



INSTITUTO UNIVERSITÁRIO EGAS MONIZ

MESTRADO EM PSICOLOGIA FORENSE E CRIMINAL

THE IMPACT OF POLY-VICTIMIZATION ON DELINQUENCY

Trabalho submetido por
Ana Rita Fonseca Pires
para a obtenção do grau de Mestre em Psicologia Forense e Criminal

setembro de 2021



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Abstract

Background: Research suggests that poly-victimization was a stronger predictor of delinquency, mediated by mental health problems. Experiencing several episodes of violence or neglect in multiple life contexts with many types of perpetrators is one of the principal causes of delinquency. The main objectives of this thesis are a) to analyze the impact of poly-victimization on delinquent behaviors in youth; and b) to compare the impact of poly-victimization between the normative young population and young offenders concerning anxiety and resilience. **Methods:** Four databases were systematically searched to identify relevant studies published. For the second article, 143 adolescents between 12 and 17 years old ($M = 14.93$, $SD = 1.63$), of which 97 (67.8%) were identified as young offenders and 46 (32.2%) as normative adolescents, answered the protocol. **Results:** Poly-victimization significantly increases the likelihood of engaging in delinquency. Offenders that were victims of poly-victimization showed higher psychological problems compared with other victims. Analysis showed a relationship between JVQ, the RS, and the STAIC C-2. Moreover, were founded differences between socio-demographic variables, poly-victimization, and delinquency. **Conclusions:** This data showed that poly-victimization has a higher impact on delinquency when compared to repeated exposure to the same type of violence or exposure to a single type of violence. Poly-victimization negatively affects resilience levels, reducing social and personal resources, and promotes anxiety in youth. Furthermore, our analyses showed that this phenomenon in childhood represents a significant risk for the development of delinquency.

Keywords: Poly-victimization, Juvenile delinquency, Impact

Resumo

Enquadramento: A literatura indica que a polivitimação corresponde a um forte preditor de comportamentos delinquentes, quando mediada por problemas a nível da saúde mental. Experienciar vários episódios de violência ou negligência, em múltiplos contextos de vida, com vários tipos de perpetradores, corresponde às causas mais significativas da delinquência. Os principais objetivos desta tese são a) analisar o impacto da polivitimação nos comportamentos delinquentes juvenis; b) comparar o impacto da polivitimação entre a população jovem normativa e jovens delinquentes no que diz respeito à ansiedade e resiliência. **Método:** Quatro bases de dados foram sistematicamente pesquisadas para identificar os estudos publicados mais relevantes. Para o segundo artigo, responderam ao protocolo, 143 adolescentes entre os 12 e os 17 anos de idade ($M = 14,93$, $DP = 1,63$), dos quais 97 (67,8%) foram identificados como jovens delinquentes e 46 (32,2%) como jovens normativos. **Resultados:** A polivitimação aumenta significativamente a probabilidade da adoção de comportamentos delinquentes. Os jovens delinquentes que foram vítimas de polivitimação apresentaram mais problemas psicológicos em comparação com outras vítimas. Os resultados demonstraram uma relação entre as escalas JVQ, RS e STAIC C-2. Paralelamente, foram encontradas diferenças entre as variáveis sociodemográficas, a polivitimação e a delinquência. **Conclusões:** Os resultados obtidos demonstraram que a polivitimação tem um maior impacto na delinquência quando comparada à exposição repetida ao mesmo tipo de violência ou à exposição a um único tipo de violência. A polivitimação afeta negativamente os níveis de resiliência, reduzindo os recursos sociais e pessoais, e promove a ansiedade nos jovens. Por fim, as análises efetuadas demonstraram que a presença deste fenómeno na infância representa um risco significativo para o desenvolvimento da delinquência.

Palavras-chave: Polivitimação, Delinquência juvenil, Impacto

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List of Abbreviations

CTQ - Childhood Trauma Questionnaire

JVQ – Juvenile Victimization Questionnaire

PRISMA - Preferred Reporting Items for Systematic Reviews

PTSD - Post-traumatic Stress Disorder

PTSD-RI - Posttraumatic Stress Disorder Reaction Index

REVS - Recent Exposure to Violence Scale

RS – Resilience Scale

STAIC C2 - State-Trait Anxiety Inventory

TESI - Traumatic Experiences Screening Instrument

USA – United States of America

VIF - Variance Inflation Factor

The Impact of Poly-Victimization on Delinquency

Introduction

Victimization in childhood, including maltreatment, neglect, community crime, and witnessed/indirect violence, is extremely common around the world and has been linked to increased psychopathology (Miller-Graff et al., 2015). According to the research, victimization in childhood range from 12.7% for sexual abuse to 36.3% for emotional abuse (Stoltenborgh et al., 2015), and provokes serious effects on development of victims (Beltran, 2019). According to the global status report on preventing violence against children, one billion children and adolescents suffer violence each year, registering 40150 deaths per year in children up to 17 years of age (World Health Organization, 2020).

There has been a greater acknowledgment of the importance of understanding the accumulation of episodes of violence and the experience of over than one type of victimization (Finkelhor et al., 2009). Poly-victimization refers to the experience of four or more types of victimization, including childhood neglect, psychological, physical, and sexual abuse, and witnessing violence (Finkelhor et al., 2007). In recent years, Finkelhor and other authors have published several studies about this phenomenon, providing important information (Finkelhor et al. 2005, 2007, 2009). These researchers based their work on the Juvenile Victimization Questionnaire (JVQ), which aims to assess crime, child abuse, and other types of victimization during childhood.

From developmental, biological, and behavioral research, it is possible to verify a strong relationship between poly-victimization and impaired neurological, physiological, and psychosocial systems, which contributes to mental and physical health problems (Turner et al., 2017). Research suggests that the principal cause of the negative impact of this phenomenon is the experience of several episodes of violence or neglect in multiple life contexts with many types of perpetrators (Finkelhor et al., 2009; Turner et al., 2016). Compared to repeat victimizations of a single type, poly-victimization is considered a strong predictor of developing negative mental health outcomes (Finkelhor et al., 2011; Wemmers et al., 2018). Specifically, poly-victims show higher levels of anxiety, depression, and aggression (Ellonen & Salmi, 2011) and are more likely to be re-victimized compared to other victims (Ford et al., 2013). Besides, being a poly-victim is a strong predictor of antisocial behaviors (Dong et al.

2018; Finkelhor et al., 2007; Guerra et al., 2016; Haahr-Pedersen et al., 2020; Hamby et al., 2020; Wolfe, 2018).

Research established a strong link between adolescents who commit or have committed delinquent behaviors and their experience of poly-victimization in childhood (Suárez-Soto et al., 2019; Wemmers et al., 2018). Ford et al. (2013) concluded that the majority of the sample of young offenders has already suffered from poly-victimization and are at high risk of suffering from emotional and behavioral problems. Besides victimization, it is also possible to verify adverse mental health in young offenders (Croysdale et al., 2008; Ford et al., 2017). These authors concluded that young offenders victims and poly-victims had higher rates of mental health problems than non-victim young offenders. Pereda et al. (2017) showed that children and adolescents of juvenile justice system reported more emotional regulation, interpersonal relationships, development, and integration in society problems caused by adverse experiences.

To better understand the relationship between victimization and delinquency, some explanatory theories were developed. The lifestyles/routine activities theory (Cohen & Felson, 1979; Hindelang et al., 1978) shows that a specific activity routine can increase the risk of victimization and puts children and youth close to motivated offenders while taking them away from capable guardians (Azimi et al., 2019; Jennings et al., 2012). The risk of adopting delinquent behaviors increases when children spend time in unstructured routine activities with friends in the absence of authority figures, putting them more often in situations that increase the risk of offending (Svensson & Oberwittler, 2010). Another emerging theory is the General Strain Theory (Agnew, 1992). This theory affirms that victimization is a strong predictor of delinquency. Victimization promotes strains and distress and increases the probability of the manifestation of negative emotions like aggressiveness, anger, and frustration. Regarding poly-victimization, stressors from multiple contexts of the children's life accumulate and influences the involvement in delinquent behaviors (Wemmers et al., 2018). This theory also concludes that as the number of strains increases, the likelihood of engaging in delinquent behavior increases as well (Unnever et al., 2006).

In sum, poly-victimization is associated with mental health problems and delinquent behaviors. When compared to other victims, poly-victims show more symptoms of anxiety, depression, and aggressive behavior (Ellonen & Salmi, 2011) and are more likely to be re-victimized (Ford et al., 2010). Additionally, because of the violence experienced in childhood, offenders that were also victims of poly-victimization are

more likely to report clinically significant addiction, anger, depression and anxiety, and somatic problems (Suárez-Soto et al., 2019; Ford et al., 2017; Wemmers, et al., 2018).

Objectives

Based on the above-referenced state of the art, the present study has the main objective to analyze the impact of poly-victimization on delinquency. With regard to specific objectives, this study proposes to: a) providing a systematic assessment about the impact of poly-victimization on delinquency in youth; b) analyze the occurrence of poly-victimization in Portuguese children and youth; c) analyze the relationship between poly-victimization and delinquency; d) analyze the relationship between poly-victimization, anxiety and resilience; e) compare boys and girls, delinquent and non-delinquent adolescents, and younger and older youth concerning poly-victimization, anxiety and resilience; f) compare poly-victims and non-poly-victims concerning anxiety and resilience.

Structure of the thesis

The thesis is divided into five sections. Initially, the objectives of this research are specified, and a brief theoretical framework is established. In the second section, the characterization of the sample, the procedures and measures that were used, and the statistical analyses were presented. The third section is the first article. This article is a systematic review of the impact of poly-victimization on delinquency in youth, which presents the following structure: definition of theoretical concepts, analyses of selected studies, and the discussion of the results obtained. The fourth section corresponds to the second article, and it is a comparison between normative samples and young offenders concerning the impact of poly-victimization on anxiety and resilience. The structure of this article is the following: definition of theoretical concepts, statistical analysis, and discussion of the results. Finally, the last section is a general conclusion, where we resume the articles reported, as well as the discussion of the results obtained.

Method

Participants

In the first article, were considered 16 studies, comprising a total of 24399 children and adolescents. In the second article, were considered 143 Portuguese adolescents

between 12 and 17 years old ($M = 14.93$, $SD = 1.63$). The total sample was composed of 97 (67.8%) young offenders and 46 (32.2%) normative adolescents, of which 66 were girls (46.2%) and 77 were boys (53.8%).

Procedures

The studies for the first article were searched in B-on, Google Scholar, PubMed, and EBSCO. The sample for the second article was collected in scout groups, study and tutoring centers, juvenile detention facilities and residential care institutions. The consent was signed by parents (mothers or fathers) signed an informed consent and the adolescents' verbal consent was necessary to partake in the study. The protocol comprises all the measures needed for this study, namely, sociodemographic questionnaire, Juvenile Victimization Questionnaire (JVQ; Finkelhor et al., 2005), Resilience Scale (RS; Wagnild & Young, 1993), and the State-Trait Anxiety Inventory for Children (STAIC C2; Spielberger et al., 1973). The protocol was approved by the University Institutional Review Board and by the Ethics Committee.

Measures

The studies for the first article were reviewed first by title, then by abstract and finally by the full text. The database search identified 73 articles. Removing duplicates articles, and screening by titles and abstracts led to 20 articles to be fully assessed. To these articles, the inclusion criteria were applied, obtaining 16 articles. For the second article the measures were de following:

Socio-demographic data. Through a brief questionnaire we intended to assess the following socio-demographic data: age, gender, nationality, if the adolescent has committed delinquent behavior throughout his life, and if the adolescent is in a juvenile detention facility.

Juvenile Victimization Questionnaire (JVQ; Finkelhor et al., 2005; Almeida et al., 2020). This questionnaire aims to assess crime, child abuse and other types of victimization during childhood. Is composed of 34 items grouped into five modules. conventional crimes, child maltreatment, peer and sibling victimization, sexual victimization, and witnessing and indirect victimization. Each item was measured on a dichotomous scale, with 0 signifying a negative response and 1 representing an

affirmative response. Higher scores in each module indicate a higher prevalence of that victimization (Finkelhor et al., 2005).

State-Trait Anxiety Inventory for Children (STAIC C-2; Gonçalves & Dias, 1999; Spielberger et al., 1973). To assess anxiety the STAIC was developed in two distinct dimensions: state anxiety (STAIC C-1) and trait anxiety (STAIC C2). In our study, only the STAIC C2 scale was used. Is composed of 20 sentences, which the individual answers indicating how they feel on a scale of three levels: never, sometimes and many times.

Resilience Scale (RS; Felgueiras et al., 2008; Wagnild & Young, 1993). The RS is a self-assessment scale and consists of 25 items. The organization of individuals in the face of a negative event and their ability to overcome it are evaluated. This instrument encompasses 5 dimensions: Perseverance, Self-confidence, Serenity, Meaning and Existential Loneliness (Wagnild & Young, 1993).

Statistical Analysis

In second article several statistical analyzes were used to respond to the objectives of the study. First, a descriptive analysis was performed to characterize the samples in relation to sociodemographic data. Second, Pearson correlations were carried out to verify the relation between all scales and subscales. Third, we performed ANOVA one way to compare the means between sociodemographic variables and the total scores of scales and subscales. Finally, multiple linear regressions were also made to analyze the predictive validity of anxiety. To perform this analysis, we used the statistical software IBM SPSS Statistics Version. 25.0.

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Article 1

The Impact of Poly-Victimization on Delinquency in Youth: A Systematic Review

Abstract

Background: There is a link between antisocial behaviors and poly-victimization, showing that poly-victims have a high probability of engaging in delinquency of all types. These victims show difficulties in self-regulation across multiple biopsychosocial domains. This review examined the impact of poly-victimization on delinquent behaviors in youth. **Method:** B-on, Google Scholar, PubMed, and EBSCO databases were systematically searched to identify relevant studies published. Specifically, original articles that reported the link between poly-victimization and delinquency were selected, resulting in 16 publications. **Results:** Results identified the most common risk factors for poly-victimization (e.g., living in unsafe neighborhoods) and how these cumulative risk factors are more predictive of poly-victimization than single risk factors. Results also show that poly-victimization significantly increases the likelihood of engaging in delinquency. Offenders that were victims of poly-victimization had a higher tendency to show psychological problems (e.g., anxiety, aggressive behavior, externalization problems, substance abuse). Although, it was not possible to conclude which gender is more likely to suffer from poly-victimization, considering delinquent behaviors. **Conclusion:** Compared to single victims, poly-victims have a higher tendency to adopt delinquent behaviors. The results further highlight the psychological impact caused by poly-victimization, and how that impact can influence the adoption of delinquent behaviors.

Keywords: *Poly-victimization, Juvenile Delinquency, Juvenile Justice, Impact*

Introduction

Victimization is a significant stressor and a psychologically damaging factor for children and youth (Riley et al., 2020; Soler et al., 2012). Globally, over the past year, over 1 billion children aged from 2 to 17 years have experienced physical, sexual, or psychological violence or neglect (M'jid, 2020).

Children and youth can experience over one episode of violence throughout childhood (Källström et al., 2020). Poly-victimization is the experience of four or more types of victimization, including childhood neglect, psychological, physical, and sexual abuse, and witnessing violence (Finkelhor et al., 2007). According to research, poly-victims show more anxiety, depression (Ellonen & Salmi, 2011), less positive school engagement, use of drugs, and engagement in violent behavior than children with experience of a single type of victimization, making this phenomenon a great predictor of traumatic symptoms (Ford et al., 2010). Therefore, the cumulative effect of victimizations provokes a higher negative impact on mental health than single victimizations. For this reason, assessing the psychological impact must not focus only on one type of victimization (Méndez-Lopez et al., 2021).

The psychological impact of victimization and traumatic experiences in childhood promote the adoption of delinquent behaviors (Ferreira, 2020; Segura et al., 2016). Delinquent behavior is defined as the commitment of criminal acts and the adoption of socially deviant behaviors that go against established social norms and rules (i.e., impulsive behaviors, conflicts with authority figures, opposition, and aggression) (Morgado, 2020). Delinquency in adolescence can be normative, depending on the different socio-cultural realities. Most children and adolescents show antisocial behaviors occasionally and are stimulated by the search for typical excitement in this age group. However, there is a group of youth who regularly adopt these behaviors throughout adolescence and adulthood (Galinari & Bazon, 2020).

Poly-victimization has been found to be more highly predictive of delinquency and psychological problems in children and youths than single victimizations (Wemmers et al., 2017). Poly-victims are more likely to show difficulties in self-regulation across multiple biopsychosocial domains (i.e., physiology, emotion, cognition) (Ford et al., 2013), more likely to develop poor connections to pro-social adults and institutions, to become involved in problematic peer groups, and, subsequently, use aggressive and criminal behaviors (Voisin, 2013). Because of the psychological impact, poly-victimization can facilitate unstructured socialization and associations with deviant peers. Children and youngsters repeatedly exposed to violence learn violence through observation or direct experience (Jonson-Reid, 1998) and may be considered a viable option for antisocial behaviors and substance use (Farrel & Zimmerman, 2017).

The lifestyles/routine activities theory (Cohen & Felson, 1979; Hindelang et al., 1978) explains the link between offending and victimization/poly-victimization (Azimi et al., 2019; Jennings et al., 2012). This theory shows that a specific activity routine can increase the risk of victimization and its frequency and puts children and youth close to motivated offenders while taking them away from proficient guardians. Therefore, victimization levels are higher among disadvantaged or at-risk populations, such as youth offender samples or children in contact with the welfare system (Haahr-Pedersen et al., 2020; Pereda et al., 2015).

According to PROSPERO (National Institute for Health Research, 2021), there are no current reviews on this specific topic, and given the increased research interest in this area, collating these findings would provide a clearer picture overall. Completing this review also satisfies the growing demand for evidence-based practice, providing a systematic assessment of the findings. Searches of four databases were completed iteratively with identified studies collated and summarized pertaining to this aim.

Method

Protocol

The protocol of this systematic review was submitted to the PROSPERO register of systematic reviews (<http://www.crd.york.ac.uk/prospero>); registration number CRD42021233708). This systematic review was performed according to the PRISMA guidelines (Moher et al., 2009).

Eligibility Criteria

This systematic review includes studies based on samples of youth detained in juvenile facility centers. We included studies published between 2005 – the year when the poly-victimization concept was first introduced in the literature – and May 2021. The current review applies the definition of poly-victimization presented by Finkelhor as “experienced four or more types of victimization, including childhood neglect, psychological, physical, and sexual abuse, and witnessing violence” (Finkelhor et al., 2007).

Inclusion Criteria

Studies were included according to the following a priori criteria for eligibility: (1) published in English, Spanish or Portuguese; (2) with a sample between 10 and 20 years of age (the age of the sample was chosen based on the minimum ages of criminal responsibility in countries where there is a greater body of literature on this topic [USA, England, Australia]); (3) assessable at least four different types of interpersonal victimizations; (4) that investigated the link between poly-victimization and delinquency. Exclusion criteria were the following: (1) participants younger than 10 years or older than 20 years; (2) studies with non-polyvictims participants; (3) studies with only non-delinquent participants.

Information Sources and Search Strategy

Scientific articles were searched in B-on, Google Scholar, PubMed, and EBSCO with the following search terms: “Polyvictimization” OR “poly-victimization” AND “youth offending” OR “youth crime” OR “juvenile delinquency” OR “delinquency” OR youth offenders” OR juvenile justice OR incarcerated youth”.

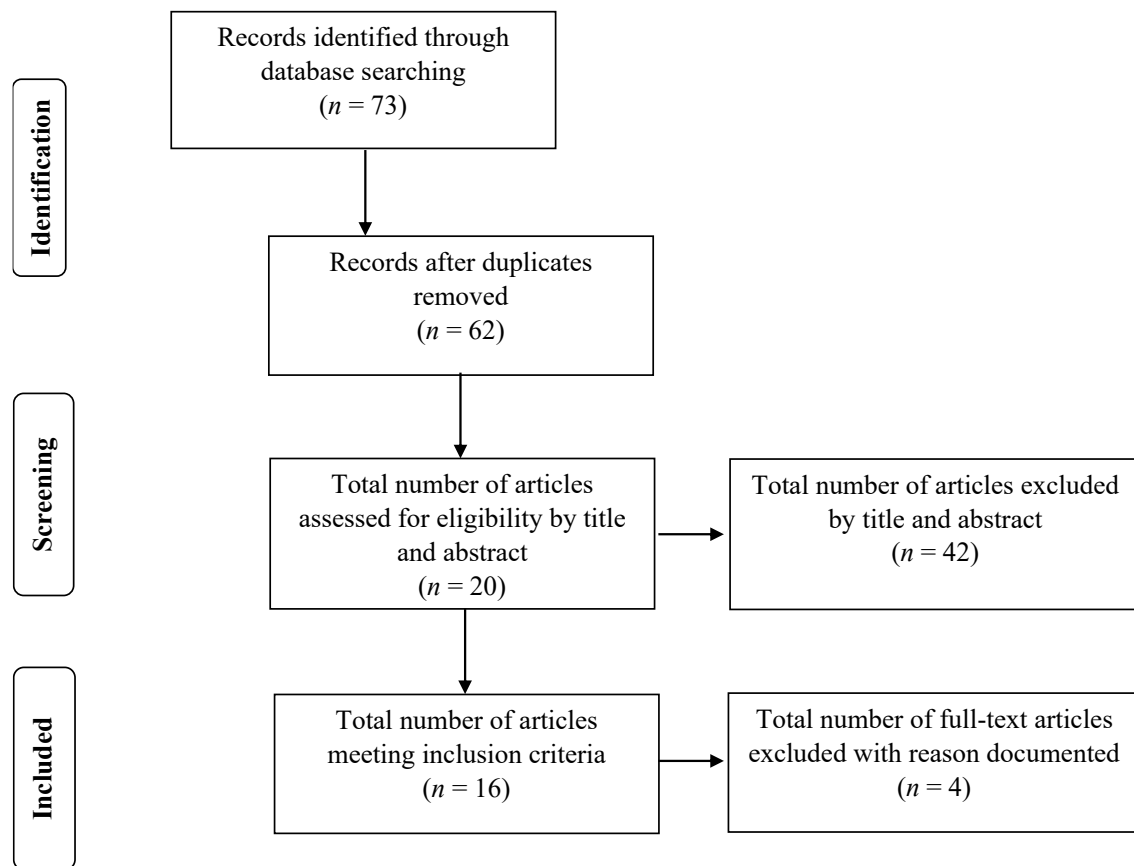
Data Management and Selection

Figure 1 shows the process of selecting the articles included in this study. The articles were reviewed first by title, then by abstract and finally by the full text. The database search identified 73 articles. Removing duplicates yielded 62 articles, and screening by titles and abstracts led to 20 articles to be fully assessed. To these articles, the inclusion criteria noted above were applied, obtaining 16 articles. Data extraction included: (1) characteristics of the sample; (2) measures of poly-victimization and delinquency; (3) risk factors of poly-victimization; (4) relation between poly-victimization and delinquency; and (5) gender differences.

Data from articles that meet the inclusion criteria were extracted independently by both authors. Any discrepancies were discussed until reached a mutual agreement. The reliability of the agreement between the authors was assessed based on the standard criteria of Cohen's Kappa statistic. Interpretation of the kappa statistic (κ) for inter-rater agreement was: $< .20$ (slight), $.21-.40$ (fair), $.41-.60$ (moderate), $.61-.80$ (good), and $> .81$ (excellent) (McHugh, 2012). The reliability of the agreement between the authors is excellent (.87).

Figure 1.

Flow diagram



Results

Study Sample

The studies comprised a total of 24,399 children and adolescents. Table 1 describes the characteristics of each sample, methodology, measures of poly-victimization and types of victimization. The study with a larger sample had 7,073 participants (Yoder et al., 2018), and the studies with the smaller sample had 100 participants (Alvarez-lister et al., 2016; DeHart & Moran, 2015)

As shown in Table 1, almost all the papers had a sample of children and adolescents between 10 and 20 years of age. One study only included delinquent girls in its sample (DeHart & Moran., 2015). Another study only included delinquent boys (Alexander et al., 2020). The remaining studies included both girls and boys in their sample.

Of the 16 studies, 10 were conducted in the United States of America (e.g., Alexander et al., 2020; DeHart & Moran, 2015); Yoder et al., 2018), three from Spain (Alvarez-Lister et al., 2016; Pereda et al., 2015; Suárez-Soto et al.; 2019), one from Australia (Papalia et al., 2020), one from Canada (Wemmers et al., 2017), and one from South Africa (Morojele & Brook, 2006).

Study Design

Most of the studies were conducted quantitatively ($n = 14$), one applied qualitative design (Ford et al., 2018), and one followed a mixed method approach (DeHart & Moran, 2015). The data were collected via individual interviews in juvenile justice residential facilities ($n = 6$), telephone interviews ($n = 4$), self-administered questionnaires ($n = 5$), and audio-assisted self-interview ($n = 1$). Of the 16 included studies, 11 examined the victimization among youth housed in juvenile facilities, two used data from the National Survey of Adolescents and the National Survey of Children Exposure to Violence II and, three assessed national samples of adolescents.

Table 1.

Characteristics of reviewed studies

Authors	Country	Sample Characteristics	Method of data collection	Measures of poly-victimization	Types of victimization
Morojele & Brook (2006)	South Africa	Adolescents (aged 12 to 17 years old) from Durban and Cape Town	Self-administered questionnaire	Variables created by the researchers	Threatened with a weapon; hit with a weapon or shot at; stabbed with a knife; beaten up; and stolen from
Ford et al. (2010)	USA	Adolescents aged 12 to 17 years that was representative of the 1995 US population	Telephone interview	Variables created by the researchers	Sexual or physical assault or abuse victimization, witnessing violence, and direct exposure to disaster, serious accident, or threat of or actual serious injury
Ford et al. (2013)	USA	Youths aged 10 to 16 years newly admitted to juvenile detention facilities	Self-administered questionnaire	Traumatic experiences screening instrument (TESI)	Emotional abuse and neglect

Table 1.

Characteristics of reviewed studies (continued)

Authors	Country	Sample Characteristics	Method of data collection	Measures of poly-victimization	Types of victimization
Cudmore et al. (2015)	USA	Latino adolescents aged 12 to 18 years of age	Telephone interview	JVQ (Juvenile Victimization Questionnaire)	Conventional crime, child maltreatment, sexual abuse, and peer/sibling victimization
DeHart and Moran (2015)	USA	Committed girls aged 12 to 18 years old	Face-to-face interview	JVQ (Juvenile Victimization Questionnaire)	Conventional crime, child maltreatment, peer and sibling victimization, sexual victimization, witnessing and indirect victimization
Pereda et al. (2015)	Spain	Youth aged 14 to 17, who were recruited from 3 detention centres and five open regime teams or follow-up services for court orders in Spain	Face-to-face interview	JVQ (Juvenile Victimization Questionnaire)	Conventional crime, caregiver victimization, victimization by peers and siblings, sexual victimization, witnessing and indirect victimization, and electronic victimization
Alvarez-Lister et al. (2016)	Spain	100 adolescents (aged 14 to 17 years old) recruited from three detention centers	Self-administered questionnaire	JVQ (Juvenile Victimization Questionnaire)	Conventional crime, caregiver victimization, victimization by peers and siblings, sexual victimization, witnessing and indirect victimization, and electronic victimization
Butcher et al. (2016)	USA	Juvenile justice involved youth (aged 10 to 18 years) participating in the Behavioral Health Juvenile Justice initiative	Face-to-face interview	Recent Exposure to Violence (REVS) scale	Experiencing threats, assaults, and beatings as either a victim or witness
Turner et al. (2016)	USA	National sample of children and youth who were aged 10 to 17 years	Telephone interview	JVQ (Juvenile Victimization Questionnaire)	Physical assault, property crime, sexual assault, maltreatment, peer and sibling victimization, and witnessing violence

Table 1.*Characteristics of reviewed studies (continued)*

Authors	Country	Sample Characteristics	Method of data collection	Measures of poly-victimization	Types of victimization
Wemmers et al. (2017)	Canada	Random sample of 12 to 17 years old residing in the Quebec	Telephone interview	JVQ (Juvenile Victimization Questionnaire)	Conventional crime, caregiver victimization, victimization by peers and siblings, sexual victimization, witnessing and indirect victimization
Charak et al. (2018)	USA	Youth (aged 12 to 19 years old) recruited from consecutive admissions to a short-term juvenile detention center	Self-administered questionnaire	UCLA Posttraumatic Stress Disorder Reaction Index (PTSD–RI)	Separation from a caregiver, neglect, or caregiver impairment and conventional crime, caregiver victimization, victimization by peers and siblings, sexual victimization, witnessing and indirect victimization
Ford et al. (2018)	USA	Youth (aged 12 to 19 years old) recruited from a short-term juvenile detention center located in USA	Self-administered questionnaire	UCLA Posttraumatic Stress Disorder Reaction Index (PTSD–RI)	Traumatic events included prolonged separation from a caregiver or experiences of neglect
Yoder et al. (2018)	USA	Youths who were aged 10 to 20 years, housed in juvenile facilities	Audio-assisted self-interview	Variables created by the researchers	Physical abuse, emotional abuse, sexual abuse, and forced sex
Suárez-Soto et al. (2019)	Spain	Adolescents, aged 12 to 17 years, recruited from residential centers in Spain or the Spanish juvenile justice system	Face-to-face interview	JVQ (Juvenile Victimization Questionnaire)	conventional crime, caregiver victimization, victimization by peers and siblings, sexual victimization, witnessing and indirect victimization, and electronic victimization
Alexander et al. (2020)	USA	Males (aged 13 to 19 years) adjudicated for a criminal offense and referred for treatment at a residential treatment program	Face-to-face interview	JVQ (Juvenile Victimization Questionnaire)	Conventional Crime, Child Maltreatment, Peer and Sibling Victimization, Sexual Victimization, and Witnessing/Indirect Victimization

Table 1.

Characteristics of reviewed studies (continued)

Authors	Country	Sample Characteristics	Method of data collection	Measures of poly-victimization	Types of victimization
Papalia et al. (2020)	Australia	Youth, aged 10 to 20 years, from two justice centers in Victoria	Face-to-face interview	CTQ (Childhood Trauma Questionnaire)	Physical abuse, emotional abuse, sexual abuse, physical neglect, and emotional neglect

Measures of Poly-Victimization

Several different measures were used to analyze poly-victimization and delinquency in the analyzed studies, including studies that created their own measure. The JVQ (Juvenile Victimization Questionnaire) was used by eight studies to assess poly-victimization (e.g., Cudmore et al., 2015; Pereda et al., 2015). The Traumatic Experiences Screening Instrument (TESI) was used in two studies (Charak et al., 2018; Ford et al., 2013). The Recent Exposure to Violence Scale (REVS) was used by Butcher et al. (2016), and the UCLA Posttraumatic Stress Disorder Reaction Index (PTSD–RI) was used by Ford et al. (2018). Ford et al. (2018) added to PTSD-RI the description of traumatic events possibly experienced by youth, such as prolonged separation from a caregiver or experiences of neglect. The Childhood Trauma Questionnaire (CTQ) was used by Papalia et al. (2020). Three studies created their own measure to assess poly-victimization (Ford et al., 2010; Morojele et al., 2006; Yoder et al., 2018).

Risk Factors for Poly-victimization

The risk factors for poly-victimization were reported in two studies (Turner et al., 2016; Yoder et al., 2018). These researchers concluded that the most common risk factors for poly-victimization are living in unsafe neighborhoods, living in places with rundown buildings, graffiti, public drinking, vandalism, and crime (Turner et al., 2016), maternal depression, maternal abuse history and low household income. Cumulative risk factors are more predictive of poly-victimization than single risk factors (Yoder et al., 2018).

Impact of Poly-victimization and Delinquency

The 16 studies identified a greater tendency for young offenders to experience four or more episodes of victimization in youthhood. As the number of different victimization experienced increases, the number of delinquent behaviors increases as well (Ford et al., 2018). According to Cudmore et al. (2015), poly-victimization significantly increases the likelihood of engaging in delinquency by 53%. Poly-victimized youths usually experience several episodes of violence or abuse before committing any maladjusted behavior (Alvarez-Lister et al., 2016; Yoder et al., 2018).

Research indicated that engaging in delinquent behavior and being involved in the juvenile justice system are influenced by the high psychological impact caused by poly-victimization (Alexander et al., 2020; Yoder et al., 2018). This psychological impact on poly-victims is manifested by higher rates of depression (Ford et al., 2010, Papalia et al., 2020; Wemmers et al., 2017), anxiety (Alexander et al., 2020; Papalia et al., 2020), psychotic illness, rule-breaking, aggressive behavior, impulsivity, irritability, early-onset violence (Papalia et al., 2020), substance abuse (DeHart & Moran, 2015; Ford et al., 2010; Ford et al., 2013; Ford et al., 2018; Papalia et al., 2020), suicide risk (Ford et al., 2013; Papalia et al., 2020; Suárez-Soto et al., 2019) posttraumatic stress (Alexander et al., 2020; Charak et al., 2018; Ford et al., 2013; Wemmers et al., 2017) sexual concerns (Alexander et al., 2020), emotional and behavioral problems (Charak et al., 2018; Ford et al., 2013) and general impairment (Alvarez-Lister, 2016).

Also, nine studies found that externalization and internalization are the principal cause of delinquency in young poly-victims (e.g., Alvarez-Lister et al., 2016; Papalia et al., 2020). Poly-victims are more likely, than non-poly-victims, to show externalizing symptoms and general impairment and, had a three times higher-than-average risk of displaying these psychopathology symptoms (Alvarez-Lister et al., 2016). These symptoms occur because of the violence and neglect experienced in the multiple contexts of an adolescent's life (e.g., family, community, school) and trigger lack of confidence in the world and the surrounding people, discouraging them from seeking the support they need. Similarly, the desire to retaliate against assisted violence, the attachment disruption, and lack of adequate, stable, and nurturing caregivers, are also factors that promote the development of symptoms of internalization and externalization and the consequent adoption of delinquent behaviors (DeHart & Moran, 2015; Ford, et al., 2013; Papalia et al., 2020; Suárez-Soto et al., 2019). Reviewed studies also showed

that poly-victimization increases delinquency based on the influence of anger. That is, as anger increases, so do the probability of delinquency (Cudmore et al., 2015; Ford et al., 2018; Wemmers et al., 2017).

Seven studies highlighted the influence of poly-victimization on substances use (e.g., Ford et al., 2010; Ford et al., 2013; Papalia et al., 2020). This research concluded that poly-victims were more likely to report alcohol and drug use problems compared to non-poly-victims. Being a poly-victim increases the scores on the delinquency scale and the frequent use of alcohol and marijuana (Morojele & Brook, 2006). DeHart and Moran (2015) evidenced that youth abuse substances as a form of self-medication to cope with past caregiver violence and witnessed violence.

Gender Differences in Poly-victimization and Delinquency

Some research concluded that boys are more likely to suffer from poly-victimization than girls, except for sexual assault (Butcher et al., 2016; Morojele & Brook, 2006; Wemmers et al., 2017). This result was explained from the exposure of boys to more potentially dangerous situations in general, and actual violence (Morojele & Brook, 2006). Also, boys exposed to multiple violence were more likely to exhibit externalizing behaviors compared to girls (Butcher et al., 2016; Wemmers et al., 2017).

However, four of the 16 studies analyzed concluded that young female offenders are more likely to have suffered from poly-victimization than boys (Alexander et al., 2020; Alvarez-Lister et al., 2016; Ford, et al., 2013; Papalia et al., 2020). These studies show that girls generally have a higher risk of being exposed to sexual victimization and domestic violence. Thus, girls tend to become more vulnerable and more likely to suffer from violence.

Discussion

Through the detailed analysis of 16 scientific articles included in this study, it was possible to examine the impact of poly-victimization on delinquency in youth. The balance of evidence from this review suggests that poly-victims are more likely to report delinquent behaviors than other victims (Alvarez-Lister et al., 2016; Cudmore et al., 2015; Ford et al., 2018; Yoder et al., 2018). In addition, these findings point to a pattern of serious mental health problems among delinquent youth exposed to poly-

victimization (DeHart & Moran, 2015; Ford et al., 2010; Ford et al., 2013; Ford et al., 2018; Papalia et al., 2020).

Findings identified as the most usual risk factors for poly-victimization living in unsafe neighborhoods, living in places with rundown buildings, graffiti, public drinking, vandalism, and crime (Turner et al., 2016), maternal depression, maternal abuse history, and low household income (Yoder et al., 2018). This result provides support for the lifestyles/routine activities framework. A specific activity routine (e.g., activities in unsafe neighborhoods) can increase the risk and frequency of victimization, puts children and youth close to motivated offenders, and promotes the adoption of delinquent behaviors (Haahr-Pedersen et al., 2020; Pereda et al., 2015).

The associations between poly-victimization and adverse mental health were identified across distinct samples of this research, different measures, and different analytical techniques. That suggests that poly-victimization in childhood is an encompassing problem that affects children and youth negatively across their lives. This systematic review showed that poly-victimization was a stronger predictor of delinquency, mediated by mental health problems. Poly-victimized youths are more involved in delinquents acts and experience several episodes of violence (Alvarez-Lister et al., 2016; Yoder et al., 2018). Thus, as the number of different types of victimization experienced increases, the number of delinquent behaviors increases as well (Ford et al., 2018).

The symptoms of poly-victimization identified in this research were over-controlled behaviors, such as anxiety and depression (Alexander et al., 2020; Ford et al., 2010, Papalia et al., 2020; Wemmers et al., 2017). Under-controlled behaviors, such as rule-breaking, aggressive behavior, impulsivity, irritability, early-onset violence, and drug and alcohol abuse, were also identified (DeHart & Moran, 2015; Ford et al., 2010; Ford et al., 2013; Ford et al., 2018; Papalia et al., 2020). Internalizing and externalizing problems were also identified as a principal cause of delinquency in young poly-victims (Alexander et al., 2020; Alvarez-Lister et al., 2016; Charak et al., 2018; Ford et al., 2013; Wemmers et al., 2017). Previous literature corroborates these results, showing that the cumulative effect of poly-victimization impact negatively on mental health than single victimizations (Méndez-Lopez et al., 2021). The psychological impact caused by poly-victimization can facilitate unstructured socialization and associations with deviant

peers (Farrel & Zimmerman, 2017), which is considered a mediator that influences several youth problem behaviors (Voisin & Elsaesser, 2013).

About the differences between gender, it is not possible to conclude which are more likely to suffer from poly-victimization, considering delinquent behaviors. Some authors mentioned that boys are more exposed to potentially dangerous situations and violence (Butcher et al., 2016; Morojele & Brook, 2006; Wemmers et al., 2017). However, it is also possible to verify that girls become more vulnerable and more likely to suffer from violence and have a higher risk of being exposed to sexual victimization and domestic violence (Alexander et al., 2020; Alvarez-Lister et al., 2016; Butcher et al., 2016; DeHart & Moran, 2015; Ford, et al., 2013; Ford et al., 2018; Papalia et al., 2020). Since the results in this review were not consistent, they do not provide solid support for these differences, so we suggest that future research analyze gender differences.

This systematic review has some limitations which should be considered. First, only three studies portray European culture. It is not possible to estimate the impact of poly-victimization and its relationship with delinquency in European children and youth. Thus, the intervention suggestions mentioned above, must be adapted according to the culture. Future research should extend their sample to other cultures. Second, only articles in English, Spanish and Portuguese languages were included in the present review which may result in publication bias and exclusion of otherwise relevant sources of information. More research should include other languages which might provide different or additional results. Third, poly-victimization has been assessed using several approaches in addition to the “poly-victimization” concept and the JVQ instrument. It was possible to verify that other terms (i.e., multiple experiences of victimization, cumulative trauma, adverse childhood experiences) have been used in other studies to refer to poly-victimization. However, they were not considered in this review due to the inclusion criteria exclusively contemplated the poly-victimization term. Future research should clarify this concept.

Despite the limitations, this review has several strengths, namely, it was conducted following a protocol structured according to the PRISMA methodology (Moher et al., 2009), which allowed to carry out exhaustive, objective, and transparent analyzes of the articles relevant to this review. Additionally, from what we were able to assess, this is

the first systematic review carried out on the impact of poly-victimization on delinquency in youth.

Conclusions

This review presents relevant information regarding poly-victimization among youth and delinquent behaviors. The knowledge of risk factors of poly-victimization provides greater awareness about the phenomenon so that it is possible to implement adequate prevention and intervention. Thus, the risk factors of poly-victimization should be analyzed among youth offenders to glean greater specificity in developmental pathways to youth victimization and violence. The promotion of mental health in children and youth poly-victims should be also one of the key points of prevention of delinquency. Programs to address multiple, co-occurring forms of violence exposure might be implemented throughout youth lives, and especially during childhood, as the likelihood of poly-victimization increases. Additionally, the relationship found between anger and delinquency (Cudmore et al., 2015; Ford et al., 2018; Wemmers et al., 2017) shows the need for interventions to regulate emotions and implementing adaptive coping strategies dealing with adversity.

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Article 2

Impact of Poly-victimization on Anxiety and Resilience of Young Offenders: Comparison with a Normative Sample

Abstract

Background: Victims of poly-victimization reveal a higher negative impact of violence than victims of a single type of violence. Specifically, being exposed to multiple types of violence is considered a stronger predictor of developing worse mental health outcomes. In addition, poly-victimization in children is related to clinical severity of externalizing symptoms, delinquency, and general impairment. The main objective of this study is to compare the impact of poly-victimization between the normative young population and young offenders concerning anxiety and resilience. **Method:** The sample was composed of 143 adolescents between 12 and 17 years old ($M = 14.93$, $SD = 1.63$), which 97 (67.8%) were identified as young offenders and 46 (32.2%) as normative adolescents. Participants completed a socio-demographic questionnaire, the Juvenile Victimization Questionnaire (JVQ), the Resilience Scale (RS), and the State-Trait Anxiety Inventory (STAIC C-2). **Results:** Analyses showed a relationship between JVQ, the RS, and the STAIC C-2. Further, were found differences between gender, age groups, poly-victimization, and delinquency in all scales and subscales. **Conclusion:** The findings showed that poly-victimization negatively affects resilience levels, reducing social and personal resources, and promotes anxiety in youth. Additionally, compared to normative adolescents, young offenders reported more victimization episodes in childhood, more anxiety, and less resilience than normative adolescents.

Keywords: Poly-victimization, Juvenile Delinquency, Juvenile Justice, Impact

Introduction

Children and adolescents under 18 years old often report violence or abuse in several contexts, such as home, school, and community (Finkelhor et al., 2011). Violence against children includes at least one of the six types of interpersonal violence (e.g., maltreatment,

bullying, physical assault, sexual violence, intimate partner violence, and emotional violence) and occurs in different stages of child development (Ferrara et al., 2019). In 2020, 41337 cases of youth violence were identified in Portugal, including negligence, domestic violence exposure, physical violence, psychological violence, sexual violence, abandonment and, child labor exploitation (Comissão de Proteção de Crianças e Jovens [Child and Youth Protection Commission], 2021). Because of the short and long-term impact of violence on children's development (Meinck, et al., 2020), victimization is considered a public health concern regardless of the country, cultural context, and language.

Poly-victimization refers to the experience of four or more types of victimization, including childhood neglect, psychological, physical, and sexual abuse, and witnessing violence (Finkelhor et al., 2007). Children who are victims of poly-victimization reveal more negative consequences of violence than victims of a single type of violence. Suffer multiple types of violence are also considered a stronger predictor of developing worse mental health outcomes (Finkelhor et al., 2011).

Research shows no consensus regarding poly-victimization and gender differences. Finkelhor et al. (2007) demonstrated that poly-victims are tendency characterized by boys and older youth. However, other studies suggested that girls seem to suffer more often from poly-victimization than boys (Ellonen & Salmi, 2011; Pinto-Cortez et al., 2017), and demonstrate significantly higher levels of anxiety symptoms and symptoms of post-traumatic stress (PTSD) than boys (Soler et al., 2012; Guerra et al., 2016; Mossige, & Huang, 2017; Nurius et al., 2020). It was also possible to verify that some research has found no significant differences (e.g., Guerra et al. 2017; Obsuth et al., 2017).

Poly-victimization in childhood affects individuals at a physical and psychological level, and these consequences extend throughout the life course (Ford & Delker, 2018). Young poly-victims show a higher probability of developing psychological disorders. Some of those problems are post-traumatic stress disorder (PTSD), depression, dissociation, anger externalizing behaviors, suicidal behaviors, poor school performance, alcohol/drug use problems, and cognitive disorders (Charak et al., 2018; Ford & Delker, 2018; Jackson-Hollis et al., 2017; Kretschmar et al., 2016; Méndez-López et al., 2019; Mossige & Huang, 2017; Suarez-Soto et al., 2019). Besides that, being exposed to multiple types of violence is a powerful predictor for developing anxiety and antisocial behaviors (Dong et al., 2018; Finkelhor et al., 2007; Guerra et al., 2016; Haahr-Pedersen et al., 2020; Hamby et al., 2020; Wolfe, 2018).

Bontempo and Pereira (2012) explained the high levels of anxiety in poly-victims by the highest probability of children and adolescents, in school age, suffer physical and psychological violence in their social relationships, which increases their levels of anxiety. Ford et al. (2013) identified in offenders poly-victims severe post-traumatic symptoms, depression/anxiety, emotional and behavioral problems, and psychosocial impairment. Subsequently, Ford et al. (2017) assessed individuals in juvenile detention facilities and concluded that offenders that were also victims of poly-victimization are more likely to report clinically significant addiction, anger, depression and anxiety, and somatic problems than other young offenders with fewer episodes of victimization.

The developmental psychopathology perspective argues that most forms of psychopathology result from multiple causal influences (Muris, 2006). The violence experienced in childhood may represent a significant risk for poor psychological and biological development, which can promote the development of anxiety (Cicchetti, 2016). Identification of symptoms of psychopathology during the child's development allows finding the principal causes that gave rise to it and prevents problems at this level in the future (Shulman & Scharf, 2018). This perspective also highlights that psychopathology occurs in a developing organism, which is certainly particularly relevant in childhood when changes in development are most pronounced (Leebens & Williamson, 2017). Researchers who defend this perspective report that both successful and unsuccessful adaptation is important for understanding the origins of psychopathology (Morsünbiil et al., 2019). Nevertheless, each child victim of violence can show differences, influenced by resilience, at a psychological and neurobiological level (Ioannidis et al., 2020).

Resilience is a complex construct that is described as the achievement of positive outcomes, adaptation, or developmental milestones despite significant adversity, risk, or stress (Shemesh & Heiman, 2021). The higher resilience levels and compensatory mechanisms can enable children to function adaptively despite adversity (Cicchetti & Toth, 2005; Toth & Cicchetti, 2013). Children with high resilience and good problem-solving skills can identify external resources (e.g., friends, family) and recognize their strengths and capabilities. In situations of violence or abuse in children, resilience is a very important variable and can protect from them developing poor mental health and delinquent behaviors, especially among victims of multiple traumas (Huang & Mossige, 2018). However, the number of violent events is directly and inversely associated with resilient functioning (Howell & Miller-Graff, 2014). Segura et al. (2017) corroborate these results, showing that

poly-victimization is associated with the weak presence of individual and environmental protective factors and lower levels of resilience in youth. Recently, Suarez- Soto et al. (2019) also concluded that experiences of poly-victimization have a negative impact on resilience, reducing social and personal resources.

Besides the symptoms of internalization described above, poly-victims also tend to present externalization behaviors. According to Martins et al. (2021) adolescents exposed to adverse childhood experiences and traumatic events tend to present a greater predisposition regarding the practice of delinquent behaviors. Specifically in relation to poly-victimization, this phenomenon in children is related to clinical severity of externalizing symptoms, delinquency, and general impairment (Alvarez-Lister et al., 2016; Turner et al., 2016). Youth involved in the juvenile justice system can experience poly-victimization, before or during adopting delinquent behaviors because of problems in emotional regulation, interpersonal relationships, development, integration in society caused by adverse experiences (Pereda et al., 2017). For this reason, as well as poly-victimization, low levels of resilience are also a risk factor to adopt delinquent behaviors (Mansouri et al., 2015; Newsome et al., 2016).

There is a clear investment in research about youth poly-victimization at the international level. Although, the development of research in Portugal on poly-victimizations is scarce (Almeida et al., 2020). To the best of our knowledge, there is only one national study (Author & Author, *in press*) with samples of youth offenders. Considering the high prevalence in Portugal of reported cases of child victimization, and a possible higher impact of poly-victimization on young offenders, the main objective of this study is to compare the impact of poly-victimization between the normative young population and young offenders concerning anxiety and resilience. We also intend to a) verify the relationship between poly-victimization, anxiety and resilience; b) compare boys and girls, delinquent and non-delinquent adolescents, and younger and older youth concerning poly-victimization, anxiety and resilience; c) compare poly-victims and non-poly-victims concerning anxiety and resilience.

Method

Participants

The study's inclusion criteria required participants to have: a) between 12 and 17 years of age; b) being Portuguese; and c) having sufficient intellectual and communicative skills to give answers to the instruments (to be able to read and write in Portuguese, not to present

mental illness or psychopathology that would require the perception of the instruments). Thus, all other participants that did not meet this requirement were excluded from the study.

The total sample was composed of 143 adolescents with a mean age of 14.93 years old ($SD = 1.63$). The total sample is composed of 66 girls (46.2%) and 77 boys (53.8%). Among the participants meeting these criteria, 52 (36.4%) were initially identified as offenders, and 91 (63.6%) were identified as normative adolescents. However, according to the socio-demographic questionnaire we verified that in the normative population not identified as young offenders, 46 (32.2%) reported delinquent behaviors. Consequently, we considered 97 young offenders (67.8%) and 46 normative adolescents (32.2%). Of the young offenders, 47 (48.5%) are girls and, 50 (51.5%) are boys with a medium age of 15.36 ($SD = 1.529$). Regarding non-delinquent youths, 19 (41.3%) are girls, and 27 (58.7%) are boys, with a medium age of 14.02 ($SD = 1.483$). Regarding poly-victimization, the total sample consists of 66 poly-victims (46.2%), of which 59 are young offenders (60.8%).

Procedures

The study design is descriptive, observational, and cross-sectional. Participants were recruited via non-probabilistic and snowball sampling. Data collection was conducted at 2 scout groups, 4 study and tutoring centers, 3 juvenile detention facilities and 3 residential care institutions, between October 1st, 2020, to May 31st, 2021. The main researcher contacted each institution and requested authorization for data collection. Subsequently, the objectives and procedures of the study were explained, ensuring the confidentiality of the results and anonymity of participants, before parents (mothers or fathers) signed an informed consent. Furthermore, the study required the verbal consent of all adolescent participants to partake in the study. The confidentiality of results and the anonymity of subjects were 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 University Institutional Review Board and the Ethics Committee. Authorization for data collection in each institution was given by the respective institution directors.

Measures

Socio-demographic data. We intended to assess the following socio-demographic data through a brief questionnaire: age, gender, nationality, if the adolescent has committed

delinquent behavior throughout his life, and if the adolescent is in a juvenile detention facility.

Juvenile Victimization Questionnaire (JVQ; Finkelhor et al., 2005; Almeida et al., 2020). This questionnaire was developed by Finkelhor et al. (2005) and aims to assess crime, child abuse and other types of victimization during childhood. Is composed of 34 items grouped into five modules. Module A concerns conventional crimes (8 items), Module B examines child maltreatment (4 items), Module C investigates peer and sibling victimization (6 items), Module D regards sexual victimization (7 items), and Module E analyzes witnessing and indirect victimization (9 items). Each item was measured on a dichotomous scale, with 0 signifying a negative response and 1 representing an affirmative response. Higher scores in each module indicate a higher prevalence of that victimization (Finkelhor et al., 2005). Almeida et al. (2020) showed that JVQ had good psychometric property and is applicable among Portuguese youth. Cronbach alphas for the total sample was .94. (Almeida et al., 2020). In our study the instrument shows adequate psychometric properties, with an alpha of .78 for the total sample.

State-Trait Anxiety Inventory for Children (STAIC C-2; Gonçalves & Dias, 1999; Spielberger et al., 1973). The STAIC was developed to assess anxiety in two distinct dimensions: state anxiety (STAIC C-1) and trait anxiety (STAIC C2). In our study, only the STAIC C2 scale was used, as the objective is to assess the levels of anxiety in children. Consists of 20 sentences, which the individual answers indicating how, in general, they feel on a scale consisting of three levels: never, sometimes and many times. This scale measures relatively stable individual differences in the tendency to experience anxiety states and was developed for self-administration. According to Gonçalves and Dias (1999) the instrument's internal consistency has an alpha value of .78. In our study the instrument had an alpha value of .71.

Resilience Scale (RS; Felgueiras et al., 2008; Wagnild & Young, 1993). This instrument, validated for the Portuguese population, corresponds to a self-assessment scale and consists of 25 items. The organization of individuals in the face of a negative event and their ability to overcome it are evaluated. This instrument encompasses 5 dimensions: Perseverance, Self-confidence, Serenity, Meaning and Existential Loneliness (Wagnild & Young, 1993). Felgueiras et al. (2008) adapted this instrument for the Portuguese population considering it to be a reliable, valid, and sensitive with an alpha value of .82. In this study, Cronbach alpha for RS was .80.

Statistical analysis

Initially, a descriptive analysis was performed with the socio-demographic and subscales data to better know the characteristics of the sample. In the next step was performed Pearson correlations to verify the relation between total scores and subscales of the JVQ, the RS Scale, and the STAIC C-2. We also performed ANOVA one way to compare the means between sociodemographic variables and the total scores and subscales of the JVQ, the RS, and the STAIC C-2. Multiple linear regressions were also performed to analyze the predictive validity of anxiety.

To perform this analysis, we used the statistical software IBM SPSS Statistics Version. 25.0.

Results

Descriptive Analysis

From the total participants, 36 (37.1%) reported they had committed theft, 12 (12.4%) reported they had committed a robbery, 46 (47.4%) made threats against someone, 33 (34%) have run away from home, 59 (60.8%) have missed classes on purpose, 21 (21.6%) have driven without a driving license and, 19 (19.6%) already have done graffiti without authorization. About the consumption and sale of substances, 28 (28.9%) affirmed to have used drugs, 18 (18.6%) have already sold drugs, 57 (58.8%) have already consumed alcohol and, 43 (44.3%) have smoked tobacco. Additionally, it was possible to verify that 63 young offenders (64.9%) affirmed that they already had aggressive behavior (breaking something, hitting someone), 27 (27.8%) have already invaded the private property and, 27 (27, 8%) stated that they had and/or used a bladed weapon.

The descriptive analyses were performed for each scale and subscale (Table 1). For the delinquent sample the mean of JVQ is 6.13 ($SD = 4.853$). Specifically, this analysis shows that the youth offenders reported more conventional crimes victimization, followed by witnessing and indirect victimization, peer and sibling victimization, child maltreatment, and sexual victimization. Regarding anxiety (STAIC C2), for the delinquent sample the mean is 41.96 ($SD = 5.528$). The descriptive analyses were also performed for resilience (RS). Young offenders reported more self-confidence, followed by perseverance, meaning, serenity, and existential loneliness.

Table 1

Descriptive Statistics for JVQ, STAIC C2 and RS in youth offender's sample

	M	SD	Minimum	Maximum
JVQ				
JVQ Total Score	6.13	4.853	0	18
Conventional Crimes	1.84	1.625	0	6
Child Maltreatment	.93	1.063	0	4
Peer and Sibling Victimization	1.26 .70	1.210 1.284	0 0	4 7
Sexual Victimization	1.41	1.619	0	7
Witnessing and Indirect Victimization				
STAIC C2				
STAIC C2 Total Score	41.96	5.528	28	54
RS				
RS Total Score	127.23	20.993	73	170
Perseverance	30.03	5.860	18	42
Self-confidence	34.79	6.988	17	47
Serenity	22.20	4.312	9	28
Meaning	24.66	5.926	9	35
Existential loneliness	10.08	2.503	2	14

Notes. *M* = Mean; *SD* = Std. Deviation

Correlational analysis

The results of the Pearson correlations suggest the existence of significant correlations between victimization (JVQ), resilience (RS), and anxiety (STAIC C-2) on Table 2. We can verify negative and significant correlations between the subscales of JVQ and the subscales of the RS. Specifically, conventional crimes victimization is negatively correlated with perseverance ($r = -.221, p = .008$), self-confidence ($r = -.203, p = .015$), serenity ($r = -.172, p = .018$) and with the total score of the RS ($r = -.198, p = .018$). Child maltreatment is negatively associated with perseverance ($r = -.209, p = .012$), self-confidence ($r = -.183, p = .028$), and with the total score of the RS ($r = .169, p = .043$). The peer and sibling victimization correlates negatively with perseverance ($r = -.265, p \leq .001$), self-confidence ($r = -.179, p = .032$), and with the total score of the RS ($r = -.202, p = .015$). Finally, the total score of the JVQ is negatively correlated with perseverance ($r = -.225, p = .007$), self-confidence ($r = -.194, p = .020$), and the total score of the RS ($r = -.173, p = .039$).

The association between JVQ and STAIC C-2 show positive and significant correlations. Specifically, conventional crimes victimization is associated with the total score of the STAIC C-2 ($r = .203, p = .015$). The total score of the JVQ is associated with the total score of the STAIC C-2 ($r = .196, p = .019$).

Furthermore, the total score of the STAIC C-2 show negative correlations with RS. The total score of the STAIC C-2 is negatively correlated with perseverance ($r = -.270, p \leq .001$), serenity ($r = -.177, p = .035$), and meaning ($r = -.404, p \leq .001$). There are also negative correlations between the total score of the STAIC C2, and the total score of the RS ($r = -.272, p \leq .001$).

Table 2

Correlations between victimization (JVQ), resilience (RS) and anxiety (STAIC C2)

	1	2	3	4	5	6	7	8	9	10	11	12	13
JVQ													
1. Conventional Crimes		.512**	.650**	.288**	.542**	.841**	-.221**	-.203*	-.172*	-.146	-.108	-.198*	.203*
2. Child Maltreatment			.511**	.293**	.501**	.738**	-.209*	-.183*	-.078	-.103	-.161	-.169*	.154
3. Peer and Sibling Victimization				.213*	.489**	.775**	-.265**	-.179*	-.098	-.157	-.128	-.202*	.159
4. Sexual Victimization					.229**	.527**	-.002	-.038	.027	.012	.003	.009	.094
5. Witnessing and Indirect Victimization						.777**	-.132	-.108	-.034	.002	-.075	-.074	.107
6. JVQ Total							-.225**	-.194*	-.102	-.105	-.124	-.173*	.196*
RS													
7. Perseverance								.748**	.581**	.633**	.584**	.886**	-.270**
8. Self-confidence									.625**	.612**	.554**	.892**	-.141
9. Serenity										.541**	.527**	.775**	-.177*
10. Meaning											.350**	.795**	-.404**
11. Existential Loneliness												.684**	-.076
12. RS Total													-.272**
STAIC C2													
13. STAIC C2 Total													

Notes. JVQ = Juvenile Victimization Questionnaire; RS = Resilience Scale; STAIC C2 = State-Trait Anxiety Inventory for Children.

* $p < .05$; ** $p < .00$

Group differences

To perform the ANOVA one way, all the assumptions were tested. In our study, we used the age groups, gender, poly-victimization, and delinquency variables.

Concerning age groups and his comparing with all the subscales of the JVQ, the RS, and the STAIC C-2, the results show that there are statistically significant differences for conventional crimes victimization ($M = 1.179$, $SD = 1.624$), [$F(1,141) = 18.388$, $p \leq .001$], child maltreatment ($M = .98$, $SD = 1.116$), [$F(1,141) = 20.009$, $p \leq .001$], peer and sibling victimization ($M = 1.12$, $SD = 1.212$), [$F(1,141) = 8.762$, $p = .010$], sexual victimization ($M = .76$, $SD = 1.345$), [$F(1,141) = 8.762$, $p = .004$], witnessing and indirect victimization ($M = 1.52$, $SD = 1.650$), [$F(1,141) = 19.088$, $p \leq .001$], and for the total score of the JVQ ($M = 6.16$, $SD = 5.078$), [$F(1,141) = 28.286$, $p \leq .001$]. Specifically, oldest adolescents present higher values in all JVQ subscales and in the total JVQ, compared to youngest adolescents.

Regarding gender, results also show that there are statistically significant differences for the total score of the RS ($M = 135.75$, $SD = 21.206$), [$F(1,141) = 5.969$, $p = 0.016$], meaning ($M = 26.87$, $SD = 5.027$), [$F(1,141) = 9.008$, $p = 0.003$], and for the total score of the STAIC C-2 ($M = 43.06$, $SD = 5.907$), [$F(1,141) = 19.436$, $p \leq .001$]. Boys have higher levels of resilience than girls and girls show higher levels of anxiety compared to boys.

For poly-victimization, it is possible to verify the existence of significant statistical differences for the total score of the STAIC C-2 ($M = 42.45$, $SD = 39.64$), [$F(1,141) = 9.298$, $p = 0.003$]. Youth poly-victims show higher levels of anxiety than non-poly-victims.

Concerning delinquency and his comparing with all the subscales of the JVQ, the RS, and the STAIC C-2, the results show that youth offenders have higher values in all subscales of the JVQ, in the total score of the JVQ, and in the STAIC C2. In all subscales of RS, and in the total score of the RS delinquents show lower values than normative adolescents (Table 3).

Table 3

Differences between youth offenders and normative adolescents in victimization (JVQ), resilience (RS) and anxiety (STAIC C2)

	Delinquent		Non-delinquent		<i>F</i> (1,141)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Conventional Crimes	1.84	1.625	.37	.679	34.475
Child Maltreatment	.93	1.063	.20	.582	19.062
Peer and sibling victimization	1.26	1.210	.20	.453	33.130
Sexual Victimization	.70	1.284	.17	.643	6.909
Witnessing and Indirect Victimization	1.41	1.619	.48	.781	13.760
JVQ Total	6.13	4.853	1.41	1.733	40.918
Perseverance	30.03	5.860	34.11	5.949	14.963
Self-confidence	34.79	6.988	38.93	6.625	11.323
Serenity	22.20	4.312	24.07	3.832	6.285
Meaning	24.66	5.926	27.59	4.303	8.965
Existential loneliness	10.08	2.503	11.09	2.448	5.097
RS Total	127.2	20.99	141.1	20.77	13.734
	3	3	1	7	
STAIC C2 Total	41.96	5.528	38.78	5.403	10.449

Note. *N* = 143. *M* = Mean; *SD* = Standard Deviation

Regression Analysis

The explanatory model of anxiety using a Multiple Linear Regression show that the model is significant. Durbin-Watson was 1.79 and VIF was <3. Meaning, existential and loneliness are not significant, and for this reason, we performed a new model (Table 4) only with significant paths. The model is significant ($F(4,47) = 17.07, p \leq 0.001$) and explains 56% of the variance of anxiety. Gender ($\beta = -0.47, p \leq 0.001$), victimization (β

= 0.47, $p \leq 0.001$), serenity ($\beta = -0.48$, $p = 0.003$), and self-confidence ($\beta = 0.41$, $p = 0.01$) are significant predictors of anxiety.

Table 4

Multiple Linear Regression with Anxiety for the Delinquent Sample

Variable	β	t	p	Adj R ²	ΔR^2	F
				0.59	0.56	$F(4,47) = 17.07, p \leq 0.001$
Gender	-0.47	-4.54	≤ 0.001			
Victimization	0.47	4.90	≤ 0.001			
Resilience – Serenity	0.48	-3.08	0.003			
Resilience – Self-confidence	0.41	2.66	0.011			

Discussion

This study aimed to study the impact of poly-victimization on youth concerning anxiety and resilience, comparing a normative population with a young offender's population.

Our findings showed that the total mean of victimization was higher than those founded in another study with children and adolescents from the normative population in United States of America (Finkelhor et al., 2009), and the results obtained by a study with adolescents from normative population in Chile (Cortez and Sanhueza, 2015). These results can be because we used a young offenders' sample, unlike the studies mentioned, that used a normative population. According to the literature, young offenders report more episodes of victimization (Alvarez-Lister et al., 2016; Pereda et al., 2017; Turner et al., 2016), and for this reason, the mean is higher. The mean of this research is lower than the results from another study with a specific sample composed by youth involved in the juvenile justice system, namely one Spanish study (Pereda et al., 2015). The fact that Spain has higher levels of juvenile delinquency than Portugal may explain this result. According to the National Institute of Statistics of Spain (*Instituto Nacional de Estadística* [National Institute of Statistics], 2020), there were 14112 convictions youth in 2019. In that same year, it was recorded only 1568

convictions of juvenile delinquency in Portugal (*República Portuguesa* [Portuguese Republic], 2020). As youth offenders report more episodes of victimization (Ford et al., 2013), the victimization mean also tends to be higher, as verified in the study of Pereda et al., 2015). Future research should study the total score of victimization in young offenders.

In this study, conventional crimes and, witnessing and indirect victimization were the most frequent types of victimization that affect Portuguese children and youth. This result differs from the result of the study by Finkelhor et al. (2009) which the most frequent victimization reported by adolescents was peer and sibling victimization. However, our results are in line with a study carried out in Spain, where the most frequent victimization reported was conventional crimes victimization, followed by witnessing and indirect victimization (Pereda et al., 2012).

The analysis of the relationship between resilience and victimization showed negative relationships between the various forms of victimization and resilience. Specifically, there was a negative correlation between conventional crime victimization, child maltreatment, and peer and sibling victimization with resilience subscales. Other researchers corroborated these results (Howell & Miller-Graff, 2014; Segura et al., 2017). Huang and Mossige (2018) concluded that in situations of violence or abuse in children, resilience protects them from developing poor mental health and delinquent behaviors, especially among poly-victims. Research suggests that the number of violent events is directly and inversely associated with resilient functioning, concluding that poly-victimization negatively affects resilience, reducing social and personal resources, as verified in our data (Suarez- Soto et al., 2019; Toth & Cicchetti, 2013).

Regarding the relationship between victimization and anxiety, we concluded that higher levels of victimization are associated with higher levels of anxiety. These results are similar to those obtained by other researchers (Dong et al., 2018; Finkelhor et al., 2007; Guerra et al., 2016; Haahr-Pedersen et al., 2020; Hamby et al., 2020; Wolfe, 2018) since their studies showed that being exposed to multiple types of violence is a powerful predictor for developing anxiety. Some authors explain this result from a developmental psychopathology perspective, which affirms that poly-victimization may represent a significant risk for poor psychological and biological development, and promotes the development of anxiety (Cicchetti, 2016; Muris, 2006).

The analysis of the relationship between anxiety and resilience showed positive and significant relationships between perseverance, serenity, meaning, and anxiety.

Ioannidis et al. (2020) corroborated these results and concluded that victims of violence show differences, influenced by resilience, at a psychological and neurobiological level (Toth & Cicchetti, 2013). Children with resilience and good problem-solving skills can identify external resources, recognize their strengths and capabilities and, for this reason, show lower levels of anxiety (Huang & Mossige, 2018).

The finding that the oldest adolescents reported higher values in all victimization subscales and in the total victimization, compared to the youngest adolescents, replicates prior studies' results (Cyr et al., 2013; Finkelhor et al., 2017). This difference may be due to the older adolescents had more time to experience multiple victimizations. Cyr et al. (2013) concluded that poly-victimization is more common among older children because some kinds of victimization, like sexual assault and witnesses of assault, appear to increase with age. Also, youngest adolescents are expected to be more unprotected to risk and less supervised by adults, according to the routine activities' theory (Martins et al., 2018).

This research corroborates the current findings that boys show higher levels of resilience than girls, and girls show higher levels of anxiety compared with boys (Masood et al. 2015; Sambu & Mhongo, 2019). One possible explanation for these findings is that girls are generally more emotional compared with boys (Erdogan et al., 2015), so they could be affected more deeply after experiencing multiple episodes of violence (Qouta et al., 2003). Besides, girls are more vulnerable to negative outcomes, showing more post-traumatic stress (PTSD) and stress, which reveal low resilience (Kimhi et al., 2010). Regarding anxiety, according to some authors, girls seem to show significantly higher levels of anxiety symptoms and symptoms of (PTSD) than boys (e.g., Guerra et al., 2016; Mossige, & Huang, 2017; Nurius et al., 2020; Soler et al., 2012). We can explain this result through the differences in brain chemistry and hormone fluctuations between boys and girls. Furthermore, changing hormone levels in a girl's life and reproductive events may be associated with increased levels of anxiety (Angold et al., 1999; Deardorf et al., 2007). Another explanation could be how girls react to life stressors. While men engage in more active, problem-focused coping, girls are more likely to ruminate about life stressors, which can increase anxiety levels (Hayward et al., 2002).

Poly-victims showed higher levels of anxiety. The results confirm the current literature (e.g., Finkelhor et al., 2007; Haahr-Pedersen et al., 2020; Hamby et al., 2020) showing that being exposed to multiple types of violence is a powerful predictor for

developing anxiety (Ford et al., 2017). Poly-victims are more likely to develop mental health disorders than other victims (Finkelhor et al., 2005; Turner et al., 2010) and the violence experienced in childhood may represent a significant risk for poor psychological development and promote the development of anxiety (Cicchetti, 2016). Bontempo and Pereira (2012) explained the high levels of anxiety in poly-victims by the highest probability of children and adolescents, in school age, suffer physical and psychological violence in their social relationships, which increases their levels of anxiety. Moreover, Turner et al. (2017) showed that low self-esteem, higher levels of humiliation, shame, sadness, and hopelessness, experienced during and after the various episodes of victimization, increase anxiety levels in poly-victims.

In this research, there was no differences in resilience between poly-victims and non-poly-victims. However, authors reported that the number of violent events is directly and inversely associated with resilient functioning (Howell & Miller-Graff, 2014). Poly-victimization is associated with the weak presence of individual and environmental protective factors and lower levels of resilience in youth (Segura et al., 2017). This result may show that the poly-victims in this study used some adaptive strategies and had sufficient protective factors, like family cohesion (Carbonell et al., 2002), supportive relationships (Afifi & MacMillan, 2011), positive self-perception, and optimism (Pérez-González et al., 2017), to develop resilience similarly to non-polyvictims.

Our results showed that young offenders present higher values in anxiety and scales and subscales of victimization compared to normative adolescents. According to several authors (Alvarez-Lister et al., 2016; Turner et al., 2016; Pereda et al., 2017) poly-victimization is related to clinical severity externalizing symptoms, delinquency (Martins et al., 2021), mental health problems, and general impairment (Ford & Delker, 2018). Young offenders have a higher probability to experience poly-victimization and, because of problems in emotional regulation, interpersonal relationships, development, integration in society caused by adverse experiences, the delinquency increases (Pereda et al., 2017). Additionally, Ford et al. (2013) identified in offenders' severe post-traumatic symptoms, depression/anxiety, emotional and behavioral problems, and psychosocial impairment.

Regarding resilience, young offenders showed lower levels than normative adolescents. The different existing studies corroborate this result, although there are sample differences (Mansouri et al., 2015; Newsome et al., 2016; Segura et al., 2017;

Suarez-Soto et al., 2019). Results from the study by Allen et al. (2006) showed that the development of resilience in children who experience poly-victimization is essential to reduce the risk of long-term delinquency and reduce their risk of becoming young offenders. Additionally, Mansouri et al. (2015) showed that more resilient adolescents are less susceptible to develop disorders and show negative behaviors, like delinquency, under adverse life experiences (e.g., poly-victimization).

Finally, the present results showed that gender, victimization, and resilience (serenity and self-confidence) predicted anxiety. However, these variables only explain a part of the explanatory power of anxiety. According to the previous empirical research, girls suffer more negative psychological outcomes, like depression and anxiety, after multiple episodes of victimization compared to boys (Espelage et al., 2016; Guerra et al., 2016; Mossige & Huang, 2017) and, as mentioned above, victimization and resilience impact anxiety levels (Finkelhor et al., 2007; Guerra et al., 2016; Haahr-Pedersen et al., 2020; Hamby et al., 2020; Suarez-Soto et al., 2019; Wolfe, 2018). Poly-victimization in childhood affects individuals at a physical and psychological level, which may increase anxiety levels (Ford & Delker, 2018). In addition, the higher resilience levels and compensatory mechanisms can enable adolescents to function adaptively regardless of adversity (Cicchetti & Toth, 2005; Toth & Cicchetti, 2013). In this way, adolescents with resilience could more easily cope with the effects of anxiety (Hjemdal et al., 2011; Rong., 2021; Secades et al., 2016). However, research shows that other variables can explain anxiety, namely temperament of the child, situational anxiety of the mother (Kain et al., 1996), problematic family relationships (Crawford & Manassis, 2001), age, and social support (Ripley & Worthington, 2002). Future studies should include these variables and study how they can also predict anxiety.

Limitations

Several limitations should be considered when interpreting the results of the study. First, despite the research was based on a sample of adolescents from several geographic areas in Portugal it is not representative of the entire Portuguese context. Second, the study focused only on analysing age, gender, and poly-victimization differences, and we did not assess additional ethnic or racial characteristics through the sociodemographic questionnaire. These limitations compromise the generalization of the results to the Portuguese population. Further research is needed with samples that

include more sociodemographic variables. Third, most of the sample are young offenders (67.8%), therefore, the results that analyse the differences between delinquents and non-delinquents must be interpreted with care. We suggest that future research uses a more equitable sample concerning delinquency. Lastly, juvenile victimization is very sensitive for children and adolescents, and therefore, responses may be subject to social desirability bias. Future research should explore this more and include a measure for social desirability bias.

Conclusion

Given the relatively limited availability of international research on poly-victimization within young offenders (Cudmore et al., 2015; Ford et al., 2013; Kerig, 2018; Yoder et al, 2018) this study contributes importantly to the literature.

Despite the observed limitations, this study has the main strength of comparing the impact of poly-victimization between the normative young population and young offenders concerning anxiety and resilience in Portuguese children and adolescents. Our study confirms that poly-victimization negatively affects resilience levels, reducing social and personal resources. Furthermore, our analyses showed that poly-victimization in childhood represents a significant risk for poor psychological development and promotes the development of anxiety. Regarding the link between poly-victimization and delinquency, we conclude that young offenders reported more victimization episodes in childhood, more anxiety, and less resilience than normative adolescents.

These results support and highlight the need for the promotion of mental health in poly-victims to help to increase the well-being of adolescents and the efficacy of delinquency prevention and intervention strategies. Findings also highlight the importance of treatment strategies that address anxiety problems in poly-victims. Finally, the Portuguese juvenile justice system should focus more on the needs of adolescents whose delinquent behaviors result from victimization or poly-victimization.

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Conclusion/ Discussion

This thesis contributes to the study of the relationship between poly-victimization and delinquency. First, we examined the impact of poly-victimization on delinquency in youth through the detailed analysis of 16 scientific articles. With identified studies collated and summarized, searches of four databases were completed iteratively.

Findings showed that poly-victimization in childhood affects children and youth negatively throughout their lives (Alvarez-Lister et al., 2016; Yoder et al., 2018). When compared to other victims, poly-victims are more likely to report delinquent behaviors and serious mental health problems (e.g., Alvarez-Lister et al., 2016; DeHart & Moran, 2015; Ford et al., 2018; Papalia et al., 2020). Our results also provided support for the lifestyles/routine activities framework. It was possible to verified that maternal depression, maternal abuse history, low household income (Yoder et al., 2018), living in unsafe neighbourhoods, and living in places with rundown buildings, graffiti, public drinking, vandalism, and crime (Turner et al., 2016) was the most common risk factors for poly-victimization. For this reason, a specific activity routine (e.g., activities in unsafe neighbourhoods) can increase the risk and frequency of victimization and promote delinquent behaviors (Haahr-Pedersen et al., 2020; Pereda et al., 2015). Regarding the symptoms of poly-victimization, the most reported by the selected studies were anxiety, depression, internalizing, and externalizing problems (Alexander et al., 2020; Charak et al., 2018; Ford et al., 2010, Papalia et al., 2020; Wemmers et al., 2017), rule-breaking, aggressive behavior, impulsivity, irritability, early-onset violence, and drug and alcohol abuse (e.g., DeHart & Moran, 2015; Ford et al., 2018; Papalia et al., 2020). These results are similar to those reported in the literature (e.g., Farrel & Zimmerman, 2017; Méndez-Lopez et al., 2021; Voisin & Elsaesser, 2013). Concerning gender differences, the results in this review were not consistent about which one was more likely to suffer from poly-victimization, considering delinquent behaviors. Some authors mentioned that boys are more exposed to violence (Butcher et al., 2016; Wemmers et al., 2017), but others showed that girls have a higher risk of being exposed to sexual victimization and domestic violence (Alexander et al., 2020; Alvarez-Lister et al., 2016; Butcher et al., 2016; DeHart & Moran, 2015; Ford, et al., 2013; Ford et al., 2018; Papalia et al., 2020). Thence we suggest that future research analyzes gender differences.

Concerning the article that analyzes the impact of poly-victimization on anxiety and resilience of young offenders, data shows that we obtained higher levels of victimization than those founded in other studies (Cortez and Sanhueza, 2015; Finkelhor et al., 2009). These results can be because we used a young offenders' sample, unlike the studies mentioned. Furthermore, findings showed that the most frequent types of victimization were conventional crimes and, witnessing and indirect victimization. These results are similar to those reported in the study carried out in Spain (Pereda et al., 2012), but differed from the result of the study by Finkelhor et al. (2009) which the most frequent victimization reported by adolescents were peer and sibling victimization.

Data shows a negative relationship between resilience and the various forms of victimization. Other researchers corroborated these results (Howell & Miller-Graff, 2014; Segura et al., 2017). suggesting that the number of violent events is directly and inversely associated with resilient functioning, and concluded that poly-victimization negatively affects resilience, reducing social and personal resources (Suarez- Soto et al., 2019; Toth & Cicchetti, 2013). The relationship between anxiety and victimization, founded in our study, could also be corroborated in the literature (Dong et al., 2018; Finkelhor et al., 2007; Guerra et al., 2016; Haahr-Pedersen et al., 2020; Hamby et al., 2020; Wolfe, 2018). Some authors explained this result through a developmental psychopathology perspective, which affirms that poly-victimization represents a significant risk for poor psychological and biological development, and promotes the development of anxiety (Cicchetti, 2016; Muris, 2006).

It was also possible to verify a positive and significant relationship between anxiety and resilience. These data are also corroborated by the research (Ioannidis et al. 2020; Toth & Cicchetti, 2013). It is important to emphasize that children with resilience and good problem-solving skills can identify external resources, recognize their strengths and capabilities and, for this reason, show lower levels of anxiety (Huang & Mossige, 2018).

The oldest adolescents reported higher levels of victimization when compared to the youngest adolescents. This result replicates prior studies' results (Cyr et al., 2014; Finkelhor et al., 2017; Martins et al., 2019). Regarding gender differences, we verified that boys showed higher levels of resilience than girls, and girls showed higher levels of anxiety when compared with boys (Masood et al., 2016; Sambu & Mhongo, 2019). According to the research, girls are generally more emotional when compared with boys

(Erdogan et al., 2015; Qouta et al., 2003), which can explain this result. Also, changing hormone levels in a girl's life and reproductive events can be linked to higher levels of anxiety (Angold et al., 1999; Hayward et al., 2002).

Our analyses showed that poly-victims have higher levels of anxiety than non-poly-victims. The results confirm the current literature (e.g., Finkelhor et al., 2007; Haahr-Pedersen et al., 2020; Hamby et al., 2020), showing that the violence experienced in childhood represents a significant risk for poor psychological development and promotes the development of anxiety (Cicchetti, 2016; Turner et al., 2017). Although, we haven't found differences in resilience between poly-victims and non-poly-victims. This result may show that the poly-victims in this study had sufficient protective factors, like family cohesion (Carbonell et al., 2002) and supportive relationships (Afifi & MacMillan, 2011), to develop resilience similarly to non-polyvictims.

Concerning delinquency, young offenders showed higher values in anxiety and victimization and lower levels of resilience. One explanation for this result is because of problems in emotional regulation, interpersonal relationships, development, integration in society caused by adverse experiences, which increase the delinquency (Mansouri et al., 2015; Newsome et al., 2016; Segura et al., 2017; Suarez-Soto et al., 2019). Furthermore, more resilient adolescents are less susceptible to develop disorders and show negative behaviors, like delinquency, under adverse life experiences (Mansouri et al., 2015).

Finally, according to the research, girls suffer more negative psychological outcomes after multiple episodes of victimization compared to boys (Espelage et al., 2016; Guerra et al., 2016; Mossige & Huang, 2017) and victimization and resilience impact anxiety levels (e.g., Haahr-Pedersen et al., 2020; Hamby et al., 2020; Suarez-Soto et al., 2019; Wolfe, 2018). In this sense, our findings showed that gender, victimization, and resilience predicted anxiety. Additionally, is important to note that poly-victimization in childhood affects individuals at a physical and psychological level, which may increase anxiety levels (Ford & Delker, 2018). However, adolescents with resilience could more easily cope with the effects of anxiety (Hjemdal et al., 2011; Secades et al., 2016). Nevertheless, research showed that other variables can explain anxiety (Crawford & Manassis, 2001; Kain et al., 1996; Ripley & Worthington, 2002), and for this reason, future studies should include these variables and study how they can also predict anxiety.

Limitations

Our research shows several limitations that should be considered in future studies. First, in the systematic review wasn't possible to estimate the impact of poly-victimization and its relationship with delinquency in European children and youth. Future research should extend their sample to other cultures, which might provide different or additional results. Second, regarding the second article, the sample was not representative of the entire Portuguese context. Also, most of the participants were young offenders. We suggest that future research uses a more equitable sample concerning delinquency. Third, additional ethnic or racial characteristics through the sociodemographic questionnaire were not assessed in this article. More research is needed with samples that include more sociodemographic variables. Lastly, this study used a self-report measurement of juvenile victimization. Even though this measure is a common method to assess poly-victimization, problems related to social desirability and accuracy can influence the report of violence and neglect episodes. Future research should explore this more and include a measure of social desirability bias.

Implications for Practice

The results showed that poly-victimization has a stronger impact on delinquency than repeated exposure to the same type of violence or exposure to a single episode of a single type of violence (Charak et al., 2018; Finkelhor et al., 2007; Ford & Delker, 2018). Consequently, this study shows a fundamental understanding of poly-victimization research in Portugal, highlighting the detrimental impact of experiencing violence in different areas of life.

Another implication for the practice that emerges with the accomplishment of this work is the need to implement intervention and prevention strategies in the juvenile justice system. The relationship between victimization and delinquency demands the creation of intervention programs for children and adolescents who have experienced poly-victimization to avoid future delinquent behaviors. These programs must intervene in the physical and mental health of children (e.g., assess anxiety problems, increase resilience levels) and ensure their well-being. In addition, this study may open other lines of investigation, still little explored, namely the study of the relationship between resilience, poly-victimization, and delinquency.

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Appendices

Appendix A

Questionário de Vitimação Juvenil

Parte A

As questões que se seguem estão relacionadas com acontecimentos que podes ter vivido no último ano da tua vida. Assinala com uma cruz (X) as tuas respostas.

	Sim	Não
1. No último ano, alguém fez uso da força para te tirar algo (roubar) que tu transportavas ou vestias?		
2. No último ano, alguém te roubou algo e nunca mais te devolveu? Coisas como por exemplo, uma mochila, um relógio, uma bicicleta, um rádio ou alguma coisa deste género?		
3. No último ano, alguém partiu ou estragou alguma coisa tua de propósito?		
4. Por vezes as pessoas são atacadas COM paus, pedras, armas, facas ou outros objetos que podem ferir. No último ano, alguém te bateu ou te atacou propositadamente COM um objeto ou COM uma arma, em locais como a escola, uma loja, no carro, na rua ou outro local?		
5. No último ano, alguém te bateu ou te atacou propositadamente SEM usar um objeto ou uma arma?		
6. No último ano, alguém te tentou atacar, mas depois por alguma razão não aconteceu mais nada? Por exemplo, porque alguém te ajudou ou porque tu conseguiste fugir dessa situação.		
7. Quando alguém é raptado, isso significa que a pessoa é levada para algum lugar, por exemplo de carro, e por alguém que a poderá ferir. No último ano, alguém te tentou raptar?		
8. No último ano, alguém tentou atacar-te ou te atacou por causa da tua cor de pele, pela tua religião ou pela origem da tua família? Ou ainda por teres um problema físico? Ou por alguém ter dito que eras homossexual?		

Parte B

As questões que se seguem estão relacionadas com as pessoas que cuidam de ti, por exemplo, os teus pais, uma *babysitter* (ama), adultos que vivem contigo ou outras pessoas que cuidam de ti. Assinala com uma cruz as tuas respostas.

	Sim	Não
1. No último ano, alguém importante na tua vida, te bateu, espancou, pontapeou, ou te feriu fisicamente de alguma maneira?		
2. No último ano, alguma vez te sentiste com medo ou te sentiste bastante mal porque alguém importante na tua vida te chamou nomes, ou te rejeitou?		
3. Quando alguém é negligenciado, isso significa que as pessoas mais importantes na sua vida não lhe deram os cuidados que deveriam, como por exemplo, não lhe deram comida, não a levaram ao médico quando estava doente, ou não lhe deram um local seguro para estar. No último ano, foste negligenciado?		
4. Por vezes os elementos de algumas famílias disputam ou discutem acerca do local onde os filhos devem viver. No último ano, alguma vez um dos teus pais te manteve afastado ou te escondeu do outro?		

Parte C

As questões que se seguem estão relacionadas com situações que te podem ter acontecido nas tuas relações com os teus amigos ou com os teus irmãos. Assinala com uma cruz (X) as tuas respostas.

	Sim	Não
1. Por vezes, grupos de jovens ou <i>gangs</i> atacam pessoas. No último ano, algum destes grupos te atacou ou te bateu?		
2. No último ano, alguém te bateu, incluindo um irmão ou irmã e sem contar com <i>gangs</i> ou grupos de jovens? Num local como por exemplo a escola, em casa, numa loja ou noutro local?		
3. No último ano, algum jovem te tentou magoar ou magoou na zona íntima (órgãos genitais) de propósito, batendo-te nessa zona?		
4. No último ano, algum jovem, incluindo um irmão ou uma irmã, implicou contigo ou te tentou agarrar pelos cabelos ou pela roupa, ou te obrigou a fazer algo que não querias fazer?		
5. No último ano, alguma vez te sentiste com medo ou te sentiste bastante mal porque algum jovem te chamou nomes, ou te disse que não te queria na sua companhia?		
6. No último ano, alguma vez um namorado teu ou namorada, ou alguém de quem gostavas te deu uma bofetada ou te bateu?		

Parte D

As questões que se seguem estão relacionadas com situações que te podem ter acontecido. Assinala com uma cruz (X) as tuas respostas.

	Sim	Não
1. No último ano, alguém que CONHECES te tocou nas tuas zonas íntimas (órgãos genitais) ou te obrigou a tocar nas suas quando não o querias? Ou alguém que tu CONHECES te forçou a ter relações sexuais?		
2. No último ano, alguém que tu NÃO CONHECES te tocou nas tuas zonas íntimas (órgãos genitais) ou te obrigou a tocar nas suas quando não o querias? Ou alguém que tu NÃO CONHECES te forçou a ter relações sexuais?		
3. Agora pensa em jovens da tua idade, da tua escola, ou num namorado(a) ou mesmo num irmão ou irmã. No último ano, alguém destas pessoas ou algum outro jovem te obrigou a ter algum comportamento sexual (por exemplo, relações sexuais, masturbação, carícias nas zonas sexuais, sexo anal e/ou oral, exibicionismo ou outro)?		
4. No último ano, alguém TENTOU forçar-te a ter relações sexuais mesmo que depois não tenham tido mesmo relações sexuais?		
5. No último ano, alguém te obrigou a olhar para as suas zonas íntimas (órgãos genitais) apanhando-te de surpresa ou fazendo uso de força?		
6. No último ano, alguém te fez sentires-te mal com alguma coisa relacionada com a sexualidade, por exemplo, algo que te tenham dito ou escrito sobre ti ou sobre o teu corpo?		
7. No último ano, tiveste algum contacto sexual com alguém com 18 anos ou mais, mesmo que por tua vontade?		

Parte E

Muitas vezes há acontecimentos que podem não acontecer contigo, mas tu podes vê-los a acontecer a outras pessoas que fazem parte da tua vida, e não pessoas da televisão ou dos filmes. Assinala com uma cruz (X) as tuas respostas.

	Sim	Não
1. No último ano, alguma vez VISTE algum dos teus pais ser batido pelo outro, por exemplo, levar bofetadas, pancada, ou ser espancado?		
2. No último ano, alguma vez VISTE um dos teus pais bater, dar pontapés ou ferir fisicamente os teus irmãos ou irmãs?		
3. No último ano, na tua vida real, alguma vez VISTE alguém ser atacado propositadamente COM um pau, uma pedra, uma arma, uma faca ou com outra coisa que pode ferir? Em algum local como a tua casa, a escola, uma loja, um carro, na rua ou noutro sítio.		
4. No último ano, na tua vida real, alguma vez VISTE alguém ser atacado propositadamente SEM usar um pau, uma pedra, uma arma, uma faca ou com outra coisa que pode ferir?		

5. No último ano, alguém roubou alguma coisa de tua casa que era da tua família ou de alguém que vive contigo? Coisas como por exemplo uma televisão, um rádio, ou outra coisa.		
6. Quando alguém é assassinado quer dizer que foi morto de propósito. No último ano, alguém teu amigo, vizinho ou familiar foi assassinado?		
7. No último ano, VISTE alguém da tua vida real (e não na televisão ou nos filmes) ser assassinado?		
8. No último ano, na tua vida real, quando estavas em algum local VISTE alguém ser baleado ou atacado por bombas?		
9. No último ano, alguma vez assististe a uma guerra real com luta de armas e bombas?		

Appendix B

Escala de Resiliência

Circula o número que indica o quanto concorda ou discorda com cada frase.

Discordo							Concordo
1. Quando faço planos levo-os até ao fim.							
1	2	3	4	5	6	7	
2. Eu normalmente acabo por conseguir alcançar os meus objetivos.							
1	2	3	4	5	6	7	
3. Sou capaz de depender de mim próprio mais do que de qualquer outra pessoa.							
1	2	3	4	5	6	7	
4. Manter-me interessado nas atividades do dia-a-dia é importante para mim.							
1	2	3	4	5	6	7	
5. Posso estar por conta própria se for preciso.							
1	2	3	4	5	6	7	
6. Sinto-me orgulhoso por ter alcançado objetivos na minha vida.							
1	2	3	4	5	6	7	
7. Normalmente faço as coisas conforme elas vão surgindo.							
1	2	3	4	5	6	7	
8. Sou amigo de mim próprio.							
1	2	3	4	5	6	7	
9. Sinto que consigo lidar com várias coisas ao mesmo tempo.							
1	2	3	4	5	6	7	
10. Sou determinado.							
1	2	3	4	5	6	7	
11. Raramente me questiono se a vida tem sentido.							
1	2	3	4	5	6	7	
12. Vivo um dia de cada vez.							
1	2	3	4	5	6	7	
13. Posso passar por tempos difíceis porque enfrentei tempos difíceis antes.							
1	2	3	4	5	6	7	

Discordo						Concordo
14. Tenho autodisciplina.						
1	2	3	4	5	6	7
15. Mantenho-me interessado nas coisas						
1	2	3	4	5	6	7
16. Geralmente consigo encontrar algo que me faça rir.						
1	2	3	4	5	6	7
17. A confiança em mim próprio ajuda-me a lidar com tempos difíceis.						
1	2	3	4	5	6	7
18. Numa emergência, sou alguém com quem geralmente as pessoas podem						
contar. 1	2	3	4	5	6	7
19. Normalmente consigo olhar para uma situação de várias perspetivas.						
1	2	3	4	5	6	7
20. Às vezes obrigo-me a fazer coisas quer queira quer não.						
1	2	3	4	5	6	7
21. A minha vida tem sentido.						
1	2	3	4	5	6	7
22. Eu não fico obcecado com coisas que não posso resolver.						
1	2	3	4	5	6	7
23. Quando estou numa situação difícil, normalmente consigo encontrar uma						
solução. 1	2	3	4	5	6	7
24. Tenho energia suficiente para fazer o que deve ser feito.						
1	2	3	4	5	6	7
25. Não tenho problema com o facto de haver pessoas que não gostam de mim.						
1	2	3	4	5	6	7

Appendix C

STAIC

Nas linhas de baixo estão algumas frases que rapazes e raparigas usam para se descrever. Lê cada uma com atenção e assinala com uma cruz (X) no espaço () a opção que melhor te descreve. Deves assinalar a resposta que melhor descreve como te sentes habitualmente, na maioria dos dias.

		NUNCA	ÀS VEZES	MUITAS VEZES
1	Preocupa-me cometer erros			
2	Tenho vontade de chorar			
3	Sinto-me infeliz			
4	Tomo decisões com facilidade			
5	É difícil enfrentar os meus problemas			
6	Aflijo-me muito			
7	Fico em casa aborrecido			
8	Sou envergonhado			
9	Sinto-me confuso			
10	Preocupo-me com coisas pouco importantes			
11	Preocupo-me com a escola			
12	Tenho dificuldade em decidir o que fazer			
13	O meu coração bate muito depressa			
14	Tenho medos que não conto a ninguém			
15	Preocupo-me com os meus pais			
16	As minhas mãos ficam suadas			
17	Preocupo-me com o que possa acontecer			
18	Custa-me a adormecer à noite			
19	Tenho sensações estranhas no estômago			
20	Preocupa-me o que os outros pensam de mim			

