

COMPARISON OF RISK AND PROTECTIVE FACTORS ASSOCIATED WITH THE PREVALENCE OF ALCOHOL AND DRUG ADDICTION AMONG YOUNG PEOPLE, ADULTS AND THE ELDERLY: AN INTEGRATIVE REVIEW

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Abstract: INTRODUCTION: Abusive use of licit and illicit drugs is a public health problem and has been increasing significantly worldwide. The consumption of these substances, as well as the protective and risk factors for dependence, varies according to the age group. **OBJECTIVE:** To analyze risk and protective factors related to drug use among young people, adults and the elderly in the context of psychosocial health promotion, prevention and rehabilitation. **METHODS:** This is an integrative review. To formulate the research question, the PICO strategy was used. The following databases were found: 55 SciELO, 370 PubMed, 53 LILACS and 27 Cochrane Library. After analyzing the 113 previously selected articles, 90 were excluded. 23 articles were selected to compose the current sample. The criteria recommended by the PRISMA group were used as a search strategy for selection and exclusion. **RESULTS:** Among young people, the main protective factors found were healthy family relationships and academic commitment. And among the risk factors is family and school distance. In relation to adults, the main risk factors are mental disorders and troubled family and marital relationships. As protective factors, the religious bond stands out. In the elderly, social isolation due to loss of occupational activities and social distancing stands out as a risk factor. As a protective factor, there is the affective bond with family members. **CONCLUSION:** The age group and the social context determine the behavior of society and translate the main risk and protection factors for chemical dependence. This subject is still neglected by the scientific community, especially among young and old. It is necessary to carry out more studies on the subject, and to create more effective public policies.

Keywords: Aging, drug addiction, illicit drug addiction, risk factors, protective factors.

INTRODUCTION

The use and abuse of licit and illicit drugs has been increasing significantly in several countries. This behavior causes and exacerbates several types of vulnerabilities, which are social, psychological and limitations of the population's health status, consequently causing a public health problem ¹. According to the United Nations Office on Drugs and Crime (UNODC) ² in 2020, about 275 million people used drugs, an increase of 22% compared to 2010. Demographic factors project that the number of people who use drugs will increase in 11% by 2030.

When it comes to adolescents, the National School Health Survey (PeNSE) ³ carried out in 2019 reveals an increasingly worrying scenario in the country. Data from 11 million Brazilian adolescents between 13 and 17 years of age were analyzed, demonstrating an increase of almost 8% in the consumption of alcoholic beverages (totaling 63.3%) and 4% in the consumption of illicit drugs in this population, rising from 9 % to 13% of the total number of young people, when compared to 2015 data.

Regarding cigarette consumption, 22.6% of adolescents have already consumed conventional cigarettes at least once in their lives. In addition, when it comes to hookah, this rate is even higher, reaching 26.9% of adolescents ^{3,4}.

Among young people, the most used illicit drug is marijuana, whether in Brazil or in other countries. According to the document "World drug report 2020", from the United Nations Office on Drugs and Crime (UNODC) ² cannabis use among adolescents aged 15 to 16 reaches 17.8% in Oceania, 11.7% in Europe and 12.1% in Americas.

According to the International Council for Narcotics Control, young people are the most vulnerable population for regular drug use and, on the other hand, are the ones who

benefit most from protective factors. Among these protective factors, it is worth mentioning the support of social groups, early intervention and prevention programs, effective bonding with the school and proximity to parents ^{4,5}.

Among adults, there is a high prevalence of drug use associated with marital problems and mental disorders, which are the main risk factors in this population. The escape from reality and the problems associated with it are also motivators for substance abuse. As protective factors, the bond with a religious entity, a good support network and social occupation deserve to be highlighted ^{6,7}.

The elderly, they are a population with greater emotional fragility and, in addition to the biological damage and physical strain caused by the abuse of these substances, there is also psychological suffering as a reason and consequence of this use ⁸. Such suffering is not only limited to the user, but also to everyone around him. In the view of elderly users, these substances are used as a quick and effective alternative to promote relief and make this suffering more tolerable ⁹.

The present study aims to analyze the risk and protective factors related to drug use among young people, adults and the elderly in the context of psychosocial health promotion, prevention and rehabilitation.

METHOD

This is an integrative review. As a methodological strategy for formulating the research question, the PICO strategy was used: acronym for P: population/patients (young, adult and elderly drug users); I: intervention (follow-up in psychosocial rehabilitation services for the treatment of alcohol and other drugs); C: comparison/control (risk factors and protective factors for chemical dependence); O: outcome/outcome (prevention, adherence to addiction treatment and psychosocial rehabilitation) ⁸.

In order to know the health demands of people who use alcohol and other drugs, especially the elderly, it was necessary to search the electronic databases of studies on the subject, performing the search available in the electronic databases: *Scientific Electronic Library Online SciELO*, *Medline via PubMed* portal of the *National Library of Medicine*, *Latin American and Caribbean Literature in Health Sciences (LILACS)* and *Cochrane Library*.

Descriptors in Health Sciences (DeSC) / *Medical Subject Heading* (MeCH) selected were used as Boolean operators: “ AND ” and “ OR ” for searches in databases as a strategy: *Drug addict* OR *OR addicts* OR *illicit drug use* OR *Motivation* OR *Risk Factors* OR *Protective factors* OR *Substance-Related Disorders* OR *Illicit Drugs* OR *Amphetamine-Related Disorders* OR *Cocaine-Related Disorders* OR *Substance-Related Disorders* OR *Narcotic-Related Disorders* OR *Opiate Substitution Treatment* OR *Patient Compliance, Treatment adherence and Compliance* OR *Treatment adherence and Compliance* OR *Substance-Related Disorders* OR *Substance Abuse Treatment Centers* OR *Alcohol-Related Disorders*.

As a guiding question for the research, it was established: “What are the risk and protective factors for the use of alcohol and other drugs that influence the incidence and prevalence of intergenerational use of alcohol and drugs?”.

Inclusion criteria used were: studies written in Portuguese, Spanish and English, field research and experience report available in full and which in the discussion developed an approach in the field of chemical dependence grouped into the following age groups: young people: (0 to 19 years old); adult (20 to 59 years old) and elderly (>60 years old) with chemical dependency being followed up in rehabilitation services. It did not establish

criteria in relation to the time of publication of articles (time criterion of publications). Narrative review, letter to the editor or letter-response studies were excluded, studies that were indexed in more than one electronic database were considered once.

The searches for primary publications in the selected electronic databases took place between April 2020 and May 2021. After selecting the articles, the following aspects were addressed to synthesize the publications: Location, Database/Journal, Author(s) of the article / Year, objective, Age (years), Sample, Risk Factors, Protection Factors, Level of Evidence.

Through the preliminary reading of the articles, it was possible to select 505 articles indexed in the databases, and, after reading the full texts of all studies in an exhaustive and thorough manner, the final sample consisted of 21 articles. All steps were performed by two researchers and then discussed and reviewed by a third researcher to audit if all the criteria were strictly followed. In cases of disagreement, debates were established between all researchers for the alignment of inclusion or not of the sample in the study.

For the classification of the methodological quality of the selected studies, it was according to the six levels of categories of the *Agency for Healthcare Research and Quality (AHRQ)* ⁹.

RESULTS & DISCUSSION

The following databases were found: 55 SciELO, 370 PubMed, 53 LILACS and 27 Cochrane Library were analyzed by reading the abstracts and comparing the objective of the study found and the objective of the research in question (Figure 1).

After analyzing the 113 articles that were previously selected, 90 were excluded, as they did not meet the objective criteria of this study. Twenty-three articles were selected to compose the sample of this review work.

The criteria recommended by the PRISMA ¹⁰ (Figure 1).

Chemical dependence is a chronic and multifactorial disease, its progression is subtle and stems from both the amount consumed and the frequency and circumstances in which it is used. It may present more easily at the extremes of age groups. The main risk factor that gives them greater fragility is the social isolation resulting from the loss of occupational activities and family distancing. On the other hand, young people have psychosocial factors that make them more vulnerable, such as the desire to be socially accepted ^{16,17}.

In 2021, the prevalence of abusive consumption of alcoholic beverages in the last 30 days was 18.3% in the country, considering the 26 Brazilian capitals and the Federal District. This index is higher among males (25.0%) when compared to females (12.7%). In both sexes, being older than 35 years and having a higher level of education acted as protective factors ¹⁸.

According to data obtained by Vigitel (surveillance of risk and protection factors for chronic diseases by telephone survey - Ministry of Health) published in 2021, through a survey via telephone survey in 26 capitals and the Federal District, the total percentage of smokers over 18 years in Brazil is 9.1%, with 11.8% among men and 6.7% among women. The greater the time of schooling, the lower the prevalence of this habit among individuals. The prevalence of smoking was more evident in the male population with up to eight years of schooling (15.7%). This reality further reinforces the importance of school and academic activities as a protective factor from youth to adulthood ¹⁸.

As for protective factors to prevent drug use in young people, the following were identified: healthy family relationship (no friction, supportive environment) ^{17,19,20}.

school/academic commitment, educational institutions with teaching/enlightening/ access to knowledge of anti-drug policies ^{17,21}; public policies and governmental strategies to combat drugs in schools and communities ^{17,22,23}. The study with 1,936 young people carried out by Rivas *et al.*, (2018) ²¹ reports that young people linked to some religious denomination is a protective factor.

The risk factors for drug or multiple drug use in young people aged between 13 and 19 years were observed: protection/support/ impaired family ties ^{17,24-27}; school dropout or low school/academic performance ^{17,19}; use of alcohol and other drugs by family members (parents and siblings), friends and close people ^{17,20-23}; youths with violent behavior/recurrent involvement in fights ^{19,20}; early onset of sexual intercourse in adolescence ¹⁹; parents' marital status (widowed, separated or divorced) ¹⁹; low frustration tolerance ²¹; parental permission to use drugs ²²; low socioeconomic power ²³.

As a consequence of this use, among students, the abusive consumption of alcoholic beverages is related to the participation in episodes of accidents and violent fights, in addition to problems in academic development and evolution and the occurrence of potentially problematic and risky sexual relations. These sexual relations generally start to occur with a greater number of partners and without the use of condoms, resulting in an increased incidence of sexually transmitted infections ⁴⁶.

Among adults (18 to 59 years old) the following protection factors were found: affiliation to a religious denomination and involvement in social activities (physical activity groups, educational) ⁴³; psychotherapy, support from friends and family, structured living environments, being accompanied by health services ⁴⁴; increase in health services specialized in psychosocial rehabilitation, humanization and empathy of health

professionals regarding the demand of drug users ⁴⁵.

Risk factors for drug use in the adult population were more associated with: mental and behavioral disorders (anxiety and depression) ^{28,29}; low academic performance or school/university dropout ^{28,29}; troubled marital relationship and problems in the context of sexual orientation ²⁸; previous use of licit drugs such as alcohol and tobacco ²⁸; residents of hostels (social shelters) ²⁹; little information about drug problems, the drug user's manipulative profile and shame and concern about social stigmas ³⁰.

University students tend to use tobacco and illicit drugs in moments of emotional fragility, such as tiredness, low self-esteem, feelings of guilt or lack of responsibility, depression and anxiety ^{6,48}. This pattern suggests a strong association between the consumption of these substances and the occurrence of psychiatric disorders in these groups ⁴⁹.

In the elderly (60 years and over), the main factors for drug use are related to widowhood, living alone/social isolation ^{47,50}; mental and behavioral disorders (anxiety and depression) and high rates of physical health impairment (chronic diseases: arthritis, arterial hypertension, chronic pain) ^{31,32}; low education level; evasion of rehabilitation treatment ³³.

Family support/close people and monitoring of health services in the elderly was prevalent among the studies that deal with protective factors to reduce or avoid drug consumption in the elderly ^{31,32,33} however, it is unanimous in all studies that addresses chemical dependence in the elderly that this behavior of drug use in the elderly is little addressed in scientific studies and makes this public health problem invisible and little known.

In Brazil, the proportion of drug addicts seeking rehabilitation indicates that the

family was the main reason for seeking and continuing treatment, aiming at the construction or reconstruction of affective bonds, in all age groups. In addition, the diversification of therapeutic modalities offered by the SUS was also a positive factor for the continuity of treatment.

The main existing public policies to prevent substance abuse, such as Proerd, educational booklets provided in schools and Guide-AD, predominantly cover the young population, with no easy access to this information for

older age groups³⁴.

Regarding the reception, monitoring and rehabilitation of this population in the public sphere, there are CAPS-AD (Psychosocial Care Center for Alcohol and Drugs), coordinated by the Health Department³⁵. Although they exist, they do not cover the entire population in need, so there are other charitable and voluntary organizations that also work in this sector, such as AA (Alcoholics Anonymous) and NA (Narcotics Anonymous)³⁶

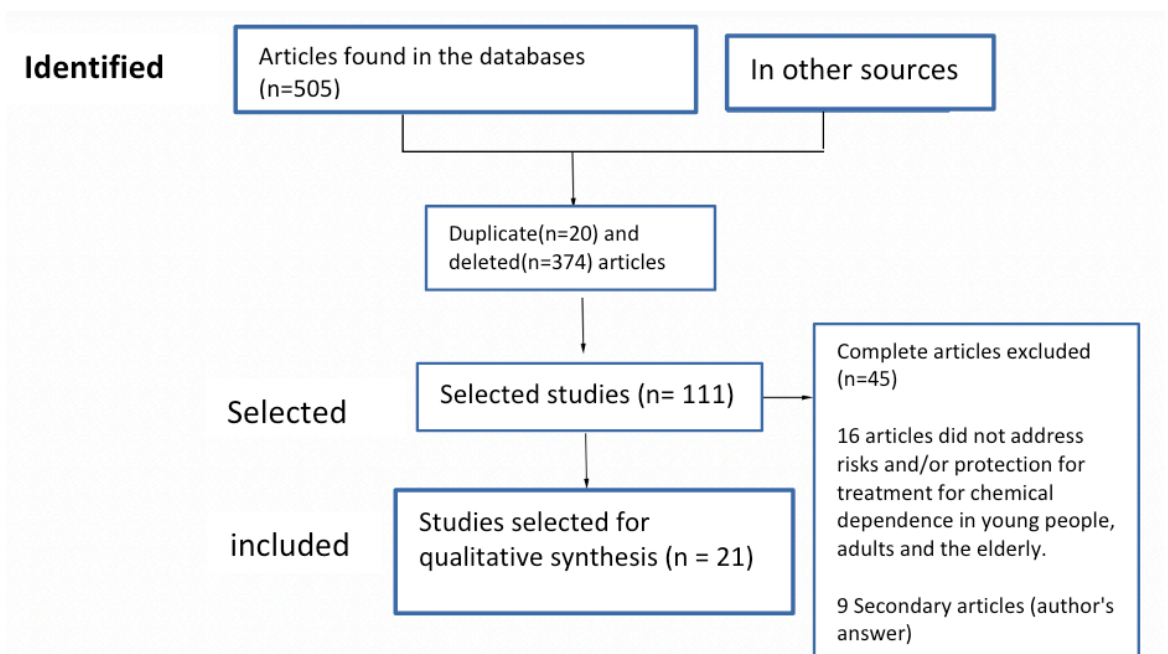


Figure 1 – Flowchart, according to Prisma, for survey of integrative review studies.

Place	Database / Journal	Author(s) of the article/ Year	objective	Age (years)	Sample	Level of Evidence
Malaysia	PubMed / <i>Asia Pacific Journal of Public Health</i>	Hasani <i>et al.</i> , 2019 ¹⁹	To determine the prevalence of illegal drug use and its associated factors among male adolescents in Malaysia.	13 to 17	13,135	2A
Nigeria	PubMed / Drug alcohol Depends	Mehanovica <i>et al.</i> , (2019) ²²	To explore risk factors associated with the use of marijuana and other illicit drugs among Nigerian high school teenagers in six geopolitical zones of the country	≈14	4,078	2B
Scotland	PubMed/ Journal of public health - American Journal Experts	Petrou, S. & Kupek, E. (2018) ²³	To estimate trends in the prevalence and patterns of individual and multiple substance use between 2002 and 2013 among adolescents in Scotland.	13 to 15	1,347	2B
Botswana, Africa	PubMed / BMC Public Health	Riva <i>et al.</i> , (2018) ²¹	Understand the risk and protective factors associated with alcohol and drug use among high school students to design and implement effective public health interventions; in addition to informing and promoting the design of effective programs to prevent the use of alcohol and drugs by students in this and similar environments.	14 to 17	1,936	2B
Germany	PubMed/ European Journal of Neuroscience	Viohl <i>et al.</i> , (2019) ²⁸	Provide detailed data on substance use patterns by university students in Berlin. In addition to analyzing the main protective and risk factors for this population.	≈24	9,351	2B
Brazil	Scielo / Science and Public Health	Neves, <i>et al.</i> , (2021) ²⁰	To investigate the association of alcohol use by adolescents in the school context with family conflicts, parental supervision and quality of relationships.	14 to 19	1,265	2B
Australia	Scielo / <i>Ciência & Saúde Coletiva Magazine</i>	Chan, <i>et al.</i> , (2017) ¹⁷	To investigate the association between drug use by peers and the use of polysubstances by adolescents and to investigate whether this association was moderated by parental and/or school factors.	≈ 14	9,963	2B
Brazil	Scielo / Anna Nery School - Nursing Journal	Pillon <i>et al.</i> , (2010) ¹⁰	To identify the profile of elderly users of psychoactive substances treated at the Psychosocial Care Center for alcohol and drugs in the interior of São Paulo, from 1996 to 2009	> 60	191	2A

England	PubMed / Age and ageing	fahmy <i>et al.</i> , (2012) ³²	Quantify illicit drug use in people aged 50 and over in England and inner London and compare it between age groups 50 and 64 and 65+	50 to 64 65 to 74	4,296	3
Austria	PubMed / Gerontology	Koechl, Unger, Fischer (2012) ³¹	Research has shown that substance use, abuse and dependence are not limited to a specific age group.	65 +	10,953	two
USA	PubMed / Addiction Science & Clinical Practice	Chamberlain <i>et al.</i> , (2019) ²⁹	Investigate substance use in a diverse group of individuals who have recently been released from incarceration.	> 50	751	two
Norway	PubMed / Tidsskr nor laegeforen journal	Rogeberg, Pedersen (2021) ³⁰	To investigate health-related help-seeking behavior among users of illicit substances.	> 18	2,485	two
USA and Australia	PubMed Journal of Adolescent Health /	Beyers <i>et al.</i> , (2004) ³⁷	To compare risk and protective factors that influence youth substance use in Australia and the United States	12 to 17	40,845	3
USA	PubMed / Evaluation and Program Planning	Arevalo <i>et al.</i> , (2008) ³⁸	To examine the role of spirituality, sense of coherence, and coping responses in relation to stress and trauma symptoms among women undergoing substance abuse treatment.	18 to 55	393	
Wales	PubMed / Journal of Psychopharmacology	Wadsworth <i>et al.</i> , (2015) ³⁵	Examine demographics, lifestyle, mental health, and personality factors associated with illicit recreational drug use, alcohol consumption, and smoking in a community-based population sample.	16 to 97	7,979	two
USA	PubMed / Addictive Behaviors	McKellar <i>et al.</i> , (2006) ³⁹	Use pretreatment and treatment factors to predict substance use disorder program dropout and examine how the treatment environment modifies dropout risk.	18 to 43	3,549	3
USA	PubMed / European Journal of Obstetrics & Gynecology and reproductive Biology	De Santis <i>et al.</i> , (2011) ⁴⁰	To describe risk behaviors in a population of Italian women calling our TIS and to identify maternal factors related to drug exposure	18 to 33	503	two
USA	PubMed / American Journal of Preventive Medicine	Moran <i>et al.</i> , (2019) ⁴¹	Analyzing the association between identification of peer groups and substance use is well documented among adolescents, but little is known about substance use among groups of young adults.	18 to 24	1,341	3

France	PubMed / Revue d' Epidemiologie et de Santé Publish	S. Legley <i>et al.</i> , (2008) ⁴²	It compares these results with those obtained from the <i>Health Barometer</i> 2000 to see whether consumption profiles by students, unemployed youth and busy workers have evolved over time.	18 to 24	4,077	3
Brazil	Pub/Med/BMC Public Health	Perrenoud <i>et al.</i> , (2021) ³⁴	A multicenter study in Brazil evaluating risk and protective factors for early initiation of crack use in patients from Therapeutic Communities (TCs) who identified crack-cocaine as the substance that made them seek treatment.	18	577	
Sri Lanka	PubMed / Drug and Alcohol Review	Dissabandara <i>et al.</i> , (2009) ³⁶	To establish demographic characteristics, drug use patterns and risk behavior in a sample of incarcerated drug users in Sri Lanka.	19 to 61	278	
New Zealand	PubMed / RANZCP - The Royal Australian and New Zealand College of Psychiatrists	JM Boden, DM Fergusson, LJ Horwood (2006) ⁴³	To describe patterns of illicit drug use in a birth cohort studied up to age 25 years.	15 to 25	1,265	
Puerto Rico	PubMed / Archives Of General Psychiatry	LA Warner, M. Joy, G. Canino (2004) ⁴⁴	To identify patterns and predictors of remission in a community sample of drug users followed up prospectively.	18 to 35	275	

Table 1 - Publications selected for integrative review according to location, database/journal, author, year, Study objective, age, sample, risk factors, protective factors and level of evidence

Source: Prepared by the authors of the study.

Age range (years)	Risk factors	Protection Factors
13 to 19	<ul style="list-style-type: none"> family relationships ^{17,19-22,37,45} School dropout or low academic performance ^{17,19,37} Violent youth (recurrent involvement in fights) ^{19,20,37} Beginning of sexual intercourse in adolescence (early) ¹⁹ Intolerance to frustration ^{21,37} Parental permission to use drugs ^{22,37} Low socioeconomic ^{power 23,37} Misconduct ³⁷ Parents' marital status (widowed/separated/divorced) ¹⁹ Parental permission to use drugs ^{22,37} 	<ul style="list-style-type: none"> Healthy family relationships ^{19,20} Involvement in social and cultural activities ³⁷ Religious Activities ^{21,37} Encouraging educational activities ^{17,19} School environment with strict rules ^{19,37} Parental monitoring ¹⁷ Anti-drug education programs ^{22,21,23} Prohibition on the sale of alcoholic beverages and tobacco to minors ²¹

18 to 61	<ul style="list-style-type: none"> • Marital relationship problems ²⁸ • Anxiety and Depressive Disorder ^{28,38,40,44} • Use of tobacco and/or alcohol in adolescence ^{28,42,36,43} • Difficulty in accessing psychosocial rehabilitation services ^{30,44} • Avoidance of individual and group therapies ⁴⁴ • Social stigmas regarding the use of being a drug user ^{30,44} • Demotivation to seek help ³⁰ • History of violence and abuse in adolescence ^{34,36} • Family conflicts ³⁴ • Living with family and friends who are drug users ^{40,34,36,44} • Misconduct/involvement in crime ^{34,36,44} • deprivation of liberty • School dropout or low academic performance ^{38,40,36,43} • Consumption of multiple drugs ³⁹ • Unemployment ^{39,42,36} • Parental permission to use drugs ³⁴ • Curiosity or seeking excitement in adolescence ³⁶ • sexual behavior in adolescence and adulthood ^{36,44} 	<ul style="list-style-type: none"> • Encouraging educational activities ⁴² • Religious Activities ^{41,28,42,44} • Implement anti-drug education policies and programs ^{28,38,42,36,43,44} • Humanization and empathy in the treatment for rehabilitation in chemical dependency ^{30,39,40} • Health professionals specialized in the treatment of chemical dependence ^{30,40} • Participation in therapeutic groups and self-help ³⁹ • Facilitate access to psychosocial rehabilitation services chemical dependence ^{30,44} • Parental monitoring during childhood and youth ⁴² • Healthy family relationships ³⁶ • Educational Activities of Sex Education ^{36,44}
60 or more	<ul style="list-style-type: none"> • Little schooling ^{29,33} • Evasion and little demand for specialized services for the treatment of chemical dependence ³³ • Difficulty in accessing psychosocial rehabilitation services ³³ • Chronic Diseases (neurodegenerative and chronic pain) ^{31,32} • Exposure to stressful situations ³² • Anxiety and Depressive Disorder ^{29,31,33} • Social isolation and living alone ^{31,33} • Residents of Shelters (hostels) ²⁹ • Unemployed or without fixed income ²⁹ 	<ul style="list-style-type: none"> • Health professionals specialized in the treatment of chemical dependence ^{29,31,32,33} • Involvement of family members or close people to support treatment ³¹ • Therapies and therapeutic groups specific to the demands of the elderly ³¹ • Articulation and involvement of health services for chemically dependent elderly people ²⁹ • Healthy family relationships ²⁹

Table 2. List of Risk and Protective Factors Associated with Prevalence of Alcohol and Drug Addiction by Age Group

Source: Prepared by the authors of the study.

CONCLUSION

It is known and well established that substance abuse in today's society is an important public health issue that is growing more and more. In a society, there are numerous factors that influence the behavior of the individuals inserted there, and these factors assume varied importance depending on the age group and the social context experienced by each one.

The importance and the differential of this research is given through the elucidation and comparison of the main risk and protection factors for this abusive consumption of substances, organized by age groups and considering the related psychosocial factors.

It is worth mentioning that this research presented difficulties during its elaboration.

The data obtained through national and international scientific literature, in addition to being scarce, are not always reliable to reality, and are often outdated. This fact corroborates the negligence of the scientific community with the subject, especially when approaching the extremes of age (young and elderly).

Thus, it is necessary to carry out more studies on the subject, which are increasingly updated and widely disseminated in our society. If this ideal is reached, in addition to popular awareness of the existence of these factors and some ways to prevent them, there is still the possibility of creating and adapting more effective and effective public policies, which include all audiences.

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