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Criminal recidivism in Colombian juvenile offenders: Related risk and protective factors

Reincidencia delictiva en adolescentes colombianos: factores de riesgo y protectores relacionados

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Abstract

Research with adolescent offenders is concerned with identifying risk and protective factors that influence recidivism and desistance from crime. A quantitative and cross-sectional investigation designed to examine the influence of risk and protective factors on recidivism in Colombian adolescents is presented. In seven regions of Colombia, a convenience sample was obtained, and 646 adolescents aged 14 to 19 years (M = 17.08; SD: 1.23; 15 % girls) belonging to the Sistema de Responsabilidad Penal para Adolescentes (SRPA) participated. The Communities That Care Youth Survey (CTC-YS) was used for the evaluation. It evaluated a broad set of risk and protective factors identified through the community, school, family, peer group, individual conditions, and behavioral outcomes, including drug use, antisocial behavior, and delinquency. Descriptive analyses were conducted, and all CTC-YS factors were correlated with antisocial behavior. The results show varying degrees of relationship between the factors assessed and antisocial behavior. Binary logistic regression was used to determine which risk and protective factors influence recidivism. It was noted that favorable parental attitudes towards drug use and antisocial behavior, early onset of drug use, low school engagement, and interaction with antisocial peers increases the probability of recidivism. Recidivism was identified as being affected by, among other factors, favorable parental attitudes toward drug use and antisocial behavior, early onset of drug use, and low school engagement. It was also observed that beliefs in a moral order, opportunities for prosocial school participation and lower drug use frequency reduce the probability of recidivism.

According to the results, the factors that influence criminal recidivism are multiple, and

social, family, school, and individual factors need to be addressed. The need to intervene in attitudes favorable to antisocial behavior on the part of parents, strengthen school services, and carry out treatment for drug use to favor the reduction of recidivism in Colombian adolescents is discussed.
Keywords: adolescents; recidivism; antisocial behaviour; risk factors; protective factors

Resumen

La investigación con adolescentes ofensores busca identificar los factores de riesgo y de protección que afectan a la reincidencia y al desistimiento. Esta información es útil para desarrollar programas de prevención de la conducta antisocial y facilita los procesos de intervención que favorecen la reinserción social. Desde el punto de vista legal, la reincidencia es la participación de un individuo en nuevos actos delictivos, que conduce a una nueva condena, después de haber sido judicializado por un delito anterior. El desistimiento, en cambio, es la interrupción de la conducta antisocial y se caracteriza por la reinserción social exitosa y el ajuste a las normas de la comunidad. Se han identificado factores sociales, familiares, escolares, relacionales e individuales que afectan a la reincidencia y al desistimiento.

Se presenta una investigación cuantitativa que utilizó una medición de corte transversal, diseñada para examinar la influencia de los factores de riesgo y protección en la reincidencia de los adolescentes colombianos. Se realizó un muestreo por disponibilidad y conveniencia en instituciones de siete departamentos o regiones geográficas de Colombia. Los participantes fueron 646 adolescentes de entre 14 y 19 años (M = 17.08; DT: 1.23; 15 % chicas). Todos ellos estaban judicializados y cumpliendo sus sanciones legales en el Sistema de Responsabilidad Penal para Adolescentes (SRPA).

Para la evaluación se utilizó la encuesta Communities That Care Youth Survey (CTC-YS). Se trata de un instrumento de 135 ítems diseñado para medir un amplio conjunto de factores de riesgo y de protección identificados a través de las condiciones de la comunidad, la escuela, la familia, el grupo de pares y el individuo, así como los resultados conductuales, que incluyen el uso de drogas, la violencia, el comportamiento antisocial y la delincuencia. El instrumento mostró buena fiabilidad en este estudio. La reincidencia se evaluó con criterios legales, es decir, se tuvieron en cuenta el número de condenas oficiales. Para ello se revisaron los expedientes de los participantes y se los cruzó con la información reportada por los profesionales que atendían los centros y el autoinforme de los participantes.

Se obtuvo la aprobación del comité de ética y permiso del gobierno a través del Instituto Colombiano de Bienestar Familiar -ICBF- (Autorización E-2016-660327-0111). Los consentimientos informados fueron firmados por los defensores, los directores de los centros de atención, los padres de los adolescentes y por cada uno de los participantes. Una vez finalizada la investigación, se socializaron los resultados a través de grupos focales con los interesados, incluidos los adolescentes.

Se realizaron análisis descriptivos con los datos y se correlacionaron todos los factores del CTC-YS con la variable conducta antisocial y delictiva provista por el mismo instrumento. Luego se realizó una regresión logística binaria para determinar qué factores de riesgo y protección influyen en la reincidencia.

Se observaron diferentes grados de relación entre los factores evaluados y la conducta antisocial-delictiva. Los resultados indican que la reincidencia se ve afectada, entre otros factores, por las actitudes favorables de los padres hacia el uso de drogas y la conducta antisocial, el inicio temprano del consumo de drogas y el bajo compromiso escolar. Las creencias en un orden moral y las oportunidades por la participación escolar prosocial y la menor frecuencia de uso de drogas muestran disminución en la probabilidad de reincidencia.

Según los resultados, los factores que influyen en la reincidencia delictiva son múltiples y requieren la intervención de las condiciones sociales, familiares, escolares e individuales. Se discute la necesidad de intervenir en las actitudes favorables a la conducta delictiva por parte de los padres, fortalecer los servicios escolares, realizar tratamiento para abandonar el uso de drogas y desarrollar modelos de intervención que cuenten con evidencias de eficacia para ayudar a reducir la reincidencia en los adolescentes colombianos.
Palabras clave: adolescentes; reincidencia; conducta antisocial; factores de riesgo; factores protectores

Introduction

Recidivism is defined as "the official criminal participation (based on a legal record) of a person who, after having been convicted of a previous crime, commits a new offense for which he incurs another conviction" (Zara & Farrington, 2016, p. 5). Youth recidivism is a problem with social, economic, and public health implications, and its prevalence varies according to the context (Orlando & Farrington, 2021; Zara & Farrington, 2016). More knowledge is needed about the risk and protective factors in this population to determine which young people may be at most risk of recidivism (Piquero, Farrington, Nagin, & Moffitt, 2010; Sousa, Cardoso, & Cunha, 2019). Thereby provides an understanding of the associated problems and implementing relevant reentry strategies (Andrews & Bonta, 2017; Lee, Moon, & Garcia, 2020; Singh, Kroner, Wormith, Desmarais, & Hamilton, 2018; Stojkovic, 2017).

Studies with adolescents have identified individual, family, school, and community risks associated with recidivism (Kennedy, Edmonds, Millen, & Detullio, 2019). It has also been noted that there are common risk factors that, when intervened, help reduce recidivism; for example, criminal history, favorable attitudes toward criminal behavior, antisocial peers, antisocial personality, interpersonal relationships, use of leisure time, school (or work), and drug use (Andrews & Bonta, 2017). Studies have shown that the risk factors may be different according to the type of crime (Coupland & Olver, 2020; Grossi, Brereton, Lee, Schuler, & Prentky, 2017).

It has been suggested that adolescents with a higher risk of recidivism accumulate a greater number of adverse factors. In this regard, a cohort study compared the risk and protective factors in adolescents and young adults. It was observed that those who began their antisocial life at an earlier age presented cumulative risks in a wide variety of domains, including school, relationships, peer group, family history of antisocial behavior, antisocial attitudes, aggression, alcohol use, drug abuse, and a history of mental health problems (Baglivio, Jackowski, Greenwald, & Howell, 2014). In juvenile offenders gender neutrality has been observed in global risk domains, i.e., risk factors predict recidivism to a similar degree in men and women, particularly in relationships with antisocial peers, family problems, drug use, antisocial behavior, and antisocial attitudes (Cuevas, Wolff, & Baglivio, 2019).

Community risk and protection factors

Community intervention has been reported as favoring desistance in offenders with disabilities and special educational needs and fostering violent offenders' social integration (De Vries Robbé, de Vogel, Douglas, & Nijman, 2015). Evidence indicates that having job opportunities and living in peaceful neighborhoods, supportive housing, and social support reduce recidivism (Huebner & Pleggenkuhle, 2015; Pleggenkuhle, Huebner, & Kras, 2016).

In adults, education levels and post-release employment are significantly correlated with recidivism, regardless of the classification of crimes (Nally et al., 2014). Having support services for the reentry process in the community better-paying jobs in the legal economy

and making commitments with the personal change in the transition to adulthood, reduce the chances of recidivism (Chamberlain, Boggess, & Powers, 2016; Schubert, Mulvey, & Pitzer, 2016). Access to healthy leisure activities and free time engagement in adolescents has shown to be a protective factor for recidivism (Cuervo Gómez, Villanueva Badenes, & Pérez Castillo, 2017).

Family risk and protection factors

In the family setting, poor parenting skills, a history of criminal behavior in the family, dysfunctionality, and the presence of physical and emotional abuse are predictors of recidivism in adolescents (García-García, Ortega-Campos, & de la Fuente-Sánchez, 2010; Kennedy, Edmonds, Millen, & Detullio, 2019; Ortega-Campos, García-García, De la Fuente Sánchez, & Zaldívar Basurto, 2012).

Research on reentry processes suggests that living with the family delays recidivism, especially among men, and that living with an intimate partner may be a predictor of harmful and robust failure for men and women (Huebner & Pleggenkuhle, 2015). Recent findings show that childhood physical abuse is related to violent recidivism in males (van der Put & De Ruiter, 2016). Furthermore, sibling crime is a risk factor for various future offenses (Walters, 2018). It has been suggested that family conflicts may be a stronger predictor of recidivism than having a relationship with antisocial peers (Mowen & Boman, 2019).

In terms of protective factors, parental control has shown to reduce risk behaviors for recidivism and drug use (Voisin, Tan, Tack, Wade, & DiClemente, 2012); family support is also a protective factor that favors reentry processes (Huebner & Pleggenkuhle, 2015; Pleggenkuhle et al., 2016).

School risk and protection factors

Healthy activities related to the use of free time, study and school have been shown to reduce recidivism. A meta-analysis conducted in Spain showed that being in school is a protective factor that prevents adolescents from engaging in delinquent activities (García-García, Ortega-Campos, & de la Fuente-Sánchez, 2010). Studies performed in different contexts show that adolescents at higher risk of relapsing into delinquent behavior have more school problems and lower academic performance (Cacho, Fernández-Montalvo, López-Goñi, Arteaga, & Haro, 2020; Vaughn, Salas-Wright, DeLisi, & Maynard, 2014).

On an educational level, it is considered that school instruction, the implementation of structured academic interventions and strengthening reading skills can reduce recidivism (Joo & Jo, 2015; Katsiyannis, Ryan, Zhang, & Spann, 2008; Silver, Cochran, Motz, & Nedelec, 2020). Acquiring academic competence and employability upon graduation has been shown to positively affect social integration in juvenile offenders (Steele, Bozick, & Davis, 2016). Academic competence has been widely related to prosocial behavior in the general population (Jutengren & Medin, 2019). Also, socio-educational support is necessary for adolescents leaving residential centers to maintain the achievements and skills acquired and achieve adequate social reintegration (Martínez Virto, 2021).

Individual and peer group risk and protection factors

Individual factors are the most extensively researched domain in juvenile recidivism. Evidence indicates that the crime and recidivism rate is higher among men (Moffitt, 2018).

The individual predictors and those associated with the peer group with the greatest empirical support are the presence of attitudes favorable to antisocial behavior (Ngo, Paternoster, Curran, & Mackenzie, 2011), gang membership (Chu, Daffern, Thomas, & Lim, 2012), violence in carrying out crime (Khachatryan, Heide, & Hummel, 2018), association with antisocial peers (Boman &

Mowen, 2017; Spruit, van der Put, Gubbels, & Bindels, 2017), and impulsiveness and low levels of anger control (Khachatryan et al., 2018; Navarro-Pérez, Viera, Calero, & Tomás, 2020). Adolescents with behavioral disorders, a history of suicide, and those who have been exposed to more adverse childhood experiences have been reported as being more likely to relapse (Mallett, Fukushima, Stoddard-Dare, & Quinn, 2013; Wolff, Baglivio, & Piquero, 2017).

Regarding mental disorders, the evidence suggests a positive relationship between recidivism and externalizing disorders, such as drug use, attention deficit and hyperactivity disorder, and oppositional defiant disorder (Wibbelink, Hoeve, Stams, & Oort, 2017). Longitudinal studies have shown that antisocial behavior leads to mental health problems and that antisocials' emotional problems develop simultaneously along with the severity of their offense (Ttofi, Piquero, Farrington, & McGee, 2019). Although the relationship among the dynamics between mental health and delinquency is unclear, the evidence shows that mental health treatments reduce the probability of recidivism in adolescents (Robst, 2017). Teenagers with drug use issues are more likely to relapse (Van der Put, Creemers, & Hoeve, 2014) and less responsive to treatments (Cox et al., 2018). There is also a growing interest in assessing the effect of cognitive and emotional morality on recidivism, although the evidence in this field is inconclusive (Ferguson & Wormith, 2013; Körner, Schindler, & Hahnemann, 2017; Van Vugt et al., 2011).

It has been recommended that antisocial behavior centers evaluate interventions and apply efficient models (Andrews & Bonta, 2017; Drawbridge, Truong, Nguyen, Lorenti, & Vincent, 2021). Similarly, resarch has highlight the need for professionals serving adolescents to develop appropriate competencies to deliver effective interventions and guarantee adolescents' rights (Vargas-Muñoz & Alarcón-Espinoza, 2021).

Current study

Adolescents who comply with judicial measures tend to have been exposed to multiple risk factors that hinder their successful reentry into society. Existing studies in Colombia that refer to recidivism have pointed out that it is necessary to identify and intervene in antisocial behavior's personal, family, and school factors (Molina Sierra, 2018). It has also been suggested that the SRPA should be improved in terms of human talent, pedagogical intervention, educational processes, impact evaluation, data systematization, infrastructure, and financial resources (Arias, 2015).

A literature review shows few specific studies on risk and protective factors in recidivism among Colombian adolescents, and they are limited to specific jurisdictions (Molina Sierra, 2018). It is necessary to establish these factors to favor their intervention. Given this need, this study aims to examine the influence of risk factors and protective factors on recidivism.

The results may be useful in interventions with adolescents who have already committed crimes, taking into consideration the factors of most significant risk and developing prevention strategies in a context that presents high vulnerability and risks of antisocial behavior for children and adolescents.

Method

Participants

The participants were 646 adolescents between 14 and 19 years of age (M_{age} = 17.08, SD = 1.23), and 15 % were girls. Of the participants, 90.2 % were over sixteen years of age, and the remaining 9.8 % were between fourteen and fifteen years of age. The age coincides with the peak of antisocial behavior in adolescents that occurs between the ages of fifteen and nineteen and then declines at twenty. Of these, 1.1 % were not studying, 8.8 % were in elementary school, 62.9 % were in high

school, and 27.2 % in secondary advanced school. In terms of school performance, 61.4 % reported that they had repeated two or more school years, 25.3 % one school year, and 13.3 % reported no repeated academic years. 17 % lived with parents and siblings; 34.4 % with close relatives, usually with grandparents; 27 % with one parent; 17.9 % with one parent in a reconstituted family, and 3.2 % had been abandoned, given up for adoption, or lived alone**.**

Considering the nature of the sample needed for this study, the participants were chosen non-probabilistically and for convenience. Authorization was requested from the ICBF for the centers with the largest number of adolescents in treatment in each region to ensure the largest possible number of participants. Those over 14 years of age could participate, which coincides with the legal criteria in Colombia for entering the SRPA (14-18 years); they had to be able to read and write comprehensively, and not have a severe psychiatric disorders diagnosis.

All the adolescents belonged to centers of the SRPA in Colombia in the Departments of Cundinamarca (n = 248, 38.4 %), Antioquia (n = 151, 23.4 %), Caldas (n = 123, 19 %), Cauca (n = 50,7.7 %), Boyacá (n = 36, 5.6 %) Casanare (n = 16, 2.5 %) and Nariño (n = 22, 3.4 %). Based on the average annual income of adolescents prosecuted and sanctioned (19.052 admissions to the SRPA in 2017; ICBF, 2020), it was calculated that a sample of 407 adolescents was representative of the population (99 % confidence level with loss adjustment). This indicates that the sample obtained is adequate.

Procedure

First, the Monitoring and Evaluation Subdirectorate, the Planning and Management Control Division, and the Headquarters of the General Directorate (Instituto Colombiano de Bienestar Familiar) issued the study's authorizations (SIM E-2016-660327-0111). The data was collected according to the standards of the Declaration of Helsinki (World Medical Association, 2013). The study was conducted according to the ethical principles established by the APA and by the Deodontological and Bioethical Code of the Colombian Psychological Association. A confidentiality commitment was signed, which established the conditions concerning data use and the responsibilities acquired with the investigation.

Secondly, informed consent was obtained from all the judicial authorities representing adolescents, defenders, and family workers. The legal representatives, parents, and each of the participants included in the study also signed a consent form. Participation was entirely voluntary, and withdrawal was possible at any time. It did not imply any serious risk for the participants, and the participants were informed from the beginning that participation would entail no financial compensation.

Third, the application was arranged with the directors of the centers and was carried out in paper format, individually or in small groups of five or fewer participants and was applied by the research team.

Fourth, to describe the sociodemographic characteristics and offenses and identify repeat offenders, the participants' court records were consulted and verified with the centers' professionals working with the adolescents. Likewise, verifications were made to confirm that the files' data had the same information reported by the participants. This study assessed recidivism retrospectively; that is, we evaluated recidivism when it had already occurred. Although longitudinal assessments and follow-up cohorts are recommended, retrospective recidivism assessment methods have been useful to elaborate antisocial trajectories from childhood to adulthood (Valdivia-Devia, Oyanedel, & Andrés-Pueyo, 2018) and to detect risk and protective factors (Ortega-Campos, García-García, De La Fuente-Sánchez, & Zaldívar-Basurto, 2020).

Instruments and measures

The Communities That Care Youth Survey (CTC-YS; Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002) was used to assess risk and protective factors. This is a 135-item instrument designed to measure a broad set of risk and protective factors identified across the community, school, family, peer group, and individual domains, as well as behavioral outcomes, including drug use, violence, antisocial behavior, and crime (Rhew et al., 2016). The CTC-YS is appropriate for adolescents, and the questionnaire is mixed (polychotomous and dichotomous) in its form and takes 40 minutes to complete. The CTC has been widley used in Colombian adolescents with chronbach alphas ranging from .60 to .96 in all factors assessed by the questionnaire (Trujillo, Obando, & Trujillo, 2016; Trujillo, Obando, & Trujillo, 2019).

Recidivism

Evaluated as official criminal participation (based on a legal record). After being convicted of a previous offense, the teenager committed a new offense, which incurred a new conviction. The variable was coded dichotomously to differentiate between recidivists (1) and non-recidivists (0). This criterion is the most frequently used in the evaluation of this construct (Mallett et al., 2013; Robst, 2017; Van der Put et al., 2014).

Antisocial behavior

The CTC-YS scale was used to analyze the association between the study variables and antisocial behavior. The items in this factor refer to criminal and antisocial behavior. The items include: how many times have you carried guns? How many times have you sold illegal drugs? How many times have you been arrested? How many times have you purposely damaged or destroyed property that did not belong to you, and how many times have you attacked someone with the idea of seriously hurting them? The items are presented on an 8-point scale that is scored ranging from never (1) to 40 times or more (8).

Risk factors and protective factors

CTS-YS Community factors assess community's conditions, the structures, and attitudes of its members. By way of examples, the perceived availability of drugs factor asks: if you wanted to get some beer, wine, or liquor (for example, vodka or whisky), how difficult would it be to get it in your neighborhood? If you wanted to get a drug like cocaine, LSD, ecstasy, or amphetamines, how difficult would it be to get it in your neighborhood? If you wanted to get some marijuana, how difficult would it be to get it in your neighborhood? The response options are very hard (1), quite hard (2), quite easy (3) and very easy (4).

Family factors measure the conditions, attitudes, and behaviors in the family that affect its members' present and future development. As an example, the poor family management factor includes the following items: (1) in my family the rules are clear; (2) my parents ask me if I have finished my homework; (3) when I am not at home, one of my parents knows where I am and who I am with; (4) my family has clear rules about the use of alcohol and drugs; (5) if you drank beer, wine, or spirits (for example, vodka or whiskey) without your parents' permission, would they find out?; (6) If you skipped school, would your parents notice? The response options are: *NO!* (4), *no* (3), *yes* (2), *YES!* (1).

School factors evaluate events related to problematic behaviors at school and educational socialization scenarios. For example, the opportunities for school prosocial involvement factor is evaluated using questions like: in my school, students have many opportunities to help decide things like class activities and rules; at my school, students are offered many opportunities to speak to teachers one to one; I am offered many opportunities to parti-

cipate in class discussions or activities. The answer options are: *NO!* (1), *no* (2), *yes* (3), *YES!* (4).

Individual and peer group factors measure personal characteristics and attitudes that are inherent in the person and that may in some cases be influenced, by close relationships with peers. For example, the early initiation of antisocial behavior factor is evaluated with the following items: How old were you when you first … got suspended from school? …got arrested? …carried a handgun? … attacked someone with the idea of seriously hurting them? The response options are: *10 or younger* (8), *11 years* (7), *up to 17 or older* (1), *never have* (0).

Data analysis

The data analysis was carried out using the SPSS V. 25.00 statistical software package. To obtain the risk factors and protective factors, the responses were coded according to the instructions of the Youth Survey Scale Dictionary (Social Development Research Group, 2014). The descriptive results include the mean, standard deviation of each factor and reliability (Table 1). After descriptive analyzes, Pearson's bivariate correlations were performed to examine the relationship between all the study factors and the antisocial behaviour variable. Finally, a logistic binary regression model was estimated to test the effect of the study variables on recidivism.

Logistic regression is used to predict the outcome of a categorical variable as a function of the predictor variables; it assesses the probability of an event (recidivism) occurring as a function of other variables (risk and protective factors). To be performed, some conditions must be guaranteed: the multicollinearity tests and error independence tests, which were verified using a multiple linear regression (Hilbe, 2009). The Durbin-Watson test indicated compliance with the error independence assumption (1.533) (King & Harris, 1995) and the Inflation Variance Factor (IVF) (1.113-2.911) values indicated low multicollinearity between the variables (García, García, López, & Salmerón, 2015). Logistic binary regression was selected for prediction, as it is one of the most widely used procedures in the study of recidivism (Cox et al., 2018; Mallett et al., 2013; Nally et al., 2014; Robst, 2017; van der Put & De Ruiter, 2016). In this case, the fit of the regression model was analyzed with the Hosmer-Lemeshow goodness-of-fit test, and a significance greater than .05 was observed $X^2 = 7.258$, [$gl = 8$], $p = .509$) with good model fit (Hosmer, Lemeshow & Sturdivant, 2013).

Results

Offenses and drugs among the participants

Amongst the offenses for which these adolescents were judicialized are: crimes against property, simple or aggravated theft (36.4 %), trafficking, possession, and manufacturing of drugs (20.7 %), homicide (7.9 %), personal injury (8.4 %), manufacturing, traffic and carrying firearms and ammunition (5.0 %), sexual crimes (5.1 %), damage to the property of others (4.5 %), domestic violence (4.0 %), street life and associated conduct (1.9 %), membership of armed groups (1.2 %), attempted murder (1.4 %), extortion (1.1 %), conspiracy to commit a crime (0.8 %), receiving (0.5 %), assault on a public servant (0.6 %), kidnapping (0.2 %) and, membership of a criminal organization (0.2 %). The adolescents' distribution of crimes in the study coincides with the statistics reported by official sources in Colombia (ICBF, 2020). 77.57 % of the prosecutions of adolescents are grouped into four categories: misdemeanors against property, theft, and robbery (36.32 %), trafficking, possession, and manufacturing of narcotics (28.26 %), personal assaults (8.51 %), and manufacturing and carrying arms (5.93 %).

The participants reported high levels of drug use, including frequent consumption of

cigarettes (81.5 %), alcohol (91.2 %), marijuana (83.9 %), LSD (50 %), cocaine (42.3 %), ecstasy (33.7 %), amphetamines (25.1 %), over-the-counter medications (25.2 %), coca paste base, or *basuco* (33.7 %) and other illegal drugs (55.7 %).

Risk and protection factors associated with antisocial behavior.

The relationship between the study variables and antisocial behavior was examined using Pearson correlation coefficients. Risk factors positively correlated with antisocial behavior, and protective factors were negatively associated with antisocial behavior (Table 1).

It is observed that the variables most related to antisocial and delinquent behavior are family history of antisocial behavior, parental attitudes favorable to antisocial behavior, gang involvement, favorable attitudes to antisocial behavior and drug use, interaction with antisocial peers, and rewards for antisocial behavior involvement. The variables that are negatively related to antisocial and delinquent behavior are belief in a moral order, prosocial-individual involvement, and social skills.

Table 1.
Mean, standard deviation and reliability of risk and protective factors and association of variables with antisocial behavior (n=646)

Factors	Rank	M	SD	Cronbach's Alpha	Association with antisocial behavior
Risk factors					
Community risk factors					
Low neighborhood attachment	1-4	2.19	1.00	.76	-.135 **
Community disorganization	1-4	2.64	0.62	.62	-.330 **
Transition and mobility	1-5	2.28	0.72	.49	.151 **
Perceived availability of drugs	1-4	2.94	0.93	.83	.255 **
Perceived availability of handguns	1-4	2.16	1.11	N / A	.343 **
Laws and norms favorable to drug use	1-4	2.51	0.62	.72	.244 **
Family risk factors					
Family history of antisocial behavior	1-5	2.75	1.05	.78	.337 **
Poor family management	1-4	2.23	0.60	.76	.175 **
Family conflict	1-4	2.12	0.66	.53	.198 **
Parental attitudes favorable to drug use	1-4	1.68	0.75	.76	.279 **
Parental attitudes favorable to antisocial behavior	1-4	1.61	0.75	.80	.326 **
School risk factors					
Academic failure	1-11	5.53	1.40	.64	-.30
Low commitment to school	1-4	2.29	0.53	.61	.205 **

Factors	Rank	M	SD	Cronbach's Alpha	Association with antisocial behavior
Individual and peer group risk factors					
Rebelliousness	1-4	2.38	0.69	.53	.278 **
Gang involvement	1-4	2.30	2.56	.84	.389 **
Perceived risk of drug use	1-4	2.10	0.86	.81	.097 *
Early initiation in drug use	1-8	4.36	2.07	.85	.326 **
Early initiation of antisocial behavior	1-8	3.35	1.62	.70	.325 **
Favorable attitudes to drug use	1-4	2.18	0.92	.84	.346 **
Favorable attitudes to antisocial behaviour	1-4	1.98	0.82	.86	.378 **
Seeking of sensations	1-4	3.34	1.38	.72	.414 **
Rewards for antisocial behavior involvement	1-5	1.99	1.01	.77	.399 **
Friends´ use of drugs	1-4	2.06	1.28	.79	.432 **
Interaction with antisocial peers	1-4	1.32	1.07	.85	.543 **
Intention to use drugs	1-4	3.02	0.82	.73	.238 **
Frequency of drug use	0-1	0.28	0.25	.89	.404 **
High frequency of drug use	0-1	0.28	.35	.70	.103 **
Protection factors					
Community protection factors					
Opportunities for prosocial involvement	1-4	3.24	0.93	.64	-.032
Rewards for prosocial involvement.	1-4	2.38	0.78	.64	-.016
Family protection factors					
Attachment in the family	1-4	2.60	0.78	.70	-.110 **
Opportunities for prosocial family involvement	1-4	2.86	0.82	.76	-.122 **
Rewards for prosocial family involvement	1-4	2.89	0.70	.66	-.119 **
School protection factors					
Opportunities for prosocial school involvement	1-4	2.72	1.01	.65	-.121 **
Rewards for prosocial school involvement	1-4	2.97	0.62	.71	-.116 **

Factors	Rank	M	SD	Cronbach's Alpha	Association with antisocial behavior
Individual protection factors					
Interaction with prosocial peers	1-4	1.82	1.01	.70	-.088 *
Belief in a moral order	1-4	2.90	0.61	.57	-.342 **
Prosocial-individual involvement	1-8	2.17	1.11	.68	-.197 **
Rewards for prosocial-individual involvement	1-5	2.63	1.04	.63	.171
Social skills	1-4	2.56	0.76	.58	-.302 **
Religiosity	1-4	2.60	1.02	N / A	-.048
Antisocial behavior variables					
Antisocial behavior frequency	0-1	0.45	0.31	.75	.813 **

* p <.05. ** p <.01.

Logistic regression model

A logistic regression model was estimated to test the factors with the most significant effect on recidivism, and gender and age were included as control variables. The predictors were risk and protective factors, and the dependent variable was recidivism. Non-recidivist adolescents were identified with a score of zero (0), the recidivist adolescents whith a score of one (1). In the sample, 32 % met the conditions for consideration as a recidivist. The variables were included simultaneously, and the model was significant ($X^2 = 161.3$ [$df = 43$] $p < .001$, and correctly classified 74.6 % of the cases (Nagelkerke R^2 .31).

Overall, in the model evaluated, risk factors that explain the probability of recidivism, i.e., those that were significant, showed a positive beta coefficient (*e. g.*, low commitment to school, B = .337, p ≤ .05), and protective factors show negative betas (*e. g.*, opportunities for prosocial school involvement B = -.383, p ≤ .05). The relationship between the variables can be estimated using the exp(b) statistic. Values greater than 1 indicate that an increase in the independent variable is associated with a higher probability of recidivism; conversely, values less than one indicate that an increase in the independent variable is associated with a decrease in the probability of recidivism.

The logistic regression model results (Table 2) indicate that risk factors increase the probability of recidivism and protective factors decrease it. It is noteworthy that the rewards for prosocial family involvement and religiosity were associated with a higher probability of recidivism. These observations could indicate that in the participants of this study, family reward dynamics could negatively reinforce the behavior and that attending religious activities does not prevent antisocial activities.

Among the family factors, parental attitudes favorable toward drug use and antisocial behavior indicate higher recidivism rates. Likewise, low commitment to school, early initiation in drug use and interaction with antisocial peers influence recidivism. Protective factors that reduce the probability of recidivism are belief in a moral order, opportunities for community prosocial involvement, and opportunities for prosocial school involvement.

Table 2.
Logistic binary regression evaluating effects on recidivism (n = 646)

Variables	*B*	*SD (B)*	*W*	*exp(b) [95 % CI]*
Gender (boys)	2.605 ***	.479	29.541	13.525 [5.287, 34.598]
Age	-.303 ***	.089	11.536	.739 [621, 880]
Grade	-.022	.047	.215	.979 [893, 1.072]
Risk factors				
Community risk factors				
Low neighborhood attachment	.048	.120	.158	1.049 [829, 1.326]
Community disorganization	-.007	.126	.003	.993 [776, 1.271]
Transition and mobility	.039	.103	.146	1.040 [851, 1.271]
Perceived availability of drugs	.023	.129	.032	1.024 [795, 1.318]
Perceived availability of handguns	-.012	.107	.012	.988 [801, 1.220]
Laws and norms favorable to drug use	-.013	.172	.006	.987 [704, 1.384]
Family risk factors				
Family history of antisocial behaviour	-.142	.126	1.263	.868 [678, 1.111]
Poor family management	.009	.139	.004	.992 [755, .1032]
Family conflict	.073	.114	.412	1.076 [860, 1.346]
Parental attitudes favorable toward drug use	.290 *	.146	3.923	1.336 [1.003, 1.780]
Parental attitudes favorable to antisocial behavior	.288 *	.143	4.051	1.133 [1.008, 1.765]
School risk factors				
Academic failure	.100	.118	.715	1.105 [877, 1.392]
Low commitment to school	.337 *	.157	4.625	1.401 [1.030, 1.906]
Individual and peer group risk factors				
Rebelliousness	.064	.122	.272	1.066 [839, 1.353]
Gang involvement	.014	.115	.014	1.014 [809, 1.271]
Perceived risk of drug use	-.042	.113	.141	.958 [768, 1.196]
Early initiation in drug use	.404 **	.138	8.548	1.498 [1.143, 1.946]
Early initiation of antisocial behavior.	-.014	.125	.013	.986 [772, 1.259]
Favorable attitudes to drug use	-.269	.170	2.500	.764 [548, 1.067]
Favorable attitudes toward antisocial behavior	.274	.167	1.316	1.316 [949, 1.825]
Seeking of sensations	.087	.120	.527	1.091 [862, 1.382]
Rewards for antisocial behavior involvement	.104	.117	.779	1.109 [881, 1.396]
Friends´ use of drugs	-.039	.146	.073	.961 [723, 1.279]
Interaction with antisocial peers	.309 *	.146	4.658	1.362 [1.029, 1.804]
Intention to use drugs	-.167	.121	1.904	.846 [667, 1.073]
Frequency of drug use	.034	.122	.078	1.035 [814, 1.315]
High drug use frequency	-.234*	.116	4.063	.791 [630, 994]

Variables	*B*	*SD (B)*	*W*	*exp(b) [95 % CI]*
Protection factors				
Community protection factors				
Opportunities for prosocial involvement	-.207*	.105	3.898	.813 [662, 998]
Rewards for prosocial involvement.	.102	.122	.696	1.107 [871, 1.407]
Family protection factors				
Attachment in the family	-.270	.159	2.897	.763 [559, 1.042]
Opportunities for prosocial family involvement	-.297	.170	3.054	.743 [533, 1.037]
Rewards for prosocial family involvement	.385*	.183	4.445	1.470 [1.027, 2.103]
School protection factors				
Opportunities for prosocial school involvement	-.383*	.151	6.444	.682 [507, 916]
Rewards for prosocial school involvement	-.240 *	.110	4.784	.903 [711, 1.147]
Individual protection factors				
Interaction with prosocial peers	.094	.115	.673	1.099 [877, 1.376]
Belief in a moral order	-.292*	.140	4.336	.747 [567, 983]
Prosocial-individual involvement	.069	.109	397	1.071 [865, 1.326]
Rewards for prosocial-individual involvement	-.194	.115	2.844	.824 [658, 1.032]
Social skills	-.086	.123	.496	.917 [721, 1.167]
Religiosity	.239*	.110	4.704	1.269 [1.023, 1.575]
Constant	3.905	.2444	2.554	49.635
Df	(1)			
Nagelkerke R^2	.31			

Notes. B = Unstandardized coefficients; SD = standard standard; W = Wald test; exp*(b)* [95 % CI] (confidence intervals); *df* = degree of freedom. * p < .05. ** p < .01. *** p < .001.

Discussion and Conclusions

The aim of this study was to examine the influence of risk factors and protective factors on recidivism in a sample of Colombian juvenile offenders. In recidivism studies with adolescents, the aim is to identify the risk and protective factors involved and determine the variables that favor intervention and reduce the recidivism (Moffitt, 2018). It was possible to identify relationships between risk and protective factors with antisocial behavior and provide evidence on the factors that favor recidivism.

As criminological theories point out, antisocial behavior is multicausal (Andrews & Bonta, 2017; Moffitt, 2018). Community, family, school, and individual risk, and protective factors related to antisocial behavior can affect each adolescent differently; this implies a major challenge for the recidivism intervention that has to cover all these dimensions (Singh et al., 2018).

In this study, at the community level, we observed an association between antisocial behavior with the perceived availability of handguns and drugs, laws, and norms favorable to drug use, and community disorganization. These aspects can be intervened by offering to the community: social services, improved support networks, safe environments, and ensuring access to leisure activi-

ties for adolescents (Cuervo-Gómez et al., 2017; Schubert et al., 2016). In addition, it is necessary to offer support programs in the community for adolescents leaving the penal system to encourage desistance (Chamberlain, Boggess, & Powers, 2016; Schubert, Mulvey, & Pitzer, 2016).

At the family level, the study's findings indicate that the probability of recidivism increases when there are favorable parental attitudes toward drug use and antisocial behavior. It was also detected that the behavioral rewards offered by the family might be a factor that increases the probability of recidivism. The social development model on which the instrument used for assessment in this study indicates that inconsistency in sanctioning undesirable behaviors and rewarding negative behaviors increases the risk of drug use, violence, and delinquency (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002). These family conditions of Colombian adolescents in the penal system should be analyzed and intervened because they reflect other crises in the immediate environment that may affect the intervention and social reintegration processes. As observed in other studies, a lack of family support could favor antisocial dynamics or hinder reentry processes (Pleggenkuhle et al., 2016).

In the school setting, it is observed that low commitment and lack of school opportunities increase the probability of recidivism. Adolescents report a high level of failure, and it is inferred that there is no correspondence between the performance of adolescents in the judicial centers and those that their peers of a similar age achieve in the regular school system. Previous findings have suggested that structuring robust academic interventions, particularly in reading, can effectively reduce rates of antisocial behavior and recidivism (Katsiyannis, Ryan, Zhang, & Spann, 2008). Inclusion in the school system, quality education, the creation of educational proposals adapted to the needs of adolescents, and educational continuity may be alternatives that help SRPA adolescents in Colombia develop their life projects (Martinez Virto, 2021; Silver, Cochran, Motz, & Nedelec, 2020).

At the individual level, it is suggested that in each adolescent, the subject's risk factors are identified, intervention needs are determined, and the subject's response possibilities and institutional and contextual resources are evaluated and implemented (Andrews & Bonta, 2017).

In this study it was observed that relationships with antisocial peers increase the likelihood of recidivism. Association with antisocial peers is a recognized risk factor for antisocial behavior and recidivism (Boman & Mowen, 2017; Spruit et al., 2017). This is a central factor in both interventions for criminal behavior and the prevention and control of recidivism (Andrews & Bonta, 2017). The evidence suggests that the impact of peers on antisocial behavior decreases with age, because people achieve greater resistance, identity, and independence, and as such desistance may be linked to normative changes in relationships with peers that occur as individuals mature socially and emotionally (Monahan et al., 2009).

It is notable that in this study, belief in a moral order was a protective factor that decreases the probability of recidivism. The content of this factor in the CTC-YS refers to the importance of telling the truth, even if this leads to punishment; judgment on the rights and wrongs of starting conflicts and fights; discernment about aggressive responses; opinions about taking other people's belongings; and being dishonest in one's tasks and responsibilities (Social Development Research Group, 2014). The results indicate that belief in a moral order is a factor that should focus on intervention, and it's important to examine their influence in the desistance in juvenile offenders. Consistent with our observation, it has been suggested that moral development and moral emotions might affect recidivism (Körner, Schindler, & Hahnemann, 2017; Van Vugt et al., 2011). Contrary to what was

observed in belief in a moral order, religiosity increased the probability of recidivism. This observation could be explained by how the variable was assessed since only attendance at religious activities is asked.

Antisocial behavior and recidivism are complex, and risk and protective factors are not isolated conditions. In Colombia, several contextual factors favor antisocial behavior and hinder the social reintegration of SRPA adolescents. It is unclear whether offenses are related to social exclusion conditions, poverty, and limited access to education. However, the poverty experienced by judicialized adolescents in Colombia is relevant. 93 % of these adolescents have limited socioeconomic resources. Only 23 % have completed elementary education, 24 % primary education, and only 5 % are high school graduates, while entry to university is practically non-existent in this population (Ministerio de Justicia y del Derecho, 2014).

Another notable problem among SRPA adolescents is drug use. Considering the high rate of drug use reported by the participants, establishing strategies and intervention programs to address this problem could help mitigate the effect on recidivism. Above all, it is important to prevent early initiation of drug use, which has been observed to influence recidivism. The evidence available suggests that adolescents with drug use issues are more likely to relapse (Van der Put et al., 2014), show greater resistance to change, and respond to treatments to a lesser extent (Cox et al., 2018).

Although this study achieves its objective and provides important data for understanding the risk and protective factors in recidivism among judicialized adolescents in Colombia, it has several limitations, including the fact that it did not cover the entire spectrum of recidivism variables, and personality traits, mental disorders, psychopathy, and medical conditions were not included. Analyses differentiated by gender are limited due to the limited proportion of girls, and establishing these differences is increasingly important (Moffitt, 2018). No analysis by type of offense was carried out, and this information is important for understanding the factors that motivate and maintain the commission of specific infraction.

Due to the methodology employed, this study should be considered exploratory and applied only to the research context; future research can contrast the data. We consider that the instrument used is suitable for the population and has the advantage of including a wide range of factors; however, it is necessary to continue evaluating its psychometric properties.

In general, recidivism studies have recognized limitations, including the fact that they are carried out with data reported by official bodies and are based on legal criteria, which conceals criminal acts that are not prosecuted. As regards to the veracity of the risk and protective factors evaluated, self-reports may present biases such as social desirability.

Future research may address risk and protective factors focusing on the population with desistance and explain the community, family, school, and individual aspects that favor antisocial behavior abandonment. Studies could also focus on identifying school factors and the individual conditions of recidivists related to poor performance and low school commitment levels. Family typologies and the family's internal dynamics is a subject that requires further investigation, not only during the process of imprisonment and compliance with legal sentences but also during the process of reentering the social and family context. In Colombia, longitudinal studies should be carried out to determine the factors associated with recidivism and desistance, as has been achieved in other contexts (Lee et al., 2020; Zara & Farrington, 2016).

Finally, it is important to suggest that the State must guarantee resources and establish policies and mechanisms to ensure adequate care for adolescents in the SRPA, guaranteeing their constitutional rights during the

intervention and in the reentry process. Center operators are responsible for implementing, monitoring, and evaluating the effectiveness of intervention programs with adolescents. In this regard, they have indicated that intervention models that help reduce recidivism should be implemented and evaluated (Andrews & Bonta, 2017). Likewise, it is necessary for professionals who serve adolescents to develop the appropriate competencies to carry out effective interventions (Vargas-Muñoz & Alarcón-Espinoza, 2021).

References

Andrews, D. A., & Bonta, J. (2017). *The psychology of criminal conduct* (6th Ed.). London, England: Routledge.

Arias, J. O. V. (2015). La resocialización y la reincidencia de adolescentes en conductas delictivas en el Departamento de Caldas, Colombia. *Summa Iuris*, *3*(2), 377–390. https://www.funlam.edu.co/revistas/index.php/summaiuris/article/view/1834/1464

Arthur, M. W., Hawkins, J. D., Pollard, J. A., Catalano, R. F., & Baglioni, A. J. (2002). Measuring risk and protective factors for substance use, delinquency, and other adolescent problem behaviors: The communities that care youth survey. *Evaluation Review*, *26*(6), 575–601. https://doi.org/10.1177/0193841X0202600601

Baglivio, M. T., Jackowski, K., Greenwald, M. A., & Howell, J. C. (2014). Serious, violent, and chronic juvenile offenders: A statewide analysis of prevalence and prediction of subsequent recidivism using risk and protective factors. *Criminology and Public Policy*, *13*(1), 83–116. https://doi.org/10.1111/1745-9133.12064

Boman, J. H., & Mowen, T. J. (2017). Building the ties that bind, breaking the ties that don't: Family support, criminal peers, and reentry success. *Criminology and Public Policy*, *16*(3), 753–774. https://doi.org/10.1111/1745-9133.12307

Cacho, R., Fernández-Montalvo, J., López-Goñi, J. J., Arteaga, A., & Haro, B. (2020). Psychosocial and personality characteristics of juvenile offenders in a detention centre regarding recidivism risk. *European Journal of Psychology Applied to Legal Context*, *12*(2), 69–75. https://doi.org/10.5093/EJPALC2020A9

Chamberlain, A. W., Boggess, L. N., & Powers, R. A. (2016). The impact of the spatial mismatch between parolee and employment locations on recidivism. *Journal of Crime and Justice*, *39*(3), 398–420. https://doi.org/10.1080/0735648X.2014.965264

Chu, C. M., Daffern, M., Thomas, S., & Lim, J. Y. (2012). Violence risk and gang affiliation in youth offenders: A recidivism study. *Psychology, Crime and Law*, *18*(3), 299–315. https://doi.org/10.1080/1068316X.2010.481626

Coupland, R. B. A., & Olver, M. E. (2020). Assessing protective factors in treated violent offenders: Associations with recidivism reduction and positive community outcomes. *Psychological Assessment*, *32*(5), 493–508. https://doi.org/10.1037/pas0000807

Cox, S. M., Kochol, P., & Hedlund, J. (2018). The exploration of risk and protective score differences across juvenile offending career types and their effects on recidivism. *Youth Violence and Juvenile Justice*, *16*, 77–96. https://doi.org/10.1177/1541204016678439

Cuervo-Gómez, K., Villanueva-Badenes, L., & Pérez-Castillo, J. M. (2017). Riesgo de reincidencia y evolución, a través del Inventario IGI-J en una población de menores infractores. *Revista Internacional De Sociologia*, *75*(2), e065. https://doi.org/10.3989/ris.2017.75.2.15.94

Cuevas, C., Wolff, K. T., & Baglivio, M. T. (2019). Dynamic risk factors and timing of recidivism for youth in residential placement. *Journal of Criminal Justice*, *60*, 154–166. https://doi.org/10.1016/j.jcrimjus.2018.10.003

De Vries Robbé, M., de Vogel, V., Douglas, K. S., & Nijman, H. L. I. (2015). Changes in dynamic risk and protective factors for violence during inpatient forensic psychiatric treatment: Predicting reductions in postdischarge community recidivism. *Law and Human Behavior*, *39*(1), 53–61. https://doi.org/10.1037/lhb0000089

Drawbridge, D. C., Truong, D., Nguyen, N. T.,

Lorenti, V. L., & Vincent, G. M. (2021). Risk–need–responsivity: Evaluating need-to-service matching with reach, effectiveness, adoption, implementation, maintenance. *Behavioral Sciences and the Law, 39*(1), 106–122. https://doi.org/10.1002/bsl.2502

Ferguson, L. M., & Wormith, J. S. (2013). A meta-analysis of moral reconation therapy. *International Journal of Offender Therapy and Comparative Criminology*, *57*(9), 1076–1106. https://doi.org/10.1177/0306624X12447771

García, C. B., García, J., López, M. M., & Salmerón, R. (2015). Collinearity: revisiting the variance inflation factor in ridge regression. *Journal of Applied Statistics*, *42*(3), 648–661. https://doi.org/10.1080/02664763.2014.980789

García-García, J., Ortega-Campos, E., & de la Fuente-Sánchez, L. (2010). Juvenile offenders' recidivism in Spain: A quantitative revision. In M. Frías-Armenta & V. Corral-Verdugo (Eds.), *Bio-psycho-social perspectives on interpersonal violence* (pp. 333–353). New York: Nova Science Publishers, Inc.

Grossi, L. M., Brereton, A., Lee, A. F., Schuler, A., & Prentky, R. A. (2017). Sexual reoffense trajectories with youths in the child welfare system. *Child Abuse and Neglect*, *68*, 81–95. https://doi.org/10.1016/j.chiabu.2017.03.024

Hilbe, J. M. (2009). *Logistic regression models*. Boca Raton: CRC Press.

Hosmer, D. W., Lemeshow, S., & Sturdivant, R. X. (2013). *Applied logistic regression* (3rd Ed.). Hoboken, New Jersey: Jhon Wiley & Sons. Inc.

Huebner, B. M., & Pleggenkuhle, B. (2015). Residential location, household composition, and recidivism: An analysis by gender. *Justice Quarterly*, *32*(5), 818–844. https://doi.org/10.1080/07418825.2013.827231

Instituto Colombiano de Bienestar Familiar (ICBF) (2020). *Estadística Sistema de Responsabilidad Penal para Adolescentes*. Instituto Colombiano de Bienestar Familiar. https://www.icbf.gov.co/bienestar/observatorio-bienestar-ninez/tablero-srpa

Joo, H. J., & Jo, Y. (2015). Family, school, peers, and recidivism among south korean juvenile offenders: An event history analysis. *Asian Journal of Criminology*, *10*, 99–116. https://doi.org/10.1007/s11417-015-9205-2

Jutengren, G., & Medin, E. (2019). Cross-ethnic friendship and prosocial behavior's potential significance to elementary children's academic competence. *Journal of Educational Research*, *112*(1), 38–45. https://doi.org/10.1080/00220671.2018.1431872

Katsiyannis, A., Ryan, J., Zhang, D., & Spann, A. (2008). Juvenile delinquency and recidivism: The impact of academic achievement. *Reading and Writing Quarterly*, *24*(2), 177–196. https://doi.org/10.1080/10573560701808460

Kennedy, T. D., Edmonds, W. A., Millen, D. H., & Detullio, D. (2019). Chronic juvenile offenders: Exploring risk factor models of recidivism. *Youth Violence and Juvenile Justice*, *17*(2), 174–193. https://doi.org/10.1177/1541204018770517

Khachatryan, N., Heide, K. M., & Hummel, E. V. (2018). Recidivism patterns among two types of juvenile homicide offenders: A 30-year follow-up study. *International Journal of Offender Therapy and Comparative Criminology*, *62*(2), 404–426. https://doi.org/10.1177/0306624X16657052

King, M. L., & Harris, D. C. (1995). The application of the Durbin-Watson test to the dynamic regression model under normal and non-normal errors. *Econometric Reviews*, *14*(4), 487–510. https://doi.org/10.1080/07474939508800333

Körner, A., Schindler, R., & Hahnemann, T. (2017). How moral emotions affect the probability of relapse. In G. Pär Anders, R. Bull, A. Shaboltas, & E. Dozortseva (Eds.), *Psychology and law in Europe: When West meets East* (pp. 167–188). CRC Press.

Lee, W., Moon, J., & Garcia, V. (2020). The pathways to desistance: A longitudinal study of juvenile delinquency. *Deviant Behavior*, *41*(1), 87–102. https://doi.org/10.1080/01639625.2018.1519138

Mallett, C. A., Fukushima, M., Stoddard-Dare, P., & Quinn, L. (2013). Factors related to recidivism for youthful offenders. *Criminal Justice*

Studies, *26*(1), 84–98. https://doi.org/10.1080/1478601X.2012.705539

Martinez Virto, L. (2021). Perfilado psicosocial para la intervención socioeducativa en los servicios sociales. *Interdisciplinaria*, *38*(2), 117–133. https://doi.org/10.16888/interd.2021.38.2.8

Ministerio de Justicia y del Derecho. (2014). Recomendaciones para la garantia de derechos de los adolescentes en conflicto con la ley en la formulación de los planes de desarrollo de alcaldes y gobernadores 2016-2019. *Ministerio de Justicia*. http://www.politicacriminal.gov.co/Portals/0/Documentos SRPA/Documento Recomendaciones SRPA para Incidencia en PDT

Moffitt, T. E. (2018). Male antisocial behaviour in adolescence and beyond. *Nature Human Behaviour*, *2*, 177–186. https://doi.org/10.1038/s41562-018-0309-4

Molina Sierra, G. (2018). Causas de reincidencia en los delitos de los menores en el SRPA en la ciudad de Cartagena entre los años 2012 y 2015. *Revista Jurídica Mario Alario D'Filippo*, *10*(19), 126–155. https://dialnet.unirioja.es/descarga/articulo/6857115.pdf

Monahan, K. C., Steinberg, L., & Cauffman, E. (2009). Affiliation with antisocial peers, susceptibility to peer influence, and antisocial behavior during the transition to adulthood. *Developmental Psychology*, *45*(6), 1520–1530. https://doi.org/10.1037/a0017417

Mowen, T. J., & Boman, J. H. (2019). Do we have it all wrong? The protective roles of peers and criminogenic risks from family during prison reentry. *Crime and Delinquency*, *65*(5), 681–704. https://doi.org/10.1177/0011128718800286

Nally, J. M., Lockwood, S., Ho, T., & Knutson, K. (2014). Post-release recidivism and employment among different types of released offenders: A 5-year follow-up study in the United States. *International Journal of Criminal Justice Sciences*, *9*(1), 16–34. https://www.semanticscholar.org/paper/Post-Release-Recidivism-and-Employment-among-Types-Nally-Lockwood/d7311771e99ea02417ca97fc3d9b8891e87b7347

Navarro-Pérez, J. J., Viera, M., Calero, J., & Tomás, J. M. (2020). Factors in assessing recidivism risk in young offenders. *Sustainability*, *12*(3), 1111. https://doi.org/10.3390/su12031111

Ngo, F. T., Paternoster, R., Curran, J., & Mackenzie, D. L. (2011). Role-taking and recidivism: A test of differential social control theory. *Justice Quarterly*, *28*(5), 667–697. https://doi.org/10.1080/07418825.2010.528013

Orlando, M. S., & Farrington, D. P. (2021). Risk Factors for Juvenile Recidivists Versus One-Time Offenders in Argentina: Comparisons with Other Countries. *International Criminology*, 0123456789. https://doi.org/10.1007/s43576-021-00021-2

Ortega-Campos, E., García-García, J., De la Fuente Sánchez, L., & Zaldívar Basurto, F. (2012). Metaanálisis de la reincidencia de la conducta antisocial penada en adolescentes españoles. *EduPsykhé: Revista de Psicología y Educación*, *11*(2), 171–189. https://journals.ucjc.edu/EDU/article/view/3864

Ortega-Campos, E., García-García, J., De La Fuente-Sánchez, L., & Zaldívar-Basurto, F. (2020). Predicting risk of recidivism in Spanish young offenders: Comparative analysis of the SAVRY and YLS/CMI. *Psicothema, 32*(2), 221–228. https://doi.org/10.7334/psicothema2019.275

Piquero, A. R., Farrington, D. P., Nagin, D. S., & Moffitt, T. E. (2010). Trajectories of offending and their relation to life failure in late middle age: Findings from the Cambridge study in delinquent development. *Journal of Research in Crime and Delinquency*, *47*(2), 151–173. https://doi.org/10.1177/0022427809357713

Pleggenkuhle, B., Huebner, B. M., & Kras, K. R. (2016). Solid start: supportive housing, social support, and reentry transitions. *Journal of Crime and Justice*, *39*(3), 380–397. https://doi.org/10.1080/0735648X.2015.1047465

Rhew, I. C., David Hawkins, J., Murray, D. M., Fagan, A. A., Oesterle, S., Abbott, R. D., & Catalano, R. F. (2016). Evaluation of community-level effects of communities that care on adolescent drug use and delinquency using a

repeated cross-sectional design. *Prevention Science*, *17*, 177–187. https://doi.org/10.1007/s11121-015-0613-4

Robst, J. (2017). Disposition of charges, out-of-home mental health treatment, and juvenile justice recidivism. *International Journal of Offender Therapy and Comparative Criminology*, *61*(11), 1195–1209. https://doi.org/10.1177/0306624X15615383

Schubert, C. A., Mulvey, E. P., & Pitzer, L. (2016). Differentiating serious adolescent offenders who exit the justice system from those who do not. *Criminology*, *54*(1), 56–85. https://doi.org/10.1111/1745-9125.12098

Silver, I. A., Cochran, J. C., Motz, R. T., & Nedelec, J. L. (2020). Academic achievement and the implications for prison program effectiveness and reentry. *Criminal Justice and Behavior*, *47*(7), 848–866. https://doi.org/10.1177/0093854820919790

Singh, J. P., Kroner, D. G., Wormith, J. S., Desmarais, S. L., & Hamilton, Z. (Eds.). (2018). *Handbook of recidivism risk/ needs assessment tools*. Hoboken, New Jersey: Wiley & Sons.

Social Development Research Group. (2014). *Youth Survey Scale Dictionary*. https://www.blueprintsprograms.org/resources/AEC_Youth_School_Survey.pdf

Sousa, S., Cardoso, J., & Cunha, P. (2019). Risk and protective factors in criminal recidivist inmates. *Annals of Medicine*, *51*(sup1), 184–184. https://doi.org/10.1080/07853890.2018.1562754

Spruit, A., van der Put, C., Gubbels, J., & Bindels, A. (2017). Age differences in the severity, impact and relative importance of dynamic risk factors for recidivism. *Journal of Criminal Justice*, *50*, 69–77. https://doi.org/10.1016/j.jcrimjus.2017.04.006

Steele, J. L., Bozick, R., & Davis, L. M. (2016). Education for incarcerated juveniles: A meta-analysis. *Journal of Education for Students Placed at Risk*, *21*(2), 65–89. https://doi.org/10.1080/10824669.2015.1133308

Stojkovic, S. (Ed.). (2017). *Prisioner reentry: Critical issues and policy directions*. Milwaukee, Wisconsin: Palgrave Macmillan.

Ttofi, M. M., Piquero, A. R., Farrington, D. P., & McGee, T. R. (2019). Editorial—mental health and crime: Scientific advances and emerging issues from prospective longitudinal studies. *Journal of Criminal Justice*, *62*, 1–2. https://doi.org/10.1016/j.jcrimjus.2018.10.004

Trujillo, Á., Obando, D., & Trujillo, C. A. (2016). Family dynamics and alcohol and marijuana use among adolescents: The mediating role of negative emotional symptoms and sensation seeking. *Addictive Behaviors, 62*, 99–107. https://doi.org/10.1016/j.addbeh.2016.06.020

Trujillo, C. A., Obando, D., & Trujillo, A. (2019). An examination of the association between early initiation of substance use and interrelated multilevel risk and protective factors among adolescents. *PLoS ONE, 14*(12), 1–18. https://doi.org/10.1371/journal.pone.0225384

Valdivia-Devia, M., Oyanedel, J. C., & Andrés-Pueyo, A. (2018). Trayectoria y reincidencia criminal. *Revista Criminalidad*, *60*(3), 251–267.

Van der Put, C. E., Creemers, H. E., & Hoeve, M. (2014). Differences between juvenile offenders with and without substance use problems in the prevalence and impact of risk and protective factors for criminal recidivism. *Drug and Alcohol Dependence*, *134*, 267–274. https://doi.org/10.1016/j.drugalcdep.2013.10.012

van der Put, C. E., & De Ruiter, C. (2016). Child maltreatment victimization by type in relation to criminal recidivism in juvenile offenders. *BMC Psychiatry*, *16*, 24. https://doi.org/10.1186/s12888-016-0731-y

Van Vugt, E., Gibbs, J., Stams, G. J., Bijleveld, C., Hendriks, J., & Van Der Laan, P. (2011). Moral development and recidivism: A meta-analysis. *International Journal of Offender Therapy and Comparative Criminology*, *55*(8), 1234–1250. https://doi.org/10.1177/0306624X11396441

Vargas-Muñoz, M., & Alarcón-Espinoza, M. (2021). Competencias especializadas de intervención en desadaptación social adolescente. *Interdisciplinaria Revista de Psicología y Ciencias Afines, 38*(3), 67–82. https://doi.org/10.16888/interd.2021.38.3.4

Vaughn, M. G., Salas-Wright, C. P., DeLisi, M.,

& Maynard, B. R. (2014). Violence and Externalizing Behavior Among Youth in the United States: Is There a Severe 5%? *Youth Violence and Juvenile Justice*, 12(1), 3–21. https://doi.org/10.1177/1541204013478973

Voisin, D. R., Tan, K., Tack, A. C., Wade, D., & DiClemente, R. (2012). Examining parental monitoring as a pathway from community violence exposure to drug use, risky sex, and recidivism among detained youth. *Journal of Social Service Research*, *38*(5), 699–711. https://doi.org/10.1080/01488376.2012.716020

Walters, G. D. (2018). Sibling delinquency as a risk factor for future offending: An exploratory analysis. *Youth Violence and Juvenile Justice*, *16*(4), 343–357. https://doi.org/10.1177/1541204017713255

Wibbelink, C. J. M., Hoeve, M., Stams, G. J. J. M., & Oort, F. J. (2017). A meta-analysis of the association between mental disorders and juvenile recidivism. *Aggression and Violent Behavior*, *33*, 78–90. https://doi.org/10.1016/j.avb.2017.01.005

Wolff, K. T., Baglivio, M. T., & Piquero, A. R. (2017). The Relationship between adverse childhood experiences and recidivism in a sample of juvenile offenders in community-based treatment. *International Journal of Offender Therapy and Comparative Criminology*, *61*(11), 1210–1242. https://doi.org/10.1177/0306624X15613992

World Medical Association, W. (2013). World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. *Journal of American Medical Association (JAMA)*, *310*, 2191–2194. https://doi.org/oi:10.1001/jama.2013.280740

Zara, G., & Farrington, D. P. (2016). *Criminal recidivism: explanation, prediction and prevention*. New York, NY: Routledge.

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