

Consequences of Abuse and Sexual Violence Exposure on Child Victims

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Abstract: *This study examines the impact of child victimization—specifically abuse and sexual violence—on intellectual development in childhood. The sample consisted of 83 children aged 6 to 11 years recruited from public schools in Goiás, Brazil, who were classified into victim and non-victim groups. Assessment instruments included the Juvenile Victimization Questionnaire (JVQ) and the Wechsler Intelligence Scale for Children (WISC-IV). Findings reveal that sexual victimization significantly impairs working memory and full-scale IQ, with more pronounced effects observed among female participants. The absence of a significant association with abuse suggests that cognitive consequences are contingent upon the type of violence experienced. The study concludes that public protection policies are essential to mitigate the adverse developmental impacts of violence on affected children.*

Keywords: Child victimization; Sexual violence; Cognitive development; WISC-IV; Abuse.

1. INTRODUCTION

The World Health Organization WHO (2002) characterizes violence as any intentional act directed at another individual, group, or oneself, which may result in potential or actual harm to the health of those involved, stemming from physical abuse or abuse of power, leading to death, suffering, deprivation, psychological and/or physical harm. The definition provided by the WHO considers the intentionality of the abuse, regardless of the consequences that may occur, except for unintentional incidents.

Based on the studies by Finkelhor, Ormrod, and Turner (2007), the experience of any violent situation that can cause trauma to the victim is known as victimization; this process occurs in the relationship between the victim and the perpetrator, where the instigator of violence harms the victim physically and/or psychologically. Consequently, the victimization process causes harm to the victim, such as psychological damage and impairments in the intellectual cognitive process. These harms can increase the risk of future victimization. Thus, in addition to the problems caused by current victimization, the victim becomes more vulnerable to the possibility of recurrence and other types of violence in the future.

For Finkelhor, Ormrod, and Turner (2007), it is through victimization that victims may end up suffering revictimization; characterized by the experience in which the individual undergoes the same type of victimization they had already been a victim of at another time. Meanwhile, polyvictimization is a term used when the same person is subjected to various types of victimization, which can occur in different settings and by different perpetrators.

Victimization can be experienced directly or indirectly. Direct victimization is considered when the abuse is directed at the victim. Indirect victimization occurs when the victim witnesses violence involving another individual, such as scenes of abuse, for example, when a child witnesses domestic violence between parents or sexual violence. We can consider that there are at least five types of child victimization. The most common are: physical abuse, sexual abuse, psychological/emotional abuse, neglect, and maltreatment (Brancalhone; Williams, 2003).

The present study will address the types of violence involving maltreatment and sexual abuse. Violence involving maltreatment is established in Law No. 2,848, Article 136 of the Penal Code (1940), which describes it as an unlawful criminal act that exposes the victim's life under the perpetrator's authority, depriving them of care through violence, situations of abandonment, and neglect.

The Statute of the Child and Adolescent ECA (1990) represents a regulatory milestone regarding the rights of children and adolescents, guaranteeing the rights to safety, health, and education, involving the comprehensive protection of minors. Through Law No. 8,069, it defines children as individuals under twelve years of age, considering childhood as a phase of social, cognitive, and emotional development.

The Brazilian Public Security Yearbook of 2022 emphasizes that maltreatment represents the second most common type of crime committed against children in Brazil, with the highest number of incident report records. It mostly affects younger children, peaking at 6 years of age. It shows that 62% of reported maltreatment cases among 0 to 17-year-olds involve children aged 0 to 9 years.

Studies such as those by Ainamani et al. (2020) and Yinguing et al. (2019) indicate that maltreatment suffered during childhood can cause impairments in cognitive, emotional, and psychological development, potentially leading to the development of depressive disorders, anxiety, and post-traumatic stress in children in both the short and long term.

Regarding sexual violence, the World Health Organization (2002) defines it as any unwanted act or attempt to commit a sexual act and/or the use of sexuality for commercialization or coercion. In Brazil, Decree-Law No. 12,015 of 2009 provides for the criminalization of sexual abuse against minors, considering rape of a vulnerable person as carnal knowledge or any libidinous act with children under 14 years of age.

The Epidemiological Bulletin of the Secretariat of Health and Environment Surveillance (2024) reports that between 2015 and 2021, 202,948 cases of sexual violence against children and adolescents were registered in Brazil, of which 83,571 (41.2%) involved children. It is noteworthy that the highest frequencies of sexual violence notifications were recorded among children aged 5 to 9 years and adolescents aged 10 to 14 years.

Who (2002) states that violence and abuse against children are a growing phenomenon in various countries, making occurrences involving maltreatment and sexual violence in childhood a global public health problem. Brazil is no different; according to the Brazilian Public Security Yearbook (2022), maltreatment and sexual violence are among the most common crimes against children and adolescents. This growing global scenario deserves attention from society in various sectors, especially the scientific-academic sector. Such situations can lead to serious complications that may affect the individual throughout their life, causing disorders in various dimensions. Thus, the present study aims to verify the possible consequences that victimization by maltreatment and sexual violence can have on the intellectual development of children aged 6 to 11 years.

2. THEORETICAL FRAMEWORK

The World Health Organization (2002) defines maltreatment as various forms of abuse and violence, in most cases involving repeated events committed by a person close to the child. In general, childhood maltreatment refers to actions that may result in some harm to the child's health.

Based on the idea of the harms of child maltreatment victimization, the Ministry of Health (2002) and the research by Nunes (2016) report that when these occur during childhood, they can cause various harms to the child, related to development, dignity, and even survival. Consequently, in the common process of child development, violence becomes an important factor that must be considered and addressed.

Glaser (2002) and Cedeca and Souto (2018) report that maltreatment is the category of violence with the highest rate reported by authorities in the 6 to 12-year age group. Among maltreatments, they indicate neglect, physical, sexual, and emotional abuse as the most reported cases, which may have a negative correlation with child development and impair the area of intelligence.

According to Houaiss and Villar (2008), we can understand intelligence as the ability to provide solutions to conflicts and experiences of previously unknown situations, using concrete and/or abstract ideas.

In the field of Psychology, the Cattell-Horn-Carroll (CHC) model, developed by McGrew and Flanagan (1998), is a construct of theoretical and practical knowledge for assessing intelligence. The CHC theory, defined as the theory of cognitive abilities, involves an understanding of fluid intelligence (Gf), associated with non-verbal components, encountered when performing new tasks that cannot be executed automatically, and crystallized intelligence (Gc), developed through the subject's life experiences (Schelini, 2006).

The CHC model is built on the organization of cognitive processes into strata, considering intelligence from a multidimensional perspective, meaning that a single stratum can contain different abilities. Through this decomposition, the design of what should be evaluated and the measurement instruments enable a more precise view of intelligence and its abilities (Schelini, 2006).

Primi and Almeida (2000) emphasize the importance of identifying the general factor of intelligence and all strata related to cognitive functioning skills, such as language, reasoning, memory, visual perception, processing speed, knowledge construction, and academic performance.

Wechsler (1958) defines intelligence as the global capacity of the individual to act purposefully, think rationally, and deal effectively with the environment through connections with their working memory. Thus, intelligence is considered a flexible ability that can be influenced or limited by biological, cultural, and social factors arising from interaction with others.

Studies by Baddeley and Hitch (1974) define working memory as the subject's capacity to retrieve information in order to perform a specific task, to know how to manipulate it, and from this, produce a result. Some psychological tests are able to measure factorial indices, such as the Wechsler Intelligence Scale for Children - WISC-IV. This test allows investigation of the operational memory index (IMO) through actions involving arithmetic, digits, and sequences of numbers and letters. These actions make it possible to observe the levels of information processing speed, focused attention, short-term auditory memory, and sequencing in operational memory and long-term memory.

3. METHODOLOGY

Eighty-three children participated in this research, 43 girls and 40 boys, from public schools in the state of Goiás, of both sexes aged between 6 years and 11 years and 11 months, with authorization from their guardians and the free and informed consent form (TCLE) duly signed and agreed upon. The participants were divided into two groups: victims and non-victims of violence.

Exclusion criteria included children under 6 years old and over 11 years and 11 months, diagnosed with any neurodevelopmental or learning disorder, victimized by violence other than maltreatment, and participants who refused or did not present the TCLE and parental consent.

The research instruments used were the Wechsler Intelligence Scale for Children (WISC-IV), a psychological test for investigating a child's intellectual capacity, and the Juvenile Victimization Questionnaire (JVQ), an inventory used to identify maltreatment among participants.

The Juvenile Victimization Questionnaire (JVQ) is an instrument designed to collect information about the experience of maltreatment among the children participating in the research. The questionnaire consists of 34 questions, which assess five types of victimization: maltreatment, peer victimization, sexual victimization, indirect victimization, and conventional crime victimization. The maltreatment screener was used for the present research.

The Wechsler Intelligence Scale for Children (WISC-IV) is an individually administered psychological test aimed at evaluating intellectual capacity and problem-solving processes in children and adolescents. The WISC-IV is currently validated by SATEPSI, linked to the Federal Council of Psychology (CFP), and is valid and reliable for professional application in the present context.

Through the presented instruments, the aim is to identify the possible consequences of victimization by maltreatment and sexual violence on a child's intellectual performance.

Data collection took place between 2018 and 2020. The assessment was conducted in a total of three meetings with each participant, in a reserved room provided by the school, with the necessary criteria for the application and handling of the tests. The present research was submitted to and approved by the Research Ethics Committee (CEP), under protocol CAAE 70171617.5.0000.0037 and opinion number 2.223.772.

Initially, the research was presented to the school management teams through a document explaining the procedures and the relevance of the research for the academic community and society. Following authorization from the institutions, the Free and Informed Consent Form (TCLE) was sent to the guardians of the children pre-selected by the institution, considering the inclusion and exclusion criteria for participation.

After approval by the guardians, the authorized participants were presented with the Assent Form (TA), explaining the assessment process and informing them of the possibility to interrupt the process at any time if they wished, without penalties. After authorization from the institutions, guardians, and participants, the research authors

proceeded to administer the test and questionnaire.

The first stage involved administering the WISC-IV subtests over the first two meetings, with five subtests in each meeting, following the administration order. The second stage corresponded to the third meeting. In this meeting, the JVQ questionnaire was administered. All assessments were conducted individually and with guaranteed confidentiality.

4. RESULTS AND DISCUSSION

The data were analyzed using the SPSS program, version 25.0. The number of victimizations due to maltreatment and sexual victimization in the past year and over the lifetime was compared between age groups and sex using the independent samples t-test, and the effect size was measured using Cohen's d (KIM, 2015). In this case, the effect size was classified as small ($d=0,20$ a $0,49$), medium ($d=0,50$ a $0,59$), and large ($d>0,80$).

To verify significant differences between the Working Memory Index and total IQ of the WISC IV between the maltreatment and sexual violence groups, the independent samples t-test was used, with Cohen's d for effect size. Pearson's correlation analysis (r) was used to verify the strength of the association between the WISC IV variables and the total number of victimizations over the lifetime and in the past year (JVQ). In all analyses, values of $p<0,05$ were considered statistically significant.

The results of the present study will be presented in two stages. In the first, a correlational study between the different victimizations (in the past year and over the lifetime) and intelligence performance in the group of female children. In the second stage, a correlational study between the different victimizations (in the past year and over the lifetime) and intelligence performance in the group of male children (tables 1 and 2).

Table 1: Correlation analysis between intelligence and Working Memory Index on the WISC and number of victimizations in the past year in female children (n=43).

Variables	MT	VS
IMO - weighted (r)	-0,001	-0,385
IMO - IQ (r)	0,005	-0,383*
QItotal - weighted (r)	0,019	-0,350
Total IQ - (r)	0,024	-0,346

Legend: MT: Maltreatment; VS: Sexual Violence; VP; r = Pearson correlation coefficient.

* significant at the 0.05 level; ** significant at the 0.00 level

Source: Prepared by the authors.

The result shows that, among girls, the more experience of sexual abuse in the past year, the worse the performance in working memory and cognitive efficiency (full IQ). In contrast, no significant correlations were found between IMO and FSIQ in maltreatment violence.

Table 2: Correlation analysis between intelligence and number of victimizations over the lifetime in female children (n=43).

Variables	MT	VI	VS
IMO - weighted (r)	-0,111	-0,228	-0,607
IMO - IQ (r)	-0,106	-0,224	-0,616
QItotal - weighted (r)	-0,007	-0,116	-0,617
Total IQ - (r)	0,019	-0,094	-0,580

Legend: MT: Maltreatment; VS: Sexual Violence; r = Pearson correlation coefficient.

* significant at the 0.05 level; ** significant at the 0.001 level

Source: Prepared by the authors.

In Table 2, the violence experienced over the lifetime was significantly correlated in the variables sexual violence and intelligence among girls. Thus, it was observed that the greater the experience of sexual abuse over the lifetime, the worse the performance in intelligence. No significant correlations were found between maltreatment violence, working memory, and intelligence.

Table 3: Correlation analysis between intelligence functions on the WISC and number of victimizations in the past year among male children (n=40).

Variables	MT	VI	VS
IMO - weighted (r)	-	-	-
	0,164	0,238	0,174
IMO - IQ (r)	-	-	-
	0,172	0,249	0,179
QItotal - weighted (r)	-	-	-
	0,214	0,306	0,268
Total IQ - (r)	-	-	-
	0,216	0,307	0,265

Legend: MT: Maus-tratos; VS: Sexual Violence; r = Pearson correlation coefficient.

* significant at the 0.05 level; ** significant at the 0.001 level

Source: Prepared by the authors.

Table 4: Correlation analysis between WISC intelligence functions and number of victimizations over the lifetime in male children (n=40).

Variables	MT	VI	VS
IMO - weighted (r)	-	-	-
	0,20	0,373	0,319
IMO - IQ (r)	-	-	-
	0,21	0,374	0,322
QItotal - weighted (r)	-	-	-
	0,17	0,397	0,253
Total IQ - (r)	-	-	-
	0,16	0,383	0,233

Legend: VI: Indirect Violence; VS: Sexual Violence; r = Pearson correlation coefficient.

* significant at the 0.05 level; ** significant at the 0.001 level

Source: Prepared by the authors.

In Tables 3 and 4, referring to boys, no significant correlations were found between maltreatment and sexual violence in the past year. However, significant negative correlations were found between working memory and total IQ and indirect violence. In this sense, the data indicate that the more victimization by indirect violence, the worse the performance in working memory and IQ.

The results of this research indicate significant associations between victimization by maltreatment and sexual abuse in childhood and children’s intellectual performance, in line with findings in the literature. Consistent with these results, the studies by Ainamani et al. (2020) and Yinguing et al. (2019) demonstrated that exposure to sexual victimization experiences is linked to significant impairments in working memory and cognitive efficiency (total IQ), especially in girls. These data reinforce the hypothesis that traumas resulting from sexual abuse can negatively affect the development of fundamental cognitive skills, such as working memory and information processing, which are essential for learning and academic performance.

A negative correlation was observed between sexual violence experienced in the past year and scores for working memory and general intelligence (total IQ) in the group of girls, with statistically significant correlation coefficients, suggesting that sexual victimization, especially when recent, may directly affect children’s cognitive capacity, possibly interfering with their ability to reason, remember, and process information effectively. We perceive alignment between the results found and the studies by McGrew and Flanagan (1998), which highlight the relevance of working memory and fluid reasoning as fundamental components of intelligence.

Regarding maltreatment by neglect, we found an absence of significant correlations with cognitive performance, suggesting that the impact of maltreatment on cognitive development may depend on the type of victimization experienced. Previous studies, such as those by Glaser (2002), indicate that different forms of abuse and neglect

affect children in various ways depending on the time and intensity of exposure.

Such observed differences in the impacts of types of victimization on cognitive skills can be explained by the nature of the violence and the proximity to the perpetrator, as argued by Finkelhor, Ormrod, and Turner (2007).

Sexual violence involves a profound breach of trust and safety, generating intense psychological traumas that, consequently, compromise children's ability to manage their executive functions, social skills, and intellect.

Furthermore, the negative effects imposed by sexual violence are more pronounced in girls due to sociocultural and biological factors. Studies suggest that girls may be more vulnerable to sexual violence traumas due to aspects related to emotional development and the social context involving them, which requires special attention in the development of public protection policies and psychological interventions.

The results of this study indicate a strong need for early and specific interventions for children exposed to different forms of victimization, given the consequences that traumatic experiences can have on these children's intellectual and emotional development. The research suggests the creation and dissemination of psychological and educational support programs aimed at preventing or, at least, minimizing the negative effects of these experiences. These programs and projects are essential to promote the protection and strengthening of children's cognitive, social, and emotional capacities.

Although the study provided relevant insights into the relationship between child victimization and intellectual development, some limitations must be considered. First, the sample was composed mostly of children from public schools in a single region of Brazil, which may limit the generalization of the findings to other populations. Additionally, the use of self-report scales such as the Juvenile Victimization Questionnaire (JVQ) may introduce response bias, as younger children may have difficulty accurately reporting their victimization experiences.

For future research, we suggest expanding the sample to different cultural and socioeconomic contexts, as well as including longitudinal analyses, which allow tracking children's cognitive development over time. Studies integrating detailed neuropsychological assessments and neuroimaging techniques are also possible paths to clarify the neural mechanisms underlying the observed associations between victimization and cognitive functions/intelligence.

Finally, this study aims to contribute to the understanding of the complex relationships between childhood victimization and cognitive development, highlighting the importance of targeted interventions to minimize the impacts of sexual abuse and maltreatment on child development. Recognizing these consequences and implementing public policies, preventive and therapeutic strategies are crucial to promoting children's full development and protecting their rights.

REFERENCES

- [1] AINAMANI, H E. et al. Child maltreatment, cognitive functions, and the mediating role of mental health problems among maltreated children and adolescents in Uganda. *Psychiatry and Mental Health of Children and Adolescents*, v. 15, n. 1, p. 22, 2021.
- [2] ANDREOTTI, C. *Coping with revictimization: listening to child victims of sexual violence*. São Paulo: Casa do Psicólogo (2012).
- [3] BRANCALHONE, P. G; WILLIAMS, L. C. A. Children exposed to domestic violence: an area review. In M. A. Almeida, M. C. Marqueline & E. D. O. Tanaka (Eds.), *The role of the family with people with special needs. Multidisciplinary perspectives in Special Education* (pp. 123-130). Londrina: Eduel (2003)
- [4] BADDELEY, A. D.; HITCH, G. J. Working memory. In: BOWER, G. H. (Ed.). *The psychology of learning and motivation* London: Academic Press, 1974. v. 8, p. 47 - 91.
- [5] BRAZIL. Law No. 8,069, of July 13, 1990. Establishes the Statute of the Child and Adolescent and provides other measures. *Official Gazette of the Federative Republic of Brazil, Brasília, DF, July 16, 1990*. Available at: http://www.planalto.gov.br/ccivil_03/LEIS/L8069.htm#art266. Accessed on: March 16, 2023.
- [6] BRAZIL. Ministry of Human Rights and Citizenship. Reports of sexual violence are mostly against children and adolescents, 2022. Available at: <https://www.gov.br/mdh/pt-br/assuntos/noticias/2022/maio/denuncias-de-violencia-sexual-sao-maioria-contra-criancas-e-adolescentes>. Accessed on: March 16, 2023.

- [7] BRAZIL, Penal Code et al. Decree-Law No. 2,848, of December 7, 1940. Penal Code, p. 49-95, 1940. <https://www.gov.br/saude/pt-br/centrais-de-conten/publications/bulletins/epidemiological/editions/2023/epidemiological-bulletin-volume-54-no-08>
- [8] CANDEIAS, A; ALMEIDA, L; ROAZZI, A; PRIMI, R. Introduction to the book - Intelligence. Definition and measurement at the confluence of multiple (2016).
- [9] CARROLL, J. B. Human cognitive abilities: a survey of factor-analytic studies New York: Cambridge University Press (1993).
- [10] DIAMOND, A. Executive functions. Annual review of psychology, 64, 135-168, 2013.
- [11] DOS SANTOS, M. C. C. L. Roots of violence in children and future psychic harm. Revista da Faculdade de Direito, Universidade de São Paulo, v. 96, p. 331-346, 2001.
- [12] EGRY, E. Y.; APOSTOLICO, M. R.; MORAIS, T.C.P. Notification of child violence, care flows, and work process of Primary Health Care professionals. Ciência & Saúde Coletiva, v. 23, p. 83-92, 2018.
- [13] EISENSTEIN, Evelyn. Adolescence: definitions, concepts, and criteria. Adolesc. Saúde (Online), p. 6-7, 2005.
- [14] FERREIRA, A. A. M. USE OF THE JUVENILE VICTIMIZATION QUESTIONNAIRE AS AN INVESTIGATIVE TOOL FOR VIOLENCE IN CHILDHOOD AND ADOLESCENCE. Salão de Iniciação Científica (22nd: Oct. 18-22, 2010: Porto Alegre, RS). Book of abstracts. Porto Alegre: UFRGS, 2010.
- [15] FIGUEIREDO, V LM; PINHEIRO, S; NASCIMENTO, E do. WISC-III intelligence test adapted for the Brazilian population. Psicologia Escolar e Educacional, v. 2, p. 101-107, 1998.
- [16] BRAZILIAN PUBLIC SECURITY FORUM - FBSP. Brazilian Public Security Yearbook. 15th Edition. São Paulo, 2022.
- [17] FROTA, A M M C. Different conceptions of childhood and adolescence: the importance of historicity in their construction. Estudos e pesquisas em psicologia, v. 7, n. 1, p. 147-160, 2007.
- [18] GERHARDT, T E; SILVEIRA, D T. Research Methods. 1st ed. Porto Alegre: UFRGS, 2009. Available at: <http://bdtd.ibict.br/vufind/Search/Results?lookfor=uber&type=AllFields&limit=20&sort=relevance>. Accessed on: May 10, 2020.
- [19] GLASER, D. Emotional abuse and neglect (psychological maltreatment): a conceptual framework. Abuso e negligência infantil, v. 26, n. 6-7, p. 697-714, 2002.
- [20] KNAPP, K; MORTON, J. Brain development and executive functions. Encyclopedia on early childhood development. Extracted from: <http://www.encyclopédia-crianças.com/sites/default/files/textes-experts/en/2480/the-development-of-the-brain-and-executive-functions.pdf>, 2013.
- [21] KRUG, E.G. World Report on Violence and Health, World Health Organization, (2002).
- [22] LEMOS, G. et al. Intelligence and school performance: analysis of their relationship throughout schooling. Revista Portuguesa de Educação, v. 21, n. 1, p. 83-99, 2008.
- [23] MIYAKE, A., FRIEDMAN, N. P., EMERSON, M. J., WITZKI, A. H., HOWERTER, A.; WAGER, T. D. The unity and diversity of executive functions and their contributions to complex " frontal lobe" tasks: A latent variable analysis. Cognitive Psychology, 41(1), 49- 100, 2000.
- [24] NUNES, A. J.; SALES, M.C.V. Violence against children in the Brazilian scenario. Ciência & saúde coletiva, v. 21, p. 871-880, 2016.
- [25] SHARKEY, P. T.; TIRADO-STRAYER, N.; PAPACHRISTOS, A. V.; RAVER, C. C. 2012: The effect of local violence on children's attention and impulse control. American Journal of Public Health 102, 2287_2293, <https://doi.org/10.2105/AJPH.2012.300789>
- [26] PEREIRA, P. C.; SANTOS, A. B.; WILLIAMS, L.C.A. School performance of victimized children referred to the judicial forum. Psicologia: Teoria e pesquisa, v. 25, p. 19-28, 2009.
- [27] PESSOTTO, F. Intelligence: What exactly is it? Vetor Editora, 2021. Available at: <https://blog.vetoreditora.com.br/inteligencia-o-que-e-exatamente/>. Accessed on: March 14, 2023
- [28] RICHARDSON, K. Understanding intelligence. Lisboa: Instituto Piaget, 1999.
- [29] PRIMI, R.; ALMEIDA, L. S. BPR-5 Battery of Technical Manual Reasoning Tests São Paulo: Casa do Psicólogo. 2000.
- [30] PRIMI, R. Intelligence: advances in theoretical models and measurement instruments. Aval. psicol., Porto Alegre, v. 2, n. 1, p. 67-77, jun. 2003. Available at <http://pepsic.bvsalud.org/scielo.php?script=sci_arttext&pid=S1677-04712003000100008&lng=pt&nrm=iso>. Accessed on May 25, 2023.
- [31] SANCHEZ, R.N.; MINAYO, M.C.S. Violence against Children and Adolescents: A Historical, Social and Health Issue. In: Lima CA, editor. Violence is bad for health Brasília: Ministério da Saúde; 2006. p. 29-38.
- [32] SCHELINI, P.W. Theory of fluid and crystallized intelligences: origin and evolution. Estudos de Psicologia (Natal), v. 11, p. 323-332, 2006.

- [33] SILVA, R. W. S. Cross-cultural adaptation of the Juvenile Victimization Questionnaire R2 in a Brazilian sample and measurement of cortisol in children victims of maltreatment. 2017. Master's Dissertation. Pontifícia Universidade Católica do Rio Grande do Sul. Smith, L. D. Behaviorism and logical positivism: A reassessment of the alliance. Stanford, CA: Stanford University Press, 1986.
- [34] SOBRAL, O. J. Human intelligence: conceptions and possibilities. *Revista Científica FacMais*, v. 3, n. 1, p. 31-46, 2013.
- [35] SU, Y. How does childhood maltreatment influence subsequent cognitive functioning among people exposed to childhood maltreatment? A systematic review of prospective cohort studies. *Journal of Affective Disorders*, v. 252, p. 278-293, 2019.
- [36] VALENTINI, F.; LAROS, J. A. Intelligence and academic performance: a literature review. *Temas em Psicologia*, v. 22, no. 2 p. 285-299, 2014.
- [37] VERONESE, J.R.P. The integral protection of children and adolescents in Brazilian law. *Rev. TST* 2013; 79(1):38-54.
- [38] WORLD HEALTH ORGANIZATION (WHO). Preventing child maltreatment: a guide to taking action and generating evidence. Geneva: WHO; 2006.
- [39] WECHSLER, D. WISC-IV: Wechsler Intelligence Scale for Children: Manual. 4th ed. São Paulo: Casa do Psicólogo; 2013.