

Some psychological characteristics of adolescents hospitalized following a suicide attempt

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Abstract. – **BACKGROUND:** In most countries, suicide is second or third leading cause of death in youth. Suicidal tendencies among youth have been the subject of extensive research. Reports of increased rate of suicide attempts in the past few decades indicate that this phenomenon has not been fully understood.

AIM: The aim of this study was to better understand the phenomenon of adolescent suicide behavior by defining some specific psychological characteristics of adolescents who were hospitalized at the psychiatric ward because of the suicide attempt.

METHODS: 62 participants were assigned to two groups: clinical (adolescents who were hospitalized after a suicide attempt) and non-clinical (adolescents without psychiatric symptoms). They filled in a series of instruments: a questionnaire examining adolescents' demographic characteristics, Rosenberg's Self-Esteem Scale, Youth Self Report.

RESULTS: Compared to the non-clinical population adolescents attempting suicide had significantly more frequent suicidal thoughts ($\chi^2 = 18.627$, $df = 1$, $p < .01$), higher incidence of earlier attempts ($\chi^2 = 10.008$, $df = 1$, $p < .01$), they abused substances more often ($\chi^2 = 7.398$, $df=1$, $p < .01$), had higher incidence of fathers' psychopathology ($\chi^2 = 11.77$, $df = 1$, $p < .01$), lower level of self-esteem ($t = 4.23$, $p < .01$), and more significant expression of internalized (F/1.60/ = 19.02; $p < .01$) as well as externalized problems (F/1.60/ = 4.41; $p < .05$).

CONCLUSIONS: This study point to some of the characteristics of adolescents who were hospitalized after a suicide attempt.

Key Words:

Suicide attempts, Adolescents, Psychological characteristics.

happy, and burdened by different expectations and demands. It is not uncommon that these unpleasant feelings become expressed through suicidal ideas or suicidal behavior^{1,2}. In most countries, suicide is second or third-leading cause of death in youth². Suicide rate in adolescence is quite high, but differs over time and from country to country³. In Serbia, suicide rate in the youth from 15-24 years of age is 6.9, or 66 fatalities a year⁴.

Suicide attempts in adolescents occur three times more in girls than boys⁵. The most frequent means of suicide attempt is drug overdose. Suicide attempts usually happen after a break-up of a romantic relationship or following a serious argument with parents, usually preceded by some warning signs of things to come⁶⁻⁸. There is a general agreement that the purpose or aim of a suicide attempt is to change one's life (or behavior of others), not to end it. Only half of the adolescents attempting suicide truly want to die⁷.

There are various models explaining adolescent suicide attempts. They suggest that young people who attempt suicide possess certain cognitive, behavior and emotional characteristics which may increase the risk of recurring suicide behavior⁹⁻¹¹. More specifically, factors commonly linked to adolescent suicide attempts are: family history of suicide behavior¹², family organization and structure, family conflicts^{11,13}, poor control of own impulses¹⁴, previous suicide attempts, psychiatric disorders^{9,15}, depression, anxiety^{11,16}, low self-esteem⁹, feeling of helplessness, poor problem-solving skills^{8,17,18}, various forms of social withdrawal, and substance abuse^{9,14}.

It is apparent that the body of knowledge and empirically based data on this subject have been increased. However, there is a growing number of reports of suicide attempts in youth^{3,4}, indicating that this phenomenon has not been fully un-

Introduction

Adolescence is a life period during which a young person often feels confused, insecure, un-

derstood, and that we cannot be content with the extent of our knowledge about it. Considering that between a quarter to a third of all suicide victims have previously attempted suicide¹⁹, it is beyond any doubt that research on and understanding of the dynamics of suicide attempts in adolescents can be used as a means of suicide prevention.

The northern Serbian Province of Vojvodina, in which our research was conducted, has one of the highest suicide rates in the region^{4,5,20}. Nonetheless, very little research has been done on this subject to date. The purpose of this study was to better understand the phenomenon of adolescent suicide behavior by defining some specific psychological characteristics of adolescents who were hospitalized immediately after a suicide attempt at the psychiatric ward. A suicide attempt in the present study has been operationalized as a potentially deliberate self-harming behavior with a non-fatal outcome during which the person has the intention of killing him/herself^{17,21}.

Methods

Population Sample and Procedure

For this study, 62 adolescents, age ranged from 15-18 years, were recruited and assigned to two groups: clinical and non-clinical. The clinical group consisted of 32 participants who were just hospitalized after a suicide attempt at the Center for Child and Adolescent Psychiatry in the city of Novi Sad, Serbia. The non-clinical group was made up of 30 adolescents who had not had any psychiatric symptoms. The two groups were matched for age (age mean, 17 years), sex and number of participants.

Instruments

A questionnaire examining adolescents' demographic characteristics was designed especially for this study, and included the information on subjects' sex, age, suicidal behavior, and suicidal contemplations. Previous suicide attempts were also assessed (e.g., Have you ever attempted suicide? How many times?). They were also asked about the method used (e.g., poisoning, slashing, hanging, gas, firearms, jumping, or other) in the most recent attempt. The presence of suicidal thoughts was assessed by asking questions such as: "Within the last three months, have you seriously thought of taking your own life?" (the question was dichotomized). Subjects were asked

about the presence or absence of substance abuse, earlier treatments of psychological or psychiatric problems, parents' mental disorders, for which they were offered several options/psychiatric diagnoses.

*Rosenberg's Self-Esteem Scale*²² was originally developed with the purpose of assessing general orientation toward oneself – self-esteem. It was made up of ten statements, with the minimum possible score of 10, and maximum of 50. High scores indicated high self-esteem. In our study, Rosenberg's Self-Esteem Scale showed very high reliability with Cronbach alpha coefficient of .89.

Self-evaluation of behavior and emotional problems of adolescents (*Youth Self Report, YSR*)²³ is a questionnaire designed for adolescents of 11-18 years of age. This is a scale for the assessment of behavior and emotional functioning. It must be filled out by the adolescent him/herself, and requires reading skills at the gr. 5 level, and mental age of at least a 10-year old. YSR consists of two parts: competency scale and eight syndrome scales. Syndrome scales represent eight groups of problems: social withdrawal, somatic complaints, anxiety and depression, social problems, thinking problems, attention problems, delinquent behavior, and aggressive behavior. The first three scales cover the internalized group of problems concerning difficulties such as inhibitions, high control, and withdrawal tendencies. The last two syndrome scales relate to the externalized group of problems like behavior problems, aggressiveness, and low control. For the purpose of this study, the results on the *internalization* and *externalization scales* were analyzed. The following reliability coefficients were obtained on the individual scales on our sample: Withdrawal scale = .75; Somatic complaints scale α = .73; Anxiety/Depression scale α = .88; Social problems scale = .60; Thinking problems scale = .59; Attention problems scale = .71; Delinquency = .73; Aggressive behavior = .78; Other problems = .73.

Statistical Analysis

Data analyses were conducted using the Statistical Package SPSS 17.0 (SPSS Inc., Chicago, IL, USA). Analysis of variance (ANOVA), Chi-square test and *t*-test for independent samples were used to examine differences between groups. Descriptive statistics were used in order to describe research sample. The statistical significance was defined as a *p* value less than .05.

Results

The great majority in the group of adolescents who attempted suicide are females (81%). The most common means or method of suicide attempt was intoxication with drugs (81%). The key trigger for suicidal behavior was conflict with parents. Only 9.4% of adolescents who attempted suicide left a suicide note, and over half of them (59.4%) attempted suicide for the very first time. 59.4% did not have any previous diagnoses, whereas among those who did, eating disorders and behavior disorders were the most common. 37.5% of those attempting suicide had been diagnosed with a comorbid disorder.

Differences Between Groups in Suicidal Thoughts and Earlier Suicide Attempts

Even though suicidal thoughts were reported in both groups within the last week prior to the study, adolescents attempting suicide had significantly more frequent suicidal thoughts than the non-clinical population ($\chi^2 = 18.627$, $df = 1$, $p < .01$). The incidence of earlier suicide attempts was also greater in the clinical vs. non-clinical group ($\chi^2 = 10.008$, $df = 1$, $p < .01$).

Differences Between Groups in Substance Abuse

The results showed statistically significant differences between the groups in substance abuse ($\chi^2 = 7.398$, $df = 1$, $p < .01$), where adolescents who attempted suicide abused substances more often than those in the non-clinical group.

Differences Between Groups in Emotional and Behavior Problems

ANOVA yielded the results showing that there were significant differences between groups in the expression of internalized as well as externalized problems on the YSR test. The differences are greater for the internalized problems dimension (Table I). Both groups of problems were more significant in the clinical group of adolescents.

Differences Between Groups in Self-Esteem

There were significant differences between groups in the level of self-esteem (t -test = 4.23, $df = 62$, $p < .01$), where the non-clinical group had higher self-esteem compared to the adolescents in the clinical group.

Differences Between Groups in Parents' Psychopathology

Adolescents in the clinical group reported that 15.6% of the mothers had some form of psychopathology, primarily symptoms of depression, whereas adolescents in the non-clinical group did not report any psychopathology in mothers. As for the fathers' psychopathology, significant differences were found between the groups ($\chi^2 = 11.77$, $df = 3$, $p < .01$). 37.5% of the fathers in the clinical group had some kind of psychopathology, mainly alcoholism, suicide attempts, and psycho-organic syndromes. On the other hand, only 3.3% fathers of the adolescents in the non-clinical group had a psychopathological problem (i.e., alcoholism).

Discussion

This study demonstrated that 81% of all adolescents who were hospitalized following a suicide attempt were girls, a finding that is in line with previous research^{5,7,10}. The most common method was by far a drug intoxication, while the trigger was mostly conflict with parents, which also corresponds with relevant literature^{7,10}. Over half of the hospitalized adolescents in this sample (59.4%) attempted suicide for the first time, and 59.4% of them had not had an earlier psychiatric diagnosis. Among those who did, the most common were eating and behavior disorders. Some recent studies report an increased risk for suicidal behavior associated with eating disorders²⁴, while suicidal behavior can worsen the prognosis for *anorexia nervosa* treatment²⁵.

37.5% of the adolescents who attempted suicide had a comorbid disorder, suggesting that this

Table I. Between-group differences in internalized and externalized problems of behavior.

	Clinical mean	Control mean	F
Internalized	19.52	9.94	19.02**
Externalized	20.65	15.69	4.41*

**at 0.01 *at 0.05

was a population with multiple psychological and/or psychiatric problems. The literature on this subject speaks of a certain percentage of adolescents who committed suicide had not had previous psychopathological manifestations, roughly about 10%^{25,26}. Psychiatric disorders and previous psychiatric treatment represent some of the most important risk factors for suicide attempts in adolescents.

Previous suicide attempts as well as suicidal thoughts were more present in the group of adolescents who had just attempted suicide. This is an important finding that supports the existence of the relation between previous suicide attempts, suicidal thoughts and the latest suicide attempt, as demonstrated elsewhere^{10,15}.

In this study, differences between groups on the *Youth Self Report* (YSR) questionnaire helped us better understand psychopathological profiles of the adolescents who attempted suicide. Our results showed that both internalized and externalized problems were related to adolescents' suicide attempts, which is in accordance with previous research^{28,29}. This finding suggests that a negative affect in general, and not just depression, should create the need for the assessment of the adolescent's suicidality.

Substance abuse was found to be significantly more prevalent in the clinical vs. non-clinical group. This is not surprising considering the important role intoxication may have in the dynamics of suicidal behavior, by impairing the ability for good judgment as well as by reducing inhibitions, thereby promoting suicidal behavior^{18,26}. Moreover, substance abuse is more prevalent in adolescents with psychological and/or psychiatric difficulties²⁵.

Low self-esteem has also been linked to the development of emotional problems, anxiety disorders, suicidal behavior, behavior disorders and depression³⁰. Our findings confirmed that adolescents attempting suicide had lower self-esteem compared to those without any psychiatric problems. Relevant literature on this subject also demonstrates the link between low self-esteem and suicide attempts in adolescents^{26,30}. The level of self-esteem can discriminate very well the clinical from non-clinical group of adolescents.

As for the existence of psychopathological manifestations in parents, there were statistically significant differences between groups, primarily due to fathers' psychopathology. Adolescents who attempted suicide often grew up with parents with some sort of psychopathological issues.

Our results show that the fathers' alcohol abuse contributed the most, as well as the mothers' depression, but to a smaller extent. It is evident that a dysfunctional family environment at a very young age, but also during adolescence, can and does have a significant impact on the development of personality, problem-solving skills, and onset of mental disorders^{13,18,31,32}.

Clinical experience has taught us that adolescent suicidal behavior is not necessarily the specific outcome of psychopathology, but only one of its possible manifestations. Simultaneously, risk assessment of adolescent suicidal behavior is of major importance for a clinician. Failure to recognize the risk for suicide is considered a serious error in professional judgment^{21,23}. Our findings suggest that it is extremely important to properly assess the level of self-esteem and, generally, presence of emotional and/or behavior problems, at the time of psychological assessment and screening of those adolescents who are under a high risk for suicidal behavior. Additionally, it is important to stress that previous suicide attempts, substance abuse, referrals for psychiatric treatment, and parents' psychopathology, are all connected with a high rate of suicide attempts^{11,15,18}.

Results of this study point to some of the characteristics of adolescents who were hospitalized after a suicide attempt, and are compliant with some other research data from abroad. Unfortunately, due to a relatively small population sample, one would not be able to readily draw conclusions about their specific characteristics, but leave them for another research endeavor in the future.

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