Protection and risk factors associated to initial use of *cannabis*: systematic review

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This article aims to identify factors associated with the onset of cannabis use through a systematic review using Medline, Scielo, Lilacs and Cochrane, with the following keywords: cannabis, marijuana, onset, from 1999 to April 2008. The results for factors associated with the initiation of cannabis were: early alcohol and tobacco use; male gender; aggressive and deviant behavior; low parental monitoring; single parents; use of substances by parents; group of peers using cannabis; belonging to disadvantaged communities. The early use of cannabis is a predictive factor for Substances Use Disorders (SUD) in young adults.

Descriptors: *Cannabis*; *Marijuana*; Behavior.

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Fatores de proteção e de risco associados ao início do uso de *cannabis*: revisão sistemática

Este artigo teve por objetivo verificar os fatores associados ao início do uso de cannabis, através de revisão sistemática, utilizando as bases MEDLINE, SciELO, LILACS e Cochrane, com os descritores: cannabis, marijuana, onset, de 1999 a abril de 2008. Os resultados obtidos para os fatores associados à iniciação de cannabis foram: uso precoce do álcool e tabaco, gênero masculino, comportamento agressivo e desviante, baixo monitoramento parental, pais solteiros, uso de substâncias pelos pais, grupo de pares com uso de cannabis, pertencente a comunidades desfavorecidas. O uso precoce da cannabis é fator preditor para transtorno de uso de substâncias psicoativas em jovens adultos.

Descritores: *Cannabis*; *Marijuana*; Comportamento.

Los factores de protección y riesgo asociados al uso inicial del *cannabis*: revisión sistemática

La finalidad de ese artículo es examinar los factores asociados al uso inicial de cannnabis, a través de una revisión sistemática: Medline, Scielo, Lilacs y Cochrane, con las siguientes palabras clave: cannabis, marijuana, inicio, desde el 1999 hasta abril del 2008. Los factores siguientes se asocian al inicio del cannabis: uso temprano del alcohol y del tabaco; género masculino; comportamiento agresivo temprano; supervisión parental baja; padres solos; uso de sustancias de los padres; grupo de pares que usan cannabis; comportamiento irregular; el pertenecer a las comunidades perjudicadas. El uso temprano del cannabis es un factor predictivo para los desordenes del uso de las sustancias (SUD) por los adultos jóvenes.

Descriptores: *Cannabis*; *Marijuana*; Comportamiento.

Introduction

Adolescence

The United Nations (UM) defines as young people between 15 and 24 years old, while, the World Health Organization (WHO) refers to adolescence as a fundamentally biological process that goes from 10 to 19 years old, encompassing pre-adolescence (from 10 to 14 years old) and adolescence per say (from 15 to 19 years old). Youth on the other hand, is considered sociologic category that implies in the preparation of the individuals to adulthood, comprising the range from 15 to 24 years old. In Brazil, for the Statute of Children and Adolescents (ECA), childhood happens until 12 years of age and adolescence from 12 to 18 years old.

During adolescence, if all goes well, the youth will reach life at the plenitude of all their potential, filled with organic, affectionate, emotional and cognitive substrates to develop[1]. However, if intrinsic factor fail at this stage (biological, genetic and emotional) and/or extrinsic (family, school, friends and the community), the transformation can be interrupted in different levels and degrees of complexity.

Teenagers represent the most studied population in relation to drug use, being that over the last decades, a great number of epidemiological surveys were made on the use of drugs among teenagers. These surveys contribute to the evaluation of specific and regionalist realities in the international as well as the national contexts[2]. Recently, in 2010, the I National Survey on the Use of Alcohol, Tobacco and Other Drugs was made among university students in 27 Brazilian Capitals[3]. The survey interviewed 18,000 students between the ages of 18 to 25 years old. This study revealed that almost half of Brazilian university students, that means 48.7% consumed at least once in life some kind of psycho-active drug, except alcohol and tobacco, and 26.1% mentioned using *cannabis* at least once in life. Comparing the Brazilian to the North-American data, for the use of *cannabis*, the consumption of *cannabis* is higher among the North-American university students.

The use of psycho-active drugs during adolescence

The data of the National Institute on Drug Abuse[4] showed that 25 million Americans, age 12 and higher, had use *cannabis* at least once over the last year. With this data, a number of surveys appeared on American teenagers, with a study[5] that informs the use of psycho-active substances in every grade in high school. The data reveals an increase in *cannabis* use in the final grades of high school, that is, of the teenagers that used *cannabis* over the last year, 10.3% were in the eighth grade, 24.6% were in the tenth grade and 31.7% were in the twelfth grade. From the teenagers that used *cannabis* at least once in life, 11.2% were in the eighth grade, 15.9% in the tenth grade and 24.9% in the twelfth. In relation to the use of psycho-active substances, it is known that the incidence of consumption has increased in adolescence[6-7], and due to this scenario, Brazilian researchers have also been occupied with this issue[8-12].

According to the national survey on psycho-tropic drug consumption[8], 22.6% of the total estimate of Brazilian public school students had used drugs. As for the use of *cannabis* in the lifetime, the percentage is 5.9%. Porto Alegre, when compared to other Brazilian capitals, presented to have the highest prevalence of using *cannabis* during the lifetime, 10.9%. Another important observed data was, the students that used psycho-active substances some at point in life presented higher school lagging, when compared to the students who did not use those substances.

Regarding the rate of the most use of *cannabis* in the city of Porto Alegre, compared to the other Brazilian capitals, regional studies corroborate and contribute to the surveying of these results, as it can be seen in the study [11] that investigated 1,586 elementary and high school students from public and private schools, where the rate for the use of *cannabis* during the lifetime is 21.1%. The prevalence is the use of *cannabis* and inhalers were equivalent among genders.

Also, in another study[12] with 706 high school students, the results obtained for the use of *cannabis* during the lifetime among the teenagers was 20.7%. The researchers pointed out that the average age to initiate using alcohol and tobacco by teens is lower than the age when they start using *cannabis* and other drugs. These findings, in relation to initiation, are also referred in other studies[8,11,13], verifying a linear increase in the age of experimentation, according to each substance.

Factors associated to the initiation of cannabis use

It is important to mention that the associated factors, approached in the review, is regarding the risk factors as well as the protecting factors for the initiation in the use of cannabis. Like what is referred in the study [13] that evaluated 6,417 students from public schools in São Paulo, including students from the fifth grade of elementary all the way to the 3rd year of high school. The results suggests that the factors associated to the initiation of drug use are: low school performance, poor relationship with the people at home, study in the afternoon, presence of anti-social behavior, family problems and having friends that use drugs.

It is worth mentioning the results obtained from an important research[14], initially monitored children at four months old until they completed 21 years of age. The rates investigated referred that the early use of cannabis is a predicting factor, so later, cannabis dependency may occur.

Regarding the age variable[7], it was strongly associated to the risk of developing a disorder from the use of a psycho-active substance, that is why, the lower the age a person starts using alcohol and cannabis, the higher the risk probability to develop dependency. Those with the ages of 14, 16, 17 and 18 years old had an increased risk when compared to the other ages between 22 and 26 years old, to develop a cannabis dependency.

Examining the association between frequency of cannabis use and the psycho-social consequences during adolescence and in Young adults, the study revealed[6] that the regular and heavy use of cannabis at 14 and 15 years old, compared to the recent use, between 20 and 21 years old, were associated to the increase rates of adjustment problems: the use of other illicit drugs, crime, depression and suicidal tendencies.

The occurrence of certain circumstances in the life of a child or teenager can increase the probability that they could develop the behavior to use alcohol, tobacco or other drugs[15]. These circumstances are the risk factors that throughout numerous studies, has demonstrated association with the use of substances. On the other hand, the protection factors can decrease the probability that this child or teen get involved with drugs. Also, it is worth mentioning that trhe risk factor as well as the protection do not determine the appearance of behavior or pathology, but they increase or decrease the probability of the event happening. The risk factors are classified as present or absent in the following groups: in the individual, in the family, in school, among peers and in the community.

The risk and protection factors can affect teenagers in different stages of adolescence[16]. It must be observed that the more the teenagers are exposed to the risk factors; more they will be susceptible to using drugs of abuse. Some risks in adolescence act with more strength than the others, and the way to prevent them from starting to use

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is to balance the risk factors with the protecting factors, for example, the pressure applied by the peer group on the teenager must be balanced with an adequate bond between parents and children. The change occurs through interventions in the family, school and community.

Considering the high prevalence in the use of psycho-active substances among teenagers, it is necessary to investigate some factors associated to drug use, especially *cannabis*, in order to provide more information to be used in the implementation of prevention programs, primary and secondary, as well as tertiary.

Objective

This study had the objective of making a systematic review on the factors associated with starting the use of *cannabis*. It is worth mentioning that the factors associated are the risk factors as well as the protecting factors regarding initiating the use of *cannabis*.

Method

The method used was systematic review, using the computer data bases MEDLINE, SciELO, LILACS and Cochrane, with the following descriptors: *cannabis, marijuana, onset*, in the period from 1999 to April of 2008.

Included in the search empirical and review articles with samples of teenagers, the design was not important. The selected articles should assess the initiation factors to the use of *cannabis*. The articles excluded were related to prevalence, treatment, comorbity and progression of the use of *cannabis*.

In this search, 321 references were identified, their abstracts were checked in search of potentially eligible articles, resulting in 35 complete articles that were selected according to the established criteria, and from those, 14 articles were selected that investigated the factors associated to initiating the use of *cannabis*.

Results

The 14 articles obtained, by means of a systematic review, present the collected data in relation to the type of study and design; country of origin, number of participants, average age of the participants, this data is expressed in Table 1.

Table 1 – Description of the articles included in the review

Author	Type of study	Monitoring	Country	Number of samples	Average age
Brook et al.[16]	LO	13 years old	USA	976	3-26
Coffey et al.[17]	LO	3 years old	Australia	2,032	14-15
Wills et al.[18]	TV		USA	1,810	11
Von Sydow et al.[19]	LO	4 years old	Germany	2,446	14-24
Chen et al.[20]	TV		Panama Central America Dominican Republic	12,589	16
Patton et al.[21]	LO		USA Australia	5,769	10-15
Chen et al.[22]	LO	2 years old	USA	2,311	15
Best et al.[23]	TV		England	2,078	14-16
Hayatbakhsh et al.[24]	LO	21 years old	Australia	3,008	0-21
Agrawal et al.[25]	CO	5 years old	USA	3,729	21
Guxens et al.[26]	LO	4 year old	Spain	1,056	12
Guxens et al.[27]	Systematic Review		Spain		
Agrawal et al.[28]	CO	10 years old	USA	1,065	13-19
Iglesias[29]	TV		Chile	54,000	8-21

CO – Cohort Study
TV – Transversal Study
LO – Longitudinal Study

In 1999, the first study was made[17] that verified the predicting factors in initializing the use of *cannabis*, in the adolescent stages (pre-adolescence, adolescence, late adolescence and young adult). The sample contained 976 teenagers, tested at the ages of 13, 15, 21 and 26 years old. It could be observed that the initializing age in the use of *cannabis* had an almost linear increase between 12 and 17 years old, with a peak at 17 and, from this age, there was a decrease in starting to use until 25 years of age. It is worth mentioning that initiating the use of *cannabis* occurred in every age studied (pre-adolescence, adolescence, late

adolescence and starting from 20 years old). The boys used more *cannabis* than the girls. The authors suggest that this result is associated to more favorable access for the consumption of *cannabis* for boys. The predicting variables for initializing the use of *cannabis* were: personality, peer groups and family. It was also observed in the study that the highest rates of initiation were from teens that had a carefree and reckless behavior, there were peer groups that used tobacco and *cannabis* or were just susceptible to using these two substances, and of teenagers that had parents that used tobacco and parents that used

drugs. On the other hand, warm parents and children that identify with the parent's values, had a low rate of initiation in *cannabis*

By means of the data obtained in another study[18], examined the predicting factors for the initializing the use of *cannabis*, among teenagers from 44 high schools: the use of tobacco, the use of alcohol, teenagers that had anti-social conducts, teenagers that had peers that used drugs and teenagers from separated parents. In relation to the progression of use, the increase in use rates, in the central high school grade, was the predicting factor for the increase in use in the last high school grade. The transition from occasional in the central grade was the predicting factor for the regular use of *cannabis* in the final grade. This rate was found in 12% of the users, more in boys than in girls, being the peer groups a determining factor for the progression of use.

Another studied variable in the research was the reaction between temper and the use of substances[19], that is, the dimension of temper (good self control and worse self control), associated to the early start using substances (tobacco, alcohol and *cannabis*). The results showed that the teenagers with good self control demonstrated better academic abilities, less use of substances, and equally, peer groups using fewer substances as well. Among teenagers with worse self control, were the teenagers with more negative life events and more deviant peers. The authors concluded that these findings offer many implications for prevention programs, since early intervention is a protecting factor against initializing use.

In another study[20], with 2,446 teenagers between the ages of 14 and 24 years old, examined at 14-15 years old, 16-21 and 22-24 years old, it was verified that the risk factors of incidence in initializing use, of abuse and dependency of *cannabis* were: peer pressure to use substances, availability of the drug, having favorable attitudes in the future use of the drug, low self-esteem, family history (mental disorders, death of the parents before 15 years old, damaged relationship with the parents) and prior experience with illegal drugs.

Regarding religious views and the involvement with drugs (alcohol, tobacco and *cannabis*), a study can be cited[21] in which participated 12,589 students from 1,656 schools. The data indicated that religious practice in inversely associated to the early use of tobacco and their experience with *cannabis*. Young people without religion had 2/3 more chance in using *cannabis*, compared to young Catholics. The conclusions of this study state that religious practice is a protection factor against the early use of tobacco and *cannabis*, but this behavior does not influence the young person in the decision to consume drugs, once they already had the opportunity to use it.

Only one study[22], in this review, specified the puberty stage, investigating the stages of puberty and the association with starting to use and abuse *cannabis*. The study interviewed 5,769 students, with ages between 10 to 15 years old attending 5th, 7th and 9th grades. The findings showed that the central stage of puberty was associated with an increase two times higher in the use in a lifetime of psycho-active substances, and the stage of late puberty was associated with an increase three times higher of use during lifetime compared to the central stage and the initial stage of puberty. The central stage was associated with a modest increase in recent use, and the stage of late puberty was associated with a twofold increase. In relation to abusers, the initiation was three times higher in late puberty than in the central puberty stage. Therefore, it can be concluded that the late puberty stage presented a greater occurrence of *cannabis* in the use during lifetime as well as recent use and among abusers.

Another relevant point, seen in the research, was parental monitoring during elementary school and their influence regarding the risk of using *cannabis*[23]. The results of this study indicated children that had less monitoring from their parents in primary school, compared to those that had a better monitoring, were more likely to experiment *cannabis*. As well as the coercive behavior adopted by the parents was associated, moderately, to the increase in risk of exposure for the use of *cannabis* by the children. This data suggest that the parental practices of monitoring, in the earlier grades, can have a strong and long lasting influence decreasing the risk of experimenting *cannabis*.

Regarding the social, family and protective factors, related to the use of *cannabis,* it was verified in a research[24] with 2,078 teens between the ages of 14 and 16 years old, from high schools, where 24% of the teenagers had used *cannabis* at least once in their lifetime and 15% had used *cannabis* over the last month. The predicting factors for initializing use were: having friends and neighbors that used alcohol and tobacco, teenagers that would get involved in criminal activities and teens who spent their free time more with friends than with the parents. Among the ones that had used *cannabis,* two factors were predictive to initiation: early use and frequency. The results obtained state that the early use, the frequency and the unfavorable social network are predicting factors for initiate using.

It is important to mention that one out of four Australians, at the age of 14, had experienced *cannabis* at least once in their lifetime. Alongside this incidence of *cannabis* use, researchers have also verified that there were changes in the Australian family structure (divorces, increase in the number of second children and subsequent marriage), besides, an increase in families that have adopted children. From these data, studies were suggested to examine the association between the changes in marital status and when the teenagers started using *cannabis*[25]. In this study, 3,008 mothers and their children were selected, from birth until they completed 21 years of age. The interviews were conducted in the third and fifth day after labor and when the children completed six months, 5, 14 and 21 years of age. The results obtained showed that there is an association of the maternal marital status and the early start using cannabis, that is, the changes in the mother's marital status, when the child is between the ages of 5 and 14 years old, were significantly associated to the increase in *cannabis* use. The researchers stated that it is not the marital status that influences the teenagers to use

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cannabis, but the extension of the impact the change in marital status has on the child that experiences it.

The objective of this study [26] was to investigate, specifically girls, and their use of tobacco, alcohol and *cannabis*. The results obtained, in order of a scaled ascension in use, was primarily the use of tobacco, alcohol, the use of *cannabis,* and later another drug. It could be seen that the use during their lifetime of each substance was associated to the use of the subsequent substances. For example, the early use of alcohol (less than 16 years old) was associated to the early use of tobacco. The use of *cannabis* was associated to tobacco (12 years) and alcohol (14 years), being that the early use and the choice of using multiple substances were associated to the class of the subsequent substance.

The consumption of *cannabis* in Spain was examined primarily in a study containing 1,056 students, of 44 high schools [27]. The factors identified for the initiation include the consumption of tobacco and alcohol, anti-social behavior, low school performance, patterns of free time, drug use of peers, type of school and family situation. Since the predicting factors differed widely in age and gender, the researchers analyzed the consumption of psycho-active substances in each school year. The verification of these rates was made in four segments: in the first segment, rates were collected from the 7th grade, in the second segment from the 8th, in the third segment from the 9th grade and in the fourth segment data from the 10th grade. These results were also separated by gender. In relation to the boys, it was seen that variables like: attend the 7th grade, consume tobacco, having a risk behavior for alcohol consumption (get drunk, drink four or more doses in the same event), having a peer group that consumed *cannabis* and anti-social behavior (cut class, fight, break things, take objects from other people) was the predicting factor for initiating the use of *cannabis* in the 8th grade. On the other hand, the consumption of tobacco, is favorable to alcohol and the future intention of consuming illegal drugs, in the 8th grade, they are related to the initiation of the use of *cannabis* in the 9th grade. Initiating the consumption of *cannabis* in the 10th grade was associated being favorable to tobacco, future intention of consuming *cannabis* and waste of free time in bars and nightclubs, in the 9th grade. In relation to the girls, the predicting factors regarding the initiation in using *cannabis* were: attend 7th grade, the use of tobacco by peer groups, low school performance and waste of free time in bars or nightclubs, in the first year. Study in public school, live with single parents; consume tobacco, experimental consumption of alcohol and future intention of consuming *cannabis*, in the 8th grade, favored initiating consumption in the 9th grade. Initiating the use of *cannabis* in the 10th grade was associated to the fact that they attended public school, tobacco consumption, risk behavior in alcohol consumption, future intention for *cannabis* and anti-social behavior.

In 2007, a systematic review was made [28] to verify the factors associated initiating the use of *cannabis*. The results obtained in this review suggest that the factors associated for initializing the use of *cannabis* are: be male,

consume tobacco and alcohol and to have a problematic relation with their parents. It is important to mention that the consumption rate of *cannabis* is equal in both genders, especially if the girls have the same opportunities of substance consumption, especially those that initiated the use of *cannabis* before the age of 21 years old.

This review article presents a second study that verifies the initiation factor for using *cannabis* specifically in girls [29]. The results reveal that initiating the use of *cannabis* was associated to the use of alcohol, tobacco and *cannabis*, besides manifesting impulsive and inhibited behavior.

Regarding the relation between the early consumption of tobacco and alcohol and the risks of consuming *cannabis*, it was verified in a research [30] with 54,001 students with the ages between 8 and 20 years old, in which the consumption of tobacco in the presence of consumption of alcohol was a predictive factor for the use of *cannabis*. On the other hand, the late start in consuming tobacco and alcohol resulted in a protecting factor against the use of *cannabis*. The probability of *cannabis* consumption was higher in daily smokers than weekend smokers. Therefore, the risk of *cannabis* consumption was associated, significantly, to the initiation age of consuming tobacco, the frequency of tobacco consumption and the simultaneous use of alcohol. The authors suggest that the prevention strategies should inform to avoid the early consumption of tobacco in students.

Discussion

According to the review discussed here, it is seen that the main factors associated to the use of *cannabis* during adolescence are: early age for experimentation of alcohol and tobacco, problems in parental relationships, low self-esteem, user friends, favorable attitude towards consumption and aggressive behavior.

It is important to mention that although it is evident in many studies, the high prevalence in the use of *cannabis* during adolescence, a reduced number was found of studies that investigated the associated factors to the initiation in the use of *cannabis*[17-30]. The predominance of the studies in this review were publications from 2004, 2006 and 2007, of studies of a population base, with longitudinal design. Only one study of systematic review and one study to test the trans-theoretical model were made, with the objective to measure the initiation in the use of psycho-active substances. It is worth mentioning that the sample of the studies was expressive, the stages evaluated started at puberty, early adolescence, adolescence, late adolescence and young adults; elementary and high schools, and their respective grades.

We noticed the important exam of the types of variables measured in all of the reviewed studies, therefore enabling the consistency in the conclusion of the results. The assessment of the trans-theoretical model to measure initiation of the use of substances contemplates every variable used in several studies[19].

The five studies that evaluated the initiation factors for

the use of *cannabis* stand-out by their method of analysis, they are: being male, consuming tobacco and alcohol, having a problematic relationship with the parents and the consumption of *cannabis* by the peer group[17-18,20,24,27].

The individual variables, tested in several groups, reinforce the idea that young people, informal, care-free and with low integration of the ego[17], with anti-social conducts[24,27-28], having favorable attitudes towards the use of illegal drugs and future prediction of using illegal drugs[24] are strongly associated to the initiation of the use of *cannabis*. It is worth mentioning that the teenagers with a good self control and had an adequate and competent academic trajectory and peer groups with less use of substances, were the teenagers that used less substances; and the worse self control refers to the group of teenagers that had more deviant events in life and peers with the use of substances[19].

In relation to the family variables, it worth mentioning that the studies investigated parental practices [17,19,23,28], verified that the low parental involvement and the increase in coercive discipline in elementary school were associated to the risk of exposure to *cannabis* in adolescence and in the young adult.

The maternal marital status was investigated[25], being that the mother's marital change, occurred between 5 and 14 years old, was significantly associated to the increase in the risk for the use of *cannabis*, emphasizing that it is not the marital status alone that influences children and teenagers, but the extension experience of the impact in the maternal marital change. On the other hand, other studies reinforce that children and teenagers that had a parental death before 15[20] and families of single parents, divorced, and separated presented a significant association with initiating *cannabis*[18,27]. the maternal use of illegal substances and the level of alcohol consumption were directly associated to the late use of *cannabis*. An early age of initiating the use of *cannabis* among teenagers[25] and the parental consumption of substances were highlighted in most of the studies[17-18,20,27-28]. It is important to affirm that the predicting factors of initiating the use of *cannabis* emerge during pre-adolescence, late adolescence and in the young adult[17], identifying that the early use of *cannabis* during puberty and in pre-adolescence is a predicting factor for the regular use of *cannabis*[18,20,22,26,30], during late adolescence.

The use of legal drugs increases significantly the association with the illegal drugs. The progression scale of psycho-active substances is organized in a crescent of initiation, where, firstly comes tobacco, alcohol, *cannabis* and other illegal drugs. Therefore, the experimentation occurs normally through legal psycho-active substances all the way to illegal substances[30], and the early use of substances is a predicting factor for the initiation of the subsequent drug. The early use of *cannabis* (before 16 years old) was associated to the one before, use of tobacco and alcohol in the ranges from 12 to 14 years old[26].

In all of the reviewed studies, the male gender is predictive of incidence of use and abuse of *cannabis*[20,28], meanwhile, there was an increase in the incidence of

consumption among girls, especially before 21 years of age, as well as increase in dependency among the consumers[28]. Still, the studies mentioned that the girls that had peer groups with favorable attitude towards the use of alcohol, tobacco and *cannabis* had a significant association with initiating the use of *cannabis*. The other factor is the opportunity and the availability of psycho-active substances. The authors suggested that, if the girls had more access to substances, the use rates, in both genders, became similar[28].

Many authors have suggested that peer groups has a strong influence during adolescence, seen that peer pressure and favorable attitudes to the use of psycho-active substances, as well as the use of[17-18,20,25,27] drugs between friends and the option to be with the group in their free time[27], favoring the association with the initiation of using *cannabis*.

From all 14 studies only one[21] tested the religiousness variable in relation to the factor of initiating the use of *cannabis*. It must be considered that the number of samples in this study is significant (n=12,589), showing that religious practice has an inverse association with the early use of tobacco and *cannabis*. The study also affirms that without religious affiliation the subjects had two or three times more chances of using *cannabis* when compared to the young people that are Catholics. It also mentions, that religious practices represent a protection factor against the early use of tobacco, and *cannabis*, but this behavior does not influence in the decision of taking drugs, once they had the opportunity to do so.

These were the reviewed studies. It is necessary to mention the methodological limitations of this review, seen that the statistical analysis was not made in order to categorize each reviewed study by methodology. It becomes a suggestion for future studies that has as objective, assess the factors associated to initiating the use of *cannabis*.

Considering the review of publications over the last few years, regarding the factors associated to initiating the use of *cannabis*, it can be observed that the detailed investigation regarding each factor, of risk as well as protection, will contribute to preventive measures against the use of drugs during adolescence. For each risk factor of initiating *cannabis*, the balance of the behavior must be found with a protective factor, for example, for early aggressive behavior, the protective factor is self-control; deprived of parental supervision, the protective factor is adequate parental monitoring; substance abuse, the protective factor is academic competence; easy access and availability of drugs, the protective factor is anti-drug policies; in impoverished communities, the protective factor can be balanced with strong neighborhood ties.

Conclusion

Based on the exposed, the factors associated to initiating the se of *cannabis* are: be male, consume alcohol and tobacco at an early age, have a problematic relationship with one of the parents, substance

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consumption by the parents, consumption of *cannabis* by peers and unfavorable social network. It becomes clear, in all of the investigations, that the initiation happening at an early age increases the chance of developing a disorder of psycho-active substance use. Use progression and scaling up to other substances will interfere profusely in the teenager's development, causing serious individual, social, affectionate and environmental consequences. It becomes necessary to monitor the consumption of alcohol and tobacco, because the early use of these two substances is predictive for initiating the use of *cannabis*. it is worth mentioning the alcohol is an illegal drug if you are under 18 years of age and the awareness from society, in a sense of preventing these two substances, can help in the decrease in the use of *cannabis* and other subsequent drugs. Public policies in relation to the use of legal drugs have decreased the use of these substances, as well as to their association with other substances, especially *cannabis*. In regards to the family, the early parental monitoring, during puberty, would increase the chances that this teenager will not use *cannabis* early.

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