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Risk analysis in the period of growing-up of children and youth: starting point for effective prevention

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Abstract
Aims This paper elaborates on the determinants of society "at risk", children and youth at risk and risk behaviours of children and youth.
Subjects and methods A review of an existing literature and conducted studies on children and youth at risk and risk behaviours of children and youth has been carried out. Using the results of a number of studies in Croatia and abroad, particularly those of longitudinal character, this paper presents a review of the problems of those children and youth that are deemed to be at risk of developing risk behaviours. The term "young people at risk" represents people who exhibit behaviours, points of view or faults that are considered indicative of subsequent behavioural problems.
Results When analyzing the results of epidemiological and other studies in both Croatia and abroad, epidemiological studies on internalized and externalized disorders of children and youth are becoming more frequent and continuous. Among internalized issues, anxiety, depressive disorders, suicides and wider mental health problems of children and youth are analysed and highlighted more and more often. Among externalised disorders, violent behaviour, criminal activity, juvenile offences, alcohol consumption, drug abuse and risky sexual behaviours are a part of the epidemiological studies presented in a paper.
Conclusion To implement effective prevention strategies, it is crucial to understand and epidemiologically follow risks to which children and youth are exposed to and to provide appropriate interventions according to the level of risk faced by each individual.

Keywords Children · Youth · Risk behavior · Preventive measures

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Introduction

The terms "children at risk" and "youth at risk" have been used as general terms for children and youth with problems in growing-up. This term was first used in 1983 in the USA, in the report "Nation at risk" by the National committee for excellence in education (McWhirter et al. 1993). Children and youth "at risk" of developing specific psychosocial problems, due to serious obstacles such as family, school and local community problems that would prevent them from becoming responsible and productive adults, were categorized under this term. Similar thoughts were shared by Dryfoos (1990) who emphasized that the term "at risk" should be used to describe children and youth who are at risk of not developing into responsible adults. The Organization for Economic Co-operation and Development (OECD) shares a similar definition: "children and youth at risk" are those children and youth who are not successful in school, are not able to make the transition towards employment and adult age and as a consequence cannot actively contribute towards the development of society (according to Astorth 1993, p. 21). Some usage of the term denotes individuals whose suffering is a result of emotional and adaptation problems. Others are using it to describe young people at risk of leaving school or those who did not learn those skills necessary for success upon finishing high school/university or those who have health issues. Another concept of children and youth at risk was

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given by McWhirter et al. (1993). These authors were using the term to encompass children and youth with a set of behaviours, causes and consequences which increase the probability of negative events occurring in the young person's future. For instance, children with behavioural disorders, aggressive children and children with low achievements at school will be at risk of developing delinquent behaviour, addictions and other risk behaviour during adolescence.

The results of the scientific project "Communities that care as models of prevention of behavioural disorders" (Bašić et al. 2007a), conducted in the county of Istria in Croatia imply that about 5% of youth do not feel safe within their community, 82.2% of youth estimate that is easy for them to buy alcohol, 44.0% estimates that is easy to buy marijuana and 19.0% estimates that is easy to buy illicit drugs. Youth see alcohol and marijuana as more available than adults. The agreement between youth and adults is higher regarding illicit drugs availability. The level of tolerance towards alcohol can be noted from other factors. Other data from the same study imply that youth perceive greater tolerance regarding their illicit behaviour than do adult citizens of their local community. According to the opinion of youth, their neighbours are tolerant of smoking, alcohol drinking, leaving school and engaging in sexual relations before the age of 14. The tolerance of adult citizens (and the difference between the opinions of youth and citizens) is lower regarding carrying weapons, criminal behaviour, violent behaviour or smoking marijuana. This could mean that the message that youth are "reading" from their neighbours/adults, is that some risk behaviours are tolerated more and some are tolerated less, or that it is not acceptable to behave in some risky ways. The way youth read messages from adults and the messages sent to them are significant for assessing the risk of the neighbourhood or the local community and for the assessment of whether to invest in health promotion and risk behaviour prevention in children and youth. The aim of this paper is to elaborate on the determinants of the society at risk, children and youth at risk and risk behaviours of children and youth.

Methods

A review of existing literature and conducted studies on children and youth at risk and risk behaviours of children and youth has been here carried out. Using the results of a number of studies in Croatia and abroad, particularly those of longitudinal character, this paper presents a review of the problems of those children and youth that are deemed to be at risk of developing risk behaviours. The term "young people at risk" (Bašić and Ferić 2004) represents people who exhibit behaviours, points of view or faults that are considered indicative of subsequent behavioural problems

Society at risk

Modern studies on children and youth and on risks for their development most frequently start by making various observations and assessments of conditions. Frequently, the ability of society to make investments in the positive development and good education of young people who would in the near future become responsible adults is questioned. For these reasons, families, schools, local communities and the society as a whole are getting involved, in various ways, in so-called "projects for the healthy development of youth" (McWhirter et al. 1993) or risk behaviour prevention. Many western countries are getting involved in projects of various titles, in which they actively declare themselves in favour of the improvement of child care and their welfare by the end of 2010. The book *Enhancing children's wellness: healthy children 2010* (Weissberg et al. 1997) puts forth some initiatives that would not only help children to better confront the many issues of the modern way of life, but also further increase their chances of expressing and using their abilities and interests. Croatia is also trying to achieve this goal, e.g. by establishing the National Action Programme for Children in the Republic of Croatia. The first programme was adopted in 1998 and was followed up by subsequent programmes prioritizing activities for child welfare, e.g., from 2006 to 2012, National Action Plan for Rights and Interests of Children). Other initiatives for the implementation of preventive strategies should also be mentioned such as:

- Nacionalna strategija suzbijanja zlouporabe opojnih droga. The National Prevention Strategy of Illicit Drug Abuse. (1996; 2001).
- Akcijski plan suzbijanja zlouporabe opojnih droga za 2004. godinu. Action Plan for Prevention Illicit drug abuse (2004).
- Nacionalna obiteljska politika. National Family Policy, Puljiz and Bouillet (2003).
- Nacionalni program djelovanja za mlade od 2003.–2008. godine. National Youth Action Plan from 2003.–2008. (2003).
- Nacionalna strategija zaštite od nasilja u obitelji za razdoblje od 2008. Godine. The National Strategy for Domestic Violence Prevention in the period since 2008 to 2010. (2008).
- Program aktivnosti za sprječavanje nasilja među djecom i mladima. The Activity Programme for Preventing Violence Among Children and Youth. (2004).

Further elaboration requires several questions to be asked such as: Do we know enough about what kind of social context that children and youth actually live in today? Can they be adequately prepared for the role of a responsible adult? Can they be provided with good quality response to all challenges/risks of growing up? What forms and what intensity of behaviour do children and young people manifest today? What is not done by the society that should be done for the children of today? Is the society at risk? These and many other questions have been raised by various participants at various levels of society, from interest groups in particular societies, to those who make decisions or could affect decision makers by using the results of research and the evidence that preventative intervention is effective (Leach 2003; Bašić 2000, 2003, 2009). It is hard to give unambiguous answers: they certainly depend on the respondent but also on the evidence/facts used for obtaining answers. The reasons for this most probably lie in the monitoring facts of appropriate parameters/indicators of child development during growing up, and on the conditions of life, i.e. environmental factors.

Statistical data can hardly describe the actual problems faced by youth. Appropriate focused epidemiological studies and longitudinal research is necessary to enable a better response to the problems faced by children and youth growing up (Bašić 2003). It should also be noted that reports and statistics come from various origins/departments (Uzelac 2004) so issues could be raised on monitoring methods, terminological uncertainties, basic starting points for conclusions, etc. Unfortunately, one could conclude that scientific research of the childhood and youth phenomena and children and youth in our society in general is rare and rarely focused (more on this issue in Ilišin and Radin 2002). To make matters worse, it should be added that existing well-organized longitudinal studies are rarely used for strategic purposes on either the local, regional or national level.

The need to determine multi-sourced indicators from different assessments, factors, trends, characteristics, etc., present in the population of children, youth and the adults that have the greatest influence on them, as well as their local communities and family environment, is due to at least two reasons:

- *Scientific reasons.* To identify problems (or their indicators) of children and youth growing up, to identify the risk and protective factors for their development, to identify the needs of children and youth as well as of important adults, to identify the scope of behavioural disorders and risk behaviour prevalence, to identify the present preventative interventions, to create a base for the evaluation of preventive interventions through different prevention parameters and through epidemiological and longitudinal studies
- *Expert-political-public reasons.* To direct the interest of people in charge towards steps that would precede any strategic consideration and investment into preventative or any other intervention levels intended to satisfy the needs of their users and be effective

Analysis of the risk and risk behaviours: reasons for prevention

There are different approaches by different authors regarding the definition of risk behaviour. Using the data of several studies, Benson (1993, according to Dryfoos 1997, p. 30) has defined risk behaviours as "choices that potentially limit the psychological, physical or economical welfare for adolescence or adulthood". When defining risk behaviours, most authors agree that planning and establishing national strategies and related comprehensive prevention programmes should focus on:

- Alcohol and drug abuse
- Engagement in sexual relations at early age, promiscuous behaviour and unprotected sexual relations
- Leaving school/problems at school
- Child and youth delinquency
- Violence and peer violence
- Youth suicides (from 14–27 years old)

Behavioural problems in youth and adolescence are frequently classified as internalized or externalized. Internalized problems refer to excessive controlling behaviour and often contains various somatic complaints, anxiety, depressive moods, withdrawal and suicidal tendencies, while externalized problems refer to insufficiently controlled behaviours or behaviours oriented "towards the outside". It should certainly be noted that the public is more sensitive towards externalized than internalized problems, because they are easier to notice, and in a certain way "bother" the nearby people more. When we talk of problems classified as externalized disorders of children and youth, various authors include different behaviours (see Table 1).

Although the listed authors classify these behaviours under the category of behavioural disorders, it is possible to consider them as risk behaviours in children and youth, considering that the appearance of such behaviour does not necessarily mean the presence of parameters that would lead to the disorder being diagnosed.

Research on the possibilities of mental health prediction and benefits to adults based on their childhood and adolescence status does not exist in Croatia and is also rare abroad. Investigations that try to evaluate the complete mental status of children and youth are also rare. A survey

Table 1 Various definitions of behaviours included in externalized disorders of children and youth

Author/s	Behaviours included in externalized disorders
Achenbach (1991)	Delinquent behaviour and aggressiveness—impulsiveness, hyperactivity, carelessness, disobedience, confrontations, stubbornness, negativistic behaviour, aggressiveness, destructiveness and delinquency
Žižak A et al. (2004)	Ditching classes, theft, murder, organized crime, robbery, running away from home, armed robberies, sexual harassment, smuggling, trafficking, pimping, fights, quarrels, throwing things, shouting, blaming others, lying, challenging and disrespecting authority, breaking the rules and gossiping
Bouillet and Uzelac (2007)	Ditching classes, theft, murder, organized crime, robbery, running away from home, armed robberies, sexual harassment, smuggling, trafficking, pimping, fights, quarrels, throwing things, shouting, blaming others, lying, challenging and disrespecting authority, breaking the rules and gossiping, begging and associating with persons of antisocial behaviour

on the mental health of adolescents aged 12–17 years was conducted in the USA in 1995 and has shown that 16% of boys and 19% of girls satisfy most of DSM-IV criteria for one of diagnoses: great depression episode, posttraumatic stress disorder and disorder caused by psychoactive agents (National Adolescent Health Information Centre (2008)). Rough American estimates have shown that 20% of youth pass through some emotional distress while serious intervention would be needed in 10% of the youth. Sadly, risk evaluations for Croatia are almost nonexistent so we can only assume the scope of child and youth needs that cannot be answered with adequate care and welfare.

Three studies conducted in 1995, 1996 and 2006 can be used to illustrate internationalized problems of youth in Croatia. These were carried out by the Department of Behaviour Disorders of the Faculty of Education and Rehabilitation Sciences (Bouillet and Uzelac 2007). Studies were conducted on a sample of subjects of eighth grade pupils (age 13–14) in a primary school in the City of Zagreb. Since the samples were of different sizes, this can only serve as an insight into the phenomenon, but Bouillet and Uzelac (2007) have shown that shyness was present in 10% of the investigated population in 1995, 6.1% in 1996 and 4% in 2006.

Withdrawal was present in 21% of children in the sample from 1995, 10.8% of children from 1996 and 6.5% of children from 2006. The distribution of difficulties in children and youth can be described by the results of the study "Health and behaviour in connection with school children health" that was conducted in 2001/2002, on sample of 4,397 students of fifth, sixth and seventh grades of primary school (ages 11–13) and first grade of secondary school (age 14–15) by the Croatian National Institute of Public Health (Kuzman et al. 2004). The pupils in this study were asked about symptoms such as stomach pain, depression, nervousness, bad mood and sleeping problems. It is interesting that the ratio of students suffering from the aforementioned symptoms is increasing with age, with the greatest increase for 15-year-old female students.

A study by Keresteš (2005), deals with primary school teachers that teach children aged from 6–0, who were evaluating their pupils' emotional and behavioural problems. Estimation on 2,620 pupils from Krapinsko-zagorska County (Croatia) is that emotional difficulties are present in 3.5% of the girls and 4.2% of the boys. Understandably, teachers report that emotional problems present the smallest problem when teaching classes.

Mental health problems can develop at any time in life so it is difficult to say if they are connected to genetics, family background, the presence of problems in previous generations, chemical imbalance in the brain or stressors and life environment. Problems and symptoms connected to anxiety are the most common form of difficulties reported by children and adolescents. Developmentally, they are an integral part of the developmental process and over the normal developmental course; they serve as adaptive answers protecting a child from dangerous situations and actions while also motivating them. In those cases where fears intensify and additional anxiety symptoms develop, significant unpleasantness and agitation occur in the child and in family members. Children that present a greater number of early signs of anxiety are at greater risk of developing anxiety spectrum disorders (Rapee et al. 2005). Anxiety spectrum difficulties have been shown to persist if not treated, and are related to numerous other psychological problems, particularly depression and eating disorders.

It is difficult to estimate the child depression prevalence in Croatia because of the great differences that result from differing methodological characteristics of different studies and differences in the analyzed populations. A particular problem is the usage of different instruments and frequently unbalanced diagnostic criteria. There are epidemiological studies that have shown depression incidence among preschool children in the world to be about 1%, in 1.9% school children, and 4.7% in adolescents. The same authors mention that, during the 80s, about 28% of the children were treated for depression in psychiatric wards and 7% of children in general paediatric population. Vulić-Prtorić (2001) describes a study on a fifth to eighth grade student population (age 11–14 years) where both depression and capability of dealing with stress were studied in children

and adolescents. It has been shown that subjects presenting with clinically significant expression of depression symptoms use less effective coping strategies. Furthermore, sex differences in the choice of stress-coping strategies have been established in depressive children: in stressful situations, girls are more likely to seek support from friends while depressive boys are prone to more aggressive forms of expression of frustration.

The third leading cause of youth mortality in the world is *suicide*. When talking about suicides, it is not a specific mental disorder but a phenomenon following other conditions. Recent global studies on young people that have committed suicide have shown a high abundance of self-perception disorders, but have also shown that anxiety disorder, obsessive-compulsive disorder and eating disorders, as well as some forms of addiction, are related to suicide (Hawgood and De Leo 2008). According to the Croatian National Institute of Public Health, the rate of suicide for youth aged between 15 and 19 is declining, regardless of the picture presented by the media. In fact, Silobrčić-Radić (2004) claims that the minor (underage) suicide rate (number of suicides per 100,000 inhabitants) was 8.4 in 2000, 7.7 in 2001 and 8.0 in 2002, whereas in 1996, the rate for the same age group was 13.5. The rate of 7.7 suicides in the age group from 15 to 19 years, presented at the Child Psychiatry Congress in Tel Aviv in 2001, places Croatia in the eighth highest place in Europe. The most significant risks are school problems, suicide tendency in family history, bad child-parent communication and stressful events in life.

Regarding externalized behavioural disorders and risk behaviour of children and youth, studies in Croatia have most frequently been focused towards violent behaviour, psychoactive substance abuse and alcohol drinking. Studies of the delinquent behaviour occurrence of children and youth have mostly been reduced to statistical monitoring by the Ministry of Interior and record keeping by the Ministry of Health and Social Welfare. The Croatian Public Health Institute has played a major role in the systematic monitoring of the occurrence of some externalized behavioural disorders and risk behaviours in children and youth, and has been involved in conducting longitudinal studies. Examples include European research on youth smoking, drinking and drug use in schools (ESPAD; Kuzman et al. 2008a) and a study called Behaviour related to health in children of school age (Kuzman et al. 2008b). However, it should be emphasized that there is still not enough research or monitoring of externalized behavioural disorders and risk behaviour of children and youth, and those that have been conducted have unfortunately not been transparent enough, are often aimed only at individual locations in our country or are insufficiently comprehensive.

The following is a review of the more frequently studied externalized behavioural disorders of children and youth. In 2004, UNICEF conducted a wide study of violent behaviour at 84 elementary and 9 high schools in Croatia (Pregrad 2007). An average of 10.4% of children and youth had been continuously exposed to violence by their peers (every week), while 22.3% had been exposed to the violence once or twice during the last several months. 67.3% of the students had not been exposed to any form of violence. According to the same study, children have been mostly abused over the period of several weeks (16%), although 3% of the boys and 4% of the girls claim that it had been happening to them for several years. The study, Behaviour related to health in children of school age (HBSC; Kuzman et al. 2008b) was conducted in Croatia in 2002 and 2005/2006 to study violent behaviour on a population of children and youth aged 11, 13 and 15. Every fifth boy and every fifth girl considered themselves as having been exposed to peer violence in the last several months. Every third boy and every sixth girl had been violent towards their peers in school. Violent behaviour is a very serious problem that can have serious consequences on the development and growth of both the victim of violence and the person being violent. The authors emphasize that the children and youth involved in violent behaviour, either as victims or as perpetrators, exhibit more psychosomatic disorders than other children. It is also important to point out that children and youth who behave in a violent way have a tendency for similar behaviour at adult age, which results in occurrence of both domestic violence and vandalism that have significant negative consequences on a society as a whole. Studies of this kind are necessary in Croatia, but need to be aimed at a wider population of children and youth (high school students), as is also true for research that would be carried out longitudinally and on a national level. Any such occurrence should be monitored through other departments such as primary health care physicians, professional school associates or police officers.

When observing the *criminal acts and violations of children and minors* in Croatia, a relatively stable trend is evident. According to the data presented in the 2007 Statistical Yearbook (2007)), during the year 2007, 4,068 criminal acts of minors have been noted as well as 907 criminal acts committed by children. The most frequent act of minors was the asset felony of severe theft (34%) and robbery (18%) followed by the criminal act of illicit drug abuse (10%). Compared to the year 2006, the data show an increase of criminal acts that include violent behaviours. The share of the criminal act of inflicting physical injuries committed by minors was 6% in the year 2007, which is 3 times more than in the year 2006. Criminal acts of destroying or damaging other people's property have also increased and in year 2007 also presented 6% of total crime activities of minors. Data on criminal acts by children in the year 2007 show that the children are mostly inclined

towards asset felonies of severe theft (34%) and robbery (21%). The children have also had a large share of the criminal act of inflicting physical injuries (12%) and the criminal act of destroying or damaging the property of other people (8%). Focused preventive strategies towards violent behaviour occurrence would certainly influence the occurrence of violent delinquency in children and youth. Special attention should be given to selective and indicated prevention.

A European investigation in schools (ESPAD; Kuzman et al. 2008a), on smoking, drinking and drug abuse in youth was conducted during 1995, 1999, 2003 and 2007 in 36 countries, including Croatia, on youth aged 16, offering a wide and systematic review on the trends of *alcohol drinking of youth* in Croatia. The last point of the ESPAD study in Croatia in 2007 stated that most children consumed alcohol at least once in life: 92% of male and female students in the first grade of secondary school (age 14–15) and 95% male and 94% female students in the second grade of secondary school (ages 15–16). During the previous year, almost half of the students (43% boys and 31% girls in the first grade of high school and 57% boys and 44% girls in the second grade) had consumed alcohol on more than 10 occasions. When talking about getting drunk (walking insecurity, improper speech, vomiting and losing memory of recent events), at least once in life, 62% of boys and 48% of girls in the first grade of high school and 72% of boys and 59% of girls in the second grade have got drunk. "Binge drinking" (drinking 5 or more drinks in a row) is a particularly risky form of behaviour. In the 30 days preceeding the assessment, 55% of boys and 43% of girls in the first grade of high school and 64% of boys and 51% of girls had had an opportunity to drink 5 or more drinks. Alcohol consumption for both sexes tends to increase as children move from the first to second grade of high school and it has been noted that boys drink alcohol more often than girls. The increase in the consumption of alcohol in youth was also noted in comparison to an investigation conducted in 2003.

From 1995 to 2003, an increase in youth alcohol consumption was present. Increased alcohol consumption by girls was particularly pronounced; from 1995 to 2007 the proportion of girls who consumed alcohol has nearly doubled. The study called Behaviour related to health in children of school age (HBSC; Kuzman et al. 2008b, conducted in Croatia in 2002 and 2005/2006 on a population of children and youth aged 11, 13 and 15, provides another significant presentation of youth alcohol consumption in Croatia. The aforementioned study confirms the results of the ESPAD study since an increase in alcohol consumption in youth of both sexes is present in relation to the study conducted in 2002 and later studies conducted in 2005/2006. There are many risks of early alcohol drinking on the bio-psycho-social development of a young person. Croatia still has not set out a national strategy of alcohol drinking prevention. Problems of youth drinking alcohol are gradually becoming more obvious, so the next step should be to prepare effective preventive strategies aimed at the risk population, and their implementation on a national level to all environments that have an influence on that phenomenon (i.e. school, family, community).

According to results of the last ESPAD study in 2007 (Kuzman et al. 2008a), 20% of the boys and 15% of the girls in the first grade of high school and 30% of the boys and 23% of the girls in the second grade of high school in Croatia have used *marijuana* at least once in life. In the 12 months prior to the assessment, 15% of the boys and 11% of the girls in the first grade of high school, and 23% of the boys and 17% of the girls in the second grade of high school had been smoking marijuana. Smoking marijuana in the last 30 days is in constant rise among boys and among girls. In Croatia, the use of ecstasy had been on the rise until 2003, with a decrease in ecstasy use among boys as well as among girls noted in 2007.

Regarding the *consumption of other addictive substances*, in 2007 Croatia was on the same level as other European countries. This is also a subject that has to be seriously approached, since there is a slight tendency of increase. The lowest age of first drug abuse, according to the data of the Croatian National Institute of Public Health, (Katalinić et al. 2008) is 16.1 years. According to the same source, in the last 5 years the number of drug addicts in Croatia had a five-fold increase (in 1995, 1340 were treated, in 2005 this had risen to 6,668, and in 2007 risen further to 7,427). The fact that almost 35% of the total addicted population is composed of children and youth within the reach of the educational system (up to 24 years of age), is particularly worrisome.

The estimation of the presence of this phenomenon in Croatia has been conducted rather well. However, targeted, comprehensive and scientifically based preventive strategies that would be implemented on a national level and that would be available to all youth are still missing. Individual preventative interventions aimed at particular localities are in progress.

Teenage pregnancy and sexually transmitted diseases are consequences of risky sexual behaviour. A study conducted in Croatia, Behaviour related to health in children of school age (HBSC; Kuzman et al. 2008b), has shown that in 2002, at the age of 15, 9.7% of girls and 23.2% of boys had had sexual intercourse. But 4 years later, at the age of 15, 16.5% of girls and 28.6% of boys had had sexual intercourse. That percentage presents an increase of 73% among girls and 23.2% among boys. According to the data of the Office for Reproductive Health of Children's Hospital Zagreb) about one third of youth between 15 and 19 years of age are

having regular sexual relations, 26% of the girls and 42% of the boys. Only 40% of the couples are using some form of contraception, while about 27% of couples used a condom during their first sexual intercourse. According to the latest report by the Croatian National Institute of Public Health, during 2006, 1,844 births in Croatia were noted for girls aged between 15 and 19. A survey in Istarska County (Bašić et al. 2007a) carried out on 12 localities from 2000 to 2004, revealed there have been between 26–42 cases of minors terminating pregnancies, while in total, during the same period, 176 abortions have been noted. The fact that large numbers of minors terminate pregnancy several times (2, 3, 4 and more times) and that among them are even children who are less than 14 years of age, are particularly troublesome. The study of Sexual and reproductive risk in women conducted by Population Action International (2007) has included 130 countries worldwide, including Croatia. The data have shown that Croatia is within a group of countries with the lowest risk for sexual and reproductive health of women and whose characteristic is, among others, a low rate of teenage pregnancies. However, it is important to emphasize that the Croatian Healthcare system does not have a precise monitoring system of genital infections from the human papiloma virus (HPV), Chlamydia and Herpes, which present serious risks to the health of a young person. In Croatia, records are kept mostly on gonorrhoea, syphilis and AIDS.

The results of the project "The communities that care: model of prevention of behaviour disorders" (Bašić et al. 2007a), which tended to focus on certain risk behaviours of youth, supports the aforementioned trends in Istarska County. Besides the presence of physical violence, (10.4%) drug consumption (10.6%) and alcohol consumption (68.1%), irresponsible sexual behaviour is also a form of behaviour in the youth population of this area of Croatia (10.2%). Subjects included in the study were students of all high schools (N=489) at 12 different locations (mostly cities) in the Istarska County, selected randomly.

Various and specific problems in adolescent behaviour such as delinquency, alcohol and drug abuse, teen pregnancy and lack of academic success, have similar rather than different causes, in other words, security issues and risk factors underlying those behaviours (according to Bašić 2000). This is a fairly new point of view that requires new planning regarding children and youth risk behaviour prevention strategies.

Final remarks on risks and prevention strategies

Everything previously mentioned regarding the society at risk and children and youth at risk, risks, problems and disorders in children and youth and their co-morbidity require strategic considerations that will offer higher efficacy and more clearly measurable results.

Preventative concepts, historically speaking, have been focused on pathology and shortcomings to shift focus towards the power of individuals and their surroundings. Most of these concepts can be observed today through several models such as risk and protective factor, immunity and risk, mental health promotion and mental and behavioural disorder preventions as well as investing in developmental advantages and the entire community potential for the positive development of young people. Monitoring the recent trends in preventive science, it can be concluded that strategies have been aimed towards a combination of listed concepts/models so that the most frequent combination is the one of risk and protective factors with positive child development. This means that actual programmes of preventative interventions have been aimed towards multiple factors of risk and protection related to children, young person and their environment (family, kindergarten, school, peers, neighbourhood, local communities). However, there is an increasing number of those who have significantly higher understanding of and information exchange on risk and protective factors present in the young person's environment and their direct change insuring the highest quality of life in such conditions. Hence, there is an increase in the development and implementation of strategies that aim at preventative interventions in local community (Bašić et al. 2007b). They present models where, sensibilisation and mobilization of inhabitants, government and professionals, through the assessment of needs and recognized priorities at certain levels of interventions, would implement evidence-based preventive interventions and constantly evaluate and assess their results.

Recognizing the risk and protective factors not only at the level of the child or young person themselves, but also at the levels of family, school and community environment (availability of illegal substances, availability of firearms, laws and standards of the community – not following them, violence in community and media, transition and mobility, disorganized communities, economical deprivation…) present a necessary assumption for every actual preventive activity, strategy and implementation success.

For effective prevention, it is necessary to:

- Focus the interventions on several factors at the same time, including all risk factors, special needs and protection in the young person's environment,
- Focus the interventions towards multiple systems, including all factors in systems with which the young person interacts
- Focus the interventions on multiple levels, i.e. help at individual and on macro levels

In order for these to be really efficient, it is important that they include theoretical findings (a logical model), authentic implementation, evaluation parameters, sample taking strategies, retention of programme users, programme replication and spreading, trust in the authenticity of the program's results and usefulness. The overall benefit of the programme results in preventive theory and practice (SAMHSA 2002).

Conclusions

It is important to "input" into people's consciousness data that would raise the awareness of the seriousness of problems of children and youth who are the future societal players who will shape and contribute to the national prosperity. Awareness must be raised in both the experts and general public at levels ranging from the local community to national/state levels. Therefore, it is important to direct the attention of experts, scientists and politicians towards the work that needs to be done at a strategic level to get long term and effective results regarding risk behaviour prevention in children and youth.

Conflict of interest statement We declare that we have no proprietary, financial, professional or other personal interest of any nature or kind that could be construed as influencing the position presented in the manuscript.

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