
CORRELATES ASPECTS OF LIMITED ANTISOCIAL BEHAVIOR IN ADOLESCENCE AND ANTISOCIAL PERSISTENT BEHAVIOUR¹

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ABSTRACT. Antisocial behavior can be categorized as persistent (when started in childhood and continues during adulthood) and transient (when they are restricted to development stage, in general, adolescence). The main purpose of this study was to review studies that present empirical evidence supporting the typological model of Moffitt (1993), which proposes an analysis that make it possible to differentiate between transient and persistent antisocial behavior. The search performed using *PsycINFO* database identified 162 studies related to theme, but only 14 were in this review. The findings suggest that transient antisocial behavior in adolescence may be a result of lack of maturity, especially among peers, and of a perceived difference between body growth and psychological and social maturity. On the other hand, persistent antisocial behavior has its origin in childhood due to the multiple variations that can contribute to the development of these behaviors (family violence, school problems, neurological etc.). It is believed that the earlier the persistent antisocial behaviors are identified the bigger are the chances to obtain successful results in the actions and therapeutic interventions.

Keywords: Antisocial behavior; adolescents; psychopathology.

CORRELATOS DOS COMPORTAMENTOS ANTISSOCIAIS LIMITADOS À ADOLESCÊNCIA E DOS COMPORTAMENTOS ANTISSOCIAIS PERSISTENTES

RESUMO. Os comportamentos antissociais podem ser categorizados como persistentes (quando iniciam na infância e tendem a prosseguir até a fase adulta) e transitórios (quando se encontram restritos a uma fase do desenvolvimento, em geral a adolescência). Nesse sentido, o objetivo principal deste trabalho é revisar estudos que apresentam evidências empíricas da pertinência do modelo tipológico de Moffitt (1993), cuja análise pode oferecer elementos que possibilitem diferenciar os comportamentos antissociais transitórios dos persistentes. A busca foi realizada na base de dados *PsycINFO*, em que foram recuperados 162 trabalhos, dentre os quais 14 fizeram parte deste estudo. Os achados sugerem que falta de maturidade, especialmente junto aos pares, disparidade entre o crescimento corporal e maturidade psicológica e social são fenômenos que podem impulsionar comportamentos antissociais transitórios na adolescência. Já os comportamentos antissociais persistentes têm sua origem na infância devido a múltiplas variáveis que podem contribuir para a produção desses comportamentos (violência familiar, problemas escolares, neurológicos, etc). Acredita-se que quanto mais cedo os comportamentos antissociais persistentes são identificados, maiores são as chances de sucesso nas ações e intervenções terapêuticas.

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Palavras-chave: Comportamento antissocial; adolescente; psicopatologia.

CORRELATOS DE LOS COMPORTAMIENTOS ANTISOCIALES LIMITADOS A LA ADOLESCENCIA Y DE LOS COMPORTAMIENTOS ANTISOCIALES PERSISTENTES

RESUMEN. Los comportamientos antisociales pueden ser categorizados como persistentes (cuando comienzan en la infancia y suelen proseguir hasta la fase adulta) y transitorios (cuando se encuentran restringidos a una fase del desarrollo, en general, la adolescencia). A partir de eso, el objetivo principal de este trabajo es revisar los estudios que presentan evidencia empírica de la pertinencia del modelo tipológico de Moffitt (1993), cuyo análisis puede proporcionar elementos que permitan diferenciar entre el comportamiento antisocial transitorio y persistente. La búsqueda fue realizada en la base de datos *PsycINFO*, en la cual se recuperó 162 trabajos, de los cuales 14 formaron parte de este estudio. Los hallados sugieren que falta de madurez, especialmente junto a los pares, disparidad entre el crecimiento corporal y madurez psicológica y social son fenómenos que pueden impulsar comportamientos antisociales transitorios en la adolescencia. Ya los comportamientos antisociales persistentes tienen su origen en la infancia debido a múltiples variables que pueden contribuir para la producción de esos comportamientos (violencia familiar, problemas escolares, neurológicos, etc.). Se cree que cuanto más temprano los comportamientos antisociales persistentes son identificados mayores son las posibilidades de éxito en las acciones e intervenciones terapéuticas.

Palabras-clave: Comportamiento antisocial; adolescente; psicopatología.

The term "antisocial" has been used to describe attitudes and socially undesirable behaviors, such as aggression motivated by anger, aggression for reward, hostility, vandalism, lies and manipulation (Rocha, 2011). Violations of social norms and standards are common to many disorders described in the Diagnostic and Statistical Manual of Mental Disorders DSM-5 (APA, 2013), similar to Conduct Disorder (CD), the Oppositional Defiant Disorder (ODD) and Antisocial Personality Disorder (ASPD). Especially when they occur in young people, these behaviors can lead to several negative, emotional and financial consequences, such as transgression of laws, vandalism of public property, self-harm, suicide, etc. (Bordin & Offord, 2000). It is noteworthy that these situations do not cause damage only to the individuals involved, but to the wider community and the State (Bordin & Offord, 2000). In this sense, it is important to know how these patterns of behavior are developed in order to create forms of prevention and treatment, as a means to avoid or to minimize the manifestation of these behaviors.

Furthermore, antisocial behaviors may be present only during adolescence (Moffitt, 1993), which is chronologically defined by the World Health Organization (WHO) as the period among 10 and 19 years old. However, adolescence is characterized not only by age, but also by a series of biopsychosocial changes and by the characteristics of the historical, cultural and social context. It is considered a transient and essential phase to the development of the individual, in which he tests his own limits seeking new experiences that favor the development of autonomy (Senna & Dessen, 2012). In this sense, adolescents may question the family and social norms and rules, seeking affinity with friends or peer groups that also try out similar experiences. This step involves issues related to the construction of identity and social recognition, and the lived experiences and choices made will define the adult identity (Schenker & Minayo, 2003).

During this period, some transient antisocial behaviors can be observed as the presence of rebellion and behavioral changes (cutting classes, telling lies), which can be considered as part of adolescent development (Bordin & Offord, 2000) when compared with pathological behaviors (CD, ODD and ASPD) observed in adults (Bordin & Offord, 2000; Borsari, Pacheco, & Hauck Filho, 2013). These transient antisocial behaviors often disappear when individuals reach adulthood, and may be related to aspects of the developmental processes during adolescence, such as the need for acceptance among peers (Moffitt, 1993).

In Brazil, adolescents have their rights supported by the Statute of Children and Adolescents (ECA), which recognizes the process of development and applies correctional measures consistent with this stage of development. When a teenager commits a crime, socio-educational measures are applied, ranging from a warning to a more severe penalty such as the restriction of freedom. These measures have educational character, and seek to punish the adolescent by the illegal acts committed and also provide conditions for him or her to return to the society (Brasil, 1990). However, the law treats equally all and any adolescent without trying to distinguish whether the antisocial behaviors exhibited are typical of adolescence or if there is the presence of some disorder which will develop during the adulthood phase.

The literature recognizes that in some cases the adoption of antisocial behaviors may persist beyond adolescence, characterizing the development of a disorder and the establishment of a permanent antisocial behavior pattern (Bordin & Offord, 2000). Indeed, some authors identify that externalizing and antisocial problems can be present since childhood, and it is possible to identify indicators of persistent behaviors from early childhood (Bordin & Offord, 2000; Patterson, Reid & Dishion, 1992). Externalizing problems involve conflicts with the environment and are linked to aggressiveness and impulsivity, while antisocial behaviors designate the aggressive and defiant nature of the conduct of individuals who, in addition a conflicting relation with the environment, result in more pronounced deficit in social functioning. Therefore, various studies have sought using longitudinal designs, to identify which variables contribute to the origin and maintenance of these behavior patterns (Hein, 2004; Moffitt, 1993; Patterson et al., 1992).

Patterson et al. (1992) present a model called coercion; Hein (2004) considers that the manifestation of antisocial behaviors in adolescence may arise in two ways: sporadically or persistently; Moffitt (1993) proposes a taxonomic theory that distinguishes two groups of individuals: in one group they show persistent antisocial behaviors and in another they show these behaviors limited to adolescence.

Patterson et al. (1992) model of coercion identifies that parenting practices may lead to antisocial behaviors of children. This model proposes the existence of four phases, including various precursors aspects of antisocial behaviors. The first stage is the learning of a behavioral pattern resulting from negative parenting practices in early childhood. The second phase corresponds to the school years in which the patterns of antisocial behaviors learned in the family context are extended to other ones, leading the child to present difficulties related to relationship with colleagues and to the learning of social skills. In the third phase, the individual seeks other groups (besides school) he or she identifies with. In general, individuals of these groups have antisocial behaviors that generate respect from peers and the feeling of belonging to the group. Finally, in the fourth phase, the adult person has persistent antisocial behaviors (examples: drug use, problems with the law, mental disorders, marital problems, difficulties in entering in the labor market) and significant gaps in his social skills (Patterson et al., 1992).

Hein (2004), in turn, suggests that the expression of antisocial behaviors in adolescence originates by two ways: sporadically or persistently. The sporadic form is related to adolescence phase in which individuals, in the development process, seek for various experiences and try out different behaviors, including the antisocial ones. These antisocial behaviors arising at this stage tend to disappear as the individuals acquire maturity and develop new interests. To the author, the manifestation of antisocial behaviors in adolescence, that persists into adulthood, would be related to the presence of several risk factors (family violence, lack of parental supervision) in the individual's life, which affect negatively his or her development (Hein, 2004).

The model proposed by Moffitt (1993), which is the focus of this literature review, also considers two groups of individuals with antisocial behaviors (persistent and transient). However, Moffitt (1993) includes a greater number of variables responsible for the causes of these antisocial behaviors. In this model, persistent antisocial behaviors may originate from neuropsychological deficits (verbal and executive functions), neurological problems (which may have started at the prenatal period, as a consequence of malnutrition and / or substance use by the mother during pregnancy) that result in irritability, attention deficits, presence of hyperactivity, impulsivity, learning disabilities or some other psychopathology. These characteristics coupled with unfavorable environments (socioeconomic problems, criminogenic factors, lack of parental support, parental angry, impatient and drug use)

facilitate the rise of antisocial behaviors in childhood that may persist throughout life. The antisocial behavior limited to adolescence, in turn, may be associated only to the desire for material possessions, status, social prestige and the strong influence of peers (Moffitt, 1993).

Thus, the developmental period in which the antisocial behaviors arise and its persistence in one's life are essential variables to differentiate these two groups (Moffitt, 1993). In the antisocial behavior limited to adolescence (ALA), there is a discontinuity in the antisocial behavior, as this starts and is restricted to adolescence phase. Adolescents are considered to use the transgression because of their lack of maturity, to get advantages or as a way to interact with peers and be accepted in a particular social group. As new opportunities arise and they acquire maturity, individuals lose interest in this type of conduct. From this perspective, adolescence by itself could explain many of these attitudes. The transgression is seen as a relatively common phenomenon, which may be the mere expression of an imbalance between biological and social maturity, since the rapid development of the body does not accompany the responsibilities, offer of opportunities and cultural demands.

In the life-course persistent (LCP), individuals exhibit deviant behavior in a more stable way throughout their development. The antisocial behaviors begin in preschool and may worsen during and after adolescence (Moffitt, 1993). A number of factors seem to be involved in the production of this phenomenon, such as the presence of socioeconomic/ neuropsychological problems or psychological disorders or exposure to family violence, substance abuse and violent environments (Moffitt, 1993).

Moffitt's typological model (1993) has been widely used in the scientific literature to investigate violations of social norms from a developmental perspective (De Boer, Van Oort, Donker, Verheij, & Boon, 2013; Hoffmann, 2010; McCrory, Hickey, Farmer, & Vizard, 2008; McGee, Hayatbakhsh, Bor, Aird, Dean, & Najman, 2015; Raine, Moffitt, Caspi, Loeber, Stouthamer-Loeber, & Lynam, 2005; Roisman, Monahan, Campbell, Steinberg, & Cauffman, 2010). In particular, it is a relevant approach when there is interest in the study of the heterogeneity of antisocial individuals and their different psychological development trajectories (Stattin, Kerr, & Bergman, 2010). A better understanding of the relationship between developmental variables and behavior problems can guide the direction of more effective efforts in prevention activities and in the development of effective treatments (involving psychotherapy and pharmacological treatments) by the professionals involved with issues caused by antisocial behavior.

This paper consists of a review of studies that present empirical evidence of the relevance related to the typological model of Moffitt (1993), whose analysis may highlight key elements that account for the heterogeneity of individuals with antisocial behavior. Thus, the literature review seeks to provide a survey and a summary of previous studies on this research problem, informing the current state of the research on the correlates of antisocial behavior and possibilities to differentiate between transient and persistent behaviors. It should be stated that the aim of this review was not to show the evidence supporting model proposed by Moffitt (1993). The typology was used as a starting point to search for evidences indicating the possibility to differentiate between persistent and transient antisocial behaviors, a distinction that has theoretical basis on studies about development during adolescence (Senna & Dessen, 2012, Schenker & Minayo, 2003). Depending on the social, pathological and psychological implications of the distinction between transient and persistent antisocial behavior, this review has implications for professional practice targeted to these cases.

Method

A systematic review was performed on the database *PsycINFO* (*American Psychological Association*), which is characterized as a broad and comprehensive database of literature materials in the behavioral sciences and mental health fields. The choice of this database was made because it is an academic tool that covers many subjects and disciplines. Thus, it was the database that best included the search terms for this study. The systematic review of literature allows one to have a synthesized summary of a specific intervention, or of an explanatory model, by means of precise and

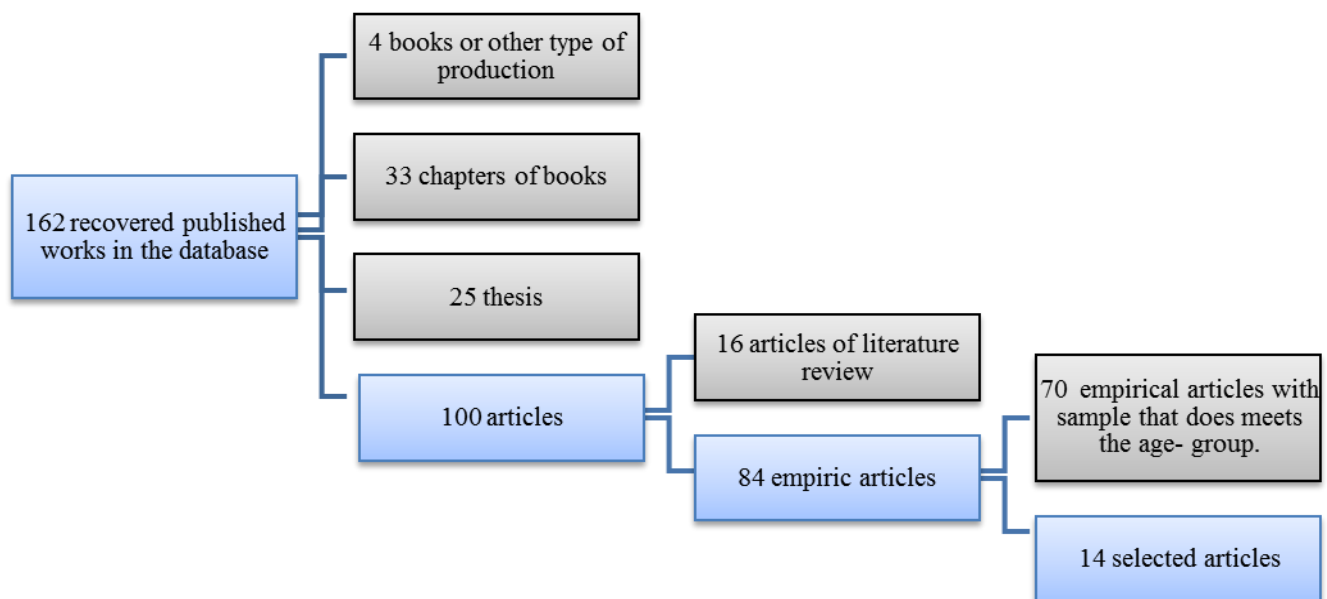
systematic methods of search, assessment and summary of the selected information (Sampaio & Mancini, 2007).

The search for articles in the database was done on June 13, 2014. Only papers published in the last 10 years were evaluated, from 2004 through May 2014. The delimited period for this study was selected with the intention to cover the current production without running the risk of excluding important productions. Search terms as *life-course persistent* or *adolescence-limited* combined with *antisocial behavior* were used, because these are terms that best describe the model developed by Moffitt (1993). It was decided that only empirical with focus on adolescence (from 10 to 19 years old) and / or youth (from 15 to 24 years old) would be included in this study. The option for the inclusion of works that also cover the youth was because some studies may have started when the sample was in the period of childhood and extended to 24 years (youth). All studies that exceeded the age limit (24 years old) and that were not about teens or youth were excluded. These age criteria were adopted according to the World Health Organization (2010), which describes that the period of adolescence can be divided into two stages: the pre-adolescence, which starts at the age 10 and ends at 15; and adolescence, ranging from 15 to 19 years old. The term youth has been mainly associated with political, social and statistical purposes and is limited by the period from 15 to 24 years old. This age group was also included in the study because it has often been associated with the presence of antisocial behavior. It was not established inclusion criteria according to the article language, however, those who were selected were written in English, which probably resulted from the use of search terms in English.

Results and discussion

162 published works were recovered in the last 10 years, among which, 14 of them were suited to the inclusion criteria, as shown from the following flow chart.

Figure 1. Flow chart of the analysis for articles selection process as inclusion and exclusion criteria



The selection resulted in 14 articles, of which 50% included both sexes and 50% only males. Some studies report that the highest prevalence of antisocial behavior is present in males (Bordin & Offord, 2000; Moffitt, 1993). In Brazil, violent behavior and deaths from external causes are more common in males. As an example, the population who comply socio-educational measures with restriction and deprivation of liberty consists of 20, 532 individuals, from these, 95% are male and only 5% female. These data indicate that the number of male adolescents involved in crime is much higher than that of female adolescents. Another datum that corroborates this information is the number of socio-educational service units targeted for males (377) compared to the female population (35) or both sexes (40) (Brasil, 2013).

The main characteristics of the studies were summarized in a table (Table 1), and the results of the reviewed studies were grouped into eight categories, which were built, a priori, considering the variables in the Moffitt model (1993). The categories are as follows: Learning problems; Neuropsychological aspects; Impulsivity and hyperactivity; Risk behaviors; Socioeconomic aspects; Genetic influences; Family aspects and Peers influence.

Learning problems

In this category, studies that confirm the association between learning disabilities and learning difficulties with the stability of antisocial behavior throughout life were included (Moffitt, 1993). For example, De Boer et al. (2013) identified that some features present in childhood can help in choosing forms of treatment for adolescents psychiatric patients which are admitted in hospitals with behavioral problems, as children with primary school repetition and learning problems before the age of 11 are more likely to develop persistent antisocial behavior, regardless of sex, when compared to individuals who did not present these characteristics. With this regard, it is important to note that maladaptive behaviors associated with learning difficulties can have serious consequences throughout life, because in addition to stimulate the development of antisocial behavior, it may also result in difficulties related to integration in the labor market and positive participation in family and community contexts (De Boer et al., 2013).

Neuropsychological aspects

This category includes studies which use neuropsychological science to distinguish individuals with and without antisocial behavior, and to differentiate between persistent and transient behaviors (Fairchild, Van Goozen, Calder, Stollery, & Goodyer, 2009; Raine et al., 2005). Studies investigate some neuropsychological aspects that may be associated with antisociality, such as intelligence, memory and recognition of facial expressions. For example, a longitudinal study carried out by Raine et al. (2005) investigated the relationship between antisocial behavior and neurocognitive ability, involving intelligence and memory measures. The study sample was divided into four groups: control (G1); with the presence of antisocial behavior only in early adolescence (G2); with the presence of antisocial behavior in childhood (G3); and the presence of persistent antisocial behaviors lifelong (G4). In G3 and G4 lower scores in verbal and memory IQ were observed when compared to G1 and G2. G1 had lower levels of antisocial behavior between 7 and 17 years old while G2 have not exhibited that kind of behavior in another phase of development. With regard to cognitive development, this study showed that lower scores in verbal and memory IQ, which are measures associated with the broader construct intelligence, may be indicators of persistent antisocial behavior (Raine et al., 2005).

Table 1. Summary of the main features of selected studies (N = 14)

Authors	Year	Periodic	Sample	Related variables
De Boer, Van Oort, Donker, Verheij, & Boon.	2013	<i>The International Journal of Forensic Mental Health</i>	203 patients 16-20 y.o. admitted with behavioral problems.	School problems, impulsive behavior and physical abuse.
Lynne-Landsman, Graber, Nichols, & Botvin.	2011	<i>Aggressive Behavior</i>	2,931 adolescents with a mean age of 11.72 y.o.	Use of substances
Hoffmann.	2010	<i>American Journal of Criminal Justice</i>	840 children and adolescents from 8 to 17 y.o.	Stressful situations and peer associations.
Najman et al.	2010	<i>Australian Journal of Psychology</i>	7,223 mothers and their children aged from 14 to 21 y.o.	Poverty, tobacco and alcohol use.
Roisman, Monahan, Campbell, Steinberg, & Cauffman.	2010	<i>Development and Psychopathology</i>	5,416 followed individuals from 1 month old to 15 y.o.	Contextual adversity, personal disadvantages and externalizing problems.
Fairchild Van Goozen, Calder, Stollery, & Goodyer.	2009	<i>Journal of Child Psychology and Psychiatry</i>	81 Male adolescents (14-18 y.o.) with a conduct disorder.	Deficit in the recognition of facial expressions.
Parker, & Morton.	2009	<i>North American Journal of Psychology</i>	826 male offenders, arrested before age of 12 and after 14 y.o.	Low family income, verbal intelligence, impulsivity and ethnic differences.
McCrorry, E., Hickey, N., Farmer, E., & Vizard, E	2008	<i>Journal of Forensic Psychiatry & Psychology</i>	325 cases seen in national service for sexually harmful behaviors, with initial age of 10 y.o.	Harmful sexual behavior, mistreatment, aggression, hyperactivity, learning disabilities and mental health problems.
Niemelä et al.	2008	<i>Social Psychiatry and psychiatric epidemiology</i>	2,946 males aged from 8 to 20 y.o.	Illicit drug use and psychiatric problems.
Burt, & Mikolajewski.	2008	<i>Aggressive Behavior</i>	211 males with a mean age of 19 y.o.	Genes (452TYR and DAT1)
Sakai et al.	2007	<i>Psychiatric Genetics</i>	1,736 Caucasian adolescents aged from 13 to 17 y.o.	Serotonin transporter (5HTTLPR).
Silberg, Rutter, Tracy, Maes, & Eaves.	2007	<i>Psychological Medicine</i>	1,032 twins male, aged from 10 to 19 y.o.	Genetic and environmental influences.
Wanner, Vitaro, Ladouceur, Brendgen, & Tremblay.	2006	<i>Addictive Behaviors</i>	903 males aged from 11 to 23 y.o.	Gambling and alcohol use.
Raine, Moffitt, Caspi, Loeber, Stouthamer-Loeber, & Lynam.	2005	<i>Journal of Abnormal Psychology</i>	325 males school adolescent aged between 16 and 17 y.o.	Neurocognitive functions.

The relationship between neurocognitive development and manifestation of antisocial behavior was also investigated by assessing deficits in recognition facial expression and of primary emotions during childhood. These deficits, when present since childhood are considered an indicator of CD that can lead to the development of psychopathy in adulthood (Fairchild, Van Goozen, Calder, Stollery, & Goodyer, 2009). The sample of Fairchild et al., (2009) study was divided into three groups: G1 -

adolescents that showed CD at the beginning of adolescence (39 individuals), G2- control group (formed by 40 individuals without antisocial behavior) and G3 - individuals who showed CD before adolescence (42 individuals). The authors found that the recognition of emotions such as anger, disgust and happiness, occurred more easily in G2 when compared with the other groups. In addition, it was noted that the G3 subjects showed elevated antisocial behavior, greater tendency towards psychopathy (due to the presence of CD in childhood) and more difficulties in the recognition of facial expressions of happiness, sadness and surprise than individuals from G1 .

Impulsivity and hyperactivity

In this category, studies that aimed at helping to differentiate the types of individuals with antisocial behavior through the manifestation of impulsivity and hyperactivity were included. For example, Parker and Morton (2009) compared the influence of impulsivity in childhood and adolescence on antisocial behavior development. The subjects were divided into two groups: adolescents arrested before the age 11 (G1) and after 15 years old (G2), disregarding the prison interval between 12 to 14 years old for greater differentiation between the two groups. Impulsivity (combined with other risk factors) was identified as an important marker in the differentiation of these groups, as people who had impulsivity and difficulty in controlling their impulses from an early age (G1) showed higher tendency to develop LCP antisocial behavior. In G2 , impulsivity appeared after the age of 14, being identified as a risk factor for the development of ALA, which is consistent with the idea that impulsivity can be one of the typical characteristics of adolescence (Parker & Morton, 2009).

Hyperactivity, when present before adolescence, was also considered as a risk factor for the establishment of persistent antisocial behavior in some studies (McCrary et al., 2008; Niemelä et al., 2008; Raine et al., 2005). For example, Raine et al. (2005) found that individuals with persistent anti-sociality – LCP - had higher rates of diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) before adolescence when compared to individuals with ALA.

Risk behaviors

This category included studies that found that other risk behaviors is included can favor the development of persistent antisocial behavior, such as drug use, For example, Wanner et al. (2006) found that the sooner people use psychoactive substances or engage in gambling, they are more likely to follow with these risk behaviors in adulthood and present anti-sociality through lifelong. Regarding the use of drugs, the survey conducted by Niemelä et al. (2008) pointed out that the drug use at an early age is an important predictor for the practice of crimes during adolescence and youth.

The presence of harmful sexual behavior, in some studies that aimed to demonstrate the generality of risky behaviors, is also a behavior associated with the development of anti-sociality. For example, McCrary et al. (2008) found that the presence of early harmful sexual behavior is associated with the presence of other sexual and not sexual risk behaviors, including antisocial behavior with higher scores of tendency to psychopathy. Thus, the authors consider that the harmful sexual behavior can be used as a clinical reference to help to identify people who have tendencies to develop others risk behaviors and antisocial behaviors (McCrary et al., 2008).

Socioeconomic aspects

In this category, studies that addressed economic aspects as factors that can contribute to make the distinction among different individuals with antisocial behavior were included (Najman et al., 2010; Raine et al., 2005). Najman et al. (2010) study is referred here because it evaluated the impact that poverty can have on the development of antisocial and aggressive behavior in adolescence. The results of this study suggest that constant experiences of poverty in childhood and adolescence are strongly associated with the development of antisocial and negative behaviors in relation to health. In addition, individuals who pass by the constant experience of poverty during childhood can have LCP anti-sociality, because they experience a comprehensive social exclusion. However, when poverty is

experienced only in adolescence, it can be a factor that contributes to the development of ALA (Najman et al., 2010). However, one must consider that there is not a linear relationship between poverty and the adoption of risky or antisocial behaviors. This aspect that is stressed, for example, in Odgers, Donley, Caspi, Bates, & Moffitt (2015) study, in which the difference between being poor and living in a poverty context is different from being poor and live in a rich context, and this second situation is more harmful than the first.

Genetic influences

This category included studies addressing genetic influences possibly related to the development of antisocial behavior (Burt & Mikolajewski, 2008; Silberg, Rutter, Tracy, Maes, & Eaves, 2007). Silberg et al. (2007) study identified that antisocial behavior can be inherited in cases of persistent anti-sociality - LCP, and, on the other hand, typical biological changes of puberty, involving hormonal aspects and body growth, may be associated with ALA. The authors state that, although there are genetic influences, the individual development phases should be considered and also the environmental influences, because the antisocial behavior have multifactorial causes (Silberg et al., 2007). In the same direction, Burt and Mikolajewski (2008) study also presented indicators of genetic influences, which may contribute to trigger antisocial behavior, but such influences need to be considered together with other factors.

Familiar aspects

This category includes studies that investigate the situations experienced in the family context that can contribute significantly to the individual in presenting antisocial behavior at various stages of development, including childhood, adolescence and persistence in adulthood. In this regard, parental neglect has been considered an aspect present in families of adolescents with tendencies for developing persistent antisocial behavior (Raine et al., 2005).

Niemelä et al. (2008) study also investigated the relationship between family aspects and the development of antisocial behavior, concluding that children who experience serious family problems and have poor parental supervision may be more likely to develop antisocial behavior and other risk behaviors such as substance abuse

Peer influence

In this category, investigations that showed associations between the influence of peers and the development of antisocial behavior were included. Adolescence is identified as a period that presents a significant rise in rates of antisocial behavior manifestation rates, regardless of gender or social class, and the relationship with peers has been considered as an important factor associated with this phenomenon, especially in cases of anti-sociality limited to adolescence (Lynne-Landsman et al., 2011; Najman et al., 2010). In this regard, Hoffmann (2010) study found that the imitation of antisocial behavior of peers is a feature present in groups with antisocial behavior limited to adolescence, but these behaviors tend to fade as individuals acquire maturity and develop other interests, such as working and to raising a family. On the other hand, behaviors that started in childhood, without peer influence, can be considered more serious, because if it is not given proper attention to this fact, they can result in serious consequences for the individual and for society, configuring cases more difficult to cope with (Hoffmann, 2010; Lynne-Landsman et al., 2011).

Other studies have also found that both groups proposed in Moffitt typology have the most intense antisocial behavior during adolescence, and that peer influence is decisive for this (De Boer et al., 2013; Hoffmann, 2010; Lynne-Landsman et al., 2011; Parker & Morton, 2009). However, during the youth, antisocial behavior tends to decrease as young people develop a greater ability to cope with stressful events, adverse situations and frustrations, which reduces the susceptibility for antisocial behavior expressions (Hoffmann, 2010).

Final considerations

This study aimed to analyze studies that present empirical evidence of the possibilities to differentiate between transient and persistent antisocial behavior, based on the typology proposed by Moffitt (1993). It was possible to identify, among the studies reviewed, that there is evidence about the relationship between the persistence of antisocial behavior and the presence of some personal variables, especially during childhood, as learning problems, psychopathology, ADHD and low IQ (De Boer et al., 2013; McCrory et al., 2008; Parker & Morton, 2009; Raine et al., 2005; Roisman et al., 2010). In addition, studies also stress the importance of contextual factors as predictors of persistent antisocial behavior, including family violence, lack of parental supervision, abuse, school problems and poverty (De Boer et al., 2013; Lynne-Landsman et al., 2011; McCrory et al., 2008; Niemelä et al., 2008; Wanner et al., 2006).

These results suggest the importance of targeting appropriate care to child development, especially in early childhood, when the presence of risk variables may contribute to trigger in the future more persistent antisocial behavior (Lynne-Landsman et al., 2011). Thus, while the emergence of antisocial behavior primarily occurs during adolescence, it is in the characteristics of child development that we can find the main characteristics that allow differentiating between persistent and transient antisocial behaviors (Lynne-Landsman et al., 2011; Roisman, 2010).

The individuals with antisocial behaviors limited to adolescence have a peak of transgressive activities located in their late teens, however, these antisocial behaviors are transitory. Adolescents have biological alterations, they look for new sensations (Silberg et al., 2007), they are influenced by the groups with antisocial behaviors, and they are often influenced by peers because of identification (a process that is part of adolescent development) (Patterson et al. 1992). Thus, as they acquire maturity and there are other interests (to raise a family, work ...), they do not engage antisocial behavior (Hoffmann, 2010).

In this study, the types of individuals with antisocial behavior were addressed in different ways, looking for subsidies that help to understand and to cope with this phenomenon. However, it must be realized that there are several risk factors that can trigger antisocial behavior and it should be taken into account the entire context in which the individual is inserted in order to avoid reductionism and determinism, as each individual acts in a singular way to the events he or she faces throughout development (Burt, 2008). Thus, each case must be studied differently and should be taken into account the individual's phase of development phase.

In this context, it should be noted that according to the current legislation (ECA), when adolescents transgress law and when it is applied a socio-educational measure, the development prior to expressions of antisocial behavior is not considered, even the variables that would allow to differentiate between cases of transient or persistent behaviors. This is practically an aspect neglected by the law and the care policies aimed at adolescents who commit infractions in Brazil, and still little explored scientifically in the country. Herein lies the innovative nature of this study, which offers to Brazilian scientific and professional community a survey and a summary of empirical evidence that can help to differentiate cases of transient and persistent antisocial behaviors. This differentiation has important practical significance, as it could lead to the determination of more specific and effective interventions and related to the attention to cases of adolescents who commit illegal acts. In addition, such differentiation can also allow the formulation of prevention strategies that minimize or eliminate the presence of predictors of the development of persistent antisocial behavior. As Brazilian law does not consider the distinction between transient or persistent cases, there is also no report of different interventions proposals for these two types of antisocial behavior. Thus, a gap is identified here that may receive attention in the planning of new intervention strategies and in future studies, so that the effectiveness of such interventions can be disseminated and evaluated.

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