



## **DIAGNOSTIC AND INTERVENTION PROGRAM FOR THE PREVENTION OF BEHAVIORAL DISORDERS IN CHILDREN AND ADOLESCENTS IN THE AREA OF FBIH**

### **DIJAGNOSTIČKO-INTERVENTNI PROGRAM PREVENCIJE POREMEĆAJA U PONAŠANJU DJECE I ADOLESCENATA NA PODRUČJU FBIH**

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**Original Scientific Article**

Received:10/11/2023

Accepted: 23/12/2023

#### **ABSTRACT**

Educational institutions record an increase in behavioral disorders in children and adolescents every day, with severe symptoms that result in hospitalization or the imposition of criminal sanctions for juvenile delinquents. Behavioral disorders of children and young people stand out as one of the primary problems of today's society. The purpose of this paper is to give a detailed insight into the state of emotional and behavioral disorders, from those that are hidden such as withdrawal, apprehension, fear, anxiety to behavior that children and young people come into conflict with others, even committing acts that are legally recordable as punishable. It has been proven in various studies that early diagnosis and preventive interventions in working with children give the best results. The hypothesis that behavioral disorders and emotional problems among children and young people in primary and secondary schools are present and require the application of appropriate preventive and treatment programs has been confirmed. Through the presentation of modern approaches to the detection, prevention and diagnosis of behavioral problems, this work shows the relationship between biological factors, parental qualities, education, the influence of peers, school and social norms, and the way in which they become risky for the development of problematic behavior. Detecting risk factors and stopping the action of risk processes, which have been proven to have a positive correlation with the occurrence of aggressive behavior in children, leads to a decrease in the rate of its occurrence. It has been observed that there are several successful ways of working with children that result in a reduction in the rate of behavioral disorders, even in provoking situations. Communication and problem-solving skills training can successfully reduce inappropriate child behaviors.

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Teaching social-emotional skills, in addition to reducing behavioral disorders, also results in higher self-esteem and more positive attitudes in children.

Schools have a need for continuous implementation of science-based prevention programs that include interventions aimed at children and work with parents

**Keywords:** Behavioral disorders, interventions, children, adolescents, parents, prevention programs

## SAŽETAK

Odgojno-obrazovne institucije svakodnevno evidentiraju porast poremećaja u ponašanju kod djece i adolescenata, sa jako izraženim simptomima koji rezultiraju hospitalizacijom ili izricanjem krivičnih sankcija za maloljetne delinkvente. Poremećaji ponašanja djece i mladih ističu se kao jedan od primarnih problema današnjega društva. Svrha ovog rada je dati detaljan uvid u stanje o emocionalnim i poremećajima u ponašanju od onih prikrivenih kao što su povučenost, strepnja, strah, anksioznost do ponašanja kojima djeca i mlade dolaze u sukob sa drugima čineći čak i djela zakonski evidentirana kao kažnjiva. U raznim studijama dokazano je da rana dijagnostika i preventivne intervencije u radu s djecom daju najbolje rezultate. Potvrđena je hipoteza da poremećaji u ponašanju i emocionalni problemi među djecom i mladima u osnovnim i srednjim školama prisutni i da zahtijevaju primjenu odgovarajućih preventivnih programa i programa tretmana. Ovaj rad kroz prikaz savremenih pristupa uotkrivanju, prevenciji i dijagnostici ponašajnih problema, pokazuje odnos između bioloških faktora, roditeljskih kvaliteta, odgoja, utjecaja vršnjaka, škole i društvenih normi, te način na koji oni postaju rizični za razvoj problematičnog ponašanja. Detektovanje rizičnih faktora i zaustavljanje djelovanja rizičnih procesa, koji su dokazano u pozitivnoj korelaciji s pojavom agresivnog ponašanja djece, dovodi do smanjenja stope njegova pojavljivanja. Uočeno je da postoji više uspješnih načina rada s djecom koji rezultiraju smanjenjem stope poremećaja u ponašanju, čak i u provocirajućim situacijama. Treninzi komunikacije i vještina rješavanja problema mogu uspješno reducirati neadekvatna dječja ponašanja. Podučavanje socijalno-emocionalnim vještinama, osim smanjenja poremećaja u ponašanju, rezultira i većim samopoštovanjem i pozitivnijim stavovima kod djece. Škole imaju potrebu za kontinuiranim provođenjem naučno utemeljenih programa prevencije koji uključuju intervencije upućene djeci i rad sa roditeljima.

**Ključne riječi:** Poremećaji u ponašanju, intervencije, djeca, adolescenti, roditelji, programi prevencije

## INTRODUCTION

Official statistics show that in recent years there has been a significant increase in various forms of behavioral disorders among children and young people. Young people today, more than ever before, are burdened with numerous risks in their growing up, they lean towards and take on different risky lifestyles and behaviors. The term emotionally damaged or socially maladjusted children are children with behavioral disorders and are described as children whose behavior causes conflict situations (Dervišbegović, 1997).

Behavioral disorders are the most widespread category of psychosocial disorders of children and young people, and if they are beyond the scope of experimentation, they cause significant difficulties for children and families, they have the property of very serious and far-reaching disorders. Popović-Čitić and Žunić-Pavlović (2005) use the term delinquency and emphasize that when it comes to prevention as an area of practical work, it is more acceptable to use this term, which includes a wide range of unacceptable forms of behavior, such as: problems in schooling, violent behavior and vandalism, running away from home, vagrancy and begging, abuse of psychoactive substances, sexual behavior disorders and others. At the end of the continuum of manifestations is juvenile delinquency (commitment of criminal acts), as the most serious form of criminal behavior. The period of childhood and adolescence is the time when appropriate pedagogical procedures and preventive measures can influence the direction of such models of behavior towards socially appropriate forms. From this arises the need to create various pedagogical prevention programs in schools aimed at providing support and assistance to young people in their psychosocial development and maturation. The main goal of preventive action is the empowerment of children and young people, that is, the development of appropriate social skills and competences and the acceptance of positive models of behavior that will enable them to face the challenges of the modern age more easily and efficiently. The developmental outcomes of adolescence can greatly influence the further maturation and functioning of a young person. Adolescence is a period of increased risk for emotional and behavioral problems (Youngblade, Theokas, 2006). Longitudinal research results show long-term consequences of child and adolescent problem behavior (especially externalizing problems) that later in adulthood include a wide range of social maladaptive behavior, including addictions, disturbed family relationships, criminal activities and many others (Henderson, et al, 2006; Bongers et al. .al., 2008). Risky behavior is sometimes considered a normal and transient part of growing up, because in this way young people test the limits of what is permissible. Nevertheless, there is a justified concern that adolescents by engaging in risky behaviors impair their further psychosocial development, therefore it is necessary to start various preventive actions as early as possible in order to orient young people in the direction of positive social values. Social-pedagogical prevention means all those educational-social procedures, measures and activities that try to prevent the emergence and development of behavioral disorders. Selective prevention includes early detection of behavioral disorders and timely and adequate provision of help and protection, based on the concept of strengthening protective factors, empowerment and meeting the basic psychological needs of students/children and adolescents. The goal of this form of prevention is to use various pedagogical procedures and therapeutic methods to modify behavior according to socially desirable models. The problem should be viewed multidisciplinary, that is, in working with adolescents who manifest some form of behavioral disorder, in addition to social pedagogues, experts of other profiles, psychologists, social workers, and often psychiatrists should also be included. It is important to spot and recognize behavior disorders in adolescents as soon as possible and to act in a timely manner so that such a pattern of behavior does not become established and become a habit. In the fifth version of the Diagnostic and Statistical Manual (DSM-V), which is currently in use, behavioral disorders are classified under the diagnostic category called attention deficit and disruptive behavior disorders.

## Diagnosing behavioral disorders

The diagnostic label behavioral disorders is described as repeated and persistent patterns of behavior that violate the rights of others and general, age-appropriate social norms and rules, including: aggressive behavior towards people or animals, intentional destruction of property, fraud or theft, and serious violations of behavioral rules (APA, 1994). Two typologies of behavioral disorders are offered, in relation to age - the type that predominantly occurs in childhood and the type that occurs in adolescence, as well as in relation to the severity of the disorder - mild, moderate and severe type. Within this diagnostic category, oppositional-defiant disorder is also distinguished, which is characterized by long-term patterns of negative, insolent and hostile behavior, but without serious violations of generally accepted norms of behavior. Oppositional defiant disorder refers to developmentally inappropriate levels of negativistic, defiant, disobedient and hostile behavior towards authority figures. Behaviors associated with oppositional defiant disorder include active defiance or refusal of the demands of parents, frequent tantrums, excessive arguments ("tantrums") that can significantly interfere with adult-child and child-peer interactions (Green et al., 2002), i.e., here we include children which are temperamental; they often quarrel with their elders; they oppose authorities; openly and intentionally annoy others; often blame others for personal mistakes; they are very sensitive and get irritated quickly; and are often angry and resentful (APA, 1994).

The DSM-V classification of the American Psychiatric Association, within the group of disorders that are usually first diagnosed in infancy, childhood or adolescence, lists the category of behavioral disorders among a number of disorders. They are defined as persistent patterns of antisocial behavior that violate fundamental social rights and/or the basic rights of others and include: aggression towards people or animals, destruction of property, cheating or theft, and serious violations of the rules, however, states that in this classification, six categories refer to disorders behaviors:

1. Behavioral disorders that include: aggression towards people and animals, damage or loss of property; fraud or theft; serious violation of the rules,
2. Oppositional behavior (disorders with assertion and defiance),
3. Disorders with violent behavior,
4. Adjustment disorders with mixed emotional and behavioral disorders,
5. Adjustment disorders with behavioral disorders (conduct disorders),
6. Antisocial behavior of children or adolescents.

DSM V (APA, 2014) recognizes 15 diagnostic features of behavioral disorders. The diagnosis is made if at least three of the 15 criteria from any of the categories below appear in the period of 12 months, provided that at least one criterion is present in the last 6 months: Aggressive behavior towards people and animals:

1. frequent tyrannization, intimidation and threats to others
2. often starting fights)
4. physical cruelty to animals
5. physical cruelty to people

3. the use of weapons that can lead to serious physical injuries to others (e.g. club, brick, broken bottle, knife or gun and

6. theft that includes confronting the victim (attack with enslavement, kidnapping, extortion or participation in armed robbery)

7. forcing another person to engage in sexual activity

Destruction of property:

8. deliberate arson with the intention of causing serious damage

9. intentional destruction of other people's property (without setting a fire)

Fraud and theft

10. breaking into someone else's house, building or apartment

11. frequent lying in order to obtain objects or services or to avoid obligations (eg deliberately cheating others)

12. theft of valuable objects without confronting the victim (shoplifting, but without breaking and entering, forgery)

Serious rule violation:

13. often staying outside regardless of parental prohibitions, starting before the age of 13

14. running away from home, while living with parents or parental surrogates, on at least two occasions overnight, or once if the outbreak lasted for a longer period of time

15. often running away from school ("marking") before the age of 13.

Unlike DSM-V, whose classification is related only to psychiatric disorders, ICD 10 is a classification of organic and psychological diseases. The behavioral disorder code is F 91, and the subtypes of the mentioned disorder are:

1. F 91.0 - Family-confined conduct disorder includes antisocial and aggressive behavior (not just opposition, defiance, and restlessness) in which all or most of the behavior is abnormal and is limited to the home and relationships within the primary family or immediate household.

2. F 91.1 - Unsocialized behavior disorder is characterized by a combination of constant unsociability or aggressive behavior (the entire criteria for F91 is needed, not just opposition, defiance, restlessness) with significant abnormalities that pervade personal relationships with other children. Subtypes of this type are:

1. Behavioral disorder - independent aggressive type

2. Antisocially aggressive disorder

3. F 91.2 - Socialized behavior disorders includes constant unsociable and aggressive behavior (all criteria for F91 are needed - not only confrontation, defiance, restlessness) appears in individuals who are generally well integrated into the society of peers. Subtypes of this type are:

1. Conduct disorder - collective type

2. Collective delinquency

3. Attacks in contact with party members

4. Theft in company with others

5. Marking from school

4. F 91.3 - Defiant and oppositional conduct disorder a disorder that usually appears in younger children, primarily characterized by visible defiance, disobedience and disordered behavior that does not include delinquent actions or more extreme forms of aggressive or antisocial behavior. The disorder requires that all criteria for F91 be met. even more serious pranks and pranks are not enough for a diagnosis.

5. F 91.8 - Other behavioral disorders

6. F91.9 - Behavioral disorders, unspecified

The final version of the ICD-11 Clinical Descriptions and Diagnostic Guidelines will include, for each disorder, a description of the basic (necessary) features, the boundary of the disorder in relation to normality (threshold for establishing a diagnosis) and other disorders (differential diagnosis), and a description of the characteristics of the outcome, clinical presentation, culturally determined characteristics, developmental presentations, as well as gender-dependent characteristics.

According to the International Classification of Diseases X revision, of the World Health Organization (ICD-11), the group of mental disorders and behavioral disorders (F00-F99) includes the following subgroups:

- 1. Organic and symptomatic mental disorders (F00-F09)
- 2. Mental disorders and behavioral disorders caused by taking psychoactive substances (F10-F19)
- 3. Schizophrenia, schizotypal and insane disorders (F20-F29)
- 4. Affective disorders (F30-F39)
- 5. Neurotic, stress-related and somatoform disorders (F40-F49)
- 6. Behavioral syndromes related to physiological disorders and physical factors (F50-F59)
- 7. Personality and behavioral disorders of adults (F60-F69)
- 8. Mental retardation (F70-F79)
- 9. Behavioral and emotional disorders occurring in childhood and adolescence (F90-F98)
- 10. Unspecified mental disorders (F99)

In addition to the already mentioned, the following categorical systems IDEA and CCBD with the so-called educational diagnoses that differ from medical ones according to terminology, definitions and criteria, because they have the purpose of identifying children who need additional support. IDEA and CCBD are quite often used in education and healthcare.

According to IDEA (Individuals with Disabilities Education Act), a special category of disability is severe emotional disorders. Severe emotional disorders are defined as conditions characterized by the manifestation of one or more of the following characteristics:

- a learning disability that cannot be explained by intellectual, sensory or health factors;
- inability to establish and maintain satisfactory relationships with peers and teachers;
- inappropriate feelings or behaviors under normal circumstances;
- a general pervasive feeling of sadness or depression and a tendency to develop physical

symptoms or fear related to personal or school problems (National Council on Disability, 1995; according to Žunić-Pavlović et al., 2010).

However, in practice we often have a situation where a student needs appropriate services and interventions, although the criteria for diagnosing behavioral disorders are not met according to the descriptions and criteria offered within the diagnostic categories.

In modern dimensional systems, the division into externalized and internalized behavioral problems is accepted (Achenbach, Rescorla, 2001) and it is precisely Achenbach's dimensional classification of behavioral disorders that we opted for in our approach. Achenbach and his collaborators identified a total of eight syndromes that assume a set of symptoms of emotional, social and behavioral problems. By applying factor and cluster analysis, patterns of grouping of symptoms or forms of problematic behavior were observed, and based on this, the following syndromes were distinguished:

1. Anxiety-depression (crying, fears, tension, perfectionism, shame, etc.),
2. Withdrawal-depression (moodiness, timidity, lack of energy, avoidance of contacts)
3. Somatic complaints (dizziness, tiredness for no reason, nausea, headache, etc.),
4. Social problems (excessive reliance on adults, jealousy, feeling that others don't like him, clumsiness, speech problems, etc.),
5. Thinking problems (inability to divert one's mind from certain things, deliberate attempt to injure or commit suicide, having strange ideas, perceiving things that do not exist, collecting unnecessary things, etc.),
6. Attention problems (inability to concentrate and maintain attention, inattentiveness, difficulty falling asleep, running away from home, etc.),
7. Behavior that breaks the rules (absence of feeling guilty if something bad is done, lying, cheating, spending time with problematic children, cursing, using drugs, running away from home and school, breaking the rules of behavior at home, at school, etc.) and
8. Aggressive behavior (physical confrontations, disobedience at school, mischievousness, suspiciousness, "bad temper", threats to others, screaming, making noise, destroying other people's things, etc.).

Based on further analysis, these syndromes are classified into two broad groups of syndromes, predominantly active behavioral disorders (externalized) and predominantly passive behavioral disorders (internalized). Externalized behaviors are also called uncontrolled behaviors, while internalized behaviors are those that are overcontrolled. Externalized syndromes refer to conflicts with other people and their expectations and, as we mentioned earlier, include: Behavior that breaks the rules and Aggressive behavior. The second group of problems includes types of behavior that are directed towards oneself, that is, internal problems, such as anxiety, depression, somatic complaints without clear medical reasons, and social withdrawal. Achenbach and Rescorla (2001) point out that when sorting the syndromes, they singled out anxiety-depression, withdrawal-depression, and somatic complaints on one side, while on the other side they placed rule-breaking behavior and aggressive behavior. They placed social problems, thinking problems and attention problems in the middle, i.e. they are at the transition between internalized and externalized behaviors and do not belong purely to one or the other group, i.e. the factor analysis shows that they belong equally to internalized and externalized.

The grouping of syndromes is the result of numerous multivariate analyzes of behavioral and emotional problems.

Two groups of syndromes were designed by placing personality disorders in relation to behavioral disorders (Pettersson 1961), internalized in relation to externalized (Achenbach 1965; 1966); inhibited versus aggressive (Miller, 1967); uncontrolled versus overcontrolled (Achenbach, Edelbrock, 1978). The distinction we call internalized versus externalized shows more global problems than individual ones.

Internalizing syndromes refer to problems with oneself such as anxiety, depression, somatic complaints without a clear medical cause, and social withdrawal. Beirne-Smith et al., (2002) often refer to mood and anxiety disorders as internalizing disorders, as they result in emotional distress and depression. Non-clinical depression or depressed mood in children is characterized by social withdrawal and low self-confidence, anger or self-destructive behavior, as well as low school performance. During adolescence, when self-awareness grows and social pressure gains importance, the lack of social incentives is responsible for increasing feelings of social isolation, helplessness and depression (Heiman, 2001, according to Brojčin, Glumbić, 2012).

The period of early youth is a period in which the risk of developing depressive disorders increases (Oland, Shaw, 2005; Hankin, Abramson, 2001; Kovacs, Devlin, 1998; Loeber, Keenan, 1994; Weissman et al., 1999). Many depressive symptoms are related to the way we see and understand ourselves (Kovacs, Devlin, 1998).

Aggressive forms of behavior include a wide range of behavior. Aggression is behavior intentionally aimed at harming others (Parke, Slaby, 1983 according to Matthys, Lochman, 2010). By the way, when we talk about aggression, we mean physical and verbal. Recently, relational aggression has also been described (Matthys, Lochman, 2010). Although there are several divisions of aggressive behavior, recent research often focuses on two basic forms of aggression: proactive and reactive (Dodge, 1991; Kempes et al., 2005; Vitaro et al., 2006; Pulkkinen, 1996; Vitaro et al., 1998 ). Reactive aggression is defined as aggressive behavior that represents a reaction to some external stimulus, event or behavior (threat, provocation or preventing the achievement of a goal), with the fact that this stimulus can be real or the person has experienced it as such. Conversely, proactive aggression refers to planned behavior that occurs either due to the anticipation of some desired goal (which can be achieved through aggressive behavior) or dominance over other persons, e.g. abuse. Neither anger nor provocation is necessary for its occurrence. The concept of reactive aggression partially overlaps with the concepts of emotional, impulsive and hostile aggression, while proactive aggression is similar to the concepts of instrumental and predatory aggression (Kempes et al., 2005; Little et al., 2003; Poulin, Boivin, 2000). Previous research shows that these two basic forms of aggression differ in terms of long-term outcomes. For example, proactive aggression has been shown to be a significant predictor of future delinquent behavior in adolescence and criminal behavior in early adulthood (Pulkkinen, 1996). Conversely, reactive aggression is not a risk factor for future violent behavior (Vitaro et al., 1998), but is a significant predictor of victimization in close relationships, especially for girls (Poulin, Boivin, 2000). However, existing research most often uses a single, general measure of aggression (eg Simons, Paternite, Shore, 2001).



Such a measure includes various forms of aggressive behavior, e.g. verbal/physical, reactive/proactive, direct/indirect. Consequently, it is not known whether the patterns of association between attachment to parents and different forms of aggression, e.g. reactive and proactive, similar or different.

In essence, both internalized and externalized behavior problems are observed through the prism of the outcome of the interaction of risky characteristics of adolescents and risk factors in their environment, the most important of which are: risky situation in the family, risky situation in school and risky situation in peer groups.

### **Stability of behavioral disorders**

As for the stability of the manifestation of externalized behaviors, a number of studies have shown that aggressive behavior is an extremely stable trait (Loeber, Burke, Pardini, 2009) that is formed quite early in life. Therefore, the prognosis of adolescent bullies is usually very poor (Kazdin, 1993). Olweus (1979) made a meta-analysis of longitudinal studies and determined that aggressiveness reaches the level of stability of intelligence (he obtained a stability coefficient of 0.76 for a one-year interval and 0.60 for a two-year interval) (Parke, Slaby, 1983). Similarly, for a time interval of 22 years (Huessmann et al., 1984) they obtained a coefficient of stability of aggressiveness of 0.46. Correlation coefficients for longer periods of time decrease, but rarely below 0.40, even for periods longer than 20 years. In some studies, it was also established that the stability of aggressive behavior is greater in men than in women (Kagan, Moss, 1962). However, Olweus (1982) shows that the differences in the stability of men's and women's aggression are small (the coefficient of stability for women was 0.44, and for men 0.50). Several longitudinal studies (Loeber, 1982, according to Coie, Dodge, 1997) indicate a decrease in the intensity of aggressive behavior, but also an increase in its severity in adolescence. Many negative behavior patterns visible during adolescence remain visible in adulthood (Shortt et al., 2003), with serious problems of later adaptation (Lipsey, Derzon, 1998) and general functioning, which as a result of the accumulation of disorders over a long period of time leave harmful consequences on development (Fergusson et al., 2005). Young people with behavioral disorders in late childhood (at the age of 10) nurture a high level of delinquency in adolescence (Simons et al., 2001) and criminal activities in early adulthood, thus demonstrating the marked stability of behavioral disorders (Simons et al., 2001). It is considered that a high risk for maintaining violent behavior is associated with the existence of a constellation of different problems, which are relatively frequent and serious, affect several areas of functioning, manifest in different environments and in relation to different people (Campbell et al., 2000 according to Žunić-Pavlović, Kovačević-Lepojević, 2011). This is precisely why we include the adolescent population in this project.

This project is conceived in two parts. As part of the first part, we intend to investigate the increase in behavioral disorders among children and young people in primary and secondary schools in the FBiH region, which is a consequence of the current state of society, but also the lack of adequate programs and measures for its suppression and prevention in school curricula. In the second part, we will create a prevention program and implement it.

## **Activities to date and a brief history of prevention in schools**

The first preventive interventions were not formally evaluated, and the first prevention studies appeared in the 60s of the twentieth century (Durlak, 1995, according to Kranželić Tavra, 2003). In the beginning, it was about the prevention of health problems, and later it was extended to improving social functioning as well as increasing students' self-confidence. At that time, prevention programs were based on intimidation.

A certain number of activities were carried out in BiH with the aim of detecting and preventing undesirable forms of behavior among children and young people, through programs aimed at preventing peer violence, internalized problems and gambling among young people. In three municipalities individually, a prevention program was implemented, which included a small sample, and was limited only to the territory of the municipality that started the research. However, in the territory of the FBiH, not a single research was conducted, nor were measuring instruments developed for the detection, prevention and treatment of overall behavioral problems, especially after the period of the COVID 19 pandemic, which left significant negative consequences for children, young people and their families. Safe houses record an increase of about 20% in cases of domestic violence from fathers to mothers and children. This research would provide an overview of the condition, methods for early detection and detection of behavior disorder symptoms, prevention and treatment.

## **Preventive programs in schools**

School, as the most natural environment for a child's growth and development, is suitable for all kinds of prevention. It can be carried out universally aimed at the general population, then selectively aimed at different subgroups with risks for the development of the disorder, and indicated aimed at individuals at high risk. In order for the school to be a supportive environment for the child's growth and development, the interaction of numerous factors is necessary: teachers/teachers, parents, administration, school staff, external institutions, etc. We have three concepts of programs related to the school.

The first programs take place in the school building, the second programs take place near the school and the third programs take place in the community.

## **Principles of successful prevention programs**

Schools tend to use prevention programs that have not been researched and evaluated, so the very benefits of such programs are often questioned. Prevention programs should be comprehensive, that is, they should affect several environments in order to achieve their goal. Programs should include different learning methods, users should be exposed to a sufficient number of activities, they should nurture positive relationships and prosocial behavior, they should take place in developmentally adapted time, i.e. when the user will benefit the most from them, and most importantly, they should be theoretically based. Programs need to be led by experts, and after each implemented program an evaluation needs to be done in order to determine its effectiveness.

## **Implementation of preventive programs**

Implementation represents the implementation or application of preventive programs. It is precisely for this reason that it is a key link in the implementation of preventive programs. The process of implementing an activity is the most important, because knowledge and competences are acquired during the process, the essence unfolds during the process. Preventive programs can be written on paper, but implementation represents their implementation in practice. For implementation, the most important thing is to choose a program that is based on scientific evidence and that is useful for a specific population. The success of implementation is influenced by various factors, processes and structure of the program, characteristics of the environment and the implementer of the program. Implementation is influenced by both internal factors related to the program and external factors outside the planned process. Implementation depends on the preparation of the ground for its implementation, the quality of the program that is planned to be implemented, the environment in which it is planned to be implemented, and the individuals involved in the program. Implementation is important because it provides us with the possibility of insight into what happened during the intervention process, and provides us with feedback on what needs to be improved and changed and what proved to be beneficial. Most schools, as I have already mentioned, use untested programs and programs that have been proven ineffective and harmful precisely because they create their own programs without being based on theoretical assumptions.

## **Research subject**

According to the above, the purpose of this research is to examine the presence of behavioral disorders, their forms, frequency, extent of behavioral disorders, family functionality and structure, as well as the information and knowledge students have about this problem, and then conduct preventive workshops and education.

## **The aim of the research**

The main goal of the research is to determine specific forms of behavioral disorders and emotional problems in children and young people.

## **Hypothesis**

H 1 - It is assumed that behavioral disorders and emotional problems among children and young people in primary and secondary schools are present and that they require the application of appropriate preventive and treatment programs.

## **A sample of respondents**

The research included 2800 children attending primary and secondary schools in the cities of Tuzla, Sarajevo, Mostar, Lukavac, Doboj Istok, Gradačac, Travnik, Bihać, Tomislavgrad, Cazin, Livno, Bužim, Stolac. The respondents will be between the ages of 11 and 18, both sexes, a total of 2,800 children and young people.

## **Method of testing and measuring instruments**

For research purposes, we will use two survey questionnaires for quantitative research.

The research will be conducted on a stratified sample, and within it we approach simple random sampling to select the classes. The nature of the problem fully justifies the sample of respondents.

As instruments for collecting data on self-assessment of behavior, we will use a questionnaire, which students will fill in during class community classes. The entire questionnaire will include a section on general data and the Youth Behavior Self-Assessment Scale. The data will be collected while ensuring the anonymity of the respondents. The examination process itself will last one school hour. The prevalence and appearance of behavioral disorders in the population of children and adolescents will be examined using Achenbach's integrated assessment system. The instrument measures adaptive functioning, i.e. competences, and maladaptive functioning, i.e. behavioral, emotional and social problems between the ages of 11 and 18. The instrument measures problems with a tendency to co-occur, namely: Anxiety-depression, Withdrawal-depression, Somatic complaints, Social problems, Thinking problems, Attention problems, Behavior that breaks the rules and Aggressive behavior. Syndromes are grouped into externalized and internalized. Externalized syndromes refer to conflicts with other people and their expectations, and include behavior that breaks the rules and aggressive behavior (examples of statements: "I break the rules at home, at school, etc.", "I often tease others"). Internalized syndromes refer to refers to psychological difficulties focused on the individual and overcontrolled behaviors and includes Anxiety/Depression, Withdrawal/Depression, Somatic complaints (examples of statements: "I am withdrawn, "I try to stay away", I am unhappy, sad or depressed). Behavior is assessed on 112 statements, and the scale is a three-point Likert type.. To examine family functioning, we will use a specially constructed survey questionnaire, which contains questions that assess family functioning (expressiveness).

To collect data on family functioning, we will use the Family Environment Scale, version for adolescents (Family Environment Scale – FES, Moos, Moos, 2009).

The FES has proven to be very useful in revealing specific profiles of the family environment in children with various developmental disabilities. Respondents' perceptions of the family are assessed in three ways: perceptions of the current state of the family (realistic), perceptions of the desired state (ideal) and perceptions of what the state would be like in new circumstances (expected).

Form R (realistic) questionnaire enables: understanding of individual perceptions of married and nuclear family for the needs of family counseling or educational programs; formulating clinical case descriptions and understanding the family's influence on adolescent adaptation; encouraging the advancement of the family; describing the family climate and arranging the perceptions of partners or the perceptions of parents and children; predicting and measuring treatment outcomes; family adaptation to life transitions and crises; understanding the influence of the family on children and adolescents.

The instrument contains 90 items to which the answers "yes" and "no" are offered. The questions are divided into ten subscales that measure three basic dimensions of the family environment. The scales and subscales contained in this instrument are:

- o Relationships (cohesiveness – degree of attachment and support of family members;
- o Expressiveness – the extent to which members are encouraged to directly express their feelings;
- o Conflicts – the frequency of openly expressed anger and conflicts among members);
- o Personal growth (independence - how assertive, self-sufficient and independent are family members in decision-making;
- o Orientation towards achievement – the role of school and other activities in an achievement or competition oriented framework;
- o Intellectual-cultural orientation – interest in political, intellectual or cultural activities;
- Active-recreational orientation – participation in social and recreational activities;
- o Emphasizing moral-religious assessment - the importance of ethical and religious issues and values);
- o Maintaining and changing the system (organization – clear organization and structure in planning family activities and responsibilities;
- o Control – rules and procedures through which the family manages its life).

### **Data processing methods**

For data processing, we used the SPSS 21.0 statistical program for the Micro+soft Windows operating system. Quantitative data in this research will be presented in the form of tables and graphs and processed with descriptive statistics. The research material is mostly of a qualitative nature due to our belief that a qualitative approach to the topic of behavioral addictions can be better and that much more can be understood in personal contacts with rooms that are in any way involved in the problem of youth. Conversations with professionals and visits to institutions will give us useful and interesting insights and evidence of theoretical knowledge, policy and legislation through their transformation in practice. In the research, we will adhere to the research method of grounded theory (Glaser and Strauss, 1967), in which we moved from the specific to the more general, that is, we used an inductive approach, trying to develop a theory from the data obtained. In quantitative data processing, we will use the Cronbach alpha coefficient to prove the metric properties of the scales. Descriptive statistics, t-test, ANOVA, post hoc test and regression analysis will be used in data processing. Within the framework of descriptive statistics, we will calculate basic indicators, arithmetic mean, measures of dispersion such as standard deviation, minimum and maximum values of characteristics and range of variation.

Examination of gender differences in the manifestation of peer violence were examined with a t-test for independent samples. Examination of the strength of the relationship between peer violence and the manifestation of behavioral disorders was examined using the Pearson correlation coefficient. Data related to the severity of behavioral disorders are presented in the form of frequencies.

Hypothesis testing will be performed at the level of significance, i.e. with a risk of 5%.

## RESULTS AND DISCUSSION

Table 1. Measures of central tendency, measures of dispersion and asymmetry of score distribution on FES scales and subscales

Varijabla	Min	Max	AS		SD	Skjunes		Kurtosis	
			Stat	St.g		Stat	St.g	Stat	St.g
Cohesiveness	6	12	7,68	,05	1,17	1,00	,10	1,68	,20
Expressiveness	6	12	8,89	,05	1,31	-,08	,10	-,34	,20
Conflicts	6	12	10,18	,05	1,22	-,72	,10	,54	,20
Orientation to	6	12	8,01	,06	1,36	,85	,10	,87	,20
I will achieve	6	12	9,24	,05	1,33	-,06	,10	-,16	,20
Intellectual orientation	6	12	8,61	,05	1,18	,40	,10	,55	,20
Active-recreational orientation	6	12	8,60	,05	1,17	,51	,10	,61	,20
Moral-religious orientation	6	12	8,05	,06	1,42	,70	,10	,30	,20
Individualnost	6	12	9,35	,06	1,42	-,07	,10	-,46	,20
Organization	6	12	8,13	,05	1,23	,73	,10	1,04	,20
Relations	18	36	26,75	,11	2,69	,30	,10	1,72	,20
Maintaining and changing the system	12	24	16,19	,10	2,30	1,05	,10	1,79	,20
Personal growth	30	60	43,81	,19	4,51	,92	,10	2,94	,20

Analyzing the results of descriptive statistics for FES shown in Table 1, we can see that the adolescents from the sample on the Relationship Scale achieved scores in the range of 18-36 (AS = 26.75; SD = 2.69), on the Scale of System Maintenance and Change the scores were ranged from 12-24 (AS = 16.19; SD = 2.30), and on the Personal Growth Scale the range of scores is 30-60 (AS = 43.81; SD = 4.51). On all subscales, the respondents achieved scores in the range of 6-12. The average value of the scores was the highest on the subscales Conflicts (10.18), Individuality (9.35) and Intellectual orientation (9.24). The scores with the lowest arithmetic mean were achieved on the Cohesiveness (7.68), Achievement Orientation (8.01) and Control (8.05) subscales. As we can see from Table 5, the distribution of scores on the Expressiveness, Intellectual Orientation and Individuality subscales are platykurtic, while the distributions of scores on the other subscales and the three main scales are leptokurtic.

Skewness values indicate that the distributions of scores on the Expressiveness, Conflict, Intellectual Orientation and Individuality subscales are negatively asymmetric. The distributions of scores on the other subscales and the three main scales are positively asymmetric. It should be noted that higher scores on FES scales and subscales indicate better family functioning. Family conflicts are often the family's reaction to mothers' emotional problems (Beach, Fincham, Katz, 1998).

Davies, Dumenci, and Windle (1999) examined the relationship between 15- to 17-year-old adolescent externalizing problems, marital dissatisfaction, and maternal depression. The authors explained this relationship in the way that the mother's depression leads to dissatisfaction with the other spouse, dissatisfaction to conflicts and thus directly predicts an increase in adolescent behavioral problems. Johnson et al. (2001) found that inappropriate parenting behavior that included increased levels of interparental conflict, resulting from mothers' prior psychological disorders, was clearly associated with adolescent externalizing problems. The ratio of the mother's emotional problems that lead to conflicts and maladjustment of the child is also determined by the gender of the child (Goodman, Gotlib 1999). For example, boys may be more vulnerable in early and middle childhood while girls are more vulnerable in adolescence (Cummings, Davies 1999).

The following table shows the percentages of subjects in our sample who have clinically significant / insignificant results on certain scales.

Table 2. Share of respondents in the total sample with and without clinically significant results on the scales

	Internalizing					Externalizing		
	Anxious / Depressed	Withdrawn / depressed	Somatic problems	Social problems	Thinking problems	Attention problems	Rule breaking behaviors	Aggres. behaviors
Not clinically significant	75,9%	92,3%	74,8%	85,3%	17,5%	10,2%	31,6%	93,6%
Clinically significant	24,1%	7,7%	25,2%	14,7%	82,5%	89,8%	68,4%	6,4%

AS-arithmetic mean; SD-standard deviation; SG-standard error;

As we can see, there is a surprisingly high percentage of respondents with clinically significant problems of attention (89.9%) and thinking (82.5%), as well as behavior that breaks the rules (68.4%). There is also a high percentage of respondents with clinically significant anxiety (24.1%) and somatic complaints (25.2%). Social problems, which are experienced by 14.7% of respondents, are also not negligible, as is the proportion of respondents who have clinically significant symptoms of depression (7.7%) and aggressiveness (6.4%).

The table shows descriptive statistics, especially for young men and especially for girls. We see that the average values are higher in girls for internalizing problems, while in boys they are higher for externalizing problems.

Also, we see that girls differ more from each other (SD) in terms of internalizing problems than boys.

In order to verify whether the observed gender differences in the manifestation of externalized behavioral disorders compared to internalized ones were statistically significant, we calculated a t-test for large independent samples. The results are shown in the following table.

Table 3. Results of checking the significance of gender differences on the scales of internalizing and externalizing problems

	t	df	p	AS	SG
Internalizing problems	-7,79	2799	0,00	-6,25	0,80
Externalizing problems	4,13	2799	0,00	2,93	0,71

t-value of the T-test, p-statistical significance, SD-standard deviation; SG-standard error

As we can see, the observed gender differences are statistically significant with a degree of certainty greater than 99% for both internalizing problems ( $t(2800) = -7.79$ ;  $p < 0.01$ ) and externalizing problems ( $t(2800) = 4.132$ ;  $p < 0.01$ ). Based on the obtained results, we can confirm the first hypothesis - male adolescents report externalizing problems significantly more often than female adolescents, and female adolescents report internalizing problems. It is considered that boys are more likely to manifest externalizing problems, while girls are more prone to internalizing problems. Similar results were reached by other numerous authors in their research. Gritti et al., 2014; Poulou, 2015; Velki, Kuterovac and Jagodić, 2015; Maglica, Reić Ercegovac and Ljubetić, 2020. These differences can partly be explained by biological factors, but also by possible differences in the upbringing of boys and girls. It is possible that when raising girls, parents encourage empathy and obedience more often, while such expectations from boys are less often present due to the parents' different expectations of their sons and daughters. It is about gender-based education that is deeply rooted in many contemporary cultures, and leads to the formation of gender-based roles from the earliest age of the child through educational messages about acceptable and unacceptable patterns of behavior for girls and boys (Rogošić, Maskalan and Krznar, 2020). Research shows that in general, girls are more prone to developing excessive worries and fears than boys, and that they are more often shy and inhibited.

Also, we calculated the Pearson correlation coefficient between these two variables, and determined that there is a statistically significant, moderately high positive correlation between internalizing and externalizing problems ( $r(2800) = 0.34$ ;  $p < 0.01$ ) with a degree of certainty greater than 99%. This means that the more pronounced internalizing problems are, the more pronounced are externalizing problems, and vice versa. Research has shown a significant positive relationship or comorbidity, which indicates that adolescents can show a greater number of different disorders and difficulties. Achenbach himself (Achenbach et al., 2008) believes that the domains of internalized and externalized problems, although they are opposite, are not mutually exclusive.



Table 4. Correlation of scores on the scales of internalizing and externalizing problems

	Externalizing problems
Internalizing problems	0,34
	0,00
	2700

Adolescents who do not receive unconditional support from their parents and who perceive that their friends accept them less, are motivated to behave in a way that includes a "false self" in order to be better accepted among friends (Harter, Marold, Whitesell and Cobbs, 1996), which indicates that they might be more susceptible to peer pressure. Positive relationships of adolescents with friends are important for social adjustment not only in this period but also later in life (Berndt, 1982; Fullerton and Ursano, 1994), and therefore it is important to pay more attention to the research of factors that determine whether relationships with peers in the period adolescence to be successful or not.

Research on the prevalence of internalized and externalized type of difficulties in children and adolescents aged 9 to 16 years in foreign research indicates that the prevalence rate of youth disorders is around 5% for both types of disorders, with more internalized symptoms being observed in girls, and in boys have more externalized symptoms (Costello et al., 2003). Specifically for internalized difficulties, some researches indicate that in Western countries approximately 10% of children and young people can speak of clinical depression (Campbell, 2003). Archer (2004) states that the prevalence of aggressive behavior is estimated to range from 4 to 10% of the general population, depending on the strictness of the criteria used. Croatian data on the prevalence of problems among children and adolescents are consistent with data on the prevalence of problems obtained from foreign epidemiological studies. For example, the research by Rudan et al. (2005) using Achenbach's measuring instruments on a large sample of children and adolescents (N = 3,309) aged 7 to 18 years in Croatia indicates a similarity in the representation of certain problems with foreign research, and particularly emphasizes the similarity with European research. In that research, the specificity in the (dis)conformity in the assessments of the problem by different assessors (parents, teachers, children) is clarified. Furthermore, in Croatia, Keresteš (2006) investigated the prevalence of emotional and behavioral problems among students in lower grades of elementary school. Using the Achenbach questionnaire (TRF - Teacher's Report Form), teachers assessed students' emotional and behavioral difficulties in a sample of 2,620 students. The data show that emotional difficulties are present in 3.5% of girls and 4.2% of boys, aggressive and antisocial behavior in 3.3% of girls and 7.1% of boys, and attention disorders and hyperactivity in 3.6% of girls and 9.1% of boys. Studies of gender differences in the representation of internalized and externalized type difficulties are relatively consistent, and it is stated that internalized problems are more common in girls, and externalized problems in boys (Zahn-Waxler, Klimes-Dougan and Slattery, 2000; Kessler, Avenevoli and Merikangas, 2001; Cole et al., 2002; Archer, 2004; Ormel et al., 2005; Macuka, 2008; Ricijaš, Krajcjer and Bouillet, 2010; Macuka and SmojverAžić, 2012; Macuka, Smojver-Ažić and Burić, 2012; Macuka and Jurkin, 2014).

Research on internalizing problems shows that during adolescence girls, but not boys, show a significant increase in the prevalence of anxiety and depressive moods, and female gender becomes the strongest risk factor for internalizing problems (Zahn-Waxler, Klimes-Dougan and Slattery, 2000; Kessler, Avenevoli and Merikangas, 2001) At the age of 16, girls are twice as likely to develop depressive symptoms as boys (Tram and Cole, 2006), and depression that began in adolescence is more likely to persist into adulthood (Rutter, Kim-Cohen and Maughan, 2006) When it comes to anxiety, it also increases with age, and girls show individual symptoms of anxiety to a greater extent than boys (Achenbach et al., 2008). Although aggressive behavior is more often expressed in young men than in girls, it should be pointed out that studies examining different forms of aggressive behavior (indirect or covert aggressiveness) show the opposite trend, i.e. it is proven that girls are more prone than boys to indirect forms of aggressive behavior (Archer, 2004) Some recent studies using the Achenbach Adolescent Problem Rating Scales report no gender differences in aggressive behavior (Bask, 2015) or they favor girls (Sherman, Duarte, & Verdelli, 2011). Although the temporal stability of internalized problems less than the stability of externalized problems, in general problems arising in childhood and adolescence can have long-term unfavorable consequences such as learning difficulties and school failure, and difficulties in relationships with others (Nolen-Hoeksema, Girgus and Seligman, 1992). Research shows that internalized difficulties in youth are often precursors of anxiety disorders and depression in adulthood and that behavior problems during childhood are valid indicators of the development of antisocial personality disorder (Ollendick and King, 1994; Bernstein, Borchardt and Perwien, 1996). The aim of this research was to gain insight into the representation of different emotional and behavioral problems with students in the final grades of elementary schools and high school students in the area of the city of Travnik. In doing so, the assessment of the representation of problems was examined on separate groups of internalized and externalized problems, as well as on eight different syndrome scales (anxiety/depression, withdrawal, physical difficulties, aggressiveness, breaking rules, social problems, thinking and attention problems).

The results of this research indicate that are estimates of the representation of the group of internalized problems more in adolescent girls compared to adolescent boys, and by considering gender differences in the separately measured syndromes that make up this group of problems, the obtained results indicate that adolescent girls report more anxiety and depressive difficulties as well as physical complaints compared to adolescent boys. The obtained results are in accordance with the hypotheses of this research and with other research that also states that adolescent girls show individual symptoms of depression and anxiety to a greater extent than adolescent boys (Hankin et al., 1998; Bongers et al., 2003; Tram and Cole, 2006; Achenbach et al., 2008; Macuka and Smojver-Ažić, 2012). Yap, Allen and Sheeber (2007) state that adolescent girls show generally higher levels of negative emotionality (fearfulness and shyness) compared to adolescent boys and that more often they have difficulties in regulating negative emotions and are therefore at a higher risk of developing internalized problems. Research carried out in Croatia confirms that it is characteristic of young men that they use physical forms of violent behavior much more often, while verbal forms of violence are more common in girls, i.e. indirect forms of violent behavior (Buljan Flander, Durman-Marijanović and Čorić-Špoljar, 2007; Brajša-Žganec, Kotrla Topić and Raboteg-Šarić, 2009).

The obtained moderate, significant correlations between the group of internalized and externalized problems indicate that adolescents may have both types of problems. A significant positive relationship or comorbidity tells us that at the same time a child can show a large number of different disorders and difficulties. Achenbach himself (Achenbach et al., 2008) believes that the domains of internalized and externalized problems, although they are opposite, are not mutually exclusive.

Considering that significant positive correlations between internalized and externalized problems are not a rare phenomenon when it comes to problems in adolescents, it can be assumed that children with internalized and externalized difficulties are generally emotionally unstable and become socially maladjusted persons at a later age.

## CONCLUSION

We have seen that prevention efforts should target different aspects of adolescent life, considering different problems. In addition to interventions in educational institutions, a positive family psychological environment and positive relationships in the family can be a valuable resource for successfully overcoming adolescent developmental challenges. As for social-pedagogical assistance for adolescents with behavioral problems, the functioning of the entire family should be addressed. Interventions aimed at promoting communication among family members, family warmth, and improving conflict resolution skills among family members may be important for adolescent psychological support. The importance of raising the self-confidence of adolescents through interventions at the individual level is emphasized, because this leads to greater personal commitment and better adaptive functioning of adolescents. Problematic family functioning is a characteristic of adolescents with externalizing problems. This paper talks about the dynamics of family relationships and the behaviors of parents that contribute to the maladaptive development of their children. Specifically, the paper provides clear answers to the question of which aspects of family dysfunction are responsible for externalized behavior problems and to what extent these problems are determined by the family structure. Overall, the success of treatment is likely to be enhanced by a system of involving family members in the prevention or treatment program, with prior assessment of family needs and individual structuring of interventions, which are consistent with family members' levels of commitment to participating in the prevention or treatment program itself. The data obtained can result in the development of parenting programs and help parents develop the skills needed to successfully discipline, monitor and supervise adolescents, as well as help parents understand why it is necessary to devote more time to their children's lives. Successful programmatic family treatment approaches include parenting skills training programs, family therapy, family services, and interventions in the family home in crisis situations or family preservation programs. In such cases, multimodal family therapy gives the best results, as it helps parents who themselves have behavioral disorders to help their children not follow the same path. It is important to note that behavioral disorders are difficult to treat (Bailey, 1996; Frick, 2001). Factors central to the effective treatment of conduct disorders are the age at which interventions are introduced and the clinical course and severity of the disorder (Moretti et al., 1997).

As adolescents grow up, they become more and more exposed to the influences of peers and school, and they become essential for the development of behavioral problems. From a developmental point of view, it has been proven that the influence of school experience begins in the middle of elementary school and continues through adolescence (Maguin, Loeber 1996). The school environment has been described as one of the most influential socialization domains in the life of adolescents (Catalano et al., 2004). Research has shown that school experiences and adaptation to school can have both positive and negative effects on development. Studying the mutual connection, attachment and engagement of adolescents in school, Libbey (2004) distinguishes three levels of successful school adjustment - individual level of connection with school, friends who are connected to school (connection with peers who are connected to school), and avoiding negative behaviors in school (eg cheating, skipping school, etc.). Through the social development model, Catalano et al., (2004) point out the importance of attachment to the school of friends with whom adolescents hang out and indicate that the relationship with peers who have prosocial attitudes, including positive attitudes towards school, supports the prosocial behavior of adolescents themselves. A large number of aggressive children in the class increases the risk for the emergence and development of behavioral disorders in the children themselves. Given that easy access to schools provides consistent results for the association between school factors and problem behavior (Catalano, Hawkins 1996), prevention programs based on trying to keep adolescents in school and academic success have been seen as a means of prevention through childhood to adolescence. (Gottfredson, Wilson, 2003; Gottfredson et al., 2002). The sense of belonging to school and school success proved to be significant negative predictors of aggressive and risky sexual behavior (Livazović, Ručević, 2012; Lonczak et al., 2002). Namely, according to some authors (Hirschi, 1969), young people who establish positive social relations with school, unlike those who fail to do so, more often manifest prosocial behaviors (eg helping other students) and succeed in realizing their academic potential. After parents, peers play a key role in the development of imitation disorders and the manifestation of externalized behaviors (Fass, Tubman, 2002). Peer groups are considered the main socialization factors that are increasingly active in adolescence, so it is necessary to include measures related to attachment to peers in research on adolescent behavior. Although some research suggests that in adolescence, the relative importance of attachment to peers in the adjustment of young people is greater than attachment to parents, it is important to emphasize that parents of adolescents retain a significant influence on the development of their children's social relationships outside the family (Laible, Carlo, Raffaelli, 2000). According to some authors (Werner, Silbereisen, 2003), the influence of peers who behave deviantly is possibly the strongest and most direct risk factor for disturbed adolescent behavior. During adolescence, peer relations are brought to a maximum, and juvenile crime often occurs in a group of peers (Brendgen, Vitaro, Bukowski, 2000). Peers who exhibit externalizing behaviors may increase antisocial behavior among their peers through modeling, or by directly reinforcing conduct disorders through praise or other antisocial conversations (Anderson, Bushman, 2002; Dishion et al., 1996). All this determines the type and duration of treatment, and which treatments will be effective for adolescents, depends on different developmental levels of adolescents and different types of behavioral disorders.

There are several types of treatment behavioral disorders of adolescents: individual treatment programs, treatment interventions aimed at family and parents, interventions at school, pharmacological treatment, etc. (Liabo, Richardson, 2007). This project includes school-based interventions.

### Acknowledgement

The research is the result of the scientific research project "Diagnostic and intervention program for the prevention of behavioral disorders in children and adolescents in the area of fbih " funded by the Federal Ministry of Education and Science.

### LITERATURE

1. Anderson C. A, Bushman B. J. (2002). Human aggression. *Annual Review of Psychology*. 2002, 53:27–51.
2. Bailey, S. (2001). Clinical Governance in Adolescent Forensic Mental Health, paper presented to Royal College of Psychiatrists. *Clinical Governance in Forensic Psychiatry*. 12.06. 2001. London.
3. Blaszczynski, A. & Nower, L. (2002). A Pathways Model of Problem and Pathological Gambling. *Addiction*, 97, 487-499. Derevensky, J.L., Gupta, R. (2004). *Gambling Problems in Youth: Theoretical and Applied Perspectives*. New York: Springer.
4. Brendgen, M, Vitaro, F, Bukowski, W. M. (2000). Stability and variability of adolescents' affiliation with delinquent friends: predictors and consequences. *Social development*, 9(2), 205-225.
5. Catalano, R. F., Haggerty, K. P., Oesterle, S., Fleming, C. B., Hawkins, J. D. ( 2004 ). The importance of bonding to school for healthy development: Findings from the Social Development Research Group . *Journal of School Health*, 74( 7 ), 252 – 261
6. Catalano, R. F., Hawkins, J. D. (1996). The social development model: A theory of antisocial behavior. U: *Delinquency and Crime: Current Theories*, (Ur) by J.D. Hawkins. New York, NY: Cambridge University Press, (str.149-197).
7. Coie, J. D, Dodge, K. A. (1998). Aggression and antisocial behavior. U: Damon W, Eisenberg N, (Ur.) *Handbook of child psychology: social, emotional, and personality development*. New York: Wiley, 779-862.
8. Dervišbegović, M. (1997). *Socijalna pedagogija s andragogijom*. Sarajevo: Studentska štamparija Univerziteta u Sarajevu.
9. Dishion, T. J., Spracklen, K. M., Andrews, D. W., Patterson, G. R. (1996). Deviancy training in male adolescent friendships. *Behavior Therapy*. 27(3),373–390.
10. Dodig, D. (2013). Obilježja kockanja mladih i odrednice štetnih psihosocijalnih posljedica. Doktorska disertacija. Zagreb: Studijski centar socijalnog rada Sveučilišta u Zagrebu.
11. Dodig, D., Ricijaš, N. (2011). Obilježja kockanja zagrebačkih adolescenata. *Ljetopis socijalnog rada*, 18, 1, 103-125.
12. Dodig, D., Ricijaš, N. (2011): Kockanje zagrebačkih adolescenata – uloga psihopatskih osobina, rizičnog i delinkventnog ponašanja, *Kriminologija i socijalna integracija*, 18, 2.

13. Fass, M. E., Tubman, J. G. (2002). The influence of parental and peer attachment on college students' academic achievement. *Psychology in the Schools*, 39(5), 561-573.
14. Frick, P.J. (2001). Effective interventions for children and adolescents with conduct disorder. *The Canadian Journal of Psychiatry*, 46, 26–37.
15. Glavak Tkalić, R. & Miletić, G. M. (2012). Igranje igara na sreću u općoj populaciji Republike Hrvatske – istraživačko izvješće. Zagreb: Institut društvenih znanosti Ivo Pilar.
16. Gottfredson, D. C., Wilson, D. B., Najaka, S. S. (2002). School-based crime prevention. U: L. W. Sherman, D. P. Farrington, B. C. Welsh, D. L. MacKenzie (Ur.), *Evidence-based crime prevention* (str. 56–164). New York: Routledge.
17. Gottfredson, D.C., Wilson, D.B. (2003). Characteristics of effective school-based substance abuse prevention. *Prevention Science*, 4(1), 27–38.
18. Goudriaan, A.,E., Slutske, W., S., Krull J., L., Sher, K.J. (2009). Longitudinal patterns of gambling activities and associated risk factors in college students. *Addiction*, 104, 7, 1219-1232.
19. Griffiths, M. (2005). *Gambling and Gaming Addictions in Adolescence*. Leicester: The British Psychological Society and Blackwell publishing.
20. Hirschi, T. (1969). *Causes of Delinquency*. Berkeley: University of California Press.
21. <http://www.inmedia.ba/istrazivanje-bih-prva-u-evropi-po-broju-kladionica/> (preuzeto 29. 11. 2015). <http://www.poslovnih.hr/after5/u-bih-registrirana-cak-1521-kladionica-39860>.
22. <http://www.preporod.com/index.php/drustvo/teme/3101-rulet-u-beznadu-bosna> medu prvim-u-evropi-po-kladionicama (preuzeto 08. 12. 2015). <http://vijesti.ba/clanak/6165/bih-prva-u-evropi-po-broju-kladionica>
23. Huesmann, L. , Moise- Titus, J. , Podolski, C.L. Eron, L. ( 2003). Longitudinal relations between children's exposure to TV violence and their aggression and violent behavior in young adulthood: 1977 – 1992 . *Developmental Psychology* , 39 (2) 201 – 221.
24. Johansson, A., Grant, J. E., Kom, S. W., Odlaug, B. L., Gotestam, K. G. (2009). Risk Factors for Problematic Gambling: A Critical Literature Review. *Journal of Gambling Studies*, 25, 67-92.
25. Kazdin, A. E. (1993). Adolescent mental health: Prevention and treatment programs. *American Psychologist*, 48, 127–140.
26. Koić, E. (2009). Problematično i patološko kockanje. Virovitica: Zavod za javno zdravstvo Sveti Rok Virovitičko-podravske županije. Messerlian, C., Derevensky, J. & Gupta, R. (2005). Youth Gambling Problems: a public health perspective. *Health Promotion International*, 20, 1, 69-76.
27. Liabo K., Richardson J. (2007). *Conduct disorder and offending behaviour in young people*. Child and adolescent mental health series, Jessica Kingsley Publishers.
28. Livazović, G., Ručević S. (2012). Rizični čimbenici eksternaliziranih ponašanja i odstupajućih navika hranjenja među adolescentima. *Društvena istraživanja*. Zagreb 117,733-752.
29. Loeber R, Burke JD, Pardini DA. (2009). Development and etiology of disruptive and delinquent behavior. *Annual Review of Clinical Psychology*, 5:291–310.

30. Lonczak, H. S., Abbott, R. D., Hawkins, J. D., Kosterman, R., Catalano R. F. (2002). Effects of the Seattle Social Development Project on sexual behavior, pregnancy, birth, and sexually transmitted disease outcomes by age 21 years. *Archives of Pediatrics and Adolescent Medicine*, 156 (5), 438-447.
31. Maguin, E., Loeber, R. (1996). Academic performance and delinquency. U: Tonry M, (Ur). *Crime and justice: A review of research*. (str. 145–264) University of Chicago Press; Chicago.
32. Parke, R.D., Slaby, R.G. (1983). The development of aggression. U: P. H. Mussen (Ur.) E. M. Hetherington (Vol. Ur.), *Handbook of child psychology: Vol. 4. Socialization, personality, and social development* (str. 547–642). New York: Wiley.
33. Ricijaš, N., Dodig, D., Huić, A., Kranželić, V. (2011). Navike i obilježja kockanja adolescenata u urbanim sredinama, Izvještaj o rezultatima istraživanja. Zagreb: Edukacijsko-rehabilitacijski fakultet Sveučilišta u Zagrebu.
34. Schaffer, H. J. (2003). *Futures at Stake: Youth, Gambling, and Society*. Reno: University of Nevada Press. Stinchfield, R., Winters, K. C. (1998). Gambling and Problem Gambling Among Youths. *The ANNALS of the American Academy of Political and Social Science*, 556, 172-185.
35. Sharpe, L. (2002). A Reformulated Cognitive-behavioral Model of Gambling: A Biopsychosocial Perspective. *Clinical Psychology Review*, 22, 1-25.
36. Shortt, J. W., Capaldi, D. M., Dishion, T. J., Bank, L., Owen, L. D. (2003). The role of adolescent friends, romantic partners, and siblings in the emergence of the adult antisocial lifestyle. *Journal of Family Psychology*, 17(4), 521–533.
37. Simons, K. J., Paternite, C. E., Shore, C. (2001). Quality of parent/adolescent attachment and aggression in young adolescents. *Journal of Early adolescence*, 21(2), 182-203.
38. Tremblay, J., Stinchfield, R., Wiebe, J., Wynne, H. (2010). Canadian Adolescent Gambling Inventory (CAGI) Phase III Final Report. Submitted to the Canadian Centre on Substance Abuse and the Interprovincial Consortium on Gambling Research.
39. Turner, N. E., Macdonald, J. & Bartoshuk, M. (2007). Adolescent gambling behaviour, attitudes and gambling problems. *International Journal of Mental Health and Addiction*, 6, 223-237.
40. Volberg, R. A., Gupta, R., Griffiths, M. D., Olason, D. T., Delfabbro, P. (2010). An international perspective on youth gambling prevalence studies. *International Journal of Adolescent Medicine and Health*, 22, 1, 3-38.
41. Welte, J. W., Barnes, G., Tidwell, M. O., Hoffman, J. H. (2009). Association Between Problem Gambling and Conduct disorder in a National Survey of Adolescents and Young Adults in the United States. *Journal of Adolescent Health*, 45, 396-401
42. Werner, N.E., Silbereisen, R.R. (2003). Family relationship quality and contact with deviant peers as predictors of adolescent problem behaviors: the moderating role of gender. *Journal of Adolescent Research*. 18(5),454–480.
43. Winters, K. C., Stinchfield, R. D., Fulkerson, J. (1993). Toward the Development of an Adolescent Gambling Problem Scale. *Journal of Gambling Studies*, 9, 63-84. *Zakon o igrama na sreću. Službene novine Bosne i Hercegovine*. Sarajevo, broj: 1, od 15. januara/siječnja 2002. godine.

44. Žunić-Pavlović, V., Kovačević-Lepojević, M. (2011). (Ur.), *Prevenција i tretman poremećaja ponašanja* (str. 9-38). Izdavački centar fakulteta za specijalnu edukaciju i rehabilitaciju Univerziteta u Beogradu.