# Risk factors associated with mental health issues in adolescents: a integrative review

FATORES DE RISCO ASSOCIADOS A PROBLEMAS DE SAÚDE MENTAL EM ADOLESCENTES: REVISÃO INTEGRATIVA

FACTORES DE RIESGO ASOCIADOS A PROBLEMAS DE SALUD MENTAL EN ADOLESCENTES: REVISIÓN INTEGRADORA

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#### **ABSTRACT**

Objective: To identify the risk factors associated with mental health issues in adolescents. Method: An integrative review was conducted in four databases with publications from 2007 to 2013. The terms Adolescent and Mental Health were used to search adequate articles as DeCs/MeSH bases. Results: Publications were found in different journals in different fields of knowledge and the quantitative research was the most frequent. The mental health issues were categorized as individual factors; drug related factors, school factors, family factors, social factors and STDs/Aids related factors. The most addressed category was individual factors, with 23 publications. Conclusion: The integrative review allowed to point important questions to be addressed in preventive actions by the health professional, including the nurse, to create a space that works with risk conditioning factors in adolescents for mental health aggravation.

## **DESCRIPTORS**

Adolescent Mental health Risk factors Review

### **RESUMO**

Obietivo: Identificar os fatores de risco associados a problemas de saúde mental de adolescentes. Método: Revisão integrativa realizada em quatro bases de dados, com publicações de 2007 a 2013. Os descritores Adolescente e Saúde Mental foram utilizados para a busca de artigos, adequados conforme as bases DeCS/MeSH. Resultados: Foram localizadas publicações em diferentes periódicos, em distintos campos do conhecimento, sendo as pesquisas quantitativas as mais frequentes. Os problemas em saúde mental foram categorizados em fatores individuais; fatores relacionados a drogas; fatores escolares; fatores familiares; fatores sociais; e fatores relacionados às DST/aids. A categoria mais abordada na literatura foram os fatores de risco relacionados ao próprio indivíduo, com 23 publicações. Conclusão: A revisão integrativa permitiu apontar questões importantes a serem abordadas em ações preventivas pelo profissional da saúde, inclusive o enfermeiro, para a criação de espaço que trabalhe com fatores condicionantes do risco de adolescentes aos agravos à saúde mental.

#### **DESCRITORES**

Adolescente Saúde mental Fatores de risco Revisão

#### **RESUMEN**

Obietivo: Identificar los factores de riesgo asociados a los problemas de salud mental en adolescentes. Método: Se realizó una revisión integradora de artículos publicados entre los años 2007 y 2013 en cuatro bases de datos. Para la búsqueda de artículos, se utilizaron los descriptores: Salud Mental v Adolescencia, conforme a las bases DeCS/MeSH. Resultados: Se encontraron publicaciones en diferentes revistas, en distintos campos de conocimiento, siendo más frecuentes las investigaciones cuantitativas. Los problemas en salud mental fueron categorizados en factores individuales, relacionados con las drogas, escolares, familiares, sociales y relacionados a las ITS/SIDA. La categoría más abordada en la literatura fue la que indicaba los factores de riesgo relacionados al propio individuo, con 23 publicaciones. Conclusión: La revisión integradora permitió identificar tópicos importantes a ser abordados en acciones preventivas por el profesional de la salud, incluyendo el de enfermería, para la creación de espacios que consideren los factores condicionantes de riesgo para problemas de salud mental en adolescentes.

## **DESCRIPTORES**

Adolescente Salud mental Factores de riesgo Revisión

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## INTRODUCTION

The World Health Organization defines adolescents as individuals with 10 to 19 years old. In reality, they are individuals that are in their second decade of life and face internal conflicts or situations that can compromise directly their mental health $^{(1)}$ .

Within the different definitions of mental health, it is assumed that the concept is wider than the absence of mental disorders. It is the ability to manage its own life and the emotions within a wide range of variations without losing the value of what is real and precious<sup>(2)</sup>.

Mental health issues in adolescents that do not receive treatment are associated to low levels of educational achievement, unemployment, use of drugs, risk behaviors, criminality, poor sexual and reproduction health, self-mutilation and inadequate personal care. These factors intensify the risk of morbidity and premature mortality. It implies high social and economic costs once it frequently evolves to higher social maladjustment and aggressive practices with rules violations<sup>(3)</sup>.

The risk factors for mental health issues are widely known and include sexual and physical abuse during childhood; family, school and community violence: poverty, social exclusion and educational disadvantage. Psychiatry disorders, parent's drug abuse and conjugal violence also increase the risks for adolescents as the exposition to social alterations and psychological distress that accompany armed conflicts, natural disasters and other humanitarian crises. The stigma driven to the adolescent with mental disorders and the human rights violations that are subjected to, amplifies the adverse consequences<sup>(3-5)</sup>.

Therefore, mental health issues in adolescents represent important public health challenges worldwide. Preventive measures can help to avoid the development and the risk factors progression faced by adolescents. The early intervention can reduce the risk factors gravity in its growth and development<sup>(4)</sup>.

Adolescents with known mental health needs have better social adaptation, better development at school and they are more likely to become adapted and productive adults than those adolescents whose needs are not answered. The mental health promotion, the prevention and the treatment of problems that arise during the individual construction process reduce the load upon health care systems<sup>(6-7)</sup>.

The mental health protection starts with the parents and family besides the school and community. To educate about mental health can help adolescents to increase their social abilities, amplify the solving problems capacity and intensify self-confidence which can ease the mental health issues and avoid violent and risk behaviors<sup>(4,7)</sup>.

In this context, the nursing role in mental health is extremely important. The nurse becomes the change agent when he/she breaks with the historical medical model practice that disciplines the subject and communities and do not listen or give value to the subject-citizen in its psychosocial needs<sup>(8)</sup>.

Health professionals that act in diverse contexts highlight the importance of knowledge about the topic to elaborate nursing intervention actions together with the adolescents. That justifies the concern in building a review of scientific studies published in this topic, to identify the produced investigations besides helping to build new future studies. From it, came the leading investigation question: What are the risk factors associated with mental health issues in adolescents?

This study aims to contribute with the planning and implementation of mental health care to attend the adolescent as a whole person with mind, body and spirit connected. The objective was to present an integrative literature review to identify the risk factors associated with mental health issues in adolescents.

#### **METHOD**

An integrative review of the risk factors associated with mental health issues in adolescents was conducted. Integrative review is the Evidence-Based Practice (EBP) instrument which allows the synthesis and analysis around the produced knowledge of an investigated theme. It is a research technique with methodological rigor that enhances the review findings' confidence and depth<sup>(9)</sup>.

To operationalize this review, the following steps were followed: to define the inclusion and exclusion criteria; to define the extracted information from the selected studies (to categorize the studies); to analyze and interpret the data; to assess the included studies in the integrative review and to present the review or knowledge synthesis.

The search was conducted in the following databases: Literatura Latino-Americana e do Caribe em Ciências da Saúde (LILACS); National Library of Medicine (MEDLINE), PubMed and in the repository Scientific Electronic Library Online (SciELO) that contains national and international publications from 2007 to 2013. The terms Mental Health and Adolescent from the Descritores em Ciências da Saúde/Medical Subject Headings (DeCS/MeSH), from the Biblioteca Virtual em Saúde (BVS) were used to find the studies.

The inclusion criteria were: full article, to be available for free in the electronic databases, with publications between 2007 and 2013, studies in Portuguese, Spanish or English. The exclusion criteria were: repeated articles in more than one database and those that did not fulfilled the study objective.

In the initial search using the terms Mental Health and Adolescent, 1.045 articles were identified. From those, 328 were from LILACS database, 453 were from MEDLINE, 150 from PubMed and 114 from the SciELO repository. From those, 772 articles did not meet the inclusion criteria, leaving 273 articles for analysis which 53 met the research question and were part of the present review. All were original articles and were analyzed with an instrument built for this matter. It contained the following items: title, journal name, year of publication, source location, the study design and research question.

The results were categorized in factors: individual factors, drugs related, school related, family related, social related and STD/Aids related. A synoptic table was built for its presentation. The information discussed was descriptive based on the information from the articles of the 44 journals that were part of this review.

### **RESULTS**

It was found publications in different journals from different scientific fields. From the studies that were part of this review, 60.4% (n=32) were stratified as A1,

A2 e B1 from the nursing Qualis. Regarding their country origin, 32% (n=17) were from United States; 28.3% (n=16) from Brazil, 11.3% (n=6) from England; ,5% (n=4) from Switzerland; 3.8% (n=2) from Spain, Colombia and Chile and 1.9% (n=1) from Peru, Jamaica, Ireland and Mexico. Regarding year of publication, 71.7% (n=38) were published between 2010 and 2013 and 28.3% (n=15) between 2007 and 2009. In relation to the study design, it was found that quantitative research was more frequent (Table 1).

**Table 1** – Study design from indexed studies at LILACS, *ME-DLINE, PubMed* and *SciELO* from 2007 to 2013, using the terms Mental Health and Adolescent – Fortaleza, CE, 2013

Study Design	N	%
Quantitative/ non-experimental(10-36)	27	51.0
Qualitative/other(37-48)	12	22.6
Quantitative/experimental(49-56)	8	15.1
Quantitative/quase-experimental(57-62)	6	11.3
Total	53	100

Table 2 describes the mental health issues faced by adolescents in accordance with the individual, drugs related, school related, family related, social related and STD/Aids related risk factors.

Table 2 – Risk factors distribution and association with mental health issues in adolescents between 2007 to 2013 – Fortaleza, CE, 2013

Risk factors	Identified issues	% of articles
Individual	Low self-esteem, lower wish to live, depression and anxiety <sup>(14-15,19,22-24,33-34,38,48,62)</sup> Attention-defict hyperactivity disorder, oppositional/conduct disorder somatic complaints <sup>(11-13,23,25,59,62)</sup> . Self-aggression or suicide attempt; suicidal ideation <sup>(10,13-14,25,56)</sup> Sadness/loneliness feelings <sup>(10,34,58)</sup> Insomnia, fatigue, forgetfulness, irritability, difficulty concentrating and feelings of worthlessness <sup>(11-12)</sup> Internalizing and externalizing behaviors <sup>(23,25)</sup> Aggression/ high levels of anger/interpersonal problems <sup>(27)</sup> Neurotic disorders <sup>(28)</sup> Abdominal obesity/ self-image <sup>(35)</sup> Need to feel pleasure <sup>(37)</sup>	43.4
Family related	Domestic violence with physical punishment experience <sup>(23-24,31,56)</sup> Difficulties with family relationships (parents and siblings) <sup>(13,31,61)</sup> Parents and friends influence to use drugs <sup>(14,56)</sup> Low emotional support at home during childhood <sup>(15,60)</sup> Alcohol abusive parents <sup>(47,54)</sup> Parents divorce 0, 19)to de tristeza; átricos. <sup>(19)</sup> Family financial problems <sup>(38)</sup> Parents with low well-being levels <sup>(52)</sup> Bad experience of family communication <sup>(52)</sup> Parents that live with or died of HIV/Aids <sup>(60)</sup>	26.4
Drugs related	Use of substances (tobacco, alcohol and other drugs) (11-12,14,16-17,23,25-26,28,32-33,36,38-39,42,44,46,50,55,59,62) Psychosocial dysfunction associated with use of drugs(21)	41.5
School related	Low performance or school drop-out (15,17,36,38,48) Bdo abandonoenho escolar.gais); ullying (18,36) Discrimination and racism experience that led to major emotional suffering (19,49) To belong to social-economic class D or E <sup>(12)</sup> University application processes as a stressful event (Vestibular) (30) Social pressure from partners and academic life (37)	22.6
Social	Suffered aggression and physical violence <sup>(13,23,29,36,41,48,58)</sup> Sexual abuse experience evolving life threatening and physical injuries <sup>(13,22,41,43,51,53)</sup> Gangs involvement <sup>(20,61)</sup> Social contact problems and rules violation <sup>(25,59)</sup> Legal problems, involvement with auto accidents and violent acts practice <sup>(59,61)</sup> To be not working or studying <sup>(12)</sup> High frequency of exposition to community violence, theft, assault and firearms use <sup>(13)</sup> To be institutionalized or living in a shelter <sup>(13)</sup> Urban poverty <sup>(47)</sup>	32.0
		Continued

Continuation...

Risk factors	Identified issues	% of articles
STD/Aids related	HIV vertical transmition (40,42,45-46) Grave sexual violence(13,29,51) HIV risk behaviors(20,43,46) Early sexual activity (42) Problems to adhere to antiretroviral treatment(42)	16.9

## **DISCUSSION**

Despite the mental health issues involve all age groups; the need for studies that investigate the risk factors in the adolescent population has been growing in the past years. The theme becomes relevant and also the importance to develop other studies with this same matter.

It is important to note that 77.4% (n=41) of the articles included presented quantitative method. These studies motivate discoveries that allow clinical practice validation and logic fundamentals to modify practical aspects<sup>(63)</sup>. However, studies with experimental and quasi-experimental design significantly contribute to the evidence-based practice establishment.

It is important to assess the study design once it identifies the optic from which the problem was analyzed. The problem nature determines the most adequate study design. For being inductive, the qualitative design considers the reality as something subjective that can be approached by multiple perspectives. In general, the quantitative design reflects a determinist philosophy based in positivist paradigms, reducing ideas or variable concepts. The knowledge in the quantitative field is a result of the observation, measurement and interpretation of the objective reality<sup>(64)</sup>.

The two approaches are additional and generate important knowledge for the clinical practice. Both designs require research experience, methodological robustness in the research development besides the knowledge for the scientific development<sup>(65)</sup>.

Another important point found by this review is that 66.0% (n=35) of the articles in this synthesis were published in well classified journals in the international databases, which demonstrates the quality of analyzed journals.

Regarding the publication year, the frequency and studies percentages, 71.7% (n=38) of the research about this theme were from the last five years. It is noted that nowadays this issue has been in focus which demonstrate the relevance of this discussion.

In relation to the country of publication, it was predominant the studies conducted by researchers linked to universities and health services from United States and Brazil as follow. The Brazilian production focusing adolescence mental health had a crescent growth starting at the investigated years, which indicates the scientific development in mental health questions in the country<sup>(66)</sup>.

The data described in Table 1 demonstrates that adolescence issues in an individual level as low self-esteem,

dissatisfaction with life, suicidal ideation, internalization and externalization behaviors, depression and anxiety associated with other psychosis are markers of mental health issues severity in adolescents.

Brazilian studies about risk factors for mental health issues with adolescence samples from diverse social levels<sup>(31,56)</sup> related that the issues at an individual level are important for the development of psychopathologies in this population.

In the most recent of those<sup>(56)</sup>, interpersonal issues, dissatisfaction with their body and the need to feel pleasure were identified as risk factors for emotional issues as internalization that are characterized by internal or emotional issues as anxiety and depression, and externalization that can be defined as difficulty to follow social rules or disruptive issues as aggression and rules violation.

The specialized literature indicates that depressed adolescents respond less to positive stimulus and protection factors that can harm their self-esteem and satisfaction with life. The probability of any mental health issue to arise is amplified in this group, especially when those factors arise with the first years of adolescence<sup>(67-68)</sup>.

In the family sphere, the issues linked to the domestic violence with physical punishment experience and psychological violence are risk factors that are mostly associated to mental health issues in adolescents. The studies related that adolescents who pass through difficulties in family relationships like arguments between the parents and siblings, parents divorce, alcohol abusive parents and low emotional support during childhood are more likely to develop mental health issues in comparison to those who experience good communication in the family sphere<sup>(31)</sup>.

The analyzed studies highlighted the domestic violence with physical punishment experience as the factor mostly associated with mental health issues in adolescents. It reveals extreme worry due to the nature of this type of violence, mainly because a big parcel of adolescents suffer from this kind of violence from significant people in their lives (31,56).

The bad communication within the family relationships can interfere in the psychological development processes causing low self-esteem, low self-determination and resilience inability. It leads to behavioral, emotional, social, cognitive and physical development risks in the adolescent<sup>(69-70)</sup>.

It is consensus that the family relationship independent of the adolescent cultural context has a fundamental

function in its psychic structuring. The family relationships containing affection and good communication are protection factors determinants to the adolescent mental health<sup>(31)</sup>.

A risk factor review associated with adolescent mental health issues<sup>(71)</sup> identified that severe physical marital violence suffered by the mother provokes harmful effects to the adolescent life. Those factors can lead to alcohol and drug consumption, mental suffering symptoms as anxiety, depression, intrusive thoughts, lack of concentration at school, sleep disorders and hyper vigilance<sup>(72-73)</sup>.

A Brazilian study signals that experiencing violence (as the victim or witness) and suffering mental health issues while growing and developing provokes harmful behaviors to social interaction and generates mental health problems to adolescents<sup>(56)</sup>.

It was found an association between mental health issues and alcohol or drugs consumption in international studies. The articles related that adolescents with at least one mental health issue have a higher prevalence for use of drugs, without specification, as a risk factor. Studies developed in England and in the United States based in clinical criteria to psychiatric problems diagnosis in adolescents showed the psychosocial dysfunction associated with use of drugs. The most present psychiatric disorders were anxiety, depression, conduct problems and hyperactivity or attention deficit<sup>(74-76)</sup>.

Besides the existence of national and international research confirming the association between mental health issues and the use of psychoactive substances, it is not a consensual the direction of this association. The literature shows that mental health issues determine the use of drugs<sup>(77)</sup> while other studies show the opposite relationship<sup>(78)</sup>. National cohort studies associate the adolescents psychopathologies to the use of substances (tobacco and alcohol)<sup>(76,79-80)</sup>. However, to determine the existence or not of an association between psychiatric problems in adolescents and drugs use, it is necessary randomized clinical trials that observe adolescents that do not present both diagnosis (use of drugs and psychiatric problems).

In relation to the school related risk factors including the low performance or school drop-out, a Brazilian study investigated the variables associates to the school failure/drop-out between adolescents. It showed that from the emotional stand point, the production of irrelevant answers during the execution of some tasks is related to a low quality school performance which leads the adolescent to manifest motor and vegetative anxiety signals. Those factors interfere in the interpersonal relationships establishment process within the adolescents and their peers and in the hierarchical interpersonal relationships, in the solution of conflicts and in following established rules by social conviviality among other situations<sup>(81)</sup>.

Another identified problem in the literature that shows the association between school related risk factors

and the development of mental health issues in adolescents is the *bullying*. American studies adolescent students showed that those victims of frequent episodes of sexual harassment or threat during their school years presented outcomes associated with relationship problems and hyperactivity<sup>(82)</sup>.

Adolescent victims of *bullying* are more likely to be shy and to have relationship difficulty their peers. Besides the association with hyperactivity, they can show a combination of anxiety, annoying behaviors with their mates, aggressive traces and sometimes low performance or school drop-out<sup>(83)</sup>. The specialized literature relates that the *bullying* in adolescents can be a factor to the development of anti-social personality disorders and other violent behaviors<sup>(84)</sup>.

International studies associate the emotional anguish between adolescents that experienced discrimination and racism for being part of low socioeconomic levels or for being racial minorities as predictor factors of mental health issues. This finding appears consistently in the literature and relates the negative impact of racial discrimination in the adolescent psychological health<sup>(85-88)</sup>.

The social pressure from the peers and academic life are also associated with adolescence mental health issues, agreeing with the national study results that investigated the use of strategies for adolescents to face problems (coping) during university selection processes and the possible repercussions the mental health of those individuals<sup>(30)</sup>. The adolescents who faced stressful events as university selection processes (vestibular) that did not used strategies to face those related more psychopathologies.

In the social sphere, an identified issue that deserves attention is the presence of sexual abuse with life threatening and physical aggression, aggression and suffered physical violence. Severe physical punishment was also a risk factor associated with mental health issues in adolescents in the studies that are part of the present review, as the findings from international epidemiological studies<sup>(56,89-95)</sup>.

Community violence, small thefts and assaults with or without firearms are severe and important risk factors to adolescence mental health issues<sup>(56,89,91,96-97)</sup>. The violence effects cause fear and excessive or inadequate aggressiveness that harm the adaptation trajectory to affective and emotional stimulus. These effects goes beyond mental health issues and can turn into physical problems during adulthood<sup>(56,91)</sup>.

In the analyzed studies the sexual violence was also a relevant issue, pointed as the factor that induce the adolescent to more risks. Even when the violence was not from a closer time and it is somehow *forgotten* for a while, at some point, it will be revived during experiences with their peers, in family and social relationships. It could

incentive the adolescent to act lacking conduct in a social context and to sexual practices without protection that increase the risk of unwanted pregnancy or STD/Aids.

## CONCLUSION

The present research identified diverse psychosocial factors associated to adolescence mental health issues, as individual issues, family related, school related and community related among others as predictors of health deterioration in this population. These factors should be considered in promotion programs proposals, prevention and mental health treatments in adolescents.

In synthesis, the analyzed scientific production provided evidence that in some situations that are typical from adolescence as depression, suicidal ideation and dissatisfaction with life. Besides that, precursor factors that lead to adolescence mental health issues were identified as psychosis, anxiety, conduct or eating disorders and toxic substances abuse. In relation to the risk factors with higher probability to adolescence mental health issues, physical, psychological and sexual violence suffered within the family environment constitutes the most severe factor and can lead to psychopathologies, especially in the initial phase of adolescence.

So, the health professional, especially the nurse, as of solid knowledge, should contribute to the community services effectiveness subsidized by guidelines, legislations and public politics in mental health. In scheduled visits to high risk families, the professional should stimulate the good intra familiar relationship aiming to identify by cultural and social changes that break the physical violence

nature. This action contributes to the prevention of all types of violence suffered by adolescents.

It is important to highlight that the adolescence mental health protection begins with the parents and the family, the school and the community. It is necessary that health and education professionals to be sensitized and prepared to adopt preventive and health promoter strategies that take in consideration the adolescents' biopsychosocial and cultural aspects.

Without doubts, the care developed by this approach can assume a multiple power. It can contribute for the family, school and society to increase the social abilities, to improve the solving problems ability and to intensify the adolescence self-confidence. The care can diminish the mental health issues in this age group.

It is necessary the commitment from the nurse, the family, the school and the community to end the traditional knowledge and practices focused on the illness and its effects and to adopt a broad action with a compromised care based in an integral assistance. The individual, family and community psychosocial and spiritual aspects should also be considered as part of an integral care for the adolescence phase to be healthy and without risks.

The prevention practices of adolescent health problems independently of the practice scenario should be broken from the biomedical and technicist vision that do not consider the adolescent integrality as a person being built. For this reason, the actions in mental health should be considered transdisciplinary because the psychic and emotional issues during adolescence can affect the following phases of life.

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