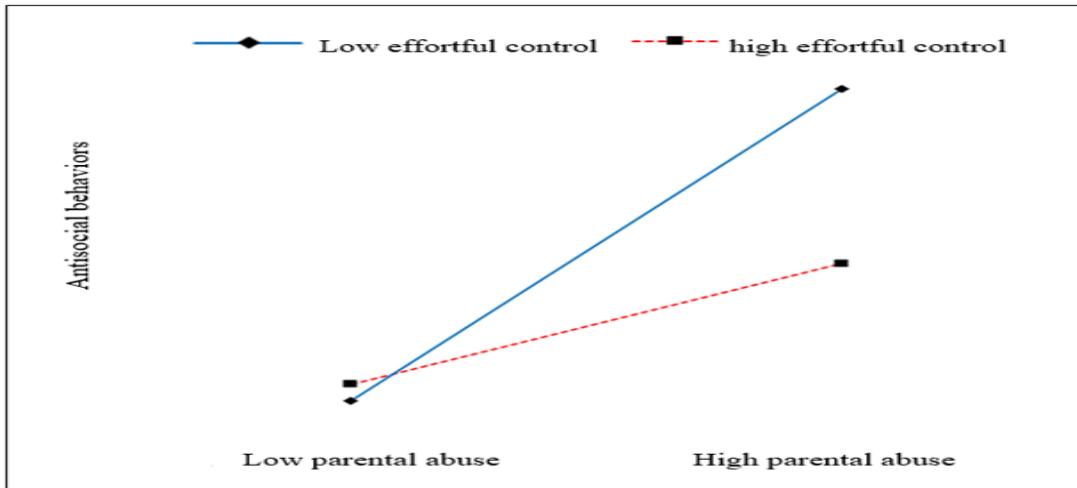


Figure 1. The Interactive Effects of Parental Abuse and Effortful Control on Predicting Antisocial Behavior Tendencies

According to Figure 1, the tendency toward antisocial behaviors is highest for individuals with high parental abuse and low effortful control, and lowest for those with low parental abuse and high effortful control. Additionally, it can be observed that high parental abuse is associated with a greater tendency toward antisocial behaviors when paired with low effortful control, compared to when paired with high effortful control. Conversely, low parental abuse is associated with a lower tendency toward antisocial behaviors when paired with high effortful control compared to when paired with low effortful control. Therefore, effortful control plays a moderating role in the relationship between parental abuse and the tendency toward antisocial behaviors.

4. Discussion and Conclusion

This study investigated the moderating role of effortful control in the relationship between parental abuse and the tendency toward antisocial behaviors in adolescents. The results indicated a positive and significant relationship between parental abuse and the tendency toward antisocial behaviors, meaning that as parental abuse increases, the tendency toward antisocial behaviors in adolescents also increases. These results are consistent with the findings of [vis \(2022\)](#), [Lang \(2022\)](#), and [Quill-Mamani et al. \(2023\)](#). To explain these results, it should be noted that parental abuse has a positive correlation with antisocial behaviors in students, such that the more violence adolescents experience, the higher the likelihood of antisocial behaviors in adulthood ([Afiifi, 2019](#)). In fact, given the positive correlation between parenting styles and other early childhood and adolescent services with the increase or decrease of antisocial behaviors ([Lang, 2022](#)), early identification of at-risk families and targeted interventions can help support and prevent these types of harm to children and adolescents. In another part of the study, the results of hierarchical

regression analysis showed that effortful control plays a moderating role in the relationship between parental abuse and antisocial behaviors. In other words, the relationship between parental abuse and antisocial behaviors differs at high and low levels of effortful control, such that high effortful control can reduce the relationship, while low effortful control can increase it. These findings are in line with those of [Travián et al. \(2024\)](#), [Del Porto-Gelzari et al. \(2022\)](#), and [Robson et al. \(2020\)](#), which highlight the impact of effortful control on antisocial behavior in children and adolescents. According to [Raines \(2023\)](#), children with lower effortful control and higher negative emotions show a significant bias toward threatening changes, whereas those with higher effortful control and emotional control do not show this bias; thus, effortful control reduces the tendency toward antisocial behavior. Since effortful control is a self-regulation approach, individuals who are unable to control their behavior often exhibit behavioral problems and aggressive tendencies in school, family, and among peers ([Travián et al., 2024](#)). Therefore, it can be concluded that effortful control teaches adaptive and constructive behaviors. According to [Win-Brick et al. \(2024\)](#), improving effortful control skills can play a crucial role in reducing antisocial behaviors. Given this relationship, preventive and therapeutic programs should be designed to focus not only on environmental and genetic factors but also on enhancing effortful control skills.

The findings of this study showed that parental abuse has a significant impact on increasing antisocial behaviors in adolescents. Experiencing physical or psychological abuse within the family environment can lead to the development of aggressive and antisocial behaviors, as these harmful experiences reduce adolescents' ability to regulate their emotions and behaviors. These results are consistent with psychological theories that emphasize the direct role of an unhealthy family environment in shaping

deviant behavioral patterns. In this context, effortful control emerged as a moderating factor, helping to reduce the negative effects of parental abuse. Adolescents with higher levels of effortful control exhibited fewer antisocial behaviors. Based on these findings, strengthening self-regulation and emotion-regulation skills in adolescents could serve as an effective strategy for mitigating the harmful effects of parental abuse. Additionally, preventive interventions such as teaching parenting skills and raising parents' awareness about the negative consequences of abuse seem essential. This study emphasizes the importance of the interaction between familial and individual factors in preventing antisocial behaviors and can serve as a foundation for designing targeted programs to improve mental health and reduce risky behaviors in adolescents.

Research Limitations:

Every study has limitations, and in the case of this research, individual differences among participants, such as variations in motivation and interest in the topic, could pose limitations to the results. Additionally, self-reporting tools were used to measure the study variables, which have their own limitations, including social desirability. Furthermore, this study was conducted among students in Khorramabad; therefore, caution should be exercised when generalizing the results to other communities. Finally, the results of this study are relevant to adolescents and professionals in counseling, child psychology, and family therapy. As the findings indicated, effortful control is an important factor in protecting adolescents from antisocial behavior tendencies; thus, teaching this skill to adolescents can help them better manage relationships with their parents and behavioral self-regulation during this developmental period, resulting in a lower tendency toward antisocial behavior.

5. Ethical Considerations

Compliance with ethical guidelines

All ethical principles have been observed in this article. Participants were informed about the research's purpose and the stages of its implementation. They were assured of the confidentiality of their personal information and could withdraw from the study at any time. Additionally, the research results would be made available to them upon request.

Funding

This research did not receive any grant from funding agencies in the public, commercial, or non-profit sectors.

Authors' contributions

All authors have participated in the design, implementation, and writing of all sections of the

present study.

Conflicts of interest

The authors declared no conflict of interest.

Acknowledgments

We are grateful to all the participants in this research.

References:

Afifi, T. O., Fortier, J., Sareen, J., & Taillieu, T. (2019). Associations of harsh physical punishment and child maltreatment in childhood with antisocial behaviors in adulthood. *JAMA Network Open*, 2(1), e187374. Doi:10.1001/jamanetworkopen.2018.7374

Allahi, S., Salehi, K., & Jazayeri, A. (2023). ExAlreshoud AS. Child Abuse and Neglect Among Delinquents in Saudi Arabia, Pittsburgh University. 1997,170-3. <http://refahj.uswr.ac.ir/article-1-4094-fa.html>

Alreshoud, A. S. (1997). Child Abuse and Neglect Among Delinquents in Saudi Arabia, Pittsburgh University. 170-3. <https://www.researchgate.net/publication/259286044>

American Psychiatric Association. (2022). Diagnostic and Statistical Manual of Mental Disorders. Doi:10.1176/appi.books.9780890425787

Atherton, O. E., Lawson, K. M., Ferrer, E., & Robins, R. W. (2020). The role of effortful control in the development of ADHD, ODD, and CD symptoms. *Journal of Personality and Social Psychology*, 118(6), 1226-1246. Doi:10.1037/pspp0000243

Beelmann, A., Arnold, L. S., & Hercher, J. (2023). Parent training programs for preventing and treating antisocial behavior in children and adolescents: A comprehensive meta-analysis of international studies. *Aggression and Violent Behavior*, 68, 101798. Doi:10.1016/j.avb.2022.101798

Burt, S. A., & Donnellan, M. B. (2009). Development and validation of the Subtypes of Antisocial Behavior Questionnaire. *Aggressive behavior*, 35(5), 376-398. Doi:10.1002/ab.20314

Canino, G. J., Shrout, P. E., Wall, M., Alegria, M., Duarte, C. S., & Bird, H. R. (2021). Outcomes of serious antisocial behavior from childhood to early adulthood in two Puerto Rican samples in two contexts. *Social Psychiatry and Psychiatric Epidemiology*, 57(2), 267-277. Doi:10.1007/s00127-021-02148-z

De Wit-De Visser, B., Rijckmans, M., Vermunt, J. K., & Van Dam, A. (2023). Pathways to antisocial behavior: a framework to improve diagnostics and tailor therapeutic interventions. *Frontiers in Psychology*, 14. Doi:10.3389/fpsyg.2023.993090

Del Puerto-Golzarri, N., Azurmendi, A., Carreras, M. R., Muñoz, J. M., Braza, P., Vegas, O., & Pascual-Sagastizabal, E. (2022). The Moderating Role of Surgency, Behavioral Inhibition, Negative Emotionality, and Effortful Control in the Relationship between Parenting Style and Children's Reactive and Proactive Aggression. *Children*, 9(1), 104. Doi:10.3390/children9010104

Demare, D. (2000). Examining long-term correlates of psychological, physical, and sexual childhood maltreatment, validation of the childhood maltreatment questionnaire. <https://mspace.lib.umanitoba.ca/xmlui/handle/1993/1755>

Ellis, L. K., & Rothbart, M. (2001). Early Adolescent Temperament Questionnaire--Revised [Dataset]. In the PsycTESTS Dataset. Doi:10.1037/t07624-000

Ensafdaran, F., Njad, S. B., & Arshadi, N. (2019). The Effectiveness of Aggression Replacement Training Program on Antisocial Behaviors, Anger Rumination of Adolescent Girls in Ahwaz. Ranian Journal of Health Education and Health Promotion, 7(3), 306–315. Doi:10.29252/ijhehp.7.3.306

Espinoza-Romero, J. L., Frías-Armenta, M., Lucas, M. Y., & Corral-Frías, N. S. (2022). Behavioral Activation System and Early Life Parental Abuse Are Associated with Antisocial Behaviors in Mexican Adolescents. International Journal of Environmental Research and Public Health, 19(3), 1584. Doi:10.3390/ijerph19031584

Evans, D. E., & Rothbart, M. K. (2007). Developing a model for adult temperament. *Journal of Research in Personality*, 41(4), 868–888. Doi:10.1016/j.jrp.2006.11.002

Fernandes, G., Fernandes, M., Vaidya, N., De Souza, P., Plotnikova, E., Geddes, R., Holla, B., Sharma, E., Benegal, V., & Choudhry, V. (2021). Prevalence of child maltreatment in India and its association with gender, urbanisation and policy: a rapid review and meta-analysis protocol. *BMJ Open*, 11(8), e044983. Doi:10.1136/bmjopen-2020-044983

Garrett-Peters, P. T., Mokrova, I. L., Carr, R. C., & Vernon-Feagans, L. (2019). Early student (dis)engagement: Contributions of household chaos, parenting, and self-regulatory skills. *Developmental Psychology*, 55(7), 1480–1492. Doi:10.1037/dev0000720

Hwang, S., Waller, R., Hawes, D. J., & Allen, J. L. (2020). Callous-Unemotional Traits and Antisocial Behavior in South Korean Children: Links with Academic Motivation, School Engagement, and Teachers' Use of Reward and Discipline. *Journal of Abnormal Child Psychology*, 48(9), 1183–1195. Doi:10.1007/s10802-020-00663-2

Hwang, S., Waller, R., Hawes, D. J., & Allen, J. L. (2021). The influence of antisocial behavior and Callous-Unemotional traits on trajectories of school engagement and achievement in South Korean children. *Journal of Youth and Adolescence*, 50(4), 788–802. Doi:10.1007/s10964-021-01414-2

Keramati, H., Motaharnejad, E., Kadivar, P., & Arabzade, M. (2021). Investigation of factor structure, validity, and reliability of the Effortful Control Scale (ECS) in Iranian adolescents. *Journal of Psychological Science*, 20(102), 837-848. <http://psychologicalscience.ir/article-1-1193-fa.html>

Lang, K., Liel, C., Lux, U., Kindler, H., Vierhaus, M., & Eickhorst, A. (2022). Child Abuse Potential in Young German Parents: Predictors, Associations with Self-reported Maltreatment and Intervention Use. *Child Psychiatry & Human Development*, 53(3), 569–581. <https://pubmed.ncbi.nlm.nih.gov/33730359/>

Lecheile, B. M., Spinrad, T. L., Xu, X., Lopez, J., & Eisenberg, N. (2020). Longitudinal relations among household chaos, SES, and effortful control in the prediction of language skills in early childhood. *Developmental Psychology*, 56(4), 727–738. Doi:10.1037/dev0000896

Lee, J. Y., Yoon, S., Park, K., Radney, A., Shipe, S. L., & Pace, G. T. (2023). Father–Mother Co-Involvement in Child Maltreatment: Associations of Prior Perpetration, Substance Use, Inadequate Housing, and Intimate Partner Violence with Different Maltreatment Types. *Children*, 10(4), 707. Doi:10.3390/children10040707

Liu, W., Wang, W., Xia, L., Lin, S., & Wang, Y. (2022). Left-Behind Children's subtypes of antisocial behavior: A qualitative study in China. *Behavioral Sciences*, 12(10), 349. Doi:10.3390/bs12100349

Mikaeili, N., Teymoori, R. & Salmani, A. (2023). The relationship between the emotional nature, adult attachment and aggression in depressed patients. *Journal of Research in Psychopathology*, 4(11), 40-46. Doi:10.22098/jrp.2023.9601.1043

Mikaeili, N., Salmani, A. & Sharei, A. (2025). The Effectiveness of Emotion-Focused Therapy on Parenting Self-Efficacy and Distress Tolerance in Mothers with Insecure Attachment Styles. *Journal of Family Relations Studies*, 5(3), 1-11. Doi:10.22098/jfrs.2025.17963.1255

Mohammadi, K., Rezaei, A. M., Mohammadifar, M. A., & Talepasand, S. (2018). The structural model evaluation of the correlation of family functioning and parental abuse with students' academic achievement: The mediating role of social adequacy and academic self-efficacy. *Iranian Journal of Medical Education*, 18, 60-69. <http://ijme.mui.ac.ir/article-1-4703-fa.html>

Moore, J., Tam, L. Y. C., & Allen, J. L. (2024). When Being bad feels Good: A systematic review of the relationship between positive emotion and antisocial behavior in children and adolescents. *Clinical Child and Family Psychology Review*. Doi:10.1007/s10567-024-00493-4

Musso, M. F., Moyano, S., Rico-Picó, J., Conejero, Á., Ballesteros-Duperón, M. Á., Cascallar, E. C., & Rueda, M. R. (2023). Predicting Effortful Control at 3 Years of Age from Measures of Attention and Home Environment in Infancy: A Machine Learning Approach. *Children*, 10(6), 982. Doi:10.3390/children10060982

Quille-Mamani, G. M., Quispe-Prieto, S. C., & Navarro, E. R. (2023). Factors associated with child abuse among children and adolescents in a Peruvian public hospital. *Journal of Medicine and Life*, 16(1), 110–120. Doi:10.25122/jml-2022-0262

Raines, E. M., Viana, A. G., Trent, E. S., Conroy, H. E., Silva, K., Zvolensky, M. J., & Storch, E. A. (2021). Effortful Control Moderates the Relation Between Negative Emotionality and Child Anxiety and Depressive Symptom Severity in Children with Anxiety Disorders. *Child Psychiatry & Human Development*, 54(1), 17–25. <https://pubmed.ncbi.nlm.nih.gov/34302209/>

Rezapour, H., Bahramipour Isfahani, M., & Turkan, H. (2023). Comparing the Effectiveness of Behavioral Activation and Mode Deactivation Therapy on Antisocial Core Beliefs and Social Problem Solving in Adolescent Boys with High Social Anxiety. *Social Psychology Research*, 13(50), 77–92. <http://ijpn.ir/article-1-2203-en.html>

Robson, D. A., Allen, M. S., & Howard, S. J. (2020). Self-regulation in childhood as a predictor of future outcomes: A meta-analytic review. *Psychological Bulletin*, 146(4), 324–354. Doi:10.1037/bul0000227

Suleiman, M. (2023). Investigating the causes of students' antisocial behavior and its treatment methods. <https://civilica.com/doc/1815773>

Taravian, S., Nikdel, F., & Nia, A. T. (2024). Relationship Between Moral Identity and Effortful Control with Antisocial Behaviors in Adolescence: Examining the Mediating Role of Empathy. *Research Square* (Research Square). Doi:10.21203/rs.3.rs-4813592/v1

Tielbeek, J. J., Uffelmann, E., Williams, B. S., Colodro-Conde, L., Gagnon, É., Mallard, T. T., Levitt, B. E., Jansen, P. R., Johansson, A., Sallis, H. M., Pistis, G., Saunders, G. R. B., Allegrini, A. G., Rimfeld, K., Konte, B., Klein, M., Hartmann, A. M., Salvatore, J. E., Nolte, I. M., Posthuma, D. (2022). Uncovering the genetic architecture of broad antisocial behavior through a genome-wide association study meta-analysis. *Molecular Psychiatry*, 27(11), 4453–4463. Doi:10.1038/s41380-022-01793-3

Van De Groep, I. H., Bos, M. G. N., Popma, A., Crone, E. A., & Jansen, L. M. C. (2023). A neurocognitive model of early onset, persistent, and desistant antisocial behavior in early adulthood. *Frontiers in Human Neuroscience*, 17. Doi:10.3389/fnhum.2023.1100277

Vis, S. A., Lauritzen, C., Havnen, K. J. S., Reedtz, C., & Handegård, B. H. (2022). Concerns of parental substance abuse and mental health problems reported to Child Welfare Services—Testing a moderated mediation model for paths from reports to substantiated concern and service provision. *Frontiers in Psychiatry*, 13. Doi:10.3389/fpsy.2022.781332

Winebrake, D. A., Huth, N., Gueron-Sela, N., Propper, C., Mills-Koonce, R., Bedford, R., & Wagner, N. J. (2024). An examination of the relations between effortful control in early childhood and risk for later externalizing psychopathology: a bi-factor structural equation modeling approach. *Child Psychiatry & Human Development*. Doi:10.1007/s10578-024-01716-z