ORIGINAL ARTICLE

OPEN ACCESS

Suicide Risk, Self-Esteem and Family Support among Community School Going Adolescents of Kathmandu Valley, Nepal: A Cross-sectional Study

• Manjila Pokharel[1] • Pawan Sharma[2] • Sandesh Dhakal[3] • Kishori Thapa[4]

Submitted 28 May 2022 **Accepted** 12 October 2022 **Published** 2 November 2022

Pawan Sharma
pawan60@gmail.com

https://orcid.org/0000-0003-4983-7568

[1] Department of Social Works, Xavier International College, Kathmandu, Nepal.
[2] Department of Psychiatry, Patan Academy of Health Sciences, Lalitpur, Nepal.
[3] Central Department of Psychology, Tribhuvan University, Kathmandu, Nepal.
[4] Department of Psychology, Padma Kanya Campus, Tribhuvan University, Kathmandu, Nepal.

Citation

"*Pokharel M, Sharma P, Dhakal S, Thapa K. Suicide risk, self-esteem and family support among community school going adolescents of Kathmandu Valley, Nepal: a cross-sectional study. JBPKIHS. 2022;5(1):15-21*"

https://doi.org/10.3126/jbpkihs.v5i1.45424

Abstract

Background: Suicide is one of the major public health concerns today in all age groups. Suicide has often been neglected in adolescents. We aimed to find out the prevalence of suicidal ideas and attempts, and explore its association with family support and self-esteem among school going students of Kathmandu valley.

Methods: We performed a cross-sectional study using a semi structured proforma, P4 Suicide screener, Nepali family support and difficulties scale and Rosenberg self-esteem scale among 211 students of grade eight to ten of two community schools of Kathmandu valley. Socio-demographic and clinical data were tabulated and descriptive analysis were done. The tests for normal distribution were performed initially and then Fisher exact test (categorical) and Mann Whitney U test (continuous variable) were used as applicable.

Results: The P4 suicide screen showed 27.96% of the students to be positive. The risk stratification revealed that the maximum percentage (76.3%) of screen positive students had higher risk. The group of students who had no suicidal risk had significantly higher score in family support and difficulty scale as compared to the student with suicidal risk. However, the self-esteem score had no statistically significant difference between the two groups.

Conclusion: The suicide risk was present among one-third of the students with high risk among the majority. Considering this high prevalence, it is crucial for parents, teachers and all healthcare providers to be proactive and look for warning signs with all children and adolescents.

Keywords: Adolescent; School mental health services; Suicide

Declarations

Ethics approval and consent to participate: This study was conducted with prior ethical approval and permission from Department of Psychology, Padma Kanya Campus as a part of master's thesis. We ensure that the Code of Ethics of the World Medical Association – (Declaration of Helsinki) has been followed.

Consent for publication: Informed consent was taken from all participants.

Availability of data and materials: The full data set supporting this research can be made available on request to the author.

Competing interest: None

Funding: None

Authors' contributions: MP: design, data collection, analysis, manuscript preparation. PS: design, manuscript preparation. SD: manuscript preparation. KT: design, manuscript preparation. All authors have read and approved the final manuscript.

Acknowledgements: To all the participants of the study.

Suicide is one of the major public health concerns today in both the adult and adolescent population. Asia accounts for 60% of the suicides worldwide out of which 40% occurs in low and middle-income countries [1]. A systematic review of population-based studies among 513,188 adolescents revealed that 9.7% participants reported that they had attempted suicide at some point in their lives [2]. One-third of the adolescents with suicidal ideation developed plan among whom 33.9% attempted [3]. Despite its high prevalence and known risk factors, suicidality is often undetected. A national mental health survey of Nepal reported a 3.9% prevalence of current suicidal thoughts among adolescents above thirteen years and 0.7% adolescents reported of performing a suicide attempt [4]. In adolescents, suicidal behavior is associated with an interplay between genetic, psychological, cognitive, and social factors, with particular risks related to childhood adversities [5]. Rather than mental disorders such as depression, socio-cultural stressors have shown to play a greater role in suicide in Asian countries than they do in Western countries [6].

In the case of adolescents, a suicide attempt has a strong relation with emotional regulation and family support [7]. Family environment, mainly the support and the difficulties, can be an important predictor of suicide and a potential target in suicide management [8, 9]. Another important aspect in adolescent suicide is self-esteem. Low self-esteem is associated with higher levels of depression, hopelessness, suicidal ideation, and an increased likelihood of having previously attempted suicide [10]. An evaluation on the moderating effect of family support on the relationship between self-esteem and suicide risk behaviors among 849 potential high school dropouts showed that family support moderated the impact of self-esteem on suicide risk; the ameliorating effect of self-esteem was stronger among adolescents with low versus high family support [11]. Targeted suicide screening and identification of correlates of suicide is feasible and can help in better understanding of this behavior that in turn would provide help in devising strategies for prevention [12]. There is a dearth of literature in Nepalese context regarding the association between self-esteem and suicidal ideation, and between family support and suicidal ideation. Hence, our primary objective was to find out the prevalence of suicidal ideas and attempts in school-going adolescents of the community schools of Kathmandu valley. Our secondary objective was to find out the association between suicide screen-positive adolescents with self-esteem and family support.

METHODS

In this cross-sectional study, 211 school-going adolescents between 12 - 18 years of age studying in grades eight, nine and ten in two community schools of Kathmandu valley were enrolled using a purposive sampling method. After permission from the research committee of the Department of Psychology, Padma Kanya Campus, and approval from the principals of respective schools, the enrolment began. The Declaration of Helsinki 1975 was followed throughout the study. On the day of data collection, a brief session (15 minutes) for suicide awareness was taken in each class. The paper prints of information related to the study were then distributed to all participants and written informed assent was taken. Any doubts and concerns raised by the students were cleared. The questionnaire was distributed, and the data were collected. The students were encouraged to give their genuine responses without discussing them with fellow students. The students were also suggested to seek professional help if they felt they had problems. The participants had the right to withdraw their consent at any time during the study. They were assured that their identity would remain confidential.

The following tools were used for data collection:

i. Semi-structured proforma: This consisted of basic socio-demographic profile including the variables like age, gender, religion, and education.

ii. P4 suicide screener: This was originally developed for use by primary care physicians [13]. The four Ps indicate past suicide attempts, a plan, probability of completing suicide, and preventive factors. This tool has been used in multiple trials and has been regarded as a useful tool in assessing potential risks in clinical care and non-clinical research [14]. This screener consists of four items related to the suicide. In our study, we have excluded the first screen question to rule out the confusion among students. We asked the students to fill up the questionnaire themselves so that the socially desirable response could be controlled to a certain degree. No other changes had been done.

iii. Nepali family support and difficulties scale: Nepali family support and difficulties were measured using 10-item Nepali family support and difficulty scale (Cronbach's alpha=0.87) [15]. For each item, the students were asked to rate how true each statement was for their own family on a four-point Likert scale

ranging from "Not at all" (0) to "All the time" (3). After reversing the scores for negatively formulated items (i.e., measuring negative family interaction), the total score was derived by using all items, with higher scores indicating greater perceived family support (instrument range: 0-30) [16]. The Nepali family support and difficulties scale has a good psychometric property [17].

iv. Rosenberg Self-esteem scale: Self-esteem was measured using 10-item Rosenberg self-esteem scale. For each item, respondents were asked to rate on a four-point Likert scale ranging from "completely agree" to "completely disagree". The scale demonstrates a Guttman scale coefficient of reproducibility of 0.92; test-retest reliability over 2 weeks reveals correlations of 0.85 and 0.88, indicating good stability [18].

The scales used were in Nepali language. The family support and difficulties scale was available in Nepali language. The P4 suicide screener and the Rosenberg Self-esteem scale were translated into Nepali followed by blind back translation. The co-authors finally examined the blind back-translation and consensus was reached for the final version of the questionnaire.

Socio-demographic and clinical data were tabulated and descriptive analysis like percentages, central tendencies and tests for normal distribution were performed initially. The Q-Q plots were done for every data and accordingly the comparisons were done using parametric and non-parametric tests whichever were applicable. As the data collected had non-normal distribution, the Mann Whitney U test was applied for continuous variables. The Fisher exact test was used for categorical data. Data was analyzed by SPSS, a statistical package software (version 16.0; SPSS Inc. Chicago, IL, USA).

RESULTS

The data collected from all 211 students were complete. The female outnumbered the male. The age of the participants (mean ± SD) was 15.08 ± 1.17 years. Maximum students were Hindu and from Chhetri and Tamang ethnicity **(Table 1)**. The P4 screener showed 27.96% of the students to be positive **(Table 2)**. When the risk stratification was performed, maximum percentage (76.3%) of screen positive students had higher risk. Only 20.3% and 3.4% of the screen positive students had minimal and lower risk. Similarly, the scores (mean ± SD) for family support and difficulties scale was 23.66 ± 3.25 and for self -esteem scale was 21.79 ± 4.22.

The Mann-Whitney U test indicated that family support and difficulty scale score [median (IQR)] was significantly greater (U = 3493.5, p = 0.012, Z = -2.5) for suicide screen positive [23 (6)] than for suicide screen negative [25 (4)]. However, the test indicated the self-esteem score was not significantly different (U = 3960.5, p = 0.187, Z = -1.32) for suicide risk screen positive [22 (5)] and screen negative students [21 (5)] **(Fig. 1)**.

Table 1: Socio-demographic profile of the participants (n = 211).

Parameters		Number	Percentage
Gender	Male	88	41.7
	Female	123	58.3
Religion	Hindu	145	68.7
	Buddhist	46	21.8
	Muslim	1	0.5
	Christian	18	8.5
	Others	1	0.5
Education	Class 8	43	20.4
	Class 9	40	19
	Class 10	128	60.2
Caste	Brahmin	26	12.3
	Chhetri	61	28.9
	Newar	13	6.2
	Tamang	60	28.4
	Magar	21	10
	Dalit	8	3.8
	Others	22	16.4

Table 2: Suicide Screen, family support and difficulty scale score, and self-esteem score. Values are presented as number (%) or mean ± SD.

Variables	Categories	Values
Suicide Screen	Positive	59 (27.96%)
	Negative	152 (72.03%)
Suicide Risk	Minimal Risk	12 (20.3%)
	Lower Risk	2 (3.4%)
	Higher Risk	45 (76.3%)
Family Support and Difficulties Scale Score		23.66 ± 3.25
Self Esteem Scale Score		21.79 ± 4.22

The Fisher Exact Test showed that the number of suicide screen risk positive female students (n = 41) was significantly higher (p = 0.04) than suicide risk screen positive male students (n = 18) **(Table 3)**. There was no significant difference in the family support and difficulties scale score between the male and female groups. The Mann-Whitney U test indicated that family support and difficulty scale score [median (IQR)] for male [24 (5)] and female [25 (4)] was not significantly different (U = 4702, p = 0.1, Z = -1.63). Similarly, the test also indicated that the self- esteem score [median (IQR)] for male [22 (5)] and female [21 (5)] was not statistically different (U = 5345, p = 0.88, Z = -1.53) **(Fig. 2)**.

DISCUSSION

The present study aimed at finding the prevalence of suicide risk, the degree of risk, and its correlation with family strength and difficulty and self-esteem using standardized questionnaire among students from two community schools of urban Nepal (Kathmandu). The percentage of students having a risk of suicide or screen-positive was 28%. The number of female students with risk was higher than male students with risk. This finding is similar to the finding in a study from USA where the percentage of students with suicidal risk was 29% and the female to male ratio was 2:1. This study was done on 1323 students using suicide risk screen [19]. The percentage of risk is also similar to the result of the study done in New York using Columbia suicide screen in 1729 students [20].

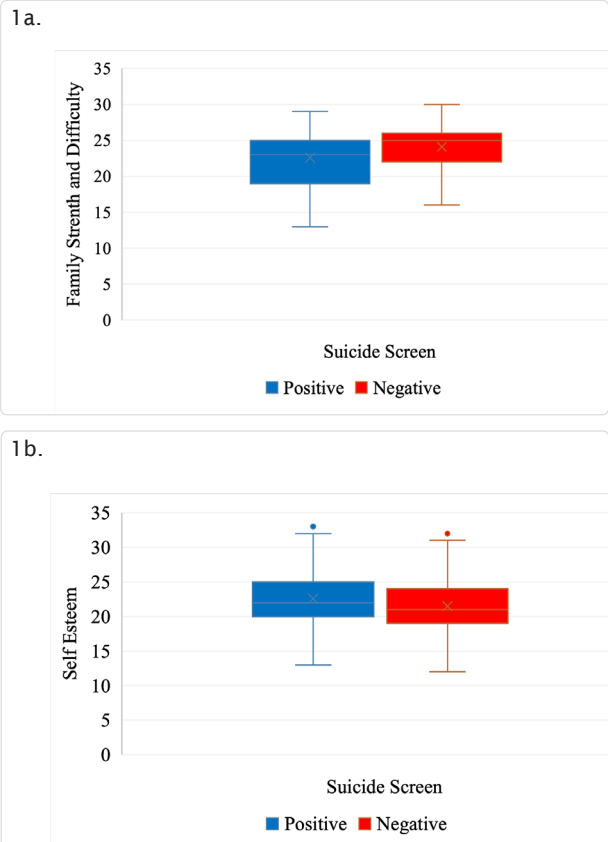

Figure 1: Box plot for median scores of a. family strength and difficulty and b. self-esteem as per suicide screen.

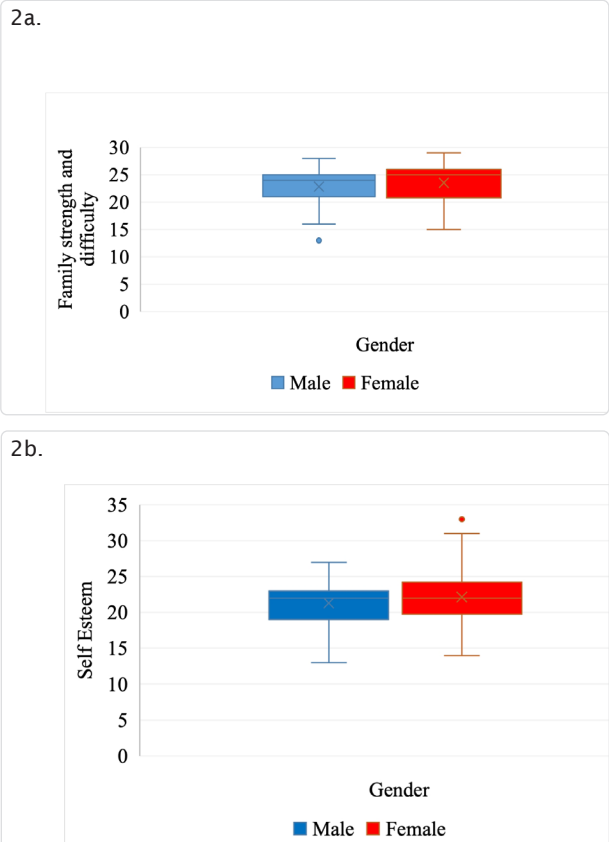

Figure 2: Box plot for median scores of a. family strength and difficulty and b. self-esteem as per gender.

Table 3: Comparison between male and female students for suicide (n = 211). Values are presented as number (%).

Variables		Male	Female	p-value
Suicide Screen	Positive	18 (8.5)	41 (19.4)	0.04*
	Negative	70 (33.2)	82 (38.9)	

** Fisher's Exact Significance*

When Fischer exact test was applied it was seen that the female students had a significant suicide risk as compared to male students and this finding keeps with most of the published literature. As per a 10 years review on youth suicide it was seen that female youths were more at risk for suicide than male youths [21]. However, it has been seen that the completion of suicide is higher in male youth as compared to female [22]. This higher risk of suicide among females in Nepalese context may be explained by the adversities faced by female gender in social and cultural context. It might be also explained on the basis of hormonal and neurobiological vulnerability of female as compared to male.

It is a well-known fact that family environment, alone as well as in interaction with psychopathology, plays an important role in determining suicide and suicidal behavior [23]. It has been suggested that family support has a protective effect on suicidal behavior in youth and adolescents. In this current study, it was seen that the group of students who had no suicidal risk had a significantly higher score on family support and difficulty scale as compared to the students with suicidal risk. This indicates that better family support is protective against suicidal risk. This finding is similar to the study done by Fleming et al. among 9570 randomly selected 9 to 13-year-old students from 114 schools in New Zealand using the New Zealand Adolescent Health Survey where multivariate analyses showed that family support was a protective factor [24]. Similar findings about the family support were replicated in another study done among potential high school dropouts (n = 849), using questionnaires and in-depth assessment interviews which showed self-esteem, family support, and peer support were negatively correlated with suicide risk ($r = -0.47, -0.25$, and -0.30, respectively; $p < 0.001$) [25]. However, in our study the self-esteem scale score didn't show any significant difference between students with suicide risk and students without suicide risk. This result is in contrast to a study among 939 adolescents of grades 8 and 11 students in South Africa which showed self-esteem was associated with suicide attempts [26]. In another study done on 116 patients with depression it was seen that self-esteem was significantly decreased by suicide ideation and suicide attempt history. One reason of this study being in contrast to our study could be we did not take sample with depression. As it is a well-known fact that depression decreases self-esteem and accounts for suicide risk, taking the random school children would have contributed to our finding. Several studies have provided evidence that suicidality is no longer significantly associated with low self- esteem when depression is controlled for [27 - 29]. However, other researchers have found that low self-esteem remains significantly associated with suicidality in adolescents even when depression is taken into account [30]. The first finding could be one of the possible reasons to justify our results. A few researchers have suggested that self-esteem might moderate the relationship between depression and suicidality, with depression being more strongly related to suicidality in adolescents who are also low in self-esteem [31].

In another aspect, we looked at the family strength and difficulties in male and female students and found no statistically significant difference. Although we couldn't find any study that looked at the family support in male and female adolescents, our result is interesting in the sense that both male and female children and adolescents feel similar support from the family. In one study the perceived family support in 220 suicidal adolescents had no difference in male and female [32]. This finding is important in our society because this can give indirect evidence that male and female child are treated equally by the families, and this also gives us a general notion of awareness in the family of urban school children about gender equality. When we looked at the self-esteem of male and female students there was no significant difference. As per Sahlstein and Allen's suggestion that research on gender differences in self-esteem should focus on how they are formed. It was hypothesized that they might change with age. On the basis of past research, it was predicted that self-esteem might be higher for girls than for boys during childhood, but higher for men than for women during adolescence and adulthood [33]. The present research was cross-sectional and could not reveal changes with age in the same participants. However, one study done in 227 participants across elementary schools, high schools and university showed that male participants scored generally higher on self-esteem than female participants [34]. This result from the present study is also encouraging as this gives indirect evidence to the gender equality.

This study is one of the very few studies that have looked at school mental health evaluating the suicidal risk. In another aspect, this also looked at the correlation of family support and difficulties and self-esteem with the suicide risk. This might help in designing the intervention in the school children while working for suicide prevention. Although this is one of the few studies from Nepal there are limitations to it. The questionnaires used here are not validated in the school population of Nepal. Similarly, a cross-sectional application of screening instruments doesn't give a diagnosis. The school of a municipality in Kathmandu might not be representative of all the school children. However, the study could play an important role in laying the foundation for further studies as the findings here give some idea about the problem statement and its correlates.

CONCLUSION

Suicide risk in school-going children and adolescents was high in our study sample and the female gender had a higher risk. Family support could be one of the protective factors in suicide; self-esteem in non-clinical adolescent population may not be a risk factor in suicide. Screening adolescents for suicidality using highly sensitive, validated instruments is imperative for healthcare settings nationwide. Thus, it is crucial for parents, teachers, and all healthcare providers to be proactive and look for warning signs in all children and adolescents. Further studies with a large representative sample and robust methodologies are warranted for the development of suicide prevention strategies, especially as a part of a school mental health program in Nepal.

References

1. Knipe DW, Carroll R, Thomas KH, Pease A, Gunnell D, Metcalfe C. Association of socio-economic position and suicide/ attempted suicide in low and middle income countries in South and South-East Asia – a systematic review. BMC Public Health, 2015;15:1055. DOI: 10.1186/s12889-015-2301-5.
2. Evans E, Hawton K, Rodham K, Deeks J. The prevalence of suicidal phenomena in adolescents: a systematic review of population□ based studies. Suicide Life Threat Behav. 2005;35(3):239-50. DOI: 10.1521/suli.2005.35.3.239.
3. Cagande CC, Foo K. Suicide among southeast Asian youth. In: Pumariega AJ, Sharma N, editors. Suicide among diverse youth. Cham: Springer; 2018. p. 99–111. DOI: 10.1007/978-3-319-66203-9_7
4. Dhimal M, Dahal S, Adhikari K, Koirala P, Bista B, Luitel N, et al. A nationwide prevalence of common mental disorders and suicidality in Nepal: evidence from National Mental Health Survey, 2019-2020. J Nepal Health Res Counc. 2022;19(4):740-7 DOI: 10.33314/jnhrc.v19i04.4017
5. Cluver L, Orkin M, Boyes ME, Sherr L. Child and adolescent suicide attempts, suicidal behavior, and adverse childhood experiences in South Africa: a prospective study. J Adolesc Health. 2015;57(1): 52–9. DOI: 10.1016/j.jadohealth.2015.03.001
6. Vijayakumar L, Pirkis J, Whiteford H. Suicide in developing countries (3): prevention efforts. Crisis. 2005;26:120-4. DOI: 10.1027/0227-5910.26.3.120
7. Zlotnick C, Donaldson D, Spirito A, Pearlstein T. Affect regulation and suicide attempts in adolescent inpatients. J Am Acad Child Adolesc Psychiatry. 1997;36:793–8. DOI: 10.1097/00004583-199706000-00016
8. Pisani AR, Wyman PA, Petrova M, Schmeelk-Cone K, Goldston DB, Xia Y, et al. Emotion regulation difficulties, youth-adult relationships, and suicide attempts among high school students in underserved communities. J Youth Adolesc. 2013;42:807–20. DOI: 10.1007/s10964-012-9884-2
9. Brent DA. Risk factors for adolescent suicide and suicidal behavior: mental and substance abuse disorders, family environmental factors, and life stress. Suicide Life Threat Behav. 1995;25 Suppl:52-63. DOI: 10.1111/j.1943-278X.1995.tb00490.x
10. Overholser JC, Adams DM, Lehnert KL, Brinkman DC. Self-esteem deficits and suicidal tendencies among adolescents. J Am Acad Child Adolesc Psychiatry. 1995;34(7):919–28. DOI: 10.1097/00004583-199507000-00016
11. Sharaf AY, Thompson EA, Walsh E. Protective effects of self-esteem and family support on suicide risk behaviors among at-risk adolescents: suicide risk behaviors among at-risk adolescents. J Child Adolesc Psychiatr Nurs. 2009;22(3):160–8. DOI: 10.1111/j.1744-6171.2009. 00194.x
12. Hallfors D, Brodish PH, Khatapoush S, Sanchez V, Cho H, Steckler A. Feasibility of screening adolescents for suicide risk in "real-world" high school settings. Am J Public Health. 2006;96(2):282–7. DOI: 10.2105/AJPH.2004.057281
13. Cole S, Raju M, Barrett J, Gerrity M, Dietrich A. The MacArthur Foundation depression education program for primary care physicians: background and rationale. Gen Hosp Psychiatry. 2000;22(5):299-358. DOI: 10.1016/s0163-8343(00)80007-9
14. Dube P, Kurt K, Bair MJ, Theobald D, Williams LS. The p4 screener: evaluation of a brief measure for assessing potential suicide risk in 2 randomized effectiveness trials of primary care and oncology patients. Prim Care Companion J Clin Psychiatry. 2010;12(6):PCC.10m00978. DOI: 10.4088/PCC.10m00978blu.
15. Kohrt BA. Political violence and mental health in Nepal: war in context, structural violence, and the erasure of history. In: Emory Theses and Dessertations [Internet]: Emory University. c2009. Available from: https://etd.library.emory.edu/concern/etds/pc-289j23x?locale=en
16. Shrestha S, Poudel KC, Poudel-Tandukar K, Kobayashi J, Pandey BD, Yasuoka J, et al. Perceived family support and depression among people living with HIV/AIDS in the Kathmandu Valley, Nepal. J Int Assoc Provid AIDS Care. 2014;13(3):214–2. DOI: 10.1177/1545109712456741
17. Amiya RM, Poudel KC, Poudel-Tandukar K, Pandey BD, Jimba M. Perceived family support, depression, and suicidal ideation among people living with HIV/AIDS: a cross-sectional study in the Kathmandu Valley, Nepal. PLoS One. 2014;9(3):e90959. DOI: 10.1371/journal.pone.0090959
18. Rosenberg M. Rosenberg self-esteem scale (RSE). In: Ciarro-

chi J, Bilich L. Acceptance and Commitment Therapy. Measures Package. University of Wollongong; 1965. P. 61-2. Available from: https://integrativehealthpartners.org/downloads/ACTmeasures.pdf#page=61
19. Hallfors D, Brodish PH, Khatapoush S, Sanchez V, Cho H, Steckler A. Feasibility of screening adolescents for suicide risk in "real-world" high school settings. Am J Public Health. 2006;96(2):282–7. DOI: 10.2105/AJPH.2004.057281
20. Scott MA, Wilcox HC, Schonfeld IS, Sheldon TA, Mulhall A, Thompson DR. School-based screening to identify at-risk students not already known to school professionals: The Columbia suicide screen. Am J Public Health. 2009;99(2):334–9. DOI: 10.2105/AJPH.2007.127928
21. Gould MS, Greenberg T, Velting DM, Shaffer D. Youth suicide risk and preventive interventions: a review of the past 10 years. J Am Acad Child Adolesc Psychiatry. 2003;42:386–405. DOI: 10.1097/01.CHI.0000046821.95464.CF
22. Brent DA, Baugher M, Bridge J, Chen T, Chiappetta L. Age- and sex-related risk factors for adolescent suicide. J Am Acad Child Adolesc Psychiatry. 1999;38(12):1497–505. DOI: 10.1097/00004583-199912000-00010
23. Brent DA. Risk factors for adolescent suicide and suicidal behavior: mental and substance abuse disorders, family environmental factors, and life stress. Suicide Life Threat Behav. 1995; 25 Suppl: 52–63. PMID: 8553429
24. Fleming TM, Merry SN, Robinson EM, Denny SJ, Watson PD. Self-reported suicide attempts and associated risk and protective factors among secondary school students in New Zealand. Aust N Z J Psychiatry 2007;41(3):213–21. DOI: 10.1080/00048670601050481
25. Sharaf AY, Thompson EA, Walsh E. Protective effects of self-esteem and family support on suicide risk behaviors among at-risk adolescents. J Child Adolesc Psychiatr Nurs. 2009;22(3):160–8. DOI: 10.1111/j.1744-6171.2009.00194.x
26. Wild LG, Flisher AJ, Lombard C. Suicidal ideation and attempts in adolescents: associations with depression and six domains of self-esteem. J Adolesc. 2004;27(6):611–24. DOI: 10.1016/j.adolescence.2004.03.001
27. Kingsbury S, Hawton K, Steinhardt K, James A. Do adolescents who take overdoses have specific psychological characteristics? A comparative study with psychiatric and community controls. J Am Acad Child Adolesc Psychiatry. 1999;38(9):1125–31. DOI: 10.1097/00004583-199909000-00016
28. Hawton K, Kingsbury S, Steinhardt K, James A, Fagg J. Repetition of deliberate self-harm by adolescents: the role of psychological factors. J Adolesc. 1999;22(3):369–78. DOI: 10.1006/jado.1999.0228
29. De Man AF, Leduc CP. Suicidal ideation in high school students: depression and other correlates. J Clin Psychol. 1995;51(2):173–81. DOI: 10.1002/1097-4679(199503)51:2<173:aid-jclp2270510205>3.0.co;2-r
30. Groholt B, Ekeberg O, Wichstrøm L, Haldorsen T. Young suicide attempters: a comparison between a clinical and an epidemiological sample. J Am Acad Child Adolesc Psychiatry. 2000;39(7):868–75. DOI: 10.1097/00004583-200007000-00015
31. Yoder KA. Comparing suicide attempters, suicide ideators, and nonsuicidal homeless and runaway adolescents. Suicide Life Threat Behav. 1999;29(1):25–36. PMID: 10322618
32. Kerr DC, Preuss LJ, King CA. Suicidal adolescents' social support from family and peers: gender-specific associations with psychopathology. J Abnorm Child Psychol. 2006;34(1):103–14. DOI: 10.1007/s10802-005-9005-8
33. Allen M, Preiss RW, Gayle BM, Burrell N, editors. Interpersonal Communication Research: Advances Through Meta-analysis. Routledge; 2001.
34. Frost J, McKelvie S. Self-esteem and body satisfaction in male and female elementary school, high school, and university students. Sex Roles. 2004;51:45–54. DOI: 10.1023/B:SERS.0000032308.90104.c6