The role of psychopathology in social skills training of children with conduct disorder

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Abstract

Objectives. This paper deals with the relationship between the degree of behavioral problems, including the presence of symptoms like anxiety and depression, the efficiency of a conducted training in social skills by using mind mapping techniques, and recording the most frequent display of behavioral problems in children such as running away.
Material and methods. In a period of two years, 100 children, diagnosed with conduct disorder, have been examined. All of them have been accommodated in Correctional Boarding Schools (CBS), Social-Educational Boarding Schools (SEBS), and crisis centers. Clinical semi-structured interviews have been used, Hamilton Anxiety Rating Scale (HAM-A), Beck Depression Inventory (BDI), and Buss–Durkee Hostility Inventory (BDHI). Two groups of children were randomly formed (according to the principle of a sex balance only). Only one of the groups received training in social skills, and skills on how to solve a problem on the basis of a mind mapping card and on the escape situation.
Results. The results show that the average numbers of runaways, in the group of children with mild symptoms that have received training, are significantly lower in the six months period after conducting the study compared with the six months period before. The largest number of escapes, not changing as a result of the intervention, is present in the children with severe symptoms.
Conclusions. This study shows once again the need for an individualized approach to the work with children having behavioral problems, that are accommodated in Correctional Boarding Schools (CBS), Social-Educational Boarding Schools (SEBS), and crisis centers, an approach oriented towards the specific needs of each child.

Keywords: depression, anxiety, behavioral problem, mind map.

Introduction

Conduct disorder is a recurrent and persistent behavioral model, where aggression toward humans and animals, damaging property, frauds or thefts, and blatant breaches of the rules are displayed. To identify and diagnose conduct disorder, three of the above criteria are supposed to have persisted over the previous 12 months or at least one over the previous six months. According to the Diagnostic Statistical Manual (DSM)-IV classification, there are three subtypes of conduct disorder with regard to behavioral problems. DSM-IV-TR (text revision) also allows identifying the condition as mild, moderate or severe (DSM-IV-TR, 2009). The diagnostic record of the conduct disorder in DSM-V has not changed but for the inclusion of the DSM-V specifier 'with limited prosocial emotions' (DSM-V, 2014). Although it seems contradictory, anxiety and mood disorders

are found in many youths with conduct disorder, especially in girls, at increased rates after puberty (Dulcan and Lake, 2012). Irritability, anxiety, and aggression may be the main features with sadness and inability to experience pleasure being less prominent (Moore and Carr, 2000).

Children and adolescents with conduct disorder suffer from such a myriad of biopsychosocial vulnerabilities that it would be amazing to find any single effective treatment modality. Nevertheless, single procedures continue to be developed and tested (Lewis, 1996). The need for an individualized approach, oriented towards the specific need of each of the children, to the work with kids placed in Correctional Boarding Schools (CBS), Social-Educational Boarding Schools (SEBS) and crisis centers, displaying behavioral problems, ought perhaps to be underscored for the umpteenth time. The effective care for children with behavioral problems is at "the stage of pre-criminal status" (Mutafov, Shosheva and Gospodinova, 2000). The aggressive behavior that appears for the first time in the adolescence period is with a better prognosis, with better possibilities for correction and for building good social skills (Polnareva, 2013).

This scientific statement links the severity of the behavioral problems, including anxiety and depressed mood, to the effectiveness of the training in social skills through using suggestopedic techniques, i.e. mind mapping, and recording the most frequent display of children with behavioral problems, i.e. running away.

Material and methods

One hundred children aged between 15 and 17 years, placed at Correctional Boarding Schools (CBS), Social-Educational Boarding Schools (SEBS) and crisis centers in conditions of detention after running away, have been studied in a two-year period. All of them were diagnosed with conduct disorder and their general physical and mental state was examined. The group did not include children with ADHD and with mental retardation. Semi-structured interviews were conducted with all the members of the group. Data about each child's condition (as regards past diseases, present use of drugs, family constellation, criminogenic environment, period spent in the institution, reasons for placing the child at a residential home - the type of offences committed in the past, arson offences in the past and displayed aggression toward animals and people, use of alcohol, psychoactive substances or combined use, i.e. polysubstances, violence against the child in the past, number of runaways in the recent six months) were collected from the reports of the social services and the Ministry of Interior. The children were given a battery of tests for depression, anxiety, and aggression (Hamilton Anxiety Rating Scale (HAM-A), Beck Depression Inventory (BDI) and Buss–Durkee Hostility Inventory (BDHI).

The tests applied in this study are widely used in clinical practice and for research aims in Bulgaria. The use of these tests is evident in studies by several authors, published recently (Shumkova, 2006; Krastev, 2011; Temanova, 2011; Stoyanova, 2003; Dimitrov, 2010; Papazova, 2012). They were used with children aged between 13 and 18 years, including with groups of children in institutions (Papazova and Antonova, 2012).

After the tests and semistructured interviews, the group of 100 children was divided for the second stage of the study. Two groups of children were formed randomly to be relatively equally divided in terms of their sex. Each group contained 19 girls and 31 boys. One of the groups received social skills training: skills to solve a problem, using mind mapping, and a situation of running away. The training by using mind map techniques in this study is based on an objective assessment of the real needs of a child, and the goal is to translate the acquired social skills into real-life situations. The method based on using the mind map techniques is easily applicable and pragmatic,

not requiring the engagement in a particular paradigm or therapeutic theory. It seems to provide a child with the opportunity to receive efficacious interventions and hopefully obtain something tangible and resultative (Kirilova-Moutafova, 2018).

When examining the entire sample of 100 children the Ethics Code for Work with Children was strictly followed and a double informed consent was secured, because minors were studied. All children were informed that they were part of a study, an agreement being concluded on non-committing offenses while staying at a residential home. Data about runaways have been collected in the next six months by the offices of the Ministry of Interior (launching the search for a missing child, placed in CBS, SEBS or a crisis center). The study was conducted at the Shelter for Temporary Accommodation of Minors and Under-aged, Sofia Directorate of Interior.

Results

The results obtained from the questionnaires for anxiety, depression and aggression of the entire group of children are given below in Tables 1, 2 and 3.

Table 1. Surveyed individuals according to their level of depression (%)

Depression (BDI)	Normal	Mild depression	Mild to moderate severe	Moderate severe to severe	Severe
Level of depression	38	49	8	4	1

Table 2. Surveyed individuals according to their level of anxiety (%)

Anxiety (HAM-A)	Normal	Mild	Moderate	Severe
Level of anxiety	51	27	20	2

Table 3. Surveyed individuals according to their level of aggression (%)

Aggression (BDHI)	Low	Normal	High
Level of aggression	2	60	38

The results obtained from the tests and semi-structured interviews of all children provided a basis to form three groups. The children with severe symptoms are 7% of the total of children included in the study; 10% of the sample has milder symptoms. Those with severe symptoms have higher scores on the Beck Depression Inventory (moderately severe depression and severe depression); on the Hamilton Rating Scale for Anxiety – moderate and severe anxiety, they were aged under 10 at the onset of behavioral disorders; there is information about them suffering violence in the family and misusing several psychoactive substances. The Buss-Durkee aggression level is higher in this group than the total scores.

10 % of the sample has milder symptoms – these are the children who have mild depression according to Beck Inventory, mild anxiety according to Hamilton, and low scores according to Buss-Durkee. They misuse psychoactive substances, mostly alcohol and marijuana, exhibiting behavioral disorders after turning 10.

The rest of the children in the sample formed the third group.

The assumption that the children with severe symptoms would be less influenced by the provided intervention (the training) in comparison with those with relatively milder symptoms was put to the test using the differences in the number of runaways in the six-month period prior to and after conducting the study.

Given the small number of subjects within the studied groups with mild and severe symptoms who have or have not received training (7, and 3, and 3, and 4 children, respectively), Kruskal-Wallis nonparametric tests were performed. The rest of the children in the sample were included in the analysis. Those were the children with various challenging demographic indicators and/or problematic scores in the questionnaires used, considered outside the typical profile configuration of children exhibiting milder or severer behavioral problems. The results of the test are given below in Table 4.

Table 4. Running away rates in the period of six months prior to and after conducting the study on the children with milder or severer symptoms who have received and who have not received training

	Type of symptoms	N	Number of runaways Average rate	Chi-Square	Sig.
Six months <u>prior</u> (the children who have received training)	Mild	7	20	8.98	.01[1]
	Severe	3	46.50		
	Other	40	24.89		
Six months <u>after</u> (the children who have received training)	Mild	7	9.14	17.26	.000[2]
	Severe	3	47.00		
	Other	40	26.75		
Six months <u>prior</u> (the children who have not received training)	Mild	3	10	12.79	.002
	Severe	4	45.50		
	Other	43	24.72		
Six months <u>after</u> (the children who have not received training)	Mild	3	13	3.20	.20[3]
	Severe	4	31		
	Other	43	25.86		

[1] $p \leq .05$; [2] $p \leq .001$; [3] The difference between the average rates of the number of runaways in this group is statistically insignificant

The assumption that children displaying a pronounced inclination to aggression would be less influenced by the training in comparison with those who do not exhibit such inclination was also tested using the differences in the number of runaways prior to and after the study. The average rates of runaways were studied and compared with those of the children who have or have not shown physical aggression and have or have not received training. T-tests were once again conducted for the purpose with one sample tested twice (repeated measures) (Paired-samples T-Test). Given the small number of subjects in the studied samples, the Wilcoxon Signed-Rank Test was conducted, i.e. the nonparametric equivalent of the paired t-test (Table 5).

Table 5. Running away rates in the periods of six months prior to and after conducting the study on the children with aggressive and with non-aggressive behaviors, who have received and who have not received training

	Period before/after the study	Number of runaways		Average rates			Z	Sig.
		Average	s.d.	+	-	=		
The children with aggressive behaviors who have received training	Six months prior	1.90	.70	0	2.50	-	-2.00	.046[4]
	Six months after	1.71	.84					
The children with aggressive behaviors who have not received training	Six months prior	2.20	.77	5.50	6.19	-	-1.60	.11[5]
	Six months after	1.90	.72					
The children with non-aggressive behaviors who have received training	Six months prior	1.83	.66	8.50	10.08	-	-3.75	.000[6]
	Six months after	1.14	.95					
The children with non-aggressive behaviors who have not received training	Six months prior	1.57	.63	7.40	5.86	-	-.165	.87[7]
	Six months after	1.53	.86					

[4] N = 21; p < .05; [5] N = 20; the difference is statistically insignificant; [6] N = 29; p < .001; [7] N = 50; the difference is statistically insignificant

Discussions

The survey shows relatively high levels of depression and anxiety in children placed in institutions. The result obtained by using self-evaluation questionnaires for exhibiting aggression is impressively similar to the data presented in other sources: episodes of physical aggression performed by the child appeared from the records about the child and the children themselves in the semi-structured interview (41 %). This percentage is very important because approximately 40 % of the children with conduct disorder as adults have violations on Axis II − Antisocial personality disorder (Onchev, 2012). A. Slavtchev (2002) gives similar rates for depression, anxiety, and aggression in mistreated children: 70 % for depression, 67 % for anxiety and 40 % aggressive behavior respectively (Slavtchev, 2002). It is important to note that a very high percentage of children (75%) reported experiencing violence in the past and the rest of the children (25%) mentioned having witnessed physical aggression towards others (Kirilova-Moutafova, 2014).

The results obtained and presented in the tables above show that the average number of runaways among the children exhibiting no aggression has dropped significantly after receiving the training (*See* Table 5). Compared with this group, the average number of runaways exhibiting aggression remains much larger after the training, not tangibly changing from the number of runaways prior to conducting the study. Though this group is also influenced by the training, this is to a much lesser degree in comparison with the children who were not inclined to display aggression. It should also be noted here that the difference with the children displaying aggression,

who have received training, borders on the statistical significance (p $\leq$ .05; *See* Table 5), while the one with the non-aggressive children who have received training is within the optimal range (p $\leq$ .001; *See* Table 5). This shows more credibility of the achieved results with this last group.

The results above show that the average rates of the number of runaways in the group of children with mild symptoms that have received training are significantly lower in the period of six months after conducting the study compared with the of six months prior period (*See* Table 4). The differences for both periods are statistically significant (p $\leq$ .05 and p $\leq$ .001 respectively): what draws attention here is the fact that the rates for the period after the training are higher. The higher level of statistical significance of the results also means more credibility. This is further beefed up by the fact that Chi-Square values are greater here.

The lack of changes in those children who fit neither into the group with mild symptoms nor into that with severe ones is probably due to the fact that the respective group is not homogenous in terms of defined specific characteristics (personal, demographic, psychosocial, etc.). In other words, both children influenced by the training (or have been influenced if receiving training), and those who have not been influenced by the training (or would not have been influenced) may happen to fall in this group and their results neutralize each other.

Multimodality treatment programs that use all of the available family and community resources are likely to bring about the best results in efforts to control conduct disordered behavior (Sadock and Sadock, 2009).

Unfortunately, work with institutionalized children who use psychoactive substances is not performed yet in Bulgaria, while precise diagnostics and therapy of anxiety and depressive disorders, concomitant with a display of behavioral problems, seem to be underestimated. The findings regarding the antisocial trend suggest that hope exist, its real treatment is not psychoanalysis, but an appropriate attitude, welcome and respond to moments of hope (Winnicott, 2008).

Conclusions

The obtained results confirm the assumption that children with severe symptoms would be less influenced by the provided intervention (the training) in comparison with those exhibiting milder symptoms. The latter are influenced by the training to the greatest degree compared with the other two groups. The children who, after receiving training, can't be classed with any of the two specific groups (with mild or severe symptoms) come second. And last, come the children with severe symptoms, the largest number of runaways that do not change as a result of the intervention.

The results obtained in this survey illustrate a negative tendency and could become a basis for changing the working practices of different institutions that accommodate children with behavioral problems. In order to avoid hypodiagnostic errors in children with anxiety and depression, when they are about to be accommodated in institutions for their status assessment, a meeting with a psychologist and with a child psychiatrist is highly recommended, if necessary. If severe psychopathology is attested, and when it is complicated by the use of substances, an expert in drug dependencies has to participate in the admission team.

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