



INSTITUTO UNIVERSITÁRIO EGAS MONIZ

MESTRADO EM PSICOLOGIA FORENSE E CRIMINAL

Impact of Youth Victimization on Affective Lability in
Adults: A Comparative Study between Inmates and the
Normative Population

Trabalho submetido por
Raquel Margarida Alves Fernandes
para a obtenção do grau de **Mestre** em Psicologia Forense e Criminal

julho de 2020



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Trabalho orientado por
Prof. Doutora Telma Catarina Almeida

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Resumo

Enquadramento: A vitimização infantil é uma grande preocupação na sociedade, sendo a labilidade emocional uma das suas consequências. Os indivíduos que sofreram vitimização, possuem maiores níveis de labilidade emocional e os reclusos apresentam mais problemas emocionais, comparativamente com a população normativa, apesar de não existirem estudos que avaliem esta prevalência em reclusos. **Objetivos:** Analisar a estrutura fatorial, as propriedades psicométricas da versão portuguesa da *Affective Lability Scale – short version* (ALS-18) e testar a invariância de género. Avaliar a relação entre experiências traumáticas e a labilidade emocional, e verificar se existem diferenças entre reclusos e a população normativa. **Participantes:** O primeiro artigo contempla 1886 adultos portugueses, entre 18-91 anos ($M = 36.36$, $DP = 13.66$). O segundo artigo, possui 1281 participantes: 978 da população normativa, entre 18-91 anos ($M = 41.44$, $SD = 13.30$) e 303 da população reclusa, entre 20-70 anos ($M = 38.28$, $SD = 10.33$). **Método:** Responderam em papel e *online* a um protocolo composto por: questionário sociodemográfico, *Childhood Trauma Questionnaire – short version* (CTQ-SF) e ALS-18. **Resultados:** A versão portuguesa da ALS-18 revelou boas propriedades psicométricas, na validade discriminante, validade convergente e consistência interna, um bom ajustamento e determinou-se a invariância de género. Os reclusos identificam níveis mais elevados de trauma infantil e labilidade emocional. As experiências traumáticas na infância predizem a labilidade emocional. **Conclusão:** Foi possível validar a ALS-18 na população portuguesa, sendo importante para avaliar este conceito em Portugal. As experiências de vitimização infantil estão presentes na maioria da amostra, estando relacionadas com a prevalência de labilidade emocional.

Palavras-chave: labilidade emocional; invariância de género; reclusos; população normativa; vitimização infantil

Impact of Youth Victimization on Affective Lability in Adults: A Comparative Study between Inmates and the Normative Population

Abstract

Background: Child victimization is a major concern in society, with emotional lability being one of its consequences. Individuals who have suffered victimization have higher levels of emotional lability and inmates have more emotional problems, compared to the normative population, although no studies are evaluating this prevalence in inmates. **Objectives** Analyze the factorial structure, the psychometric properties of the Portuguese version of the Affective Lability Scale – short version (ALS-18) and test the gender invariance. Assess the relationship between traumatic experiences and emotional lability, and check whether there are differences between inmates and the normative population. **Participants:** The first paper contemplates 1886 Portuguese adults, between 18-91 years old ($M = 36.36$, $SD = 13.66$). The second paper has 1281 participants: 978 from the normative population, between 18-91 years ($M = 41.44$, $SD = 13.30$) and 303 from the inmates, between 20-70 years ($M = 38.28$, $SD = 10.33$). **Method:** They responded on paper and online to a protocol composed of a sociodemographic questionnaire, Childhood Trauma Questionnaire - short version (CTQ-SF), and ALS-18. **Results:** The Portuguese version of ALS-18 revealed good psychometric properties, with discriminant validity, convergent validity, and internal consistency, a good adjustment, and gender invariance were determined. Inmates identify higher levels of childhood trauma and emotional lability. Traumatic childhood experiences predict emotional lability. **Conclusion:** It was possible to validate ALS-18 in the Portuguese population, being important to evaluate this concept in Portugal. Child victimization experiences are present in most of the sample, being related to the prevalence of emotional lability.

Keyword: emotional lability; gender invariance; inmates; normative population; child victimization

Impact of Youth Victimization on Affective Lability in Adults: A Comparative Study between Inmates and the Normative Population

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Impact of Youth Victimization on Affective Lability in Adults: A Comparative Study between Inmates and the Normative Population

Introduction

Many children experience some type of violence during their childhood. The study carried out by Hamby and colleagues (2010) showed that 56.8% of children in their lives have experienced and/or witnessed violence, not only in their family nucleus but also in the school environment and even in a community in which they are inserted, namely victimization by peer group, dating violence, and witness of violence (Finkelhor, Turner, Ormrod, Hamby & Kracke, 2009). The Children and Youth Protection Commissions of Portugal, in 2018, identified 13905 dangerous situations, with 33324 cases being monitored (Annual Report, 2018).

Traumatic experiences in childhood increase the possibility of individuals becoming victims again during their life and greater probability of having psychological and functional problems (Allwood & Widom, 2013; Norman et al., 2012; Maas, Herrenkohl & Sousa, 2008), namely anxiety, depression, and personality disorders (Johnson et al., 2001). This victimization may also have a strong emotional impact, as is the case with emotional lability.

Emotional lability corresponds to emotional dysregulation (Bunford, Evans & Wymbs 2015) and consists of very intense emotions, which oscillate between crying and pathological laughter (Hackett, Köhler, O'Brien, & Mead, 2014). Emotional lability is associated with youth victimization, as it may create difficulties for the individual to acquire skills to regulate their emotions (Hien, Cohen, & Campbell, 2005).

Although emotional lability is the focus of many studies, in Portugal there is no instrument to access this concept in concrete. For this reason, it becomes extremely important to adapt the Affective Lability Scale - short version (ALS-18: Look et al., 2010) to the Portuguese population. It is an instrument that assesses the domains of anger, depression, euphoria, and anxiety, through a reduced number of items, proving to be an adequate instrument to assess emotional lability in the general population, enabling differentiation between groups. ALS-18 has good internal consistency ($\alpha = .87$) and has good psychometric properties.

Child victimization can also increase the existence of externalization problems, such as the use of delinquent behaviors (Fowler et al., 2009; Reijntjes et al., 2011). Child victimization is revealed as one of the main factors that potentiate the involvement of

individuals in crime, both in adolescence and in adulthood (Estévez & Emler, 2011), compared to individuals who did not suffer any type of childhood victimization (Shaffer & Ruback, 2003). In the study by Dogar and colleagues (2010), it is highlighted the fact that 52% of individuals who have delinquent behaviors, suffered from physical abuse in childhood and 19% have suffered from sexual abuse in childhood. This study demonstrated that there is an association between victimization and the practice of offenses and that, consequently, individuals who suffer from childhood victimization are more likely to become offenders (Smith & Ecob, 2007).

In Portuguese prisons in 2018, there were about 12867 inmates (Pordata, 2018). The study carried out by Meade and Steiner (2013) with the inmates, showed that 39% of respondents reported stories of abuse suffered in childhood. Another study, conducted with female inmates, revealed that 50% of the sample suffered from sexual abuse in childhood, 48.2% from physical abuse, 54.2% experienced emotional abuse in childhood, 38.7% from physical neglect, and 47.6% from emotional neglect (Walsh et al., 2011). The study by Altintas and Bilici (2018), in a sample of male inmates, also showed that 47% of participants reported stories of emotional abuse in childhood, 37%, physical abuse, 49.5% sexual abuse, 68% emotional neglect and 55.5% of physical negligence. These studies (Altintas & Bilici, 2018; Walsh et al., 2011) showed that women tend to report more stories of childhood victimization, while men tend to have higher levels of physical and emotional neglect.

Although there are no studies on the prevalence of emotional lability in the prison population, emotional lability is related to the individual's propensity to adopt an impulsive posture and risky behaviors (Oliver & Simons, 2004; Simons, Carey, & Gaher, 2004). In this sense, it is also important to study the emotional lability in this population.

Objectives

This study has as the main goal, to analyze the factor structure, the psychometric properties of the Portuguese version of the Affective Lability Scale - short version (ALS-18: Look et al., 2010), and to test the gender invariance. It is also intended to assess the impact and the relationship between traumatic experiences and emotional lability, the practice of crimes and traumatic experiences, and the type of crime committed and emotional lability. Finally, it is intended to verify the differences

between a population of inmates and a normative population and between the sexes, regarding traumatic experiences of childhood victimization and emotional lability.

Dissertation Structure

This dissertation is divided into four sections. First, a theoretical framework of the study is carried out and its objectives are referenced. Subsequently, the methodology of the study is explained, referring to the characterization of the sample, the procedure and instruments used, and statistical analyzes performed. The first paper corresponds to the second section, where it is intended to evaluate the factor structure, psychometric properties, and gender invariance of the Portuguese version of ALS-18 (Look et al., 2010). The second paper corresponds to the third section, in which it is intended to assess the impact of child victimization on emotional lability in a sample of inmates and a sample of the normative population. Both papers are organized as follows: exposure of concepts; methodology (participants, instruments, procedure, statistical analysis, and results), and discussion. The last section consists of the conclusions and implications for the practice of this research work.

Method

Participants

In the first paper, the sample consists of 1886 Portuguese adults aged between 18 and 91 years old ($M = 36.36$, $SD = 13.66$), with the majority of participants being female. This first paper included a sample collected for the present scientific work, and a sample previously collected, already intending to adapt the ALS-18 instrument to the Portuguese population, integrating a research project of the scientific supervisor of this work. The second paper contemplates a total sample of 1281 participants, with individuals from the normative population and the prison population. The sample of the normative population is composed of 978 participants, aged between 18 and 91 years old ($M = 41.44$, $SD = 13.30$), with the majority belonging to the female sex. The sample of the inmates is composed of 303 participants, aged between 20 and 70 years old ($M = 38.28$, $SD = 10.33$), and most of them are male.

Procedure

The sample of the normative population in both papers was collected through an online protocol, in which all participants signed the informed consent and responded to the protocol. The sample of the inmate's population was collected on paper and in person.

The protocol consists of a sociodemographic questionnaire, the CTQ (Dias et al., 2013), and the ALS-18 (Look, Flory, Harvey, & Siever, 2010). This research study was approved by the Scientific Council and the Ethics Committee of the Instituto Universitário Egas Moniz.

Measures

Sociodemographic Questionnaire: The application of this questionnaire was developed to evaluate sociodemographic characteristics, including age, sex, nationality, place of residence, profession, professional status, complete educational qualifications, marital status, if you have a love relationship, duration of the love relationship, if you have children, if already been convicted of committing a crime, if so, what the crime is. In the sociodemographic questionnaire administered to the inmate's population, questions were added regarding the crime for which he was detained, how long he was convicted, if he has already been convicted of any crime, if so, how many and what crimes were committed.

Childhood Trauma Questionnaire – short version (CTQ-SF): The Portuguese version of the Childhood Trauma Questionnaire - short version (CTQ-SF: Bernstein et al., 2003) was applied, which is a self-assessment instrument for exposure to situations of abuse, occurring up to 15 years of age. It consists of 28 items and has five subscales of five items each, which reflect the different types of abuse to which it was subjected: [Emotional abuse ($\alpha = .71$), Physical Abuse ($\alpha = .77$), Sexual Abuse ($\alpha = .71$), Physical Negligence ($\alpha = .47$) and Emotional Neglect ($\alpha = .79$)]. The instrument is evaluated using a 5-point *Likert* scale (1 - never, 2 - a few times, 3 - sometimes, 4 - often, 5 - always). There is also a general indicator of exposure to abuse, which refers to the total sum of subscales ($\alpha = 0,84$). The instrument has inverted items (2, 5, 7, 13, 19, 26, and 28), which represent a pleasant childhood (Dias et al., 2013).

Affective Lability Scale – short version (ALS-18): The Portuguese version of the Affective Lability Scale - short version (ALS-18: Look, Flory, Harvey, & Siever, 2010) was applied, which is composed of three subscales that assess, in the Portuguese version, Anxiety/Depression ($\alpha = .82$), Depression/Elation ($\alpha = .78$) and Anger ($\alpha = .84$), with the assessment of total emotional Lability. It is a self-assessment instrument, consisting of 18 items, assessed using a 4-point *Likert* scale (0 - no characteristic, 1 - no characteristic, 2 - characteristic, 3 - totally characteristic) (Look et al., 2010).

Statistical Analysis

To challenge the study objectives, in the first paper, adequate statistical tests were carried out. To validate the ALS-18, descriptive analyzes were carried out to characterize the sample and exploratory analyzes were carried out to ascertain the suitability of the instrument to the Portuguese population, through a confirmatory analysis and extracted factors. In the second paper, descriptive analyzes were performed to describe the sample and the scores obtained in the instruments used. Pearson's correlation coefficient was used to assess the relationship between the variables studied. Anova One Way was used to compare the means between the two samples in child victimization and emotional lability, and whether there are differences between men and women in these two concepts in the inmates. Finally, we analyzed whether traumatic experiences of childhood victimization predict emotional lability and seclusion, whether seclusion predicts emotional lability and whether traumatic experiences of childhood victimization predict the type of crime, using the Simple Linear Regression Model. The statistical software IBM statistical version of SPSS was used. v.25.0 and the Analysis of Moment Structures AMOS v.25.0.

References

- Allwood, M.A., & Widom, C.S. (2013). Child Abuse and Neglect, Developmental Role Attainment, and Adult Arrests. *Journal of Research in Crime and Delinquency*, 50(4), 551–578. doi:10.1177/0022427812471177
- Altintas, M., & Bilici, M. (2018). Evaluation of childhood trauma with respect to criminal behavior, dissociative experiences, adverse family experiences and psychiatric backgrounds among prison inmates. *Comprehensive Psychiatry*, 82, 100–107. doi:10.1016/j.comppsy.2017.12.006
- Bernstein D.P., Stein, J.A., Newcomb, M.D., Walker, E., Pogge, D., Ahluvalia, T., ... Zule, W. (2003). Development and validation of a brief screening version of the Childhood Trauma Questionnaire. *Child Abuse & Neglect*, 27(2), 169-90. doi:10.1016/S0145-2134(02)00541-0
- Bunford, N., Evans, S.W., & Wymbs, F. (2015). ADHD and Emotion Dysregulation Among Children and Adolescents. *Clinical Child and Family Psychology Review*, 18(3), 185–217. doi:10.1007/s10567-015-0187-5
- Comissão de Proteção de Crianças e Jovens [Child and Youth Protection Commission] (2019). Avaliação da atividade das CPCJ: Relatório anual 2018. Retrieved from <https://www.cnpdpcj.gov.pt/cpcj/relatorios-de-avaliacao-da-atividade-estatistica/relatorio-2018.aspx>.
- Coutinho, J., Ribeiro, E., Ferreirinha, R. & Dias, P. (2010). The Portuguese version of the difficulties in emotion regulation scale and its relationship with psychopathological symptoms. *Revista De Psiquiatria Clínica*, 37(4), 145-151. doi.org/10.1590/S0101-60832010000400001
- Dias, A., Sales, L., Carvalho, A., Castro-Vale, I., Kleber, R. & Cardoso, R.M. (2013). Estudo de propriedades psicométricas do Questionário de Trauma de Infância – Versão breve numa amostra portuguesa não clínica. *Laboratório de Psicologia*, 11(2): 103-120. doi:10.14417/lp.11.2.713
- Dogar, I.A., Akhwanzada, W.A., Bajwa, A., Haider, N. & Asmat, A. (2010). Self esteem and psychosocial factors associated with juvenile delinquency. *A.P.M.C.*, 4 (2), 172-176.
- Estévez, E. & Emler, N.P. (2011). Assessing the links among adolescent and youth offending, antisocial behavior, victimization, drug use, and gender. *International Journal of Clinical and Health Psychology*, 11 (2), 269-289.

- Finkelhor, D., Turner, H., Ormrod, R., Hamby, S., & Kracke, K. (2009). National survey of children's exposure to violence. *Juvenile Justice Bulletin*, 1-11.
- Fowler, P.J., Tompsett, C.J., Braciszewski, J.M., Jacques-Tiura, A.J., & Baltes, B.B. (2009). Community violence: A meta-analysis on the effect of exposure and mental health outcomes of children and adolescents. *Development and Psychopathology*, 21(01), 227. doi:10.1017/s0954579409000145
- Hackett, M.L., Köhler, S., O'Brien, J.T., & Mead, G.E. (2014). Neuropsychiatric outcomes of stroke. *The Lancet Neurology*, 13(5), 525–534. doi:10.1016/s1474-4422(14)70016-x
- Hamby, S., Finkelhor, D., Turner, H., & Ormrod, R. (2010). The overlap of witnessing partner violence with child maltreatment and other victimizations in a nationally representative survey of youth. *Child Abuse & Neglect*, 34 (10), 734-741. doi: 10.1016 / j.chiabu.2010.03.001
- Hien, D., Cohen, L., & A. Campbell A. (2005). Is traumatic stress a vulnerability factor for women with substance use disorders? *Clinical Psychology Review*, 25(6), 813–823. doi:10.1016/j.cpr.2005.05.006.
- Johnson, J.G., Cohen, P., Smailes, E.M., Skodol, A.E., Brown, J., & Oldham, J.M. (2001). Childhood verbal abuse and risk for personality disorders during adolescence and early adulthood. *Comprehensive Psychiatry*, 42(1), 16–23. doi:10.1053/comp.2001.19755
- Look, A.E., Flory, J.D., Harvey, P.D. & Siever, L.J. (2010). Psychometric properties of a short form of the affective lability scale (ALS-18). *Personality and Individual Differences*, 49, 187-191. doi:10.1016/j.paid.2010.03.030
- Maas, C., Herrenkohl, T.I., & Sousa, C. (2008). Review of Research On Child Maltreatment and Violence in Youth. *Trauma, Violence, & Abuse*, 9(1), 56–67. doi:10.1177/1524838007311105
- Meade, B. & Steiner, B. (2013). The Effects Of Exposure To Violence On Inmate Maladjustment. *Criminal Justice And Behavior*, 40(11), 1228–1249. doi: 10.1177/0093854813495392
- Norman, R.E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The Long-Term Health Consequences of Child Physical Abuse, Emotional Abuse, and Neglect: A Systematic Review and Meta-Analysis. *PLoS Medicine*, 9(11), e1001349. doi:10.1371/journal.pmed.1001349
- Oliver, M. N. I., & Simons, J. S. (2004). The affective lability scales: Development of a

- short-form measure. *Personality and Individual Differences*, 37(6), 1279–1288. doi.org/10.1016/j.paid.2003.12.013
- Reijntjes, A., Kamphuis, J.H., Prinzie, P., Boelen, P.A., van der Schoot, M., & Telch, M.J. (2010). Prospective linkages between peer victimization and externalizing problems in children: a meta-analysis. *Aggressive Behavior*, 37(3), 215–222. doi:10.1002/ab.20374
- Shaffer, J.N. & Ruback, R.B. (2002). Violent victimization as a risk factor for violent offending among juveniles. *Juvenile Justice Bulletin*, 1-12.
- Simons, J. S., Carey, K. B., & Gaher, R. M. (2004). Liability and impulsivity synergistically increase risk for alcohol-related problems. *American Journal of Drug and Alcohol Abuse*, 30(3), 685–694. doi.org/10.1155/2013/636854
- Smith, D.J., & Ecob, R. (2007). An investigation into causal links between victimization and offending in adolescents. *The British Journal of Sociology*, 58, 633-659. doi: 10.1111/j.1468-4446.2007.00169.x
- Walsh, K., Gonsalves, V.M., Scalora, M.J., King, S., & Hardyman, P.L. (2011). Child Maltreatment Histories Among Female Inmates Reporting Inmate on Inmate Sexual Victimization in Prison. *Journal of Interpersonal Violence*, 27(3), 492–512. doi:10.1177/088626051142167

Article 1

Portuguese Version of the Affective Lability Scale – Short Version (ALS-18): Psychometric Properties and Gender Invariance

Resumo

Enquadramento: A labilidade emocional é um conceito recente que tem sido amplamente estudado. Contudo, em Portugal faltam estudos e instrumentos para avaliar esse constructo. **Objetivos:** Analisar as propriedades psicométricas e a invariância de género da *Affective Lability Scale* - versão curta (ALS-18). **Método:** A amostra compreendeu 1886 adultos portugueses, 1475 mulheres e 411 homens com idade compreendida entre 18 e 91 anos ($M = 36.36$, $DP = 13.66$). Os participantes responderam ao protocolo *on-line*, composto pelo questionário sociodemográfico e pela *Affective Lability Scale* (ALS-18). **Resultados:** A análise fatorial confirmatória ofereceu suporte para a estrutura fatorial esperada teoricamente ($\chi^2(153) = 23507.59$, CFI = .962, NFI = .958, GFI = .943, RMSEA = .068; IC90% [.090-.096]). A ALS-18 mostrou propriedades psicométricas adequadas em termos de validade discriminante, validade convergente e consistência interna e foi estabelecida invariância na medição entre géneros. Existem diferenças significativas nos níveis de labilidade emocional, em relação ao sexo, idade, habilitações literárias, estado civil, trauma e experiências de vitimação nos últimos três anos. As mulheres são mais propensas a apresentar maiores níveis de labilidade emocional e de ansiedade e depressão. **Conclusão:** A ALS-18 é um bom instrumento para avaliar a labilidade emocional, é apropriado para a população portuguesa e é invariável entre os géneros.

Palavras-chave: labilidade emocional; invariância de género; adultos Portugueses

Abstract

Background: Emotional lability is a recent concept that has been widely studied. However, in Portugal there is a lack of studies, as well as instruments to assess this construct. **Objectives:** To analyze the psychometric properties and the gender invariance of the Affective Lability Scale (ALS-18). **Method:** The sample comprised 1886 Portuguese adults, 1475 women and 411 men, with age between 18 and 91 years old ($M = 36.36$, $SD = 13.66$). Participants answered the online research protocol, composed of the sociodemographic questionnaire and the Affective Lability Scale (ALS-18). **Results:** Confirmatory factor analysis offered support to the theoretically expected factor structure ($\chi^2 (153) = 23507.59$, $CFI = .962$, $NFI = .958$, $GFI = .943$, $RMSEA = .068$; $CI90\% [.090-.096]$). The ALS-18 showed adequate psychometric properties in terms of discriminant validity, convergent validity, and internal consistency. A cross-gender measurement invariance was established. There are significant differences in the scores of emotional lability concerning sex, age, education, marital status, trauma in the last three years, and experiences of victimization. Women are more likely to have higher scores of emotional lability, anxiety and depression. **Conclusion:** ALS-18 is a good instrument to assess emotional lability, is appropriate for the Portuguese population and is invariable between genders.

Keywords: emotional lability; gender invariance; Portuguese adults

Introduction

Emotional lability was first studied in 1975 (Soueif, 1975) in a research that correlated this concept with the manifestation of manic episodes. This represents a factor that requires in-depth analysis to make possible the identification of situations and reasons for its manifestation. However, there is still a lack of research on this topic in the Psychology field (Duda, 2007; Marwaha et al., 2014).

There are several denominations for the concept of emotional lability, namely affective instability, affective lability, emotional impulsivity, emotional instability, emotional variability, mood instability and lability of humor (Leaberry, Walerius, Rosen, & Fogleman, 2017). This is a multidimensional construct that is associated with problems of internalization and externalization (Skirrow & Asherson, 2013; Stringaris & Goodman, 2008), which tends to arise as a reaction to stimuli and significant events in the life of each person and that can have numerous negative consequences for the individual. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-V, 2014), emotional instability is characterized by instability of emotional experiences, and these same emotions are slightly aroused in the individual. It is a personality trait that is related to generalized anxiety disorder, psychotic disorder, obsessive-compulsive disorder, and personality disorder. Thus, it is of extreme importance the existence of instruments that accurately assess this construct. In Portugal, there is no instrument that assesses this specific construct, and since emotional lability is associated with different disorders, it is relevant to adapt and validate an instrument for the Portuguese population to evaluate this construct.

Some authors define emotional lability as uncontrollable expression of crying or laughing, implying the manifestation of unstable and intense emotions (Linehan, 2003). Although there is no consensus on its causes, several studies point to changes in the brainstem that cause respiratory impacts, related to laughter and crying, causing a deficit in the control of emotions (Do, 2011). In the study by Coccaro, Ong, Seroczynski, and Bergeman (2012), with a sample of twins, the authors found that emotional lability can be influenced by genetic and hereditary factors and by environmental factors, such as parenting and peer pressure.

In addition to the factors mentioned above, emotional lability has also been linked to the mistreatment suffered in childhood, since these victimization experiences that arise at an early stage of development can contribute to emotional dysregulation. Sometimes, it becomes too difficult for the individual to ignore the negative emotions associated with

the abuse since they are part of their cognitive construction. In this sense, there is a strong relationship between emotional lability and the environment in which the individual is inserted (Aas et al., 2014; Kim-Spoon, Cicchetti, & Rogosch, 2013; Linehan, 2003).

Individuals who have emotional lability tend to manifest sudden changes in their mood, leading to uncontrolled emotions. These can manifest themselves in the first year of life, due to the accelerated and intense changes in the brain that occur at this stage. In turn, when they appear in adolescence, the possibility of occurrence may be due to major hormonal and brain changes in the organism. Emotional lability leads to cognitive inconsistency, which may interfere in a relevant way in the development of individual identity (Linehan, 2003). The consequences resulting from these cognitive disorders depend on the intensity and frequency with which they manifest themselves and can be characterized by difficulties in regulating irritability (Anastopoulos et al., 2011), which can cause depression and anxiety disorders (Maciejewski, Van Lier, Branje, Meeus, & Koot, 2015).

Emotional lability is a form of emotional reactivity, which can trigger a prominent position in the individual with certain experiences in the past which were, in some way, emotionally striking. This fact can lead to distortions of events and experiences, triggering positive and/or negative emotions (Ebner-Priemer et al., 2007). Emotional lability is also related to the development of aggressive behaviors and the abuse of substances that are harmful to mental health (Anestis et al., 2009; Donahue, Goranson, McClure, & Van Male, 2014).

The studies that have been carried out show that females tend to have higher levels of emotional lability, because they are considered to be more affective, to be more fragile and vulnerable and to have lower self-esteem (Nora, 2013). Women exposed to conflict situations tend to have more symptoms of anxiety and depression, and thus tend to be more vulnerable to emotional lability (Gunnlaugsson, Kristjánsson, & Einarsdóttir, 2011; Oliveira, 2010). Also, the study by Marwaha et al. (2013) showed that young and adult women had higher levels of emotional lability. In cultural terms, the study identified 13.9% of European individuals with affective lability.

Measures to Assess Affective Lability

The importance of studying emotional lability is well documented (Lee, Turkel, Woods, Coffey, & Goetz, 2012). Several instruments assess changes in emotions, albeit in different ways: the Affective Intensity Measure (AIM: Larsen, Diener, &

Emmons, 1986), the Affective Lability Scale (ALS: Harvey, Greenberg, & Serper, 1989), the Dimensional Assessment of Personality Pathology – Basic Questionnaire (DAPP-BQ: Livesley, Jackson, & Schroeder, 1992), the Pathological Laughter and Crying Scale (PLACS: Robinson, Parikh, Lipsey, & Price, 1993), the Center for Neurologic Study-Lability Scale (CNS-LS: Moore, Gresham, Bromberg, Kasarkis, & Smith, 1997), the Affect Regulation and Experience Q – sort-questionnaire version (AREQ: Westen, Muderrisoglu, Fowler, Shedler, & Koren, 1997), The Emotional Lability Questionnaire (ELQ: Newsom-Davis, Abrahams, Goldstein, & Leigh, 1999), the Emotion Dysregulation Measure (EDM: Newhill, Mulvey, & Pilkonis, 2004), the Difficulties in Emotion Regulation Scale (DERS: Gratz & Roemer, 2008), and the Affective Lability Scale – short version (ALS-18: Look et al., 2010). In this study, we will adapt the Affective Lability Scale – short version to the Portuguese context (ALS-18: Look et al., 2010).

The Affective Lability Scale – short version (ALS-18: Look et al., 2010), has some advantages compared with other instruments used to assess affective lability. ALS-18 has fewer items than other measures, such as the AIM (Larsen et al., 1986), the ALS (Harvey et al., 1989), the DAPP-BQ (Livesley, et al., 1992), the CNS-LS (Moore et al., 1997), and the AREQ (Westen et al., 1997). Some of the tools do not specifically assess this construct or were developed for specific populations, such as the DAPP-BQ (Livesley, et al., 1992), the CNS-LS (Moore et al., 1997), the ELQ (Newsom-Davis et al., 1999). Furthermore, other instruments assess other constructs, such as the AIM (Larsen et al., 1986), the CNS-LS (Moore et al., 1997), the AREQ (Westen et al., 1997), and the EDM (Newhill et al., 2004). Thus, only the ALS-18 assesses emotional lability in specific, with a reduced number of items and suitable for all types of populations.

To the best of our knowledge, only the DERS is validated to the Portuguese population (Coutinho, Ribeiro, Ferreirinha, & Dias, 2010). However, the DERS does not assess emotional lability, evaluating the difficulties in emotional regulation. In this sense, in Portugal, there is no instrument that assesses this specific construct, and since emotional lability is associated with different disorders, it is relevant to adapt and validate an instrument for the Portuguese population to evaluate this construct.

The ALS-18 (Look et al., 2010) assesses the mood in the areas of anger, depression, elation, and anxiety, as well as the individual's propensity to vary between depression and euphoria and between depression and anxiety (Harvey et al., 1989). This tool assesses emotional lability in the general population, identifying differences between

groups, and in its original short version it has a small number of items with good internal consistency ($\alpha=.87$). The ALS-18 was associated with depressive symptoms, affective intensity, and emotional control of aggression. This short version scale measures the concept less exhaustively than the extended version instrument with 54 items, allowing a good assessment of emotional lability in adults. Given that the study by Marwaha et al. (2013) identified that 13.9% of the European and American population has emotional lability, the adaptation of ALS-18 will allow assessing the affective lability in the Portuguese population. In addition to this important contribution, it will make possible to assess whether there are differences between men and women in the level of emotional lability, taking into account that the study by Nora (2013) states that women have higher levels than men.

The objectives of the current study are a) to analyze the factor structure and the psychometric properties of the Portuguese version of the ALS-18, b) to analyze the factor structure invariance between men and women, and c) to analyze the differences in age, gender, education, marital status, trauma in the last three years, and victimization experiences in the last three years concerning the score of the ALS-18.

Method

Participants

The sample comprises 1886 participants, 1475 females (78.2%) and 411 males (21.8%), aged between 18 and 91 years old ($M = 36.36$, $SD = 13.66$). From the total sample, 1107 (58.8%) of the participants completed higher education and 577 (30.6%) the 12th year of school. About marital status, 884 (46.9%) are single and 609 (32.3%) are married.

In the last three years, 788 (41.8%) of the participants experienced traumatic events and 372 (19.7%) suffered some type of victimization. Table 1 shows supplementary information on sociodemographic characteristics.

Table 1
Sociodemographic Characteristics of the Sample (n = 1886)

Variable	Total (n = 1886)	
	n	%
Age (M, SD)	36.36	13.66
Age group		
18-40 years	1151	61
+ 40 years	735	39

Method

Gender		
Female	1475	78.2
Male	411	21.8
Education level		
Up to 4th year	6	.3
Up to 6th grade	13	.7
Up to 9th grade	74	3.9
Up to 12th grade	577	30.6
Graduation	842	44.7
Master's	239	12.7
Doctorate	28	1.4
Other	89	4.7
Marital status		
Single	884	46.9
Married	609	32.3
Facto union	233	12.4
Separated	15	.8
Divorced	130	6.9
Widowed	15	.8
Trauma in the last 3 years		
Yes	788	41.8
No	1098	58.2
Victimization in the last 3 years		
Yes	372	19.7
No	1514	80.3

Measures

Sociodemographic questionnaire: A sociodemographic questionnaire specifically built for this study was used, which evaluates the following sociodemographic variables: age, sex; nationality; education level ; marital status, victimization experiences in the last three years, and trauma issues in the last three years (persecuted; divorced; physically assaulted; sexually assaulted; theft / assault; housing damaged by natural causes; serious injuries; spontaneous abortion; other trauma).

Affective Liability Scale – short version (ALS-18; Look, Flory, Harvey, & Siever, 2010): the ALS-18 is a self-report measure composed of 18 items that was used in a non-clinical sample of students. It consists of three subscales that evaluate the total Emotional Liability, and assesses Anxiety/Depression, Depression/Elation and Anger. The items are scored using a 4-point *Likert* scale (0 – not characteristic, 1 – not characteristic, 2 – characteristic, 3 – totally characteristic) and the total score ranges from 0 to 54 points. High scores indicate greater emotional liability. The original version of ALS-18 presents

good psychometric properties, with Cronbach' alphas of .82 (Anxiety/Depression), .78 (Depression/Elation) and .84 (Anger). Internal consistency values for the Portuguese version will be given later in the results section.

Procedure

The study design is cross-sectional with a non-probabilistic sample. First, the ALS-18 was translated from English to Portuguese by three researchers and then translated from Portuguese to English by two researchers. The final version of the ALS-18 and the sociodemographic questionnaire were inserted in a Google Form. The link to complete the questionnaires was disseminated by e-mail and social networks. Before completing the questionnaires through the web-based survey, all participants signed electronically an informed consent. The confidentiality of results and the anonymity of subjects were both ensured. The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki (World Medical Association, 2013) and the protocol was approved by the Institutional Review Board.

Data Analysis

First, a descriptive analysis of the ALS-18 items was performed, using measures of central tendency and dispersion (Marôco, 2014). To assess the sensitivity of ALS-18 items, measured by asymmetry (Sk) and curtosis (Ku), scores of less than three and less than seven, respectively, were used (Marôco, 2014). The adjustment was assessed using factor weights (λ) and through the reliability of the items (δ), taking into account the factorial saturation value greater than .50 (Marôco, 2014).

To evaluate the ALS-18 factorial structure, an exploratory factor analysis (EFA) was performed, which is a method that aims to analyze the structure of the variables (Marôco, 2014). To assess sampling adequacy, the Kaiser-Meyer-Olkin (KMO) scores $\geq .60$ were used to evaluate whether the instrument had homogeneity of variables. Bartlett's sphericity test was used, which took into account the statistically significant values with $p \geq .05$. After checking the adequacy of the scale, the main components method was applied, which consists of transforming the original variables into other variables with the same dimension designated as the main components (Hongyu, Sandanielo, & Oliveira Junior, 2016). The application of this method understands that the data extraction is initially carried out, using the Kaiser criterion, which defends that the factors that explain the total variance should be retained and that all factors that have an eigenvalue greater

than one must be retained. The equamax method was applied for the rotation of factors (Marôco, 2014).

Reliability was assessed with the support of Cronbach's alpha. It is believed that consistency is appropriate when the alpha is greater than .70 (Marôco, 2014). Composite reliability (CR) was assessed through standardized factor weights, to check if the construct measures what it intends to measure. Scores above .70 were considered adequate indicators (Hair, Anderson, Tatham, & Black, 2009). Subsequently, to determine if the model resulting from AFE fit to the data, a confirmatory factor analysis (CFA) was performed, using the Maximum Likelihood Estimation (MLE) method (Marôco, 2014). To assess the adjustment quality of the models, the following indexes were used: a) the Compared Fit Index (CFI), the Non-Normed Fit Index (NFI), and the Goodness of Fit Index (GFI), higher than .90.; b) the Root Mean Square of Approximation (RMSEA) and the Root Mean Square Error of Approximation (RMSEA; 90% Confidence Interval) lower than .05 (Marôco, 2014).

The invariance of the factorial model across sample gender was assessed through a Multigroup Confirmatory Factor Analysis (MCFA). MCFA is a technique of structural equation modelling that assesses to what extent the configuration and the parameters of a psychometric instrument are invariant (equivalent) between different groups (Sass, 2011). Measurement invariance was analysed by testing configural (structure equivalence), metric (factorial loadings equivalence) and scalar invariance (intercept equivalence) (Horn & McArdle, 1992). To assess the instrument invariance the chi-square difference test ($\Delta\chi^2$) and the Comparative Fit Index difference test (ΔCFI) were used (Cheung & Rensvold, 2002). Since $\Delta\chi^2$ is sensitive to sample dimension, some authors have questioned its use in large or heterogeneous samples (Brannick, 1995; Marôco, 2014). To overtake this limitation the ΔCFI was used since it was not affected by the model specification (Cheung & Rensvold, 2002). To assume the measure invariance the ΔCFI value should be smaller or equal to .01 (Chen, 2007; Cheung & Rensvold, 2002). The psychometric properties of ALS-18 were assessed using convergent and discriminant validity. Convergent validity was assessed using the extracted average variance (VME), with values above .75 and reasonable values above .50 being considered advisable (Hair et al., 2009). The discriminant validity must assume values below .85 (Reichenheim, Hökerberg, & Moraes, 2014). The model was adjusted using modification indexes (greater than 11). To verify if there were differences between groups in emotional lability an analysis of the variables age, sex, educational level, marital status, traumas in the last

three years, and with experiences of victimization was also carried out, using One Way Multivariate ANOVA.

Statistical analyses were performed using the Statistical Package for Social Sciences (SPSS; IBM SPSS Statistics Version 25.0), and the Analysis of Moment Structures (AMOS; Version 25.0) software. Statistical significance was established at $p < .05$ (two-sided).

Results

Descriptive Analysis

The descriptive analysis of ALS-18 is shown in Table 2. The total score of ALS-18 has an average of 16.66 ($SD = 12.51$), with a minimum value of zero and a maximum of 54. From the subscales of the instrument, the Anxiety/Depression dimension has the highest score ($M = 1.054$, $SD = .844$), with a minimum value of zero and a maximum of three, and the Anger dimension has the lowest value ($M = .744$, $SD = .731$), with a minimum value of 0 and a maximum of 3.

Table 2
Mean and Standard Deviation

Variables	Minimum	Maximum	<i>M</i>	<i>SD</i>
ALS-18 Total	0	3	.926	.695
Anxiety/Depression	0	3	1.054	.844
Depression/Elation	0	3	.959	.724
Anger	0	3	.744	.731

Notes. M = Average, SD = Standard Deviation

Regarding multivariate normality, no item has asymmetry values below three and kurtosis values below seven (cf. Table 3).

Table 3
Multivariate Normality of Items

Items	<i>Mv Sk</i>	<i>Mv K</i>
1	10.007	-6.243
2	2.042	-8.705
3	6.007	-9.304
4	8.867	-7,621
5	8.841	-8.119
6	10.127	-7.264
7	10.927	-5.893
8	12.312	-5.285
9	23.291	6.546
10	12.330	-4.931
11	25.506	9.701
12	16,400	-1.418
13	10.015	-5.845
14	24,128	9.773
15	13.583	-4.507
16	16.596	-1.361
17	10.135	-5.672
18	12.223	4.489

Notes. Mv Sk = Multivariate skewness, Mv K = Multivariate kurtosis

Exploratory Factor Analysis

To analyze the factorial structure of ALS-18 in the Portuguese population, an exploratory factor analysis was carried out. The KMO value was .96, indicating an excellent homogeneity of the variables, and the Bartlett test denotes the following values, $\chi^2 = 23507.59$, $df = 153$, $p < .001$, suggesting that one can proceed with the assessment of the ALS-18 factorial structure. The analysis shows that the ALS-18 has a three-factor structure, which explains 67.87% of the total variance. The equamax rotation method shows that the factor weights were distributed in three factors: Factor 1 – Anxiety/Depression – consisting of items 1, 2, 3, 4, 5, 6, 7; Factor 2 – Depression/Elation – consisting of items 12, 13, 15, 16, 17, 18, and Factor 3 – Anger – consisting of items 8, 9, 11 and 14. This factorial structure is the same as the original factorial model (Look et al., 2010). Although the items did not show multivariate normality, none of the items was removed from the instrument because the standardized regression weights are greater than .5 (cf. Table 4).

Table 4
Standardized Regression Weights

Items	β
Anxiety/Depression	
1	.689 ***
3	.822 ***
5	.829 ***
6	.816 ***
7	.865 ***
Depression/Elation	
2	.662 ***
10	.776 ***
12	.782 ***
13	.661 ***
15	.673 ***
16	.793 ***
17	.645 ***
18	.636 ***
Anger	
4	.785 ***
8	.834 ***
9	.734 ***
11	.688 ***
14	.767 ***

Confirmatory Factor Analysis

The factorial structure obtained in this study was compared with the factorial structure of the original authors of ALS-18 (Look et al., 2010). The model of the factorial structure shows identical scores to those of the factor structure of the original instrument. The three-dimensional factorial structure shows evidence of satisfactory adjustment, with values of CFI = .962, GFI = .943 and RMSEA = .068 (Table 5).

Table 5
Confirmatory Factor Analysis

Model	χ^2	df	NFI	CFI	GFI	RMSEA	RMSEA IC (90%)
ALS-18 Total (original)	362.70	129		.966		.056	.049–.063
ALS-18 (EFA)	23507.59	153	.958	.962	.943	.068	.090–.096

Psychometric Properties

The psychometric properties of ALS-18 were evaluated, and the factorial validity is assured since only items with factors greater than .5 were considered. The Portuguese version of ALS-18 has an excellent internal consistency, with a Cronbach's alpha of .95 for the total scale, of .95 for Anxiety/Depression factor, .94 for Depression/Exaltation factor, and .94 for Anger factor, which indicates that the instrument has an excellent

reliability (Marôco, 2014). To better explore the construct validity the Average Variance Extracted (AVE) and the Composite Reliability (CR) of each factor were estimated. The CR was above the recommended values for all three factors: Factor 1 = .92, Factor 2 = .94, and Factor 3 = .88 (≥ 0.7 ; cf. Hair et al., 2009; Netemeyer et al., 2003). The AVE was also satisfactory for all subscales (≥ 0.5 cf. Netemeyer et al., 2003): Factor 1 = .70, Factor 2 = .50, Factor 3 = .59.

Invariance of the Factor Structure between Gender

The measurement invariance was analyzed using the Affective Liability Scale (ALS-18). The factorial model showed a good adjustment ($\chi^2(264) = 2505.347$; CFI = .9605; NFI = .958; GFI = .858; RMSEA = .067; CI90% [.065-.070]) to the female and male sample simultaneously, showing configural invariance. The $\Delta\chi^2$ and the Δ CFI revealed metric ($\Delta\chi^2(15) = 29.414$, $p = .014$), and scalar invariance ($\Delta\chi^2(21) = 45.582$, $p = .001$). These results corroborate the presence of measurement invariance across gender.

Differential Analysis

To explore the differences between age, sex, education level, marital status, trauma in the last three years, and experiences of victimization in the last three years and ALS-18 scores, analyzes of variance (ANOVA) were performed. Regarding age, two groups were defined (18 years old to 40, and over 40 years). The results show statistically significant differences in the total score of the ALS-18, in the Anxiety/Depression subscale and in the Depression/Elation subscale, with the youngest participants showing higher scores (Table 6). Concerning gender, there are statistically significant differences in total score of the ALS-18 and in the Anxiety/Depression subscale, with higher scores for females (Table 6). Regarding marital status, there are statistically significant differences in the total score of the ALS-18, in the Anxiety/Depression subscale, and in the Depression/Elation subscale. Single participants are those who present the highest scores compared to other groups (Table 6).

Table 6

Means, Standard Deviations, and One-Way Analyses of Variance in Age, Gender Regarding, Marital Status Single, Divorced and Emotional Lability

Variables	18-40 years		+ 40 years		<i>F</i> (1, 1885)	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
ALS-18 Total	.98	.71	.84	.67	18.590	< .001
Anxiety/Depression	1.13	.87	.93	.79	25.571	< .001
Depression/Elation	1.02	.74	.86	.68	22.571	< .001
	Female		Male			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
ALS-18 Total	.95	.69	.85	.71	6.447	.011
Anxiety/Depression	1.10	.84	.89	.84	20.787	<.01
	Single		Divorced			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
ALS-18 Total	.98	.69	.92	.80	2.441	.03
Anxiety/Depression	1.15	.86	1.02	.92	4.381	.01
Depression/Elation	1.03	.73	.94	.80	2.993	.01

Regarding trauma in the last three years, there are statistically significant differences between the groups in the total score of the ALS-18, and in the three subscales (Anxiety/Depression, Depression/Elation, and Anger), with participants who have experienced trauma in the last three years presenting the highest scores (Table 7). Concerning victimization experiences, there are also statistically significant differences in the total score of the ALS-18 and in all the three subscales (Anxiety/Depression, Depression/Elation, and Anger), with higher scores in participants who experienced victimization in the last three years, compared to those who did not experience victimization (Table 7).

Table 7

Means, Standard Deviations, and One-Way Analyses of Variance in Trauma in the Last Three Years and Emotional Lability and in the Last Three Years and Emotional Lability

Variables	Trauma		No Trauma		<i>F</i> (1, 1884)	η^2
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
ALS-18 Total	1.05	.73	.84	.66	43.576	< .01
Anxiety/Depression	1.20	.88	.95	.80	41.834	< .01
Depression/Elation	1.07	.76	.88	.69	32.573	< .01
Anger	.84	.77	.66	.69	36.537	< .01
	Victimization		No Victimization			
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
ALS-18 Total	1.11	.75	.88	.67	32.490	< .01
Anxiety/Depression	1.30	.89	.99	.82	41.539	< .01

Depression/Elation	1.12	.78	.92	.70	23.168	< .01
Anger	.89	.80	.71	.71	19.591	< .01

Discussion

The objectives of the current study were: a) to analyze the factor structure and the psychometric properties of a Portuguese version of the ALS-18; b) to analyze the factor structure invariance across gender; and c) to analyze the differences in age, gender, education level, marital status, trauma in the last three years, and victimization experiences in the last three years, concerning the score of the ALS-18. As no instrument in Portugal evaluates specifically the emotional lability and taking into account the relationship between affective lability with some disorders referred in the Diagnostic and Statistical Manual of Mental Disorders (DSM-V, 2014), it is extremely important to adapt this tool to the Portuguese population.

Regarding the ALS-18 factorial structure, the exploratory factor analysis (EFA) showed a three-factor structure, similar to that found in the original version of the instrument and in other versions (Aas et al., 2014; Contardi et al., 2018; Look et al., 2010). Depending on the analysis of the adjustment indices, the validity of the three-dimensional factorial structure in the Portuguese normative population was confirmed. The items by factor presented in our study are the same as in the original version (Look et al., 2010).

Regarding the confirmatory factor analysis (CFA), the ALS-18 three-factor model identified in the original study and in the AFE demonstrated a good adjustment and had a good fit, reinforcing that the original instrument's factorial structure was maintained in our sample and provided a proper representation of the data. The ALS-18 showed good reliability, construct validity, convergent validity, discriminant validity, and the factor validity was confirmed for all the items. The scores of Cronbach' alphas are considered excellent (.90 to one). Regarding the construct validity, the KMO results are considered excellent (.90 to one) (Marôco, 2014). These findings indicate that the items measured the construct that we intended to measure in the Portuguese population.

Also, we assessed whether the Portuguese version of ALS-18 was invariable across genders. Through the CFA analyzes between groups, we found evidence of metric, scalar and configural invariance, meaning that both groups respond to the ALS-18 instrument in the same way. This is an important finding since it gives researchers and clinicians more confidence in utilizing the ALS-18 in different groups and in generalizing findings across gender groups. Nonetheless, more research is needed to examine the

measurement invariance among other groups (e.g., community and clinical samples; cross cultural/language, age, race).

The average results obtained by our sample in ALS-18 and its subscales, showed scores slightly lower than the average values obtained in the original version (Look et al., 2010). This difference may be due to the characteristics of the sample, namely the size of the sample considering men and women. In our research, we have 21.8% of men, while in the original validation article, the male sample comprised 45.8%. This difference may also be due to cultural and demographic differences, and because the Portuguese female population is more receptive to completing the protocol.

Younger people, up to 40 years old, are more likely to have higher scores of emotional lability, compared to the older ones. Our results corroborate the study by Marwaha and colleagues (2013), which showed that women aged between 16 and 24 years have higher levels of emotional lability, thus revealing that younger women have higher levels of emotional lability, which includes Portuguese individuals over 18 years old. Younger adults may experience greater emotional dysregulation, because they tend to have fewer positive emotions and to use cognitive reevaluation to a lesser extent, compared to older adults (Yeung, Wong, & Lok, 2011).

The results of our study showed differences between women and men regarding emotional lability, with women having higher scores. Our results are corroborated by the study by Nora (2013). Moreover, women tend to have higher rates of anxiety (Costa et al., 2019) and depression (Conceição, 2019) compared to men. These indices may be a predisposition to have higher levels of emotional lability, as mentioned in other research (Gunnlaugsson, Kristjánsson, & Einarsdóttir, 2011; Oliveira, 2010).

Single participants have higher levels of emotional lability compared to other marital status. No studies were found to assess this sociodemographic difference in emotional lability, however, this difference may be due to the high prevalence in this study of single women.

Finally, our results indicate that participants who have experienced trauma or victimization in the past three years showed greater levels of emotional lability, compared to those who have not experienced trauma or victimization. This result corroborates some studies (e.g., Aas et al., 2014; Kim-Spoon et al., 2013; Linehan, 2003) that showed a relationship between the environment in which individuals are inserted and the scores of emotional lability. Specifically, some studies have evidenced the relationship between emotional lability and traumatic life experiences that arise early in the individual's life,

and several studies argue that child victimization increases the probability of having emotional lability (e.g., Aas et al., 2014; Kim-Spoon et al., 2013; Linehan, 2003).

Limitations

This study has some limitations that may have an impact on the results. Participants responded to ALS-18 in an online format, therefore only people with internet access were able to answer the questionnaire. The ALS-18 is a self-report scale, and answers may be compromised by the social desirability inherent in each individual. It is also important to take into account the characteristics of the sample, which is characterized mainly by female participants, young people, with high levels of education. Our sample is not representative of the entire Portuguese context, that does not allow the generalization of results, despite vast geographic regions of Portugal that contemplates. Although some sociodemographic characteristics have been evaluated, economic issues, family dynamics, and the environment in which they operate have not been assessed, and they may have an impact on the scores of emotional lability (Kim-Spoon et al., 2013; Linehan, 2003).

Conclusions

Despite the limitations, the current study is extremely relevant because it is the first adaptation of a Portuguese version of the ALS-18. Our study shows that ALS-18 has good psychometric properties, providing a great contribution to Psychology since the ALS-18 proved to be appropriate to perform reliable assessments of emotional lability in Portuguese adults. The Portuguese version of ALS-18 proved to be invariable between genders, that is, both men and women respond in the same way to the instrument and allows the generalization of results between men and women. This study can provide a proper assessment to identify emotional lability. This identification can provide important information to develop and perform intervention programs for adults, based on emotional regulation and that reduce emotional lability. It may also allow us to create awareness campaigns, which call attention to this phenomenon, to increase people's interest in the prevalence of this phenomenon, highlighting the importance to intervene in emotional health. We suggest that future studies carry out retrospective and more comprehensive studies of the population, using qualitative methods of assessment, and evaluating variables referenced above to identify causes that lead to emotional lability.

References

- Aas, M., Aminoff, S.R., Vik, L.T., Etain, B., Agartz, I., Andreassen, O.A. (2014). Affective lability in patients with bipolar disorders is associated with high levels of childhood trauma. *Psychiatry Research*, 218(1-2), 252-255. doi: 10.1016/j.psychres.2014.03.046
- Anastopoulos, A.D., Smith, T.F., Garrett, M.E., Morrissey-Kane, E., Schatz, N.K., Sommer, J.L., Kollins, S.H. & Ashley-Koch, A. (2011). Self-regulation of emotion, functional impairment, and comorbidity among children with ADHD. *Journal of Attention Disorders*, 15(7), 583-592. doi:10.1177/1087054710370567
- Anestis, M.D., Peterson, C.B., Bardone-Cone, A.M., Klein, M.H., Mitchell, J.E., Crosby, R. D., ...Joiner, T.E. (2009). Affective lability and impulsivity in a clinical sample of women with bulimia nervosa: the role of affect in severely dysregulated behavior. *International Journal of Eating Disorders*, 42(3), 259-266. doi: 10.1002/eat.20606
- Do, L.L.T.N.(2011). Emotional Lability. In Naglieri, J., *Encyclopedia of child behavior and development*, 576-576. Berlin:Springer. doi:10.1007/978-0-387-79061-9_991
- Coccaro, E.F., Ong, A.D., Seroczynski, A.D., & Bergeman, C.S. (2012). Affective intensity and lability: Heritability in adult male twins. *Journal of Affective Disorders*, 136 (3), 1011–1016. doi: 10.1016/j.jad.2011.06.042
- Contardi, A., Imperatori, C., Amati, I., Balsamo, M., & Innamorati, M. (2018). Assessment of affect lability: Psychometric properties of the ALS-18. *Frontiers in Psychology*, 427(9). doi:10.3389/fpsyg.2018.00427
- Conceição, N.D.J.M.C.D. (2019). *A perturbação do espectro do autismo: contribuições para o estudo da sobrecarga, ansiedade, depressão, stresse, qualidade de vida e resiliência nas famílias* (Tese de mestrado). Faculdade de Ciências Humanas e Sociais, Algarve.
- Costa, C.O.D., Branco, J.C., Vieira, I.S., Souza, L.D.D.M., & Silva, R.A.D. (2019). Prevalência de ansiedade e fatores associados em adultos. *Jornal Brasileiro de Psiquiatria*, 68(2), 92-100. doi:10.1590/0047-2085000000232
- Coutinho, J., Ribeiro, E., Ferreirinha, R. & Dias, P. (2010). The Portuguese version of the difficulties in emotion regulation scale and its relationship with psychopathological symptoms. *Revista De Psiquiatria Clínica*, 37(4), 145-151. doi: 10.1590/S0101-60832010000400001

- Donahue, J.J., Goranson, A.C., McClure, K.S., & Van Male, L.M. (2014). Emotion dysregulation, negative affect, and aggression: A moderated, multiple mediator analysis. *Personality and Individual Differences, 70*, 23–28. doi: 10.1016/j.paid.2014.06.009
- Duda, J.E. (2007). History and prevalence of involuntary emotional expression disorder. *CNS Spectrums International Journal of Neuropsychiatric Medicine, 12*(4), 6-10. doi:10.1017/S1092852900025955
- Ebner-Priemer, U.W., Kuo, J., Kleindienst, N., Welch, S.S., Reisch, T., Reinhard, I., Lieb, K., Linehan, M.M. & Bohus, M. (2007). State affective instability in borderline personality disorder assessed by ambulatory monitoring. *Psychological Medicine, 37*(7), 961-970. doi:10.1017 / S0033291706009706
- Gratz, K.L., & Roemer, L. (2008). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotion regulation scale. *Journal of Psychopathology and Behavioral Assessment, 30*(4), 315–315. doi:10.1007/s10862-008-9102-4
- Gunnlaugsson, G., Kristjánsson, A.I. & Einarisdóttir, J. (2011). Intrafamilial conflict and emotional well-being: A population based study among Icelandic adolescents. *Child Abuse and Neglect, 35*(5), 372-381. doi:10.1016/j.chiabu.2011.01.011
- Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W.B. (2009) *Multivariate data analysis* (7th edition). Upper Saddle River, NJ: Prentice Hall.
- Harvey, P.D., Greenberg, B.R., & Serper, M.R. (1989). The affective lability scales: Development, reliability, and validity. *Journal of Clinical Psychology, 45*(5), 786-793. doi:10.1002/1097-4679(198909)45:5<786::aid-jclp2270450515>3.0.co;2-p
- Hongyu, K., Sandanielo, V.L.M., & Oliveira Junior, G.J. (2016). Análise de componentes principais: resumo teórico, aplicação e interpretação. *E&S Engineering and Science, 5*(1), 83-90. doi: 10.18607/ES201653398
- Kim-Spoon, J., Cicchetti, D., & Rogosch, F.A. (2013). A longitudinal study of emotion regulation, emotion lability-negativity, and internalizing symptomatology in maltreated and nonmaltreated children. *Child Development, 84*(2), 512-527. doi:10.1111/j.1467-8624.2012.01857.x
- Larsen, R.J., Diener, E., & Emmons, R.A. (1986). Affect intensity and reactions to daily life events. *Journal of Personality and Social Psychology, 51*(4), 803-814. doi:10.1037/0022-3514.51.4.803

- Leaberry, K.D., Walerius, D.M., Rosen, P.J., & Fogleman, N.D. (2017). Emotional Lability. In Shackelfors, T.K. & Zeigler-Hill, V., *Encyclopedia of Personality and Individual Differences*, 1-10. Berlin:Springer. doi:10.1007/978-3-319-28099-8_510-1
- Lee, H.J., Turkel, J.E., Woods, D.W., Coffey, S.F., & Goetz, A.R. (2012). Elevated affective lability and poor response inhibition: An investigation based on emotional and non-emotional go/no-go tasks. *Journal of Experimental Psychopathology*, 3(5),750-767. doi:10.5127/jep.021611
- Linehan, M.M. (2003). *Manual de tratamento de los trastornos de personalidad limite*. Paidós, Barcelona. Disponível em https://www.academia.edu/35798929/Manual_de_tratamiento_de_los_trastornos_limite_s_de_la_personalidad_Marsha_Linehan. Acedido a 30 de novembro de 2019.
- Livesley, W.J., Jackson, D.N., & Schroeder, M.L. (1992). Factorial structure of traits delineating personality disorders in clinical and general population samples. *Journal of Abnormal Psychology*, 101(3), 432-440. doi:10.1037/0021-843x.101.3.432
- Look, A.E., Flory, J.D., Harvey, P.D. & Siever, L.J. (2010). Psychometric properties of a short form of the affective lability scale (ALS-18). *Personality and Individual Differences*, 49, 187-191. doi: 10.1016/j.paid.2010.03.030
- Marôco, J. (2014). *Análise estatística com o SPSS Statistics*. (6ª Edição). ReportNumber, Pêro Pinheiro.
- Maciejewski, D.F., Van Lier, P.A.C., Branje, S.J.T., Meeus, W.H J., & Koot, H.M. (2015). A 5-year longitudinal study on mood variability across adolescence using daily diaries. *Child Development*, 86 (6), 1908-1921. doi:10.1111/cdev.12420
- Marwaha, S., He, Z., Broome, H., Singh, S.P., Scott, J., Eyden, J., & Wolke, D. (2014). How is affective instability defined and measured? A systematic review. *Psychological Medicine*, 44 (9), 1793-1808. doi:10.1017/S0033291713002407
- Moore, S.R., Gresham, L.S., Bromberg, M.B., Kasarkis, E.J., & Smith, R.A. (1997). A self report measure of affective lability. *Journal of Neurology, Neurosurgery & Psychiatry*, 63(1), 89-93. doi:10.1136/jnnp.63.1.89.
- Newhill, C.E., Mulvey, E.P., & Pilkonis, P.A. (2004). Initial development of a measure of emotional dysregulation for individuals with cluster B personality disorders. *Research on Social Work Practice*, 14(6), 443-449. doi:10.1177/1049731504267332.
- Newsom-Davis, I.C., Abrahams, S., Goldstein, L.H., & Leigh, P.N. (1999). The emotional lability questionnaire: A new measure of emotional lability in amyotrophic

- lateral sclerosis. *Journal of the Neurological Sciences*, 169(1-2), 22-25. doi:10.1016/s0022-510x(99)00211-7
- Nora, L. (2013). *El superyó femenino*. (Tese de doutoramento). Universidade Autónoma de Madrid, Madrid. Disponível em <http://www.aperturas.org/articulo.php?articulo=55>. Acedido a 10 de novembro de 2019.
- Oliveira, A.R.(2010). *Perceção de crianças expostas à violência interparental* (Tese de doutoramento). Universidade Fernando Pessoa, Porto.
- Oliver, M.N.I., & Simons, J.S. (2004). The affective lability scales: Development of a short-form measure. *Personality and Individual Differences*, 37(6), 1279–1288. doi: 10.1016/j.paid.2003.12.013
- Reichenheim, M.E., Hökerberg, Y.H.M., & Moraes, C.L. (2014). Assessing construct structural validity of epidemiological measurement tools: a seven-step roadmap. *Cadernos de saude publica*, 30, 927-939. doi: 10.1590/0102-311X00143613
- Robinson, R.G., Parikh, R.M., Lipsey, J.R. & Price, T.R. (1993). Pathological laughing and crying following stroke: Validation of a measurement scale and a double-blind treatment study. (1993). *American Journal of Psychiatry*, 150(2), 286-293. doi:10.1176/ajp.150.2.286.
- Sass, D. A. (2011). Testing measurement invariance and comparing latent factor means within a confirmatory factor analysis framework. *Journal of Psychoeducational Assessment*, 29(4), 347-363. doi:10.1177/0734282911406661
- Skirrow, C. & Asherson, P. (2013). Emotional lability, comorbidity and impairment in adults with attention-deficit hyperactivity disorder. *Journal of Affective Disorders*, 147(1-3), 80-86. doi: 10.1016/j.jad.2012.10.011.
- SouEIF, M.I. (1975). Chronic cannabis takers: Some temperamental characteristics. *Drug and Alcohol Dependence*, 1(2), 125-154. doi:10.1016/0376-8716(75)90014-9
- Stringaris, A., & Goodman, R. (2008). Mood lability and psychopathology in youth. *Psychological Medicine*, 39(8), 1237-1245. doi: 10.1017/S0033291708004662.
- Westen, D., Muderrisoglu, S., Fowler, C., Shedler, J., & Koren, D. (1997). Affect regulation and affective experience: Individual differences, group differences, and measurement using a Q-sort procedure. *Journal of Consulting and Clinical Psychology*, 65(3), 429-439. doi:10.1037/0022-006x.65.3.429.

References

- World Medical Association. (2013). World medical association declaration of helsinki: Ethical principles for medical research involving human subjects. *JAMA*, *310*(20), 2191-2194. doi:10.1001/jama.2013.281053
- Yeung, D.Y., Wong, C.K.M., & Lok, D.P.P. (2011). Emotion regulation mediates age differences in emotions. *Aging & Mental Health*, *15*(3), 414-418. doi:10.1080/13607863.2010.536136

Article 2

Impact of Youth Victimization on Affective Lability: A Comparative Study Between a Sample of Inmates and a Sample of the Normative Population

Resumo

Enquadramento: As experiências traumáticas de vitimização na infância têm consequências negativas para os indivíduos. A prevalência de vitimização infantil é uma preocupação da sociedade e a labilidade emocional é uma das consequências da vitimização. **Objetivos:** Este estudo teve como objetivo verificar o impacto e a relação entre experiências traumáticas e a labilidade emocional, a prática de crimes e experiências traumáticas e o tipo de crime cometido e labilidade emocional. Pretendeu-se também verificar as diferenças entre as experiências de vitimização traumática na infância e a labilidade emocional, entre os reclusos e a população normativa, e entre os géneros. **Participantes:** A amostra é composta por 1281 participantes, 978 da população normativa, [824 mulheres, 154 homens, entre os 18-91 anos ($M=41.44$, $SD=13.30$)] e 303 da população reclusa, [81 mulheres, 222 homens, entre 20-70 anos ($M=38.28$, $SD=10.33$)]. **Método:** Os participantes responderam em papel e *online* a um protocolo composto por um questionário sociodemográfico, o *Childhood Trauma Questionnaire - short version* (CTQ-SF) e a *Affective Lability Scale - short version* (ALS-18). **Resultados:** Existe uma correlação positiva entre a vitimização infantil e os níveis de labilidade emocional. A população reclusa relata pontuações mais elevadas no trauma infantil e labilidade emocional. As mulheres reclusas identificaram mais episódios de trauma na infância, negligência emocional e abuso sexual, maior ansiedade e depressão. A prevalência de experiências traumáticas na infância prediz a labilidade emocional e o tipo de crimes cometidos, e a reclusão prediz a labilidade emocional. **Conclusão:** Resultados mostram que as experiências traumáticas na infância estão relacionadas com a labilidade emocional, o que chama a atenção para a necessidade de desenvolver programas de intervenção que reduzam a vitimização e a labilidade emocional.

Palavras-chave: Reclusos; População normativa; Labilidade emocional; Vitimação infantil

Abstract

Background: Traumatic victimization experiences in childhood have negative consequences for individuals. The prevalence of child victimization is a concern in society, and one of the consequences of this victimization is emotional lability.

Objectives: This study aimed to verify the impact and relationship between traumatic experiences and emotional lability, the practice of crimes and traumatic experiences, and the type of crime committed and emotional lability. Also intended to verify the differences between concerning experiences of traumatic victimization in childhood and emotional lability between inmates and normative population, and between genders.

Participants: The sample comprised 1281 participants, 978 from the normative population [824 females, 154 males, between 18-91 years old ($M = 41.44$, $SD = 13.30$)], and 303 of the inmate population [81 females, 222 males, between 20-70 years old ($M = 38.28$, $SD = 10.33$)].

Method: Participants responded in paper and online to a protocol consisting of a sociodemographic questionnaire, the Childhood Trauma Questionnaire (CTQ), and the Affective Lability Scale (ALS-18).

Results: There is a positive correlation between child victimization and emotional lability. The inmates report higher scores for child trauma and emotional lability. Women inmates had more episodes of childhood trauma, emotional neglect and sexual abuse, higher anxiety, and depression.

The prevalence of traumatic experiences in childhood predicts emotional lability and the type of crimes committed, and incarceration predicts emotional lability.

Conclusion: Results show that traumatic experiences in childhood are related to emotional lability, which draws attention to the need to develop intervention programs that reduce victimization and emotional lability.

Keywords: Inmates; Normative population; Emotional lability; Child victimization

Introduction

The youth victimization has become a growing concern in the scientific community (Almeida, Ramos, Brito, & Cardoso, 2020; Caridade, Fonte & Neiva, 2018). Annually, approximately 10 million children are exposed to violence or witness some type of violence. Research shows that around 35% to 50% of young people live in violent homes (Finkelhor, Ormrod, & Turner, 2007; Sullivan, Egan, & Gooch, 2004). Females tend to register more victimization of sexual violence (from 3% to 31%), and they also suffer from higher levels of victimization in general (Collin-Vézina, Daigneault, & Hébert, 2013; Gilbert et al., 2009). In Portugal, the data pointed 13905 youth situations of danger in 2018 (Child and Youth Protection Commission, 2019). These experiences tend to increase the possibility of individuals becoming victims again in their lifetime, and also to develop psychological and functional problems (Allwood & Widom, 2013; Lopes & Almeida, 2020; Maas, Herrenkohl, & Sousa, 2008; Norman et al., 2012;).

The five most cited types of child abuse and neglect are physical abuse, emotional abuse, neglect, sexual abuse, and witnessing family violence (Gilbert et al., 2009). The impact of youth victimization may have numerous consequences of externalization and internalization in the short and long term. These consequences will be more or less marked, depending, among others, on the type of victimization and the frequency in which it occurs. Specifically, concerning externalization, several studies indicate that victimization may enhance delinquency behaviors (Allwood & Widom, 2013; Maas et al., 2008), criminal behaviors (Allwood & Widom, 2013; Maas et al., 2008), aggression (Maas et al., 2008), attempted suicide (Norman et al., 2012), and substance abuse (Afifi et al., 2008).

The practice of violent and criminal behavior in adulthood can be a consequence of youth victimization, especially for individuals who have been victims of physical abuse or who have witnessed domestic violence (Gilbert et al., 2009). Individuals who use violence in their conduct tend to use these behaviors as a mechanism to deal with stress and as a way of resolving conflicts (Chapple, 2003). The study by Meade and Steiner (2013) carried out with the inmates, identified that 71% of participants were exposed to at least one type of child abuse and neglect, and found that 39% of the participants were abused in childhood. Other studies carried out with inmates showed that women signal more history of physical and sexual victimization. In these studies, 78% of women reported a history of youth victimization (McDaniels-Wilson & Belknap, 2008), and only

15% of men reported this type of victimization (Drapalski, Youman, Stuewig, & Tangney, 2009). Among detained women, 77% to 90% suffered from emotional abuse, physical abuse and sexual abuse (Mejía, Zea, Romero, & Saldívar, 2015), revealing more episodes of victimization, compared to women in the general population who register 49.2 % (Elliott, Alexander, Pierce, Aspelmeier, & Richmond, 2009).

The research highlights that victimization by abuse and neglect in childhood tends to cause mental health problems, namely personality disorders (Maniglio, 2012), post-traumatic stress (Norman et al., 2012), depression (Afifi, Boman, Fleisher, & Sareen, 2009; Cannon, Bonomi, Anderson, Rivara, & Thompson, 2010; Norman et al., 2012), anxiety (Clark, Caldwell, Power, & Stansfeld, 2010; Norman et al., 2012), and suicidal behavior (Norman et al., 2012). Studies point to a relationship between youth victimization and emotional problems in adulthood (Fergusson, Boden, & Horwood, 2008; Hussey, Chang, & Kotch, 2006), especially a strong association between child physical abuse and multiple psychosomatic symptoms (Jernbro, Svensson, Tindberg, & Janson, 2011).

One of the causes of the relationship between child abuse and disturbances with emotional manifestations is emotional lability. Emotional lability can be defined as the occurrence of uncontrollable crying or laughing events, that is, the individual has great difficulties in controlling their emotions, which leads the person to react in an incompatible way to the stimulus that triggered such emotion (Parvizi et al., 2006; Santos, 2019).

Several studies report that children who have suffered victimization have deficits in emotional regulation (Maughan & Cicchetti, 2002), and have higher levels of emotional lability, compared to those who have not suffered any type of victimization (Crow, Cross, Powers, & Bradley, 2014; Kim-Spoon, Cicchetti & Rogosch, 2012; Rogosch & Cicchetti, 2005). The prevalence of emotional lability will be higher when the child is a victim of emotional abuse, emotional neglect, and sexual abuse (Aas et al., 2014). Individuals who experience early episodes of anger may have suffered from some type of childhood victimization, and the authors argue that they have emotional lability (Champion & Clay, 2007; Garner & Hinton, 2010).

Children who have emotional problems, such as emotional lability, are more likely to show behavioral problems (Muller, Vascotto & Konanur, 2013). Young people who show aggressive behaviors, have a low tolerance for frustration, and have higher levels of emotional lability (OConnor, 2018). Renschmidt and Walter (2010) refer that

decreasing the prevalence of emotional lability, will contribute to reducing the practice of offenses. Therefore, they indicate that there may be a relationship between emotional lability and criminality.

Studies carried out with the inmates identified that this group experiences more violence, resulting in a deficit in the interpretation of emotional signs and the regulation of their emotions (Clements, Oxtoby, & Ogle, 2008). Besides, in studies with the normative population, childhood victimization of inmates is related to emotional problems, low self-esteem, depression, and anxiety (Clements, et al., 2008; Hay & Evans, 2006).

There are no studies on the prevalence and the impact of emotional lability on the inmates, both in Portugal and internationally. Thus, it would be crucial to study this topic to assess whether emotional lability is related to victimization during childhood.

This study aims to verify: a) in the total sample, if there is a relationship between traumatic experiences and emotional lability in adulthood; b) if in the sample of individuals who committed crimes, there is a relationship between the commission of crimes and the traumatic experiences of victimization experienced in childhood, and between the type of crime committed and emotional lability; c) if there are differences, in a sample of the normative population and in a sample of the inmates, in those of traumatic experiences of victimization lived in childhood and in the levels of emotional lability in adulthood; d) whether there are differences in the inmates between men and women in child victimization and emotional lability; e) whether the traumatic experiences of victimization experienced in childhood predict emotional lability; f) whether the traumatic experiences of victimization experienced in childhood have an impact on emotional lability and the type of crimes committed; and g) whether reclusion predicts emotional lability.

Method

Participants

The total sample was composed of 1281 participants, 978 (76.3%) of them belonged to the normative population, and 303 (23.7%) to a sample of the inmates. From the sample of the normative population, 824 of the participants were female (84.3%) and 154 were male (15.7%), aged between 18 and 91 years old ($M = 41.44$, $SD = 13.30$). Of these participants, 627 (64%) completed higher education and 282 (28.8%) the 12th year.

Of the individuals in this sample, 685 (70%) were workers and 126 (12.9%) were students. Regarding marital status, 432 (44.2%) of the participants were married, 291 (29.2%) were single. In this sample of the normative population, 306 (31.5%) participants reported experiences of emotional abuse in childhood, 379 (39.6%) experiences of emotional neglect, 197 (20.1%), sexual abuse, 109 (11.2%) physical abuse, and 255 (26.1%) physical negligence. It should be noted that from the normative sample, 5 (.5%) participants reported having already been convicted of a crime in the past.

From the sample of 303 participants from the inmates, 81 were female (26.7%) and 222 were male (73.3%), aged between 20 and 70 years old ($M = 38.28$, $SD = 10.33$). Of these participants, 94 (31%) completed the 9th grade, and 83 (27.7%) completed the 12th grade. Of the sample, 190 (62.7%) participants from the inmates were working before being arrested, and 88 (29%) were unemployed. Regarding marital status, 129 (42.6%) of the participants were single, and 70 (23.1%) lived in the consensual union. In this sample of inmates, 129 (42.6%) participants reported experiences of emotional abuse in childhood, 259 (85.5%) experiences of emotional neglect, 67 (22.1%) sexual abuse, 99 (32.7%) physical abuse, and 268 (88.4%) physical negligence.

Measures

Sociodemographic Questionnaire

A sociodemographic questionnaire specifically built for this study was used, which evaluates the following sociodemographic variables: age, sex; nationality; education level ; marital status, victimization experiences in the last three years, and trauma issues in the last three years (persecuted; divorced; physically assaulted; sexually assaulted; theft / assault; housing damaged by natural causes; serious injuries; spontaneous abortion; other trauma). In the sociodemographic questionnaire administered to the inmate's population, questions were added regarding the crime for which he was detained, how long he was convicted, if he has already been convicted of any crime, if so, how many and what crimes were committed.

Childhood Trauma Questionnaire – short version (CTQ)

The Portuguese version of the CTQ (Bernstein et al., 2003) was applied, which is a tool for self-assessment of exposure to situations of abuse, occurring up to 15 years of age. It consists of 28 items and has five subscales of five items each, which reflect the different types of abuse: Emotional Abuse ($\alpha = .71$), Physical Abuse ($\alpha = .77$), Sexual

Abuse ($\alpha = .71$), Physical Negligence ($\alpha = .47$), and Emotional Negligence ($\alpha = .79$). The instrument is evaluated using a 5-point Likert scale (1 – never, 2 – a few times, 3 – sometimes, 4 – often, 5 – always). There is also a general indicator of exposure to abuse, which refers to the total sum of the subscales ($\alpha = .84$). The instrument has inverted items (2, 5, 7, 13, 19, 26, and 28), which represent a pleasant childhood (Dias et al., 2013).

Affective Lability Scale – short version (ALS-18)

The Portuguese version of the Affective Lability Scale - short version (ALS-18; Look, Flory, Harvey, & Siever, 2010) was applied, which consists of three subscales that assess, in the Portuguese version, Anxiety/Depression ($\alpha = .95$), Depression/Elation ($\alpha = .94$) and Anger ($\alpha = .94$), with the assessment of total emotional Lability. It is a self-assessment instrument, composed of 18 items, evaluated by a 4-point Likert scale (0 - no characteristic, 1 - no characteristic, 2 - characteristic, 3 - totally characteristic).

Procedure

Data Collection

Data collection was carried out in two ways: on paper and online (using the Google Form platform). Both protocols had the same instruments, although the Sociodemographic Questionnaire has the differences mentioned above. When collecting in an online format, information on objectives and methodologies was on the first page of the questionnaire, which also included informed consent. The link to the questionnaires was published on social networks and sent by e-mail. To collect the data from the inmates, firstly, authorization was requested from the *Direcção-Geral de Reinserção e Serviços Prisionais* (DGRSP) to apply the research protocol in several prison establishments at a national level. After authorization from the DGRSP, contact was made with management of prison establishments, to explain the methodology and schedule the data collection. Information on objectives and methodologies was on the first page and separated from the questionnaire, which also included informed consent. This collection with inmates was carried out in person and completed in a single moment in paper format, which contained the informed consent, signed by each participant.

The confidentiality of results and the anonymity of subjects were ensured. The study was conducted following the ethical principles outlined in the Declaration of

Helsinki (World Medical Association, 2013), and the protocol was approved by the Institutional Review Board.

Statistical Analysis

The statistical analysis was performed using the program Statistical Package for the Social Sciences (SPSS), version 25.0. Descriptive statistics were used to calculate the averages and the respective standard deviations, the absolute and relative values of the sample's sociodemographic variables. Subsequently, descriptive statistics of the scores obtained in the instruments, CTQ and ALS-18, in the sample of the normative population and the sample of the inmates was performed. To calculate the correlation between the study variables, the correlation coefficient of Pearson (Marôco, 2014) was used. This analysis made it possible to assess whether, in both samples, there is a correlation between the type of crime committed and victimization and between the type of crime committed and emotional lability. It was also applied to the total population of women to verify if there is a correlation between the committed crimes, traumatic experiences, and emotional lability and if in the total population of men there is a correlation between the commission of crimes, traumatic experiences, and emotional lability.

To assess the variance, we used the Anova One Way (ANOVA) which compares the averages of two or more groups (Marôco, 2014). In this study, this method was used to compare the average between the group of the normative sample and the group of inmates regarding the scores of victimization and emotional lability. It was also used in the group of the inmate population, to check if there are differences between men and women in terms of victimization and emotional lability. Finally, to determine the predictive values of some variables, the Simple Linear Regression Model was used to assess the association and dependence between an independent variable and the dependent variables, and to predict the level of dependence of these dependent variables on the variable to building a viable relationship between variables. In this analysis, in the correlation coefficient of Pearson (R) and the coefficient of determination (R^2), the reference values of R are between -1 and 1. When the score is equal to 0, it means that there is no correlation between the variables; when the value is equal to 1, there is a perfect positive correlation; when the value is -1 there is a perfect negative correlation. In our study, this statistical analysis was used to assess whether traumatic experiences of victimization suffered in childhood have an impact on emotional lability and confinement, whether confinement has an impact on emotional lability, and whether

traumatic experiences of victimization suffered in childhood have an impact on the type of crime. In this analysis, it was taken into account the level of significance of $\alpha = .05$ (Marôco, 2014).

Results

Correlational Analysis

The correlation of traumatic experiences of victimization experienced in childhood and emotional lability in the total sample ($n = 1281$) was analyzed (Table 1). There is a statistically significant positive correlation between traumatic experiences of victimization experienced in childhood, in all the subscales of the CTQ, and scores of emotional lability ($r = .261, p < .001$) in all the subscales of the ALS-18.

Table 1

Pearson's correlation between traumatic experiences and emotional lability in the total sample ($n = 1281$)

Variable	1	2	3	4	5	6	7	8	9	10
1- CTQ	-	.612**	.845**	.376**	.594**	.801**	.261**	.255**	.222**	.250**
2- Emotional Abuse		-	.325**	.354**	.571**	.263**	.258**	.275**	.225**	.214**
3- Emotional Neglect			-	.114**	.261**	.733**	.205**	.208**	.173**	.193**
4- Sexual Abuse				-	.285**	.090**	.109**	.113**	.095**	.093**
5- Physical Abuse					-	.326**	.112**	.112**	.081**	.128**
6- Physical Neglect						-	.222**	.199**	.188**	.236**
7- ALS-18							-	.907**	.939**	.900**
8- Anxiety/Depression								-	.758**	.764**
9- Depression/Elation									-	.763**
10- Anger										-

Note: ** $p < .01$

The correlation of traumatic experiences of victimization experienced in childhood and the type of crime committed in the sample that committed crimes were analyzed ($n = 308$). There is a statistically significant positive correlation only between the Emotional Negligence experienced in childhood and the type of crime committed in adulthood ($r = .129, p = .02$). The crosstab analysis shows that the crimes more often committed by participants who were victims of Emotional Negligence are drug trafficking, homicide, and theft.

From the analysis of the variables type of crime, traumatic experiences and emotional lability in women from the total sample who committed crimes ($n = 82$), it is

possible to conclude that there is a statistically significant correlation (Table 2) between the type of crime committed and Physical Negligence ($r = -.334, p < .01$).

Table 2

Pearson's correlation between the type of crime, traumatic experiences, and emotional lability in women from the total sample that committed crimes (n = 82)

Variable	1	2	3	4	5	6	7	8	9	10	11
1- Type of crime	-	-.192	.037	-.118	-.009	-.063	.334**	-.159	-.119	-.190	-.100
2- CTQ		-	.721**	.822**	.492**	.668**	.755**	.271**	.298**	.209**	.254**
3- Emotional Abuse			-	.458**	.397**	.594**	.318**	.253**	.279**	.211**	.212**
4- Emotional Neglect				-	.198**	.321**	.689**	.233**	.270**	.173**	.216**
5- Sexual Abuse					-	.348**	.180**	.121**	.125**	.103**	.107**
6- Physical Abuse						-	.373**	.107**	.121**	.072**	.112**
7- Physical Neglect							-	.213**	.232**	.146**	.233**
8- ALS-18								-	.906**	.938**	.899**
9- Anxiety/Depression									-	.755**	.759**
10- Depression/Elation										-	.760**
11- Anger											-

Note: ** $p < .01$

Considering the variables type of crime, traumatic experiences and emotional lability in men in the total sample who committed crimes ($n = 226$) (Table 3), it appears that there is a positive correlation between the type of crime committed and the total CTQ ($r = .179, p = .01$) and with Emotional Neglect ($r = -.202, p < .01$). There are also statistically significant correlations between the total CTQ and the total ALS-18 ($r = .229, p < .01$), with Anxiety/Depression ($r = .194, p < .01$), with Depression/Elation ($r = .235, p < .01$) and Anger ($r = .195, p < .01$). Emotional Abuse correlates positively with total ALS-18 ($r = .292, p < .01$), with Anxiety/Depression ($r = .263, p < .01$), with Depression/Elation ($r = .288, p < .01$) and Anger ($r = .251, p < .01$). Emotional Neglect is also positively correlated with the total ALS-18 ($r = .137, p < .01$) and with Depression/Elation ($r = .154, p < .01$). Physical Abuse correlates positively with Anger ($r = .147, p < .01$). Finally, Physical Negligence correlates positively with the total ALS-18 ($r = .243, p < .01$), with Anxiety/Depression ($r = .210, p < .01$), with Depression/Elation ($r = .250, p < .01$) and with Anger ($r = .200, p < .01$)

Table 3

Pearson's correlation between the type of crime, traumatic experiences, and emotional lability from the sample of men that committed crimes (n = 226)

Variable	1	2	3	4	5	6	7	8	9	10	11
1- Type of crime	-	.179**	-.085	.202**	.016	.003	.112	-.061	-.047	-.047	-.081

2- CTQ	-	.441**	.868**	.178**	.425**	.870**	.229**	.194**	.235**	.195**
3- Emotional Abuse		-	.099	.158**	.541**	.309**	.292**	.263**	.288**	.251**
4- Emotional Neglect			-	.002	.113*	.758**	.137**	.116*	.154**	.094
5- Sexual Abuse				-	.130*	.049	.095	.70	.096	.096
6- Physical Abuse					-	.241**	.115*	.094	.089	.147**
7- Physical Neglect						-	.243**	.210**	.250**	.200**
8- ALS-18							-	.917**	.941**	.907**
9- Anxiety/Depression								-	.774**	.796**
10- Depression/Elation									-	.769**
11- Anger										-

Notes: * $p < .05$, ** $p < .01$

Differential Analysis

To analyze the differences between the inmate’s sample group and the normative population sample group regarding the scales and subscales of the CTQ and the ALS-18, analyzes of variance (ANOVA) was performed. The results concerning the CTQ show statistically significant differences to the total CTQ, in the Emotional Abuse subscale, in the Emotional Neglect subscale, in the Physical Abuse subscale, and the Physical Neglect subscale, with participants from the reclusive population having the highest values (Table 4). Concerning ALS-18, there are statistically significant differences between the two groups in the total score of the ALS-18, in the subscale Anxiety/Depression, Depression/Elation, and Anger, with higher scores in the group of the inmate population (Table 4).

Table 4
Means, Standard Deviations, and One-Way Analyses of CTQ and ALS-18 regarding reclusion (n = 1281)

Measure	Normative sample		Inmates sample		F(1, 1280)	η^2
	M	SD	M	SD		
CTQ Total	1.687	.34	2.267	.36	640.330	< .01
Emotional Abuse	1.614	.79	1.721	.77	4.244	.04
Emotional Neglect	1.927	.94	3.584	1.28	599.896	< .01
Physical Abuse	1.185	.49	1.481	.72	66.891	< .01
Physical Neglect	1.321	.50	2.516	.72	1064.926	< .01
ALS-18 Total	.902	.68	1.225	.66	53.548	< .01
Anxiety/Depression	1.017	.81	1.323	.80	33.297	< .01
Depression/Elation	.943	.71	1.247	.70	43.072	< .01
Anger	.720	.71	1.092	.70	63.869	< .01

In the inmates, there are also statistically significant differences in some variables on the scales and subscales of the CTQ and the ALS-18 concerning the gender. The results of the CTQ show the presence of statistically significant differences in the total score of the CTQ, in the Emotional Negligence subscale and the Sexual Abuse scale, with females having the highest values. In the ALS-18, women also have higher scores in the Anxiety/Depression subscale (Table 5).

Table 5
Means, Standard Deviations, and One-Way Analyses of CTQ and ALS-18 from the inmates ($n = 303$)

Measure	Male		Female		$F(1, 302)$	η^2
	M	SD	M	SD		
CTQ Total	2.216	.38	2.401	.27	17.285	< .01
Emotional Neglect	3.423	1.32	4.000	1.05	12.183	< .01
Sexual Abuse	1.105	.38	1.356	.71	15.565	< .01
Anxiety/Depression	1.226	.77	1.590	.81	12.810	< .01

Regression Analysis

A simple linear regression analysis was performed on the total sample ($n = 1281$), to assess whether the traumatic experiences of victimization experienced in childhood predict emotional lability. The results of this analysis indicate that childhood victimization experiences are predictors of emotional lability ($\beta = .163$, $t = 9.678$, $p < .01$) thus having a predictive value, through ANOVA ($M = 1.82$, $SD = .112$), [$F(1279) = 93.672$, $p < .01$]. Beta values (β) indicate that the greater the traumatic experiences of victimization experienced in childhood are, the greater the levels of emotional lability, predicting 26.1% (R^2) of variance.

A simple linear regression analysis was carried out on the sample of inmates ($n = 303$), to assess whether traumatic experiences of youth victimization have an impact on the type of crimes committed. The results show that childhood victimization experiences are predictors of crimes committed ($\beta = .091$, $t = 2.316$, $p = .021$) thus having a predictive value, presenting itself by ANOVA ($M = 9.65$, $SD = .99$), [$F(301) = 5.365$, $p = .021$]. The Beta values (β) thus point out that the higher the prevalence of traumatic victimization experienced in childhood is, the greater the probability of committing crimes in adulthood, predicting 1.8% (R^2) of variance. A simple linear regression analysis was performed on the sample of inmates ($n = 303$), to assess specifically whether

emotional neglect experienced in youth have an impact on the type of crimes committed. The results show that emotional neglect is a predictor of crimes committed in adulthood ($\beta = .173$, $t = 2.769$, $p = .006$), presented by the ANOVA ($M = 4.629$, $SD = .99$), [$F(301) = 7.669$, $p = .006$]. Beta values (β) thus point out that the higher the prevalence of emotional neglect experienced in childhood is, the greater the probability of committing crimes in adulthood, predicting 2.5% (R^2) of variance.

Finally, a simple linear regression analysis was performed concerning the total sample ($n = 1281$), to assess whether the reclusion predicts emotional lability. The results show that reclusion is a predictor of emotional lability ($\beta = 5.823$, $t = 7.318$, $p < .01$), through the ANOVA ($M = 1.95$, $SD = 1.00$), [$F(1279) = 53.548$, $p < .01$]. Beta values (β) indicate that imprisonment experiences will increase levels of emotional lability, predicting 4% (R^2) of variance.

Discussion

This study aimed to verify: a) if in the total sample, there is a relationship between traumatic experiences and emotional lability in adulthood; b) if in the sample of individuals who committed crimes, there is a relationship between the commission of crimes and the traumatic experiences of victimization experienced in childhood, and between the type of crime committed and emotional lability; c) if there are differences, in a sample of the normative population and in a sample of the inmates, in those of traumatic experiences of victimization lived in childhood and in the levels of emotional lability in adulthood; d) whether there are differences in the inmates between men and women in child victimization and emotional lability; e) whether the traumatic experiences of victimization experienced in childhood predict emotional lability; f) whether the traumatic experiences of victimization experienced in childhood have an impact on emotional lability and the type of crimes committed; and g) whether reclusion predicts emotional lability.

Our study confirmed a relationship between traumatic experiences in childhood and the emotional lability. This outcome had already been identified in previous research (Fergusson, Boden, & Horwood, 2008; Parvizi et al., 2006; Santos, 2019). Victimization experiences had a significant impact on people, at several levels, such as emotions management. A systematic review carried out by Carr, Martins, Stingel, Lemgruber, and

Juruena (2013), shows that victimization by physical, sexual abuse and negligence is associated with mood disorders.

It was possible to verify high scores of the trauma of juvenile victimization, namely emotional abuse, emotional neglect, physical abuse, and physical neglect. Our study is in line with other results (Finkelhor, Ormrod & Turner, 2007; Pereda, Guilera & Abad, 2014; Sullivan, Egan & Gooch, 2004), which report that many individuals suffered from some type of child victimization. This juvenile victimization is related to the highest levels of emotional lability, anxiety/depression, depression/elation, and aggression. In females, the levels of sexual abuse suffered had an impact on the increase in the levels of emotional lability. Our results are in line with the study by Aas and his collaborators (2014), which revealed that child victimization increases levels of emotional lability.

The results showed that, in the total sample of women that committed crimes, there was a relationship between the type of crime committed and physical negligence, going against Gilbert and his collaborators (2009), who stated that the individuals who suffered physical neglect in childhood, adopt criminal behaviors. In the total sample of men that committed crimes, there was a relationship between the type of crime committed and the different types of trauma of juvenile victimization. Emotional neglect was the most suffered type of abuse in childhood and the most linked to the commitment of crimes. These results are in line with the conclusions of several studies (e.g., Allwood & Widom, 2013; Maas et al., 2008; Norman et al., 2012) that indicated that victimization can have a wide range of impact, such as the commitment of crimes.

The results showed that the inmates suffered more episodes of violence in childhood, compared to the normative population, confirming the study by Meade and Steiner (2013), which reveals the predominance of child victimization stories in the inmates. We also verified that the inmates show higher scores of emotional lability. Although there are no specific studies that assess emotional lability in inmates, they tend to have greater difficulty in emotional regulation (Clements, Oxtoby, & Ogle, 2008).

Women belonging to the inmates have higher scores of childhood trauma, specifically emotional neglect, and sexual abuse, corroborating other studies that report that women have higher levels of victimization (Collin-Vézina, Daigneault, & Hébert, 2013; Drapalski, Youman, Stuewig, & Tangney, 2009; Gilbert et al., 2009; McDaniels-Wilson & Belknap, 2008). Consequently, women in the inmate sample had higher scores of anxiety and depression, compared to men in the same sample. The study by Aas and

his collaborators (2014) also showed these results, confirming that victims of emotional abuse, emotional neglect, and sexual abuse have higher levels of emotional lability.

This research confirmed that the traumatic experiences of victimization experienced in childhood predicts the prevalence of emotional lability, as described by other studies (Crow, Cross, Powers, & Bradley, 2014; Kim-Spoon, Cicchetti & Rogosch, 2012; Maughan & Cicchetti, 2002, Rogosch & Cicchetti, 2005), that individuals who have experienced child victimization have higher scores of emotional lability. Other studies pointed out that emotional lability also depends on genetics, heredity, and the individual's surrounding environment, namely the relationships they establish (Coccaro et al., 2012).

In the inmates, the victimization experiences predicted the commitment of crimes. This relationship was found in other studies, where the authors confirmed that the experiences of victimization experienced in childhood have numerous impact, namely delinquency and criminal behaviors (Allwood & Widom, 2013; Maas et al., 2008). Due to the stronger relationship between emotional neglect suffered in childhood and the type of crime committed, we considered it is important to assess whether emotional neglect predicts the commission of crimes. Despite having found no study that analyzed this direct impact, studies report that emotional problems, such as anxiety, depression, and low emotional control, increase criminality (e.g. Chalub & Telles, 2006). According to the study by Pacheco (2014), other variables enhance criminal behavior, such as substance abuse, the family environment, socioeconomic and educational level are important factors.

Finally, we found in this study that reclusion predicts the existence of emotional lability, and although we have not found studies that assess the prevalence of emotional lability in the inmates, it can be read in the study by OConnor (2018), that individuals with aggressive behaviors have emotional lability.

To the best of our knowledge, no study performed these regressions, and therefore this is a pioneering study because it evaluates the prevalence of these variables in two samples of the Portuguese population. It also allows the assessment of risk factors underlying the existence of traumatic experiences of victimization experienced in childhood, such as reclusion and emotional lability.

In summary, this study allowed to verify that people who lived traumatic experiences of victimization in childhood are more likely to have higher levels of emotional lability in adulthood, with the population having more powerful scores.

Limitations and Conclusion

This study has some limitations, which affect the generalization of the results. First, the two types of data collection, online for the normative sample and personally for the inmates. Second, the online format has some limitations, as only individuals with access to the Internet had the opportunity to respond to the protocol. Third, the characteristics of the sample, namely, the prevalence of women in the normative sample and the prevalence of men in the inmate sample. Fourth, there is a discrepancy between individuals in the two groups compared since most individuals belong to the normative population. Fifth, given the small number of both groups, the samples are not representative of the Portuguese population. Finally, although the study included several inmates, it was not possible to contemplate the entire typology of crimes, therefore, it was not possible to generalize the data obtained for the entire inmates.

Despite the aforementioned limitations, it is a pioneering study that assesses the prevalence of emotional lability in the inmates and that compares this concept between two samples of the Portuguese population. This study also allowed to verify that there is a relationship between the traumatic experiences of victimization lived in childhood and the existence of emotional lability in adulthood. Throughout this study, it is possible to verify, through the results, that child victimization is very present in the life of the population, mainly in the inmates, and that there is a relationship between this victimization and higher levels of emotional lability. There is a relationship between victimization experiences and levels of emotional lability, and women have higher levels of victimization experiences in youth and anxiety/depression. In men, victimization by emotional neglect in childhood promotes the commission of crimes in adulthood. Thus, we recommend that future studies have homogeneity of the sample, balancing the number of participants in the normative population and the inmates, and also between men and women.

Our study provides a great contribution to clinical and forensic psychology and proves to be pertinent, as it emphasizes the importance of intervening early in individuals to prevent and reduce the consequences of victimization, such as the prevalence of

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emotional lability and, subsequently, the decrease of crime. This research shows that victimization experiences are a risk factor for the prevalence of emotional lability and confinement, allowing the creation of intervention programs for the normative population and the inmates.

References

- Aas, M., Aminoff, S.R., Vik, L.T., Etain, B., Agartz, I., Andreassen, O.A. (2014). Affective lability in patients with bipolar disorders is associated with high levels of childhood trauma. *Psychiatry Research*, 218(1-2), 252–255. doi.org/10.1016/j.psychres.2014.03.046
- Afifi, T.O., Enns, M.W., Cox, B.J., Asmundson, G.J G., Stein, M.B., & Sareen, J. (2008). Population attributable fractions of psychiatric disorders and suicide ideation and attempts associated with adverse childhood experiences. *American Journal of Public Health*, 98(5), 946–952. doi:10.2105/ajph.2007.120253
- Afifi, T.O., Boman, J., Fleisher, W., & Sareen, J. (2009). The relationship between child abuse, parental divorce, and lifetime mental disorders and suicidality in a nationally representative adult sample. *Child Abuse & Neglect*, 33(3), 139–147. doi:10.1016/j.chiabu.2008.12.009
- Allwood, M.A., & Widom, C.S. (2013). Child abuse and neglect, developmental role attainment, and adult arrests. *Journal of Research in Crime and Delinquency*, 50(4), 551–578. doi:10.1177/0022427812471177
- Almeida, T.C., Ramos, C., Brito, J., & Cardoso, J. (2020). The juvenile victimization questionnaire: Psychometric properties and poly-victimization among portuguese youth. *Children and Youth Services Review*, 113. doi:10.1016/j.chilyouth.2020.105001
- Cannon, E.A., Bonomi, A.E., Anderson, M.L., Rivara, F.P., & Thompson, R.S. (2010). Adult health and relationship outcomes among women with abuse experiences during childhood. *Violence and Victims*, 25(3), 291–305. doi:10.1891/0886-6708.25.3.291
- Caridade, S., Fonte, C., & Neiva, S. (2018). Vitimização precoce e funcionamento adaptativo em adultos: Estratégias de enfrentamento. *Revista Argentina de Ciencias del Comportamiento (RACC)*, 10(1), 11-21.
- Carr, C.P., Martins, C.M.S., Stingel, A.M., Lemgruber, V.B., & Juruena, M.F. (2013). The role of early life stress in adult psychiatric disorders: A systematic review according to childhood trauma subtypes. *The Journal of Nervous and Mental Disease*, 201(12), 1007- 1020. doi: 10.1097/NMD.0000000000000049
- Champion, K.M., & Clay, D.L. (2007). Individual differences in responses to provocation and frequent victimization by peers. *Child Psychiatry and Human Development*, 37, 205–220. doi:10.1007/s10578-006-0030-9.

- Chalub M., Borba Telles L.E. (2006). Álcool, drogas e crime. *Revista Brasileira de Psiquiatria*, 28(2), 69-73.
- Chapple, C.L. (2003). Examining intergenerational violence: Violent role modeling or weak parental controls? *Violence and Victims*, 18(2), 143–162. doi:10.1891/vivi.2003.18.2.143
- Clark, C., Caldwell, T., Power, C., & Stansfeld, S.A. (2010). Does the influence of childhood adversity on psychopathology persist across the lifecourse? A 45-year prospective epidemiologic study. *Annals of Epidemiology*, 20(5), 385–394. doi:10.1016/j.annepidem.2010.02.008
- Clements, C.M., Oxtoby, C., & Ogle, R.L. (2008). Methodological issues in assessing psychological adjustment in child witnesses of intimate partner violence. *Trauma, Violence, & Abuse*, 9(2), 114–127. doi:10.1177/1524838008315870
- Coccaro, E.F., Ong, A.D., Seroczynski, A.D., & Bergeman, C.S. (2012). Affective intensity and lability: Heritability in adult male twins. *Journal of Affective Disorders*, 136 (3), 1011–1016. doi:10.1016/j.jad.2011.06.042
- Collin-Vézina, D., Daigneault, I., & Hébert, M. (2013). Lessons learned from child sexual abuse research: Prevalence, outcomes, and preventive strategies. *Child and Adolescent Psychiatry and Mental Health*, 7(1), 22. doi:10.1186/1753-2000-7-22
- Comissão de Proteção de Crianças e Jovens [Child and Youth Protection Commission] (2019). Avaliação da atividade das CPCJ: Relatório anual 2018. Retrieved from <https://www.cnpdpcj.gov.pt/cpcj/relatorios-de-avaliacao-da-atividade-estatistica/relatorio-2018.aspx>.
- Crow, T., Cross, D., Powers, A., & Bradley, B. (2014). Emotion dysregulation as a mediator between childhood emotional abuse and current depression in a low-income African-American sample. *Child Abuse & Neglect*, 38(10), 1590–1598. doi:10.1016/j.chiabu.2014.05.015
- Dias, A., Sales, L., Carvalho, A., Castro-Vale, I., Kleber, R. & Cardoso, R.M. (2013). Estudo de propriedades psicométricas do questionário de trauma de infância – Versão breve numa amostra portuguesa não clínica. *Laboratório de Psicologia*, 11(2), 103-120. doi:10.14417/lp.11.2.713
- Drapalski, A.L., Youman, K., Stuewig, J., & Tangney, J. (2009). Gender differences in jail inmates' symptoms of mental illness, treatment history and treatment seeking. *Criminal Behaviour and Mental Health*, 19(3), 193–206. doi:10.1002/cbm.733

- Elliott, A.N., Alexander, A.A., Pierce, T.W., Aspelmeier, J.E., & Richmond, J.M. (2009). Childhood victimization, poly-victimization, and adjustment to college in women. *Child Maltreatment, 14*(4), 330–343. doi: 10.1177/1077559509332262
- Fergusson, D.M., Boden, J.M., & Horwood, L.J. (2008). Exposure to childhood sexual and physical abuse and adjustment in early adulthood. *Child Abuse & Neglect, 32*(6), 607–619. doi:10.1016/j.chiabu.2006.12.018
- Finkelhor, D., Ormrod, R.K., & Turner, H.A. (2007). Poly-victimization: A neglected component in child victimization. *Child Abuse & Neglect, 31*(1), 7–26. doi:10.1016/j.chiabu.2006.06.008
- Garner, P.W., & Hinton, T. (2010). Emotional display rules and emotion self-regulation: Associations with bullying and victimization in community-based after school programs. *Journal of Community & Applied Social Psychology, 20*, 480–496. doi:10.1002/casp.105.
- Gilbert, R., Widom, C.S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *The Lancet, 373*(9657), 68–81. doi:10.1016/s0140-6736(08)61706-7
- Hay, C., & Evans, M.M. (2006). Violent victimization and involvement in delinquency: Examining predictions from general strain theory. *Journal of Criminal Justice, 34*(3), 261–274. doi:10.1016/j.jcrimjus.2006.03.005
- Hussey, J.M., Chang, J.J., & Kotch, J.B. (2006). Child maltreatment in the United States: Prevalence, risk factors, and adolescent health consequences. *PEDIATRICS, 118*(3), 933–942. doi:10.1542/peds.2005-2452
- Jernbro, C., Svensson, B., Tindberg, Y., & Janson, S. (2011). Multiple psychosomatic symptoms can indicate child physical abuse - Results from a study of Swedish school children. *Acta Paediatrica, 101*(3), 324–329. doi:10.1111/j.1651-2227.2011.02518.x
- Jordan, B.K., Federman, E.B., Burns, B.J., Schlenger, W.E., Fairbank, J.A., & Caddell, J.M. (2002). Lifetime use of mental health and substance abuse treatment services by incarcerated women felons. *Psychiatric Services, 53*(3), 317–325. doi:10.1176/appi.ps.53.3.317
- Kim-Spoon, J., Cicchetti, D., & Rogosch, F.A. (2012). A longitudinal study of emotion regulation, emotion lability-negativity, and internalizing symptomatology in maltreated and nonmaltreated children. *Child Development, 84*(2), 512–527. doi:10.1111/j.1467-8624.2012.01857.x

- Linehan, M.M. (2003). *Manual de tratamiento de los trastornos de personalidad limite*. Paidós, Barcelona. Disponível em https://www.academia.edu/35798929/Manual_de_tratamiento_de_los_trastornos_limite_s_de_la_personalidad_Marsha_Linehan. Acedido a 2 de junho de 2020.
- Look, A.E., Flory, J.D., Harvey, P.D. & Siever, L.J. (2010). Psychometric properties of a short form of the affective lability scale (ALS-18). *Personality and Individual Differences, 49*, 187–191. doi:10.1016/j.paid.2010.03.030
- Lopes, B.D. & Almeida, T.C. (2020). Adversidad en la infancia y victimización en la edad adulta: ¿Que relación? In J. Sanmarco, V. Marcos, Y. Gancedo & D. Seijo (Eds.) *XII Congreso (Inter)Nacional de Psicología Jurídica y Forense – Libro de actas* (pp. 443-446). Sociedad Española de Psicología Jurídica y Forense: Madrid.
- Maas, C., Herrenkohl, T.I., & Sousa, C. (2008). Review of research on child maltreatment and violence in youth. *Trauma, Violence, & Abuse, 9*(1), 56-67. doi:10.1177/1524838007311105
- Maniglio, R. (2012). Child sexual abuse in the etiology of anxiety disorders. *Trauma, Violence, & Abuse, 14*(2), 96–112. doi:10.1177/1524838012470032
- Marôco, J. (2014) *Análise estatística com o SPSS Statistics*. (6ª Edição). ReportNumber, Pêro Pinheiro. ISBN: 9789899676343
- Maughan, A. & Cicchetti, D. (2002). Impact of child maltreatment and interadult violence on children's emotion regulation abilities and socioemotional adjustment. *Child Development, 73*(5), 1525-1542.
- McDaniels-Wilson, C., & Belknap, J. (2008). The extensive sexual violation and sexual abuse histories of incarcerated women. *Violence Against Women, 14*(10), 1090–1127. doi:10.1177/1077801208323160
- Meade, B. & Steiner, B. (2013). The effects of exposure to violence on inmate maladjustment. *Criminal Justice And Behavior, 40*(11), 1228–1249. doi: 10.1177/0093854813495392
- Muller, R.T., Vascotto, N.A., & Konanur, S. (2013). Caregiver perceptions and expectations and child emotion regulation: A test of two mediation models predicting child psychopathology among trauma-Exposed children. *Journal of Child & Adolescent Trauma, 6*(2), 126–141. doi:10.1080/19361521.2013.781089
- Mejía, B., Zea, P., Romero, M., & Saldívar, G. (2015). Traumatic experiences and re-victimization of female inmates undergoing treatment for substance abuse. *Substance*

- Abuse Treatment, Prevention, and Policy*, 10(1), 5. doi:10.1186/1747-597x-10-5
- Norman, R.E., Byambaa, M., De, R., Butchart, A., Scott, J., & Vos, T. (2012). The long-term health consequences of child physical abuse, emotional abuse, and neglect: A systematic review and meta-analysis. *PLoS Medicine*, 9(11), e1001349. doi:10.1371/journal.pmed.1001349
- OConnor, K.E. (2018). *Social and emotional adjustment across aggressor/victim subgroups: Do aggressive-victims possess unique risk?* (Dissertations Graduate School). Virginia Commonwealth University Richmond, Virginia.
- Pacheco, M.B.P.V. (2014). *Criminalidade adulta: Fatores de risco e diferenças de género* (Masters dissertation). Universidade do Minho, Braga.
- Parvizi, J., Arciniegas, D.B., Bernardini, G.L., Hoffmann, M.W., Mohr, J.P., Rapoport, M.J., Schmagmann, J.D., Silver, J.M. & Tuhim, S. (2006). Diagnosis and management of pathological laughter and crying. *Mayo Clinic Proceedings*, 81(11), 1482–1486. doi:10.4065/81.11.1482
- Pereda, N., Guilera, G., & Abad, J. (2014). Victimization and polyvictimization of Spanish children and youth: Results from a community sample. *Child Abuse & Neglect*, 38(4), 640–649. doi:10.1016/j.chiabu.2014.01.019
- Remschmidt, H., & Walter, R. (2010). The long-term outcome of delinquent children: A 30-year follow-up study. *Journal of Neural Transmission*, 117(5), 663–677. doi:10.1007/s00702-010-0393-8
- Rogosch, F.A. & Cicchetti, D. (2005). Child maltreatment, attention networks, and potencial precursors to borderline personality disorder. *Developmental and Psychopathology*, 17, 1071-1089. doi: 10.1017/S0954579405050509
- Sachs-Ericsson, N., Cromer, K., Hernandez, A., & Kendall-Tackett, K. (2009). A review of childhood abuse, health, and pain-related problems: The role of psychiatric disorders and current life stress. *Journal of Trauma & Dissociation*, 10(2), 170–188. doi:10.1080/15299730802624585
- Santos, M.C. (2019). *Acidente vascular encefálico: um olhar neuropsicológico*. Retirado de <http://www.psicologia.pt/artigos/textos/A1287.pdf>. Acedido a 10 de março de 2020.
- Spatz Widom, C., DuMont, K., & Czaja, S. J. (2007). A prospective investigation of major depressive disorder and comorbidity in abused and neglected children grown up. *Archives of General Psychiatry*, 64(1),49. doi:10.1001/archpsyc.64.1.49
- Sullivan, M., Egan, M., & Gooch, M. (2004). Conjoint interventions for adult victims

and children of domestic violence: A program evaluation. *Research on Social Work Practice*, 14(3), 163–170. <https://doi.org/10.1177/1049731503257881>

World Medical Association. (2013). World medical association declaration of helsinki: Ethical principles for medical research involving human subjects. *JAMA*, 310(20), 2191–2194. doi:10.1001/jama.2013.281053

Conclusion / Discussion

This study aimed to analyze the factor structure, psychometric properties, and gender invariance of the Portuguese version of the Affective Liability Scale – short version (ALS-18: Look et al., 2010). It also intended to assess the impact and the relationship between traumatic experiences and emotional lability, the practice of crimes and traumatic experiences, and the type of crime committed and emotional lability. Finally, it aimed to verify the differences between a population of inmates and a normative population, and between the sexes regarding traumatic experiences of childhood victimization and emotional lability.

The Portuguese version of ALS-18 (Look et al., 2010), showed good psychometric properties, namely, a good fit, good reliability, construct validity, discriminant validity, and factorial validity, corroborating the results of the original instrument (Look et al., 2010). It was also possible to verify that the Portuguese version of ALS-18 is invariable between the sexes, being able to be used with both women and men.

The results showed that the majority of the sample was a victim in childhood, in line with the figures presented by the Children and Youth Protection Commissions, where it is described that in 2018 13905 dangerous situations were signaled (Annual Report, 2018). The inmates population had higher levels of child victimization than the sample of the normative population, this being reported by Shaffer and Ruback (2003) and by Smith and Ecob, (2007), who identify that individuals who suffered victimization in childhood are more likely to follow the life of crime. Our result is also in line with the study by Dogar and colleagues (2010), which showed that 52% of individuals who suffered from child victimization, have delinquent behaviors.

Regarding the prevalence of emotional lability in the two samples of the population, it was found that the prison population has higher levels than the normative population. These results corroborate other studies, which state that emotional lability is linked to the practice of risky behaviors (Oliver & Simons, 2004; Simons, Carey, & Gaher, 2004). It was also possible to verify that the victimization experiences in childhood predict the levels of emotional lability, presenting the same conclusions as Hien, Cohen and Campbell (2005), because victimization interferes with the individual's abilities to regulate his emotions

Our study allowed us to determine that victimization experiences predict the commission of crimes and these same results were found in other studies that mention

that child victimization is associated with criminal behaviors (DeGue & Spatz Widom, 2009; Stewart, Livingston & Dennison, 2008). It was possible to identify in our research, the relationship between the emotional neglect experienced in childhood and the type of crime committed. Thus, we found that emotional neglect predicts the type of crime committed. We did not find any study to evaluate this influence, however, the study by Nobile and his collaborators (2011), shows that inmates have many emotional problems. Finally, we found that seclusion predicts emotional lability and although we have not found any study that assesses the prevalence of lability in the inmates, this population has greater emotional dysregulation (Eme & Young, 2017).

It is possible to observe, with this study, that there is a relationship between the variables studied, specifically, that there is a relationship between victimization and emotional lability. Thus, it is necessary to understand this connection, to intervene early in individuals, to reduce the consequences of victimization experiences.

Limitations

Our study has some limitations that can interfere with the generalization of results. First, data collection was carried out in two formats, online and in person. The collection in the online format, allowed only individuals with internet access to be able to respond to the protocol. Second, the characteristics of the sample of the normative population, which is characterized mainly by female participants, young and with a high level of education and the sample of the inmates, is mostly composed of men. Third, there is an inequality between the number of participants between the sample of the normative and inmates. Fourth, the reduced number of the group of the normative sample and the sample of inmates and may not be representative of the Portuguese population. Fifth, the failure to include all types of crimes. Finally, ALS-18 is a self-report scale and, therefore, the responses obtained may be linked to social desirability.

Despite the aforementioned limitations, this study allowed us to verify that childhood victimization experiences and emotional lability are associated and that the inmates have the highest levels. Our study proved to be pertinent, as it allowed the ALS-18 to be adapted for the Portuguese population, identifying good psychometric properties in the instrument, showing that it is an adequate scale for the population. In parallel, this study proved to be a pioneer in evaluating the predominance of emotional lability in the inmates, and also by comparing two samples from the Portuguese population.

Implications for Practice

Our study allowed us to find results that are relevant to the area of Clinical and Forensic Psychology, by analyzing concepts and allowing us to conclude that there is a relationship between them. This is the first study on the psychometric properties of ALS-18 in the Portuguese population, showing that this instrument is capable of assessing emotional lability. Also, our study shows that child victimization is a predictor of emotional lability. These results are fundamental and reveal the need to create intervention programs, both in the normative population and in the prison population. These programs must be applied in the intervention with children and young people who were victims in childhood, to reduce the impacts of victimization and the probability of becoming offenders in adulthood.

These interventions would thus achieve activities that regulate emotions and that guarantee the reduction of emotional lability. In this way, these programs would be preventive because they aim to reduce the effects resulting from victimization in terms of crime and emotional lability. This study will have another practical implication, such as the training of childhood educators, primary school teachers and health technicians so that they can signal the cases of juvenile victimization to refer them to professionals who have specialized competence, and who can reduce the consequences of such victimization.

Finally, this study allows us to encourage other lines of research namely, to assess whether there is a relationship between victimization experiences and emotional lability in other specific samples of the Portuguese population.

References

- Comissão de Proteção de Crianças e Jovens [Child and Youth Protection Commission] (2019). Avaliação da atividade das CPCJ: Relatório anual 2018. Retrieved from <https://www.cnpdpcj.gov.pt/cpcj/relatorios-de-avaliacao-da-atividade-estatistica/relatorio-2018.aspx>.
- DeGue, S., & Spatz Widom, C. (2009). Does Out-of-Home Placement Mediate the Relationship Between Child Maltreatment and Adult Criminality? *Child Maltreatment, 14*(4), 344–355. doi:10.1177/1077559509332264
- Dogar, I.A., Akhwanzada, W.A., Bajwa, A., Haider, N. & Asmat, A. (2010). Self esteem and psychosocial factors associated with juvenile delinquency. *A.P.M.C., 4* (2), 172-176.
- Eme, R. & Young, S. (2017). Confiabilidade do TDAH em populações prisionais: uma resposta a Murphy e Appelbaum. *The ADHD Report, 25* (5), 1–6. doi: 10.1521 / adhd.2017.25.5.1
- Hien, D., Cohen, L., & A. Campbell A. (2005). Is traumatic stress a vulnerability factor for women with substance use disorders? *Clinical Psychology Review, 25*(6), 813–823. doi:10.1016/j.cpr.2005.05.006.
- Look, A.E., Flory, J.D., Harvey, P.D. & Siever, L.J. (2010). Psychometric properties of a short form of the affective lability scale (ALS-18). *Personality and Individual Differences, 49*, 187-191. doi:10.1016/j.paid.2010.03.030
- Nobile, C.G., Flotta, D., Nicotera, G., Pileggi, C., & Angelillo, I.F. (2011). Self-reported health status and access to health services in a sample of prisoners in Italy. *BMC Public Health, 11*(1). doi:10.1186/1471-2458-11-529
- Oliver, M.N.I., & Simons, J.S. (2004). The affective lability scales: Development of a short-form measure. *Personality and Individual Differences, 37*(6), 1279–1288. doi.org/10.1016/j.paid.2003.12.013
- Shaffer, J.N. & Ruback, R.B. (2002). Violent victimization as a risk factor for violent offending among juveniles. *Juvenile Justice Bulletin, 1*-12.
- Simons, J.S., Carey, K.B., & Gaher, R.M. (2004). Lability and impulsivity synergistically increase risk for alcohol-related problems. *American Journal of Drug and Alcohol Abuse, 30*(3), 685–694. doi.org/10.1155/2013/636854
- Smith, D.J., & Ecob, R. (2007). An investigation into causal links between victimization

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and offending in adolescents. *The British Journal of Sociology*, 58, 633-659. doi:10.1111/j.1468-4446.2007.00169.x

Stewart, A., Livingston, M., & Dennison, S. (2008). Transitions and turning points: Examining the links between child maltreatment and juvenile offending. *Child Abuse & Neglect*, 32(1), 51–66. doi:10.1016/j.chiabu.2007.04.011

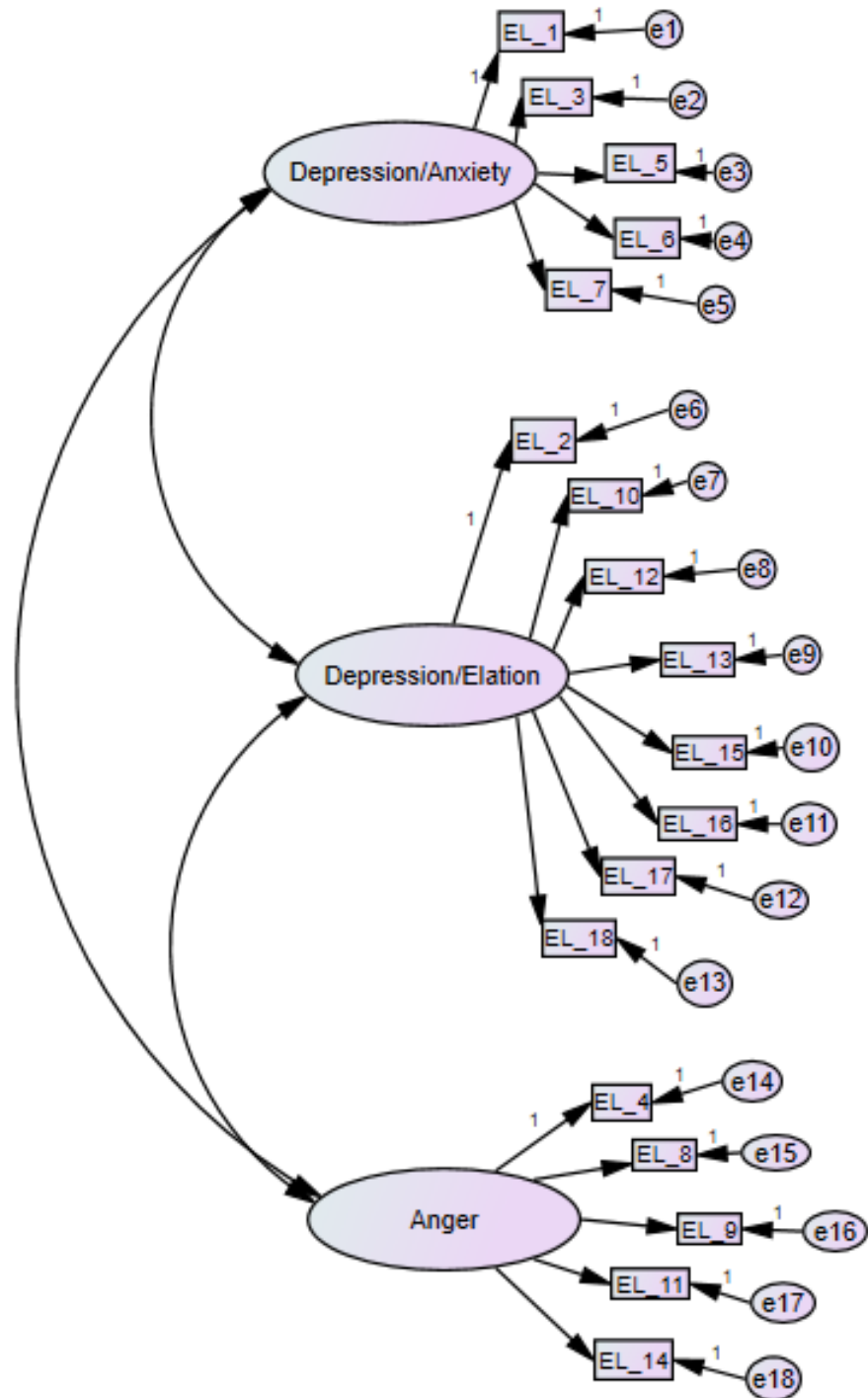
Attachments

Attachments

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Attachments A- Model of the ALS-18 Table 1nd Article

Figure 1
Model of the ALS-18



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Attachments B- Normative Sample Table 2nd Article

Table 1
Sociodemographic characteristics of the normative sample (n = 978)

Variable	Total	
	<i>n</i>	%
Age (<i>M, SD</i>)	41.44	13.30
Gender		
Female	824	84.3
Male	154	15.7
Literary abilities		
Without schooling	1	.1
Up to 4th year	3	.3
Up to 6th grade	5	.5
Up to 9th grade	34	3.5
Up to 12th grade	282	28.8
Graduation	464	47.4
Master's	143	14.6
Doctorate	20	2
Other	26	2.7
Professional situation		
Student	7	2.3
Active	685	70
Unemployed	53	5.4
Retired	62	6.3
Other	52	5.3
Marital status		
Single	291	29.2
Married	432	44.2
Consensual union	42	14.5
Separated	11	1.1
Divorced	89	9.1
Widowed	13	1.3
Type of crime		
Drug trafficking	1	.1
Driving under the influence of alcohol	2	.2
Driving without legal clearance	1	.1
Defamation and Injury	1	.1

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Attachments C- Inmates Sample Table 2nd Article

Table 2
Sociodemographic characteristics of the inmates sample (n = 303)

Variable	Total	
	<i>n</i>	%
Age (<i>M, SD</i>)	41.44	13.30
Gender		
Female	824	84.3
Male	154	15.7
Literary abilities		
Without schooling	1	.1
Up to 4th year	3	.3
Up to 6th grade	5	.5
Up to 9th grade	34	3.5
Up to 12th grade	282	28.8
Graduation	464	47.4
Master's	143	14.6
Doctorate	20	2
Other	26	2.7
Professional situation before detention		
Student	7	2.3
Active	685	70
Unemployed	53	5.4
Retired	62	6.3
Other	52	5.3
Marital status		
Single	291	29.2
Married	432	44.2
Facto union	42	14.5
Separated	11	1.1
Divorced	89	9.1
Widowed	13	1.3
Type of crime		
Theft	55	18.2
Drug trafficking	129	42.6
Driving under the influence of alcohol	4	1.3
Driving without legal clearance	9	3
Murder	25	8.3
Trafficking in persons	2	.7
Computer crimes	2	.7
Aggression	10	3.3
Deceive	12	4
Homicide Attempt	9	3
Homicide Commander	3	1

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Population

Domestic violence	15	5
Fines	2	.7
Road accident	1	.3
Repeal of penalty	1	.3
Possession of a prohibited weapon	1	.3
Vandalism	1	.3
Fire	2	.7
Threat	1	.3
Receipt	3	.1
Child pornography	1	.3
Against patrimony	1	.3
Bleaching	1	.3
Disobedience	2	.7
Invasion	1	.3
Arms trafficking	1	.3
Pimping	2	.7
Illegal emigration	1	.3
Document forgery	2	.7
Rape	1	.3
Fraud	1	.3
Sequestration	1	.3
Complicity	1	.3
