



The Effect of Sexual Education of Adolescent Girls Through Problem-Solving on Their Mental Health

Minoo Jananeh¹, Seyed Sajad Hoseini² and Keivan Kakabraee^{3,*}

¹Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

²Faculty of Paramedical Sciences, Kermanshah Medical Sciences University, Kermanshah, Iran

³Associate Professor, Department of Psychology, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran

*Corresponding author: Associate Professor, Department of Psychology, Kermanshah Branch, Islamic Azad University, Kermanshah, Iran. Email: keivan@iauksh.ac.ir

Received 2021 October 17; Revised 2022 October 23; Accepted 2022 November 23.

Abstract

Background: Adolescent puberty issues can be solved by applying a practical problem-solving approach.

Objectives: This study aimed to evaluate the sexual education of adolescent girls through a problem-solving training approach and its effect on their mental health.

Methods: The present study used the random sampling method to select 30 students (15 experimental and 15 control) based on a pre-test and post-test design with a control group. The data collection tool was Goldberg's abbreviated mental health questionnaire. The experimental group was educated in a problem-solving approach for treating sexual problems in 10 sessions, and the control group received no intervention.

Results: The problem-based sexual education training significantly affected mental health in adolescent girls. In addition, the LSD post hoc test differed significantly between pre-test and follow-up tests.

Conclusions: Based on the results, the problem-based sexual education could increase young girls' and their parents' awareness of the developmental period and the characteristics of puberty. This method helped deal with emotional states and sexual issues related to puberty. Therefore, practitioners are recommended to provide sexual education for adolescents and their families at a low cost and with easy understanding.

Keywords: Mental Health, Sexual Issues, Adolescence, Emotion, Education

1. Background

Adolescence is one of the essential and valuable periods among the different periods of human life. This period of life occurs between 10 and 16 years of age, according to the World Health Organization. The transitional stage from childhood to adulthood is the beginning of physical, psychological, and social changes and transformations, affecting various functions in adulthood (1). The adolescent naturally becomes mature during this period and finds his/her identity as an individual and independent from the family (2). Adolescence is associated with extensive cognitive and behavioral changes, and the mental health of this group of people is crucial (3). Since childhood and adolescence conditions determine the health or illness of future generations, studying mental health and children/adolescents' growth can help optimal fertility in adulthood (4).

A series of physical, psychological, and social changes occur in adolescents, which affect their whole life in adult-

hood and the elderly (5). Most serious issues such as failed marriages, unwanted pregnancies, infertility, sexually transmitted diseases, mortality, disabilities, and many physical, mental, and social problems are rooted in puberty. Both males and females experience mental health issues associated with puberty. There are many complicated questions for adolescents about physical changes, anatomy, menstruation, pregnancy, sexual, emotional, and psychological conflicts (6). Therefore, puberty health involves maintaining and promoting an individual's physical, mental, and emotional well-being during this time period, which requires specialized education. Education on health-related habits has an essential effect on the quality of life in adulthood (7).

Sexual education is a set of educational measures and methods, including teaching protocols, guidelines, principles, and applied science related to sexual issues. Education aims to protect the natural reproduction system and develop sexual and social personality. Sexual education focuses on couples' intercourse and includes specialized

training in all factors related to sex, gender, puberty (physiological and psychological changes), abstinence, morality, self-control, and intimacy (8). Familiarity with the stages of sexual development and appropriate dealing with the psychological and biological needs of the children and adolescents can promote their sexual health in later life (9).

A good knowledge of the natural process of puberty and possible issues is necessary for a successful transition to adulthood and gaining fertility potential (10). Identity discovery, independence, denial of childhood attachments, and intellectual unsteadiness are some of the characteristics of puberty (2, 11). Everyone needs a series of educational activities, which acquire information, motivation, and behavioral skills to promote sexual health and fertility (12).

However, sexual education can be provided with different approaches. Problem-based education is recommended in sexual education as people who can solve problems can find logical solutions to different issues and take effective measures to remove obstacles (13). Problem-solving is the coordination of feelings, behavior, and thinking effectively and constructively in solving individual and interpersonal problems. Sexual issues and problems in puberty have a negative impact on mental health especially in females and cause intellectual, cultural, and social challenges, but a practical approach to problem-solving can address this challenge. Therefore, the use of this approach to alert families and society about the sexual issues of adolescents is mind-opening (14).

Vanderberg et al. (15) stated that both formal sexual and parents-guided education delay or reverse sexual misbehaviors in adolescents, reduce haphazard intercourses, and increase the rate of using protection. Hsu et al. (16) studied the impact of sexual empowerment on sexual decision-making among adolescent girls and found that an empowerment-based training program leads to higher self-control, more preventive behaviors, and promoted sexual health. Allen et al. (17) examined the effect of the parent-child relationship on child sexual disorders and showed that parental support and educational interventions could successfully address sexual concerns among children with a history of inappropriate sexual behaviors. Alimordi and Simbar (18) evaluated the challenges of puberty health education for adolescent girls in Iran and reported that the most severe challenges related to adolescent girls' puberty health education are the lack of awareness, attitude, functions, and knowledge. In addition, there are poor resources regarding adolescents (mothers, peers, health educators), lack of agreement on the right time to start teaching different aspects of puberty health, lack of appropriate and comprehensive puberty educational content for adolescent girls, and failure to use

appropriate methods of health education. Abedini et al. (19) investigated mothers' experiences of teaching sexuality to adolescent girls, emphasizing cultural factors. The results showed that local cultures still lack of focus on some aspects of sexual education despite all the cultural developments regarding sexual education in recent years. Afshary et al. (20) studied the educational needs of 11 - 14-year-old girls regarding sexual health in their research. The results showed that girls' knowledge about puberty, menstruation, and reproduction was deficient, and there was a significant relationship between the level of maternal education and need for information on puberty, menstruation, and reproduction.

Accordingly, the problem-solving approach had a positive and constructive effect on human mental components. Applying a practical problem-solving approach might reduce the risks and problems of puberty, and families should address this issue.

2. Objectives

This study aimed to evaluate the effect of problem-based sexual education on mental health and puberty in adolescent girls of Kermanshah, Iran. Given the above points and the lack of comprehensive research in problem-based sexual education, this study seeks to evaluate the effect of problem-based sexual education on mental health in adolescent girls.

3. Methods

3.1. Design

This practical study used a pre-test and post-test design with a control group based on a quasi-experimental method. The population included all high school female students of public schools of Kermanshah, Iran, in 2018 - 19. The sampling group was selected in coordination with the General Department of Education of Kermanshah, and work began as soon as the research permit was received. The sample group was selected using a random sampling method from Kermanshah's education districts and public schools.

3.2. Participants

A total of 30 female students were selected with an average age of 14.2 ± 4.8 years, who were randomly assigned to experimental ($n = 15$) and control ($n = 15$) groups. The inclusion criteria were the age of 10 to 16 years old and being a high school student and voluntary willingness to participate in all sessions and accompany the research. The exclusion criteria were having a medical condition, which forces

the person to seek immediate treatment, absence in more than two sessions, and unwillingness of the student, parents, and teachers to actively participate in the sessions. In this study, participants were assured of commitment and confidentiality.

3.3. Research Tools

In this study, the General Health Questionnaire (GHQ-12), which is an abbreviated version of the Goldberg 60-item Questionnaire, was used to assess the mental health of adolescent girls. The questionnaire consisted of 12 questions, and participants were asked to choose the correct answer on a 4-point Likert scale. The test is graded either on a Likert scale (0-1-2-3) with a minimum score of zero and a maximum score of 36 points (0-0-1-1), or on a scale from 0 to 1 with a minimum score of zero and a maximum score of 12. In addition, the internal stability of the instrument was evaluated using Cronbach's alpha coefficient to evaluate the reliability of the questionnaire as much as 87.

3.4. Procedure

Data were collected in two stages, before and after training, according to the research design. For this purpose, the research tool was completed by both experimental and control groups before the training of the samples. Then, the problem-based sexual education training was completed in 10 one-hour sessions and after both experimental and control groups (Table 1).

3.5. Statistical Analysis

The data were analyzed using descriptive statistical methods (e.g., mean and standard deviation) and inferential statistical methods (e.g., analysis of covariance). The data were analyzed using SPSS software version 26.

4. Results

The data concerning the age and education of parents were first examined, followed by descriptive indices of the leading research variables for both experimental and control groups examined.

Table 2 shows the age distribution of research participants in the experimental and control groups. Participants aged 14 years have the highest frequency in the experimental group, with 11 people and 73.3%. Among control group participants, 11 people (73.3%) have the highest frequency.

Table 3 indicates the descriptive indicators of the experimental group in two stages of pre-test and post-test. In the pre-test stage, the total mental health score is 14.00 ± 8.16 , and in the post-test stage, the total mental health score was 11.46 ± 4.68 .

Moreover, in both pre-test and post-test stages, the total mental health score of the control group was 12.53 ± 8.80 . In the post-test stage, the total mental health score was 13.73 ± 10.18 .

Table 4 demonstrates the effects of tests on subjects by comparing the mean post-test scores of the variable mental health in the control and experimental groups. As shown in Table 4, the F-test statistic for the group agent is 5.10, indicating that there is a significant difference between the post-test scores of experimental and control groups. Therefore, the null and research hypotheses based on the fact that problem-based sexual education effectively promotes adolescent mental health are accepted. The effect of problem-based sexual education training on promoting adolescent mental health in the mental health variable was 16%.

A repeated measurement test was used to investigate the effect of problem-based sexual education on adolescents' mental health promotion. Three experimental conditions showed significant differences in adolescents' mental health (pre-test, post-test, and follow-up). Therefore, the LSD post hoc test results showed a significant difference between pre-test and post-test, pre-test and follow-up, and post-test and follow-up stage (Table 5).

5. Discussion

The purpose of this study was to determine whether problem-based sexual education promotes adolescent mental health. A univariate analysis of covariance was used to test this hypothesis, and significant results were obtained. Therefore, the results of this research were consistent with those of Hsu et al. (16), Allen et al. (17), Abedini et al. (19), and Rashid and Nazarlou (21). Therefore, clear education about the process of defining problem improves the quantity and quality of solutions, which lead to positive orientation and rational style for reducing negative behaviors and increasing behaviors such as cooperation and empathy (22). Adolescent mental health can be determined by paying enough attention to and reflecting on the above point. Problem-solving is a skill, and a person can obtain the necessary information about a problem in various dimensions and in a practical way to avoid harmful behaviors.

Problem-based sexual education approach can lead the adolescent to resolve his/her problem in two appropriate aspects (23). The first aspect is changing the situation to a better position so that the adolescents initially are not aware of their problems, but achieve the necessary information. As a result, the discomfort caused by the situation will be reduced by negative emotions due to lack of necessary information. Thus, wrong decisions are reduced, and

Table 1. Summary of Problem-Based Sexual Education Training Sessions

Session	Objective	Content
1	Familiarity with adolescence and the importance of puberty	Change, Curiosities, Talent and Ability, Social Relationships, Sense of Belonging, Orientation and Planning, Need for Spirituality and Religion, Need for Success and Self-Esteem
2	Describing mental health	Levels of mental health, Adolescent mental comorbid disorders, At-risk groups, Complications of mental disorders, Invalid sources of information
3	Describing the problem-solving steps	Understanding the feelings of oneself and others, understanding the motivation of others, finding alternative solutions, considering the consequences and results of work
4	Learning steps and problem-solving challenges	Accepting and dealing with the problem, recognizing the problem, determining solutions, implementing solutions, evaluating results, problem solving challenges
5	Description of sexual education and education goals	Importance and necessity of sexual education, sexual education goals, problems of dysfunctional styles, appropriate behavioral strategies
6	Description of the anatomy of the genitals and its changes during puberty	Physical and physical changes, hormonal changes, effects of factors such as genetics and environment, characteristics of sexual organs in the primary and secondary changes of puberty
7	Familiarity with the emotional, psychological and mood changes of puberty	The effects of hormonal changes on the psyche and mind, mood swings, sleep, nutrition, exercise, proper relationships with family and peers
8	Describing the cognitive and social changes of puberty, sexual identity, sexual role and gender	The effects of puberty on interpersonal and social relationships, homosexual interest, self-image, self-esteem, love, freedom, justice
9	Familiarity with sexual abuse and diseases and diseases of the genital tract	Physical and psychological abuse and sexual harassment, diseases of the genital tract, complications of unprotected intercourse, prevention and control
10	The overall consequences of puberty on adolescent mental health and attitudes and values and beliefs and conclusion	The role of puberty and transition from the abstract stage on religious, religious and social attitudes, beliefs and values, the consequences of puberty on mental health and the absence of mental disorders and the formation of identity

Table 2. The Age Distribution of Research Participants in Experimental and Control Groups

Age group	No. (%)
13	
Experimental	1 (6.7)
Control	4 (26.7)
14	
Experimental	11 (73.3)
Control	11 (73.3)
15	
Experimental	3 (20.0)
Control	0 (0)
Total	
Experimental	15 (100.0)
Control	15 (100.0)

happiness and satisfaction are replaced. The second aspect can be explained about adolescent mental health.

Mental health is concerned with how a person perceives and feels about the world, his or her place of residence, and the people in it. The purpose of sexuality education is to provide reassurance to concerns and address different sexual needs based on gender-based responses. For example, gender differences in education or dealing with sexual issues are reflected by choosing the appropriate method (23). Adolescents with received sexual education establish better relationships with others and better understand the issues in a supportive environment. Informing adolescents at critical stages of life prevents some problems and tensions in the family environment and gen-

erally affects the family's mental health.

Ferguson (24) pointed out that one of the hallmarks of mental health is the rational resolution of instinctual conflicts and personal desires. Adolescent youngster can boost their mental health by solving sensitive matters appropriately and logically when they are equipped with problem-solving skills.

5.1. Conclusion

Based on the results, problem-based sexual education promoted adolescent mental health. In addition, this training could increase the parents' awareness of the developmental period and puberty characteristics to understand their children's behaviors. Parents could also deal with their children's puberty-related behaviors with this knowledge. Furthermore, problem-based sexual education could help parents resolve adolescence issues and prevent emotional behaviors that can worsen the situation.

Therefore, practitioners are recommended to provide conditions for sexual education to teach adolescents and their families at a low cost and with easy understanding. A problem-based sexual education protocol should be developed for different age groups (children, adolescents, young people, and adults). Kindergartners and primary school students should be trained from a young age according to their physical and cognitive development. Content in this area should be compiled based on local culture, religion, and customs. The present study was conducted on 10- to 16-year students of Kermanshah. Future studies

Table 3. Descriptive Indicators of the Experimental Group in Three Stages of Pre-test, Post-test, and Follow-up

Components	Pre-test	Post-test	Follow-up
Mental health	14.00 ± 8.19	11.46 ± 4.68	12.60 ± 8.09
Awareness of the stages of puberty	15.80 ± 2.67	18.93 ± 2.21	18.40 ± 3.24
Awareness of the physical changes of puberty	23.46 ± 6.06	34.86 ± 4.30	32.60 ± 6.32
Awareness of the psychological changes of puberty	17.00 ± 4.98	21.26 ± 4.44	19.53 ± 5.19
Awareness of cognitive changes in puberty	23.20 ± 5.45	28.26 ± 4.00	26.13 ± 8.35
Awareness of the consequences of puberty	22.00 ± 5.29	22.53 ± 4.20	22.73 ± 4.77
Total puberty health score	101.46 ± 17.38	125.86 ± 11.81	119.40 ± 21.37

Table 4. The Effects Between Subjects to Compare the Mean Post-test Scores of Mental Health in Control and Experimental Groups

Source of Changes	Sum of Squares	Degree of Freedom	Mean of Squares	F	Significance	Effect Size
Related model	1282.44	3	427.48	21.50	0.000	0.71
Width	145.06	1	145.06	7.29	0.001	0.21
group	101.46	1	101.46	5.10	0.000	0.16
Pre-test	863.24	1	863.24	43.43	0.000	0.62
Group * Pre-test	300.89	1	300.89	15.13	0.001	0.36
Error	516.76	26	19.87			
Total	6562.00	30				
Related sum	1799.20	29				

Table 5. LSD Post Hoc Test Results

Problem Solving (I) and Problem Solving (J)	Differences of Means (I-J)	Standard Deviation Error	Significance
Pre-test			
Post-test	0.66	1.13	0.03
Follow-up	0.80	0.99	0.00
Post-test			
Pre-test	0.66	1.13	0.03
Follow-up	0.13	0.78	0.00
Follow-up			
Pre-test	0.80	0.99	0.00
Post-test	0.13	0.78	0.00

should focus on different age groups and gender with various cultural backgrounds.

Footnotes

Authors' Contribution: Study concept and design, Mino Jananeh and Sajad Hoseini; Analysis and interpretation of data, Keivan Kakabraee; Drafting of the manuscript, Sajad Hoseini; Critical revision of the manuscript for important intellectual content, Mino Jananeh; Statistical analysis, Keivan Kakabraee.

Conflict of Interests: Authors confirm that there are no relevant financial or non-financial competing interests to this study.

Data Reproducibility: The data presented in this study are openly available in one of the repositories or will be available on request from the corresponding author by this journal representative at any time during submission or after publication. Otherwise, all consequences of possible withdrawal or future retraction will be with the corresponding author.

Ethical Approval: This study is approved by ethical com-

mittee of Iran Medical Sciences University, Tehran, Iran.

Funding/Support: The authors received no fund or financial support for this study (self-funding).

Informed Consent: The informed consent forms were obtained from all participants.

References

- Özdemir A, Utkualp N, Palloş A. Physical and psychosocial effects of the changes in adolescence period. *Int J Caring Sci.* 2016;**9**(2):717-23.
- Guerrero AB, Bustamante KKK. Adolescents' perceptions of education according to personal identity. *Revista Española de Pedagogía.* 2017;**75**(267):181-98.
- Blakemore SJ. Adolescence and mental health. *Lancet.* 2019;**393**(10185):2030-1. [PubMed ID: [31106741](https://doi.org/10.1016/s0140-6736(19)31013-x)]. [https://doi.org/10.1016/s0140-6736\(19\)31013-x](https://doi.org/10.1016/s0140-6736(19)31013-x).
- Leve LD, Neiderhiser JM, Ganiban JM, Natsuaki MN, Shaw DS, Reiss D. The Early Growth and Development Study: A Dual-Family Adoption Study from Birth Through Adolescence. *Twin Res Hum Genet.* 2019;**22**(6):716-27. [PubMed ID: [31526412](https://doi.org/10.1017/thg.2019.66)]. [PubMed Central ID: [PMC7056588](https://doi.org/10.1017/thg.2019.66)]. <https://doi.org/10.1017/thg.2019.66>.
- Fernández I, Canet O, Giné-Garriga M. Assessment of physical activity levels, fitness and perceived barriers to physical activity practice in adolescents: cross-sectional study. *Eur J Pediatr.* 2017;**176**(1):57-65. [PubMed ID: [27858223](https://doi.org/10.1007/s00431-016-2809-4)]. <https://doi.org/10.1007/s00431-016-2809-4>.
- Padilla-Walker LM. Longitudinal Change in Parent-Adolescent Communication About Sexuality. *J Adolesc Health.* 2018;**63**(6):753-8. [PubMed ID: [30279105](https://doi.org/10.1016/j.jadohealth.2018.06.031)]. <https://doi.org/10.1016/j.jadohealth.2018.06.031>.
- Charlton BM, Gordon AR, Reisner SL, Sarda V, Samnaliev M, Austin SB. Sexual orientation-related disparities in employment, health insurance, healthcare access and health-related quality of life: a cohort study of US male and female adolescents and young adults. *BMJ Open.* 2018;**8**(6). e020418. [PubMed ID: [30049672](https://doi.org/10.1136/bmjopen-2017-020418)]. [PubMed Central ID: [PMC6067349](https://doi.org/10.1136/bmjopen-2017-020418)]. <https://doi.org/10.1136/bmjopen-2017-020418>.
- Steenma TD, Kreukels BP, de Vries AL, Cohen-Kettenis PT. Gender identity development in adolescence. *Horm Behav.* 2013;**64**(2):288-97. [PubMed ID: [23998673](https://doi.org/10.1016/j.yhbeh.2013.02.020)]. <https://doi.org/10.1016/j.yhbeh.2013.02.020>.
- Breuner CC, Mattson G. Sexuality Education for Children and Adolescents. *Pediatrics.* 2016;**138**(2). [PubMed ID: [27432844](https://doi.org/10.1542/peds.2016-1348)]. <https://doi.org/10.1542/peds.2016-1348>.
- Forbes EE, Ryan ND, Phillips ML, Manuck SB, Worthman CM, Moyles DL, et al. Healthy adolescents' neural response to reward: associations with puberty, positive affect, and depressive symptoms. *J Am Acad Child Adolesc Psychiatry.* 2010;**49**(2):162-72.e1-5. [PubMed ID: [20215938](https://doi.org/10.1097/00004583-201002000-00010)]. [PubMed Central ID: [PMC2837556](https://doi.org/10.1097/00004583-201002000-00010)]. <https://doi.org/10.1097/00004583-201002000-00010>.
- Hill PL, Edmonds GW. Personality development in adolescence. In: Specht J, editor. *Personality Development Across the Lifespan.* Massachusetts, USA: Academic Press; 2017. p. 25-38. <https://doi.org/10.1016/b978-0-12-804674-6.00003-x>.
- Latifnejad Roudsari R, Javadnoori M, Hasanpour M, Hazavehei SM, Taghipour A. Socio-cultural challenges to sexual health education for female adolescents in Iran. *Iran J Reprod Med.* 2013;**11**(2):101-10. [PubMed ID: [24639734](https://pubmed.ncbi.nlm.nih.gov/24639734/)]. [PubMed Central ID: [PMC3941358](https://pubmed.ncbi.nlm.nih.gov/PMC3941358/)].
- Lee GY, Lee DY. Effects of a life skills-based sexuality education programme on the life-skills, sexuality knowledge, self-management skills for sexual health, and programme satisfaction of adolescents. *Sex Educ.* 2018;**19**(5):519-33. <https://doi.org/10.1080/14681811.2018.1552584>.
- Yusra T, Purwanto E, Awalya A. The effectiveness of classroom guidance with problem-based learning and jigsaw techniques to improve negative attitudes towards premarital sexual behavior. *Jurnal Bimbingan Konseling.* 2020;**9**(1):7-12.
- Vanderberg RH, Farkas AH, Miller E, Sucato GS, Akers AY, Borrero SB. Racial and/or Ethnic Differences in Formal Sex Education and Sex Education by Parents among Young Women in the United States. *J Pediatr Adolesc Gynecol.* 2016;**29**(1):69-73. [PubMed ID: [26143556](https://doi.org/10.1016/j.jpag.2015.06.011)]. <https://doi.org/10.1016/j.jpag.2015.06.011>.
- Hsu HY, Lien YF, Lou JH, Chen SH, Wang RH. Exploring the effect of sexual empowerment on sexual decision making in female adolescents. *J Nurs Res.* 2010;**18**(1):44-52. [PubMed ID: [20220610](https://doi.org/10.1097/JNR.0b013e3181ce5152)]. <https://doi.org/10.1097/JNR.0b013e3181ce5152>.
- Allen B, Timmer SG, Urquiza AJ. Parent-Child Interaction Therapy for sexual concerns of maltreated children: A preliminary investigation. *Child Abuse Negl.* 2016;**56**:80-8. [PubMed ID: [27155807](https://doi.org/10.1016/j.chiabu.2016.04.008)]. <https://doi.org/10.1016/j.chiabu.2016.04.008>.
- Alimordi Z, Simbar M. [Puberty health education for Iranian adolescent girls: challenges and priorities to design school-based interventions for mothers and daughters]. *Payesh (Health Monitor).* 2014;**13**(5):621-36. Persian.
- Abedini E, Tabibi Z, Ziaee P, Zarezade Kheibari S. A qualitative study on mothers' experiences from sex education to female adolescents underlining cultural factors. *QJ Fundam Mental Health.* 2016;**18**(4):202-11.
- Afshary P, Pazhohideh SZ, Yazdi Zadeh H, Mohammadi S, Tabesh H. [Survey educational needs of 11-14 years old girls about Sexual health]. *J Holist Nurs Midwifery.* 2016;**25**(79):1-9. Persian.
- Rashid K, Nazarlou MHA. [Study of the effect of sex education on increasing parents' sexual knowledge and their sense of adequacy]. *Education and Evaluation.* 2017;**10**(37):143-62. Persian.
- Sarizadeh MS, Akbari F. The Role of Positive Youth Development, Religious Coping, and the Parenting Styles in Adolescent Students' Life Satisfaction. *Int J Sch Health.* 2021;**8**(2):62-71.
- Michelson D, Malik K, Parikh R, Weiss HA, Doyle AM, Bhat B, et al. Effectiveness of a brief lay counsellor-delivered, problem-solving intervention for adolescent mental health problems in urban, low-income schools in India: a randomised controlled trial. *Lancet Child Adolesc Health.* 2020;**4**(8):571-82. [PubMed ID: [32585185](https://pubmed.ncbi.nlm.nih.gov/32585185/)]. [PubMed Central ID: [PMC7386943](https://pubmed.ncbi.nlm.nih.gov/PMC7386943/)]. [https://doi.org/10.1016/s2352-4642\(20\)30173-5](https://doi.org/10.1016/s2352-4642(20)30173-5).
- Ferguson CJ. *Adolescents, crime, and the media: A critical analysis.* New York, NY: Springer; 2014.