



# Methods for Prevention of Sexual Abuse among Adolescents: A Systematic Review

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#### Abstract

**Background:** One of the serious health concerns is rape to adolescents. It is caused by unwanted behaviors through threats, force and physical pressure. The purpose of this study was to review rape in adolescents and methods for its prevention.

Methods: This systematic review study was conducted from 2000 to 2017 in the databases of PubMed, Google Scholar, Web of Science, and Scopus. The CONSORT was used to assess interventional studies. The evaluation of observational studies was performed using the STROBE tool by two researchers independently. Inclusion criteria were studies published from 2000 to 2017, in English languages, and on the samples of 10-20 yr old. Overall, 202 articles published from 2000 to 2017 in English languages were retrieved. Of them, 154 articles were excluded due to lack of inclusion criteria and 38 articles were deleted due to lack of quality And non-relevance. Finally, 10 articles were selected.

**Results:** In the review of interventional studies, the prevalence of sexual harassment and sexual assault by the means of adolescents' empowerment and education of self-defense techniques was significantly lower in the intervention group than the control group. In other non-interventional studies, there was a statistically significant relationship between the high level of knowledge and attitude of adolescents and the reduction of risk factors and sexual assault.

**Conclusion:** Promotion of awareness and attitudes through evidence-based interventions can prevent sexual abuse in adolescents. Appropriate education programs in schools and adolescent centers to adolescent students and their caregivers can promote healthy relationships and prevent sexual harassment.

Keywords: Rape; Child; Sexual abuse; Adolescent

#### Introduction

The Child Sexual Abuse (CSA) has been defined differently by various studies. In all of these defi-

nitions, the scope of violence and its severity are different. In all of them the ultimate element is

the victim's dissatisfaction. All victims consider rape as an invasive experience (1).

The prevalence of rape in Canada and Europe is 10%-20% (for women) (2). Similar rates in America (El Salvador and America) and Asia (China, New Zealand and Singapore) have been reported (3). Finkelhor's study of the highest prevalence was reported to be in European countries as well as in Australia, Costa Rica and the Dominican Republic, New Zealand, South Africa and the United States (2). The United Kingdom, Israel and Turkey were also added to this list. Therefore, child sexual abuse remains an international problem (3). Unfortunately, due to the cultural, historical, legal and religious restrictions, sexual intercourse in Iran is considered taboo (4). Therefore, research on sexual issues faces many problems (5).

Sexual abuse is a major public health issue worldwide. The consequences of sexual assault are often severe including physical and psychological harm, sexually transmitted infections including HIV, social isolation and unwanted pregnancy (6–9). Sexual violence occurs throughout the world and one out of every four women is exposed to be sexually assaulted by an intimate friend (10).

Known risk factors for sexual assault include female gender, non-compliance with an adult, poverty, physical and cognitive impairment, and past victimization of sexual assault. Additionally, adolescents in prison and adolescents with mental illnesses or drug or alcohol dependence are at greater risk (11–13). Physical, cognitive, and emotional immaturity in adolescents can lead to more dangers and severe and harmful sexual and reproductive complications than adults. Adolescence is a life period in which performance skills are not fully developed and it is often more difficult to predict the outcomes of high-risk behaviors (14). Moreover, gay, lesbian or bisexual people are more likely to be sexually abused (15).

Sexual abuse in adolescents is a serious health concern and is caused by unwanted behaviors through physical intimidation and physical pressure (16). One-third of adolescent girls reported that their first sexual experience was unintention-

al and sexual violence had a significant impact on their physical and mental health. The result of physical injuries was associated with an increased risk of sexually transmitted diseases and reproductive health, with both short-term and longterm consequences (10).

The use of preventive methods has led to a reduction in sexual assault in recent years, due to the increased use of preventive interventions (17). High quality and focus in the CSA prevention programs can reduce the risk of sexual assault (18–20). Comprehensive programs are considered to be used in many intervening techniques (21).

Sexual assault prevention programs not only consider individual factors but also include social and community factors (21-28). In the United States those women and children that received education in self-empowerment and self-defense, had more security and control on their life and were less likely to experience sexual assault (29-31).

The existence of death along with sexual assault indicates poverty and the existence of shortcomings in healthcare systems. Research can help with planning and improving quality and policies and reducing risk of sexual assaults (32). Preventive efforts and assessment of the impact of these efforts, including the impact of educational interventions help access essential information to reduce the risk of sexual assault (33). Providing special services to adolescents, especially adolescent girls is different from adults due to their higher risky behaviors, the long-term and serious effects of high-risk behaviors such as infertility on them, early sexual experiences and higher learning levels. Therefore, such services can help adolescents make appropriate decisions regarding reproductive health issues to expedite the achievement of the millennium development goals (34). The purpose of this study was to assess sexual rape in adolescents and methods for its prevention.

#### **Methods**

In this review study, articles with the designs of interventional, qualitative, descriptive, prospective, cross-sectional and exploratory longitudinal were retrieved from the databases of PubMed, Google Scholar, Web of Science, and Scopus. Search keywords were prevention child abuse program-prevent-rape-sexual violence-sexual assault-sexual abuse-adolescence-adolescent-teenage, connected using OR and AND. Articles published from 2000-2017, in English languages in international and domestic journals with access to their full text were selected. Exclusion criteria were no access to their full text, unclear sample size, unclear intervention, and on individuals with higher than the adolescent age (10-20 yr).

The quality of the articles were assessed using the CONSORT and STROBE checklists for interventional studies and observational studies, re-

spectively. Moreover, qualitative studies were assessed using CASP tool.

Two researchers performed the search independently. Inclusion and exclusion criteria were used to assess the title and abstract of articles. The full text of all articles that met inclusion criteria were read and results were extracted.

#### Results

Overall, 202 articles published from 2000 to 2017 in English languages were retrieved. Of them, 154 articles were excluded due to lack of inclusion criteria and 38 articles were deleted due to lack of quality And non-relevance. Finally, 10 articles were selected (Fig.1).

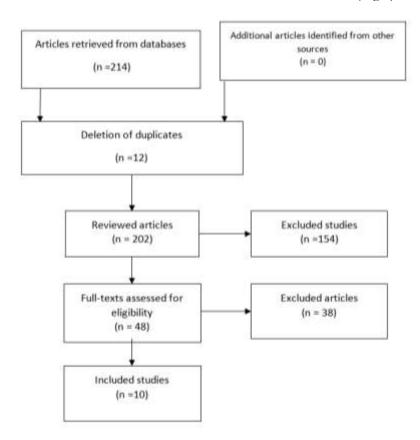


Fig. 1: Process of the study

The use of preventive methods has led to a reduction in assaults in recent years, due to increased preventive interventions. In Kenya, a study was conducted with the aim of behavioral

assessment after an intervention based on the prevention of high-risk sexual behaviors in the intervention and educational groups consisting of 5686 students aged 12 -14 yr. The intervention

for girls included an IMPower program that helped girls to defend themselves at high-risk situations, and the use of facilitation discussions, verbal and physical skills, and physical skills to defend themselves. For boys, the intervention was discussions on equity and gender equality, having a positive mood, examining the negative role of gender, skill and courage to use verbal interventions in the face of assault. They were held in 6 sessions of 2 h in three months, and finally, the findings indicated a statistically significant difference between the intervention and control groups in reducing sexual assaults (P=0.030). In the intervention group, it was reduced 6.3 times and the self-efficacy score increased (P=0.000) (35).

In the United States, 236 adolescents participated with the aim of the assessment of risk and protective factors of adolescents in Latin America and Africa. Being drunk and having sexual relationships, and having friends and siblings with high-risk behaviors increased the assault risks. Mothers with supervisory and conservative sexual attitudes were important in preventing sexual assault. Having siblings with high-risk behaviors

increased the likelihood of sexual assault (P<0.050) and the risk in girls was higher than boys (P<0.050). The probability of being victimized in boy in their early adulthood and those who had older siblings were higher (P<0.050). There was a significant relationship between alcohol and sexual rape (P<0.010) (36).

A quasi-experimental study aiming at the use of a pedagogical education model to the prevention of school-based and cultural-based sexual violence in Asian and Atlantic students in Hawaii on 136 adolescents. They were assigned into two in a non-random method. The curriculum included learning four main issues of sexual violence, sexual harassment, exposure to sexual violence, sexual contact, sexual assault, sexual abuse, and learning the appropriate context of the relationship based on culture. Another aspect of teaching was storytelling by five sexually abused adolescents. Prior to education, a copy of the education material was given to parents. Girls received more knowledge about the content of sexual violence than boys in the intervention group (*P*<0.001) (37) (Tables 1, 2)

Table 1: Types of interventional studies in the prevention of sexual abuse in adolescents

Authors	Aim	Country	Sampling/ Intervention	Results	P
Baiocchi et al. 2017 (35)	Behavioral assessment after the educational interventions based on the prevention of high-risk sexual behaviors in school children	Kenya	Prevention of high-risk sexual behaviors in 5686 students aged 12 to 14 yr from 32 schools randomly assigned to intervention and control groups	Less sexual assult and higher self-esteem	P = 0.000
Sarnquist et al. 2014 (38)	The effectiveness of girls' empowerment and intervention in self-defense to reduce the incidence of rape and harassment	Kenya	1976 adolescents aged 13-20 yr in 31 schools (convenient sampling) in two intervention and standard care groups	Less sexual rape in the interven- tion group	P = 0.006
Baker et al. 2014 (37)	Use an educational model to prevent sexual violence	USA	136 students aged 12 to 18 yr in two intervention and control groups	Less sexual rape	<i>P</i> <0.001
Barron et al. 2013 (39)	Evaluation of a sexual assault program based on school-based education methods	UK	185 students aged 12 to 14 yr in grades 6-8 randomly divided into intervention and control groups	Decreased sexual assault in grade 6 than grades 7 and 8	P <0.010
Taylor et al. 2013 (40)	Evaluation of an intervention program for the prevention of sexual violence in adolescent visits	USA	2500 students aged 12-13 yr old. Classes were randomly assigned to control and intervention groups	Reduction of sexual harass- ment in meeting appointments	P <0.010
Foshee et al. 2004 (41)	Evaluating the effects of 1 year and 4 year education programs to reduce the incidence of sexual violence in adolescents	USA, North Carolina	460 students aged 12 to 18 yr from 10 schools, that were randomly assigned to two educational and control groups	Reducing sexual rape in the edu- cation group	P = 0.040

Table 2: The assessment of risk factors for sexual rape in adolescents

Authors	Aim	Country	Methods	Conclusion	P
East et al. 2015 (36)	Risk and protective factors in adolescents	USA	A longitudinal study, with 236 adolescents were an average age of 18.4 yr	A advice to parents to control and care for adolescents	<0.050
Ahmadi et al. 2013 (42)	Creating a template for the relationship between parental supervision and affiliation with deviant peers as the predictive of high-risk sexual behaviors	Iran	Cross-sectional study on 1266 adolescents aged 14 to 18 yr	It reduces the number of rape incidents	<0.001
Breiding et al. 2011 (43)	The purpose is identifying risk factors of sexual violence	Swaziland	Retrospective descriptive, 1244 adolescents10 to 20 yr	Inappropriate environment for subject them to sexual assault, and appropriate edu- cation and communication have a protective effect on it.	
Daigneault et al. 2009 (44)	Three goals 1. To assess the prevalence of CSA physical and psychological and IPV violence 2. Assess CSA predictors and examine the risk of intimate partner violence	Canada	Cross-sectional study on 16993 adolescents aged 15 yr and more	Outbreak of CSA and high alcohol consump- tion	= 0.001

#### **Discussion**

Increasing knowledge, attitudes and skills and paying attention to high-quality interventions at prevention levels by careers, parents and adolescents can increase adolescents' ability and skills to get engaged in sexual assault. Educational interventions based on age, gender, and cultural characteristics of adolescents and the continual repetition of programs over time can reduce the incidence of rape and increase their ability to defend themselves and reduce the short-term and long-term consequences of assault. Policymakers should constantly strive to improve their plans (26,31,35,38,41).

Identification of risk factors is one of the most important aspects of the prevention of sexual rape in adolescents. The use of alcohol and drugs, posters and online provocative sources were risk factors for rape in adolescents and suggested that preventive education is used (45). Several studies have identified the use of alcohol by adolescents as an important risk factor for high-risk behaviors and rape (36,44,45). Other

risk factors for rape in adolescents included rape in childhood and psychosocial injuries to adolescents. Special care and attention to this group of adolescents undergoing CSA is very important for prevention (44). Familiarity of adolescents with conditions and high-risk individuals and their disclosure in case of exposure is one of the important factors for the prevention of rape in adolescents (39).

Taylor et al., used educational programs based on the theory of rational action and attitude towards perceived norms, and changed the attitudes of adolescents to be able to regulate their behaviors in appointments with intimate friends. These educational interventions created a change in behaviors and adoption of appropriate behaviors in adolescents, which reduced harassment and sexual assaults in meeting visits with intimate friends (40). Moreover, a specific education program was used for raising adolescents' awareness and attitudes regarding high-risk sexual behaviours, and thereby contributed to the strategy to reduce risk factors for sexual rape and high-risk behaviours (46).

Raising awareness and attitudes of healthcare workers was an important part of the program for the prevention of rape (47). The prevalence of sexual assault was reduced by educating health care providers to identify risk factors for parents and children in-home visits (48). The role of health care providers and teachers is very important in studies that provide interventions for the prevention of school-based sexually transmitted diseases (35,39). Moreover, the role of health care providers in the second and third prevention levels in reducing the complications of sexual assault in adolescents is important (47).

Having a deviant sibling and sister was one of the causes of rape, and highlighted the role of parents and conservative sexual attitudes in controlling children (36). The proper relationship between parents and female children and adolescents' education had a great influence on reducing high-risk rape (43).

Sarnquist et al. considered the empowerment of adolescent girls, and found that adolescent girls who could defend themselves would be less likely to be sexually abused (38). Baiocchi et al. considered educational interventions based on aggressive behaviors and through empowering girls their increased self-efficacy and reduced rape incidents (35). Self-defense education would reduce rape in adolescents (31). Interventions in boys included dialogue on equality and gender equality, positive attitudes and positive role-play (35) and reduced alcohol consumption to reduce the risk of high-risk conditions (36,44,45).

In a study, continuous educational interventions and its repetition up to 4 years had a lasting effect on the reduction of rape in adolescents, and the use of continuous and repetitive programs was one of the suitable strategies for the survival of educational interventions (41). To reduce sexual assault, the best solution is to prevent the primary incidence of rape through the simultaneous collaboration of parents and healthcare providers and teachers, with conservative sexual monitoring. Health careers providers and teachers play a very important role in adolescents' education. Increasing their awareness and changing their

attitudes and abilities to defend themselves are required (38,43,49,50).

#### Conclusion

Using interventional strategies and education in adolescents can increase their awareness and attitude. Since promotion of awareness and attitudes through evidence-based and planned interventions can prevent sexual abuse in adolescents, appropriate education programs by schools and adolescents 'attendance centers for adolescent students and their care givers are needed to promote healthy relationships and prevent sexual harassment. Educational programs should focus on educational interventions to empower adolescents and change their behaviors and self-defense abilities. They can take advantage of three prevention levels and enhance their health behaviors in adolescents. The implementation of educational programs in schools due to easy access to adolescents and roletaking by them is cost-effective.

#### **Ethical considerations**

Ethical issues (Including plagiarism, informed consent, misconduct, data fabrication and/or falsification, double publication and/or submission, redundancy, etc.) have been completely observed by the authors.

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### Conflict of interest

The authors declare that there is no conflict of interest.

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