

**RESEARCH REPORT:  
STRENGTHS AND DIFFICULTIES OF  
CHILDREN AT NEST CENTRES IN  
BOSNIA AND HERZEGOVINA**



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**Research report:  
Strengths and Difficulties of  
Children at Nest Centres in Bosnia  
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## **Research report: Strengths and Difficulties of Children at Nest Centres in Bosnia and Herzegovina**

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## ***Introduction***

Many basic needs of families and children in Bosnia and Herzegovina are compromised. In the society in transition there is poverty, high unemployment rate, Post-Traumatic Stress Disorder in parents, different forms of violence and other negative social phenomena. Such a complex social situation reflects on the position of the family and children. Family is the most exposed to such immediate changes and because of its general vulnerability it is often unable to fulfil its main role, to be a safe and secure place for the growth and development of children. Apart from poverty, family disintegrates due to unemployment, disorders and loss of relationships and communication in the family. Nuclear families become more isolated, the traditional context changes, as do the relationships between family members, and the family's social network weakens (Šadić, 2006). The majority of families in Bosnia and Herzegovina live in extreme poverty and cannot manage to meet their most basic needs. Children are an especially vulnerable category. Reports indicate that approximately 13% children live in extremely poor families, 29% live on the edge of extreme poverty, while the majority of these children live in the families where none of the parents is employed (Prizma, 2002, cf. Šadić, 2006). Such circumstances represent risk factors and do not allow for a normal growth and development of children.

Risk factors can be defined as those factors associated with a higher likelihood of negative outcomes and have mainly been studied in relationship to the development and problem behaviour (Deković, 1999). Risk factors are usually observed as individual, family, peer and/or environmental. In terms of growing up, it is important to examine the developmental context and factors having an effect on developmental changes in the scope of which the relationship of the child towards parents and peers changes (Reitz, Deković, Meijer, & Engels, 2006). Research suggests that, in isolation, risk factors may make relatively little contribution to the development of behavioural problems, whereas such factors in combination may be powerful determinants of negative outcomes (Klein & Forehand, 2000; Kolvin et al., 1990, cf. Bradley & Hayes, 2007). The risk factors such as: poverty, health issues, mental disorders, addiction, domestic violence, prostitution, criminal behaviour, poor living conditions, abuse, neglect, lack of care for children, etc., cause significant stress if acting mutually and chronically. Mutual interaction between some of these factors may classify a family into a multi-problem family. According to Bortolotti (1995), such a family has complex mutually-related problems of different types which affect both adults and children. Moro (1995) talks about families that face marginality due to poverty, unemployment, social mobility or deviance. Jansen (2014) defines multi-problem families as the families with a series of associated problems such as: economic problems, substance abuse, domestic violence, as well as problems in the physical and/or mental health of one or both parents.

The research of social networks of such families compared to others indicates worse isolation, loneliness and lack of social support. Informal social networks of multi-problem families are unstable due to the lack of the social skills necessary for maintaining social relations. Family networks establish relationships with cousins, which are sometimes frequent but more critical than supportive by substance.

In the majority of families, these problems have been present for a long time, they recur and create an unfavourable environment for children and reduce adequate strategies for facing everyday challenges. Inadequate communication within the family deteriorates the family relations permanently and considerably and creates a misbalance between the resources and problems.

Children growing up in a multi-problem family may experience a high level of failure at school and risk of early leaving school, which considerably reduces the chances for their independence later in life and finding an adequate job. Long-term exposure to negative experiences in childhood (dysfunctional family, abuse, witnessing violence, domestic violence, mental diseases, suicidal tendencies, etc.) poses a risk to the occurrence of psychological and socio-pathological phenomena such as: addiction, violence, whether they become victims and/or perpetrators, juvenile delinquency, aggression, obesity, depression, suicidal behaviour, etc. A higher exposure to negative experiences in childhood poses a greater risk for acquiring physical or mental illnesses later in life (WHO, 2006, p. 12). Cummins and McMaster's study (2006, cf. Bradley & Hayes) found that children who screened positive for mental health difficulties were more socially disadvantaged, had more behavioural difficulties and adaptive behaviour problems, more physical health problems, more life stress and poorer coping skills than their healthy peers.

Therefore, it can be expected that families with multiple risk factors experience more problems and thus also a greater need for support. According to European research, approximately 10-25% children and adolescents have emotional and behavioural problems (Bradley & Hayes, 2007), while only a small percentage receive adequate psychosocial support. This implies that including children in the centres providing psychosocial support does not depend on the degree of their problems alone, but also on some other factors, such as: parents, family, socio-economic status, place of abode, family structure, etc. Family support and social skills are tied with including the children into psychosocial programmes and have a significant impact on the psychosocial condition of children. According to this data, the quality of family and social environment are the key factors in the inclusion of children in support programmes, which should be the focus of professional workers and decision-makers.

In order to accurately identify support strategies for such children, it is essential to have an understanding of the factors that place children at risk of, or contribute to the development of such behaviour in the first place (Bradley & Hayes, 2007). In addition, apart from risk factors, it is also important to analyse the protective factors and rely on the children's strengths, especially in adolescence, because those factors are mutually related and form a complex network.

One of the developed support systems in BiH are the Nest Centres, which provide a safe place for children from families at risk to learn and associate. Support is organised through an individual and group approach and thus contributes to the prevention of various forms of risk behaviours. In the long run, it helps children at risk to grow to be healthy and responsible adults who will be good parents, committed and active members of their communities.

This research studies children from multi-problem families, whom we refer to, in the text below, as children at risk, who have been involved in the activities of day-care Nest Centres in Bosnia

and Herzegovina over the past 2.5 years. The purpose of day-care centres for children at risk is to contribute to a better quality of life of the children coming from said families, provide them with new possibilities of development through professional and focused support directed at children and their parents, in cooperation with all relevant local community stakeholders. In the safe environment of the day-care centre and their own social environment, along with the necessary professional supervision, children meet their needs, acquire and develop life skills, as well as personal and social responsibilities for the purpose of becoming independent and developing their social, emotional, cognitive and other important life functions.

Immediately after the second generation of day-care Nest Centres in BiH was opened (in 2013), we launched a research on the psychological domains of the children involved in the centres according to the previously defined criteria. We also applied the same measuring instruments on their peers from the same schools and then we compared them in order to determine whether the children at risk were different than their peers. In order to review the effects of this approach we repeated the survey 18 months later and now for the third time, 2.5 years after the children first became involved in the centres.

The main goal of the research is to establish any changes in the children's behaviour at day-care Nest Centres as opposed to their initial results achieved on the same tests 2.5 years before and as opposed to the results achieved by their peers. In the initial research we defined the psychological domains of children related to: emotional problems, behavioural problems and peer relationship problems, hyperactivity, prosocial behaviour, level of self-esteem, self-confidence and attitude towards the future. On the basis of the results of the battery of tests applied this year for the third time, we established whether and in which aspects of psychosocial functioning any changes occurred as a result of activities carried out at the centres. An analysis of those results will show whether this approach was efficient, and in which domains the most prominent changes occurred.

## **Method**

All three surveys were performed using the same methodology and applying the same measuring instruments. They are all comparative surveys, including a group of children at risk (1) and a reference group of children (2). The data on the children at risk was gathered on the basis of the questionnaires filled out by the children, teachers (class masters), parents and Nest Centre staff. The data on the reference group of children was collected on the basis of children's self-reports from the same classes and their teachers' reports. Two sets of age-adapted questionnaires were applied.

## **Instruments**

The following instruments were used to collect the data:

- 1) The *Strengths and Difficulties Questionnaire – SDQ* is intended as an overview of emotional and behavioural problems in children and adolescents. Apart from difficulties, the questionnaire also aims to assess strengths. The questionnaire can be used to monitor and evaluate services of day-care centres (Goodman, Meltzer and Bailey, 1998).

The questionnaire comprises 25 items grouped in five subscales: pro-social behaviour, hyperactivity, emotional problems, behavioural problems and peer relationship problems. Each subscale has 5 items. There are several versions of the scale. We have used the self-report version for 11-16 year olds and the teacher version for 4-16 year olds. Apart from the baseline questionnaire, there is also a version including “an impact supplement” and a “follow-up” version to monitor changes and outcomes of the intervention. The *level of presence* of a certain problem is assessed (Not True, Somewhat True, and Certainly True). The rest of the questionnaire assesses the importance of difficulties through items referring to the *duration*, *areas in which the problems manifest themselves* and the *level of impact* on the child and his/her environment. The teacher version of the Strengths and Difficulties Questionnaire (SDQ - R. Goodman, 1997) is applied to the risk and reference groups of children. The reliability of the teacher version of the questionnaire in our research is Cronbach  $\alpha=0.87$ , and the children version (12-16 year olds) is Cronbach  $\alpha=0.72$  (SDQ - R. Goodman, 1997).

- 2) The Rosenberg Self-Esteem Scale (RSES, 1965) contains ten statements, five positively worded and five negatively worded ones. Self-reporting is performed on a 5-degree Likert-type scale and applies to children aged 12-16. In our research, the RSES is treated as a one-dimensional scale that reliably measures general self-esteem. Reliability is Cronbach  $\alpha=0.73$
- 3) The scale assessing family system functionality measuring family adaptability and cohesion, FACES III (Family Adaptability and Cohesion Scales, Olson, 1985) is mainly used to study the family, family relations and dynamics, stages in family life, family types, families with special needs, impact of family counselling and education, and individual development (Olson, 2007). This model was constructed by David Olson in 1985. It comprises 20 questions with 10 referring to family cohesion and 10 to family adaptability. We used a 5-degree Likert-type scale, where 1 means almost never, 2 rarely, 3 sometimes, 4 often, and 5 almost always. The sum of points for odd questions represents cohesion, while the sum of points for even questions represents family adaptability. A higher score for a certain variable means better family adaptability and cohesion, while a lower score means reduced family adaptability and cohesion. In this case, the Cronbach alpha reliability coefficient was  $\alpha=.806$ .
- 4) The Emotion Regulation and Control Questionnaire (ERCQ, Takšić, 2003) assesses the influence of negative emotions and moods on opinion, memory and behaviour of an individual. The ERC questionnaire contains 20 statements that aim to assess (negative) effects of emotions and moods on opinion, memory and behaviour, as well as the ability for emotional control (example of statements: “When I’m in a bad mood, even the smallest problem seems insurmountable”, “When someone makes me angry, I react instantly and heatedly”). It is the task of the respondents to assess on a 5-degree Likert-type scale (1 – absolutely not, 2 – usually not, 3 – it depends, 4 – usually yes, 5 – always yes) the degree to which they feel about the given statement. A higher result means poorer management and control of negative emotions. The obtained Cronbach alpha reliability coefficient was  $\alpha=.90$ , measured by the internal consistency of the ERC questionnaire in the research.

Additional data on respondents has been collected by means of tailor-made questionnaires:

1. Questionnaire on personal, family and school data on the child
2. Questionnaire on family risk factors as the criteria upon which children are chosen as Nest Centre beneficiaries – completed by Nest Centre staff only for the children attending the centres
3. Self-esteem scale contains 12 items, completed by teachers and children aged 6-16
4. Life aspirations questionnaire (completed by children)

## Sample

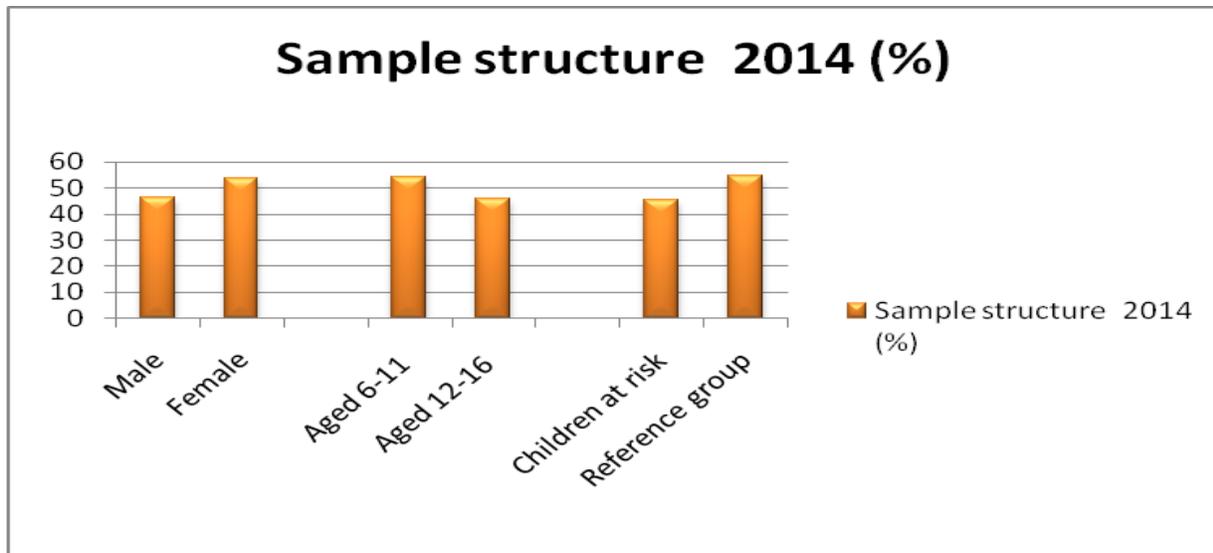
The first stage of the survey encompassed the total of 231 children aged 6-16 (Diagram 1). One group was comprised of the children using the BiH Nest Centre services (105 beneficiaries in total or 45.5%), and the reference group included 126 of their peers from the same classes. The respondents were divided into two age groups; the younger group had 125 children aged 6-11 (54.1%), and the older-age group had 105 respondents aged 12-16. By gender: 124 girls (53.3%) and 107 boys (46.7%).

The second stage of the survey (Diagram 2) included 157 children – 88 children at risk (56.1%) involved in centres' activities and 69 children from the reference group (43.9%). The respondents were divided into two age groups; the younger group had 56 respondents aged 6-11 (35.7%), and the older-age group had 101 respondents aged 12-16 (64.3%). Average age of the entire sample was 12.1 ( $M=144.64$ ,  $SD=26.60$ ). Average age of the children at risk was 11.8 ( $M=140.49$ ,  $SD=33.17$ ), while that of the reference group was 12.4. ( $M=148.33$ ,  $SD=18.35$ ). By gender: 83 girls (52.9%) and 74 boys (47.1%).

The third stage included 100 respondents, 50 in each group. Girls accounted for 54% and boys 46% of the sample. The respondents were divided into two age groups: the younger group were aged 6-11 (41%) and the older 12-16 (59%) (Diagram 3). Average age of the surveyed children was 12 for both groups (average age of children at risk was 11.6 and of the reference group 12.5).

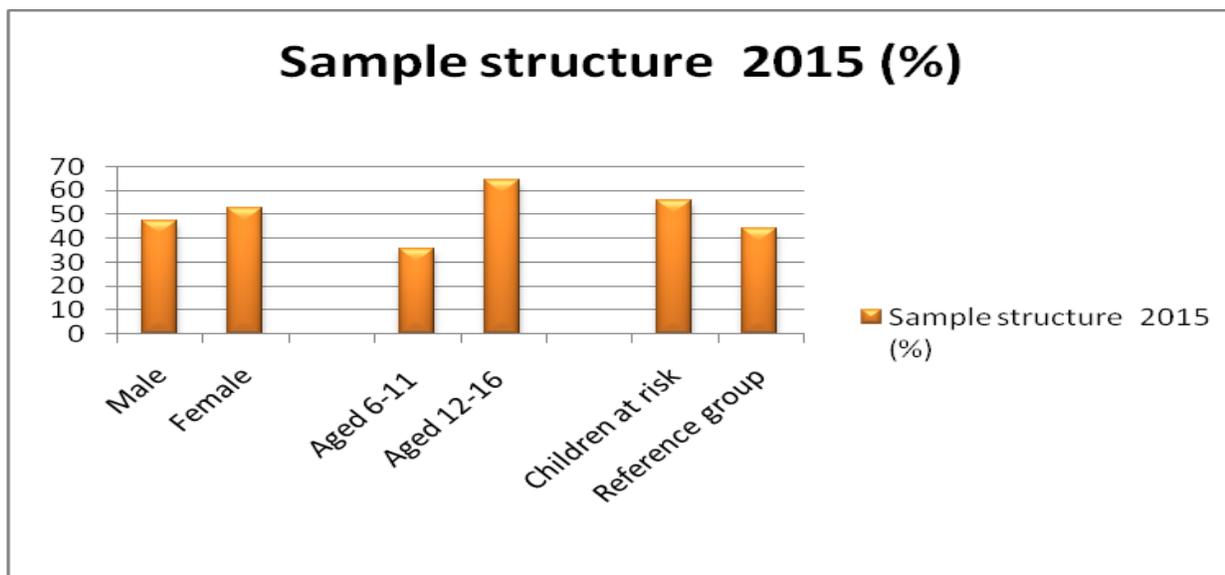
The survey included the children living in Jablanica, Prijedor, Modriča, Grahovo and Zenica, the places with Nest Centres for children at risk. The surveyed children were elementary school pupils.

In the third, just like in the previous (second) stage of the survey, the sample shrank in both groups. Data was not collected for certain children since they had left the centre in the meantime, while some were not present during the collection of the data.



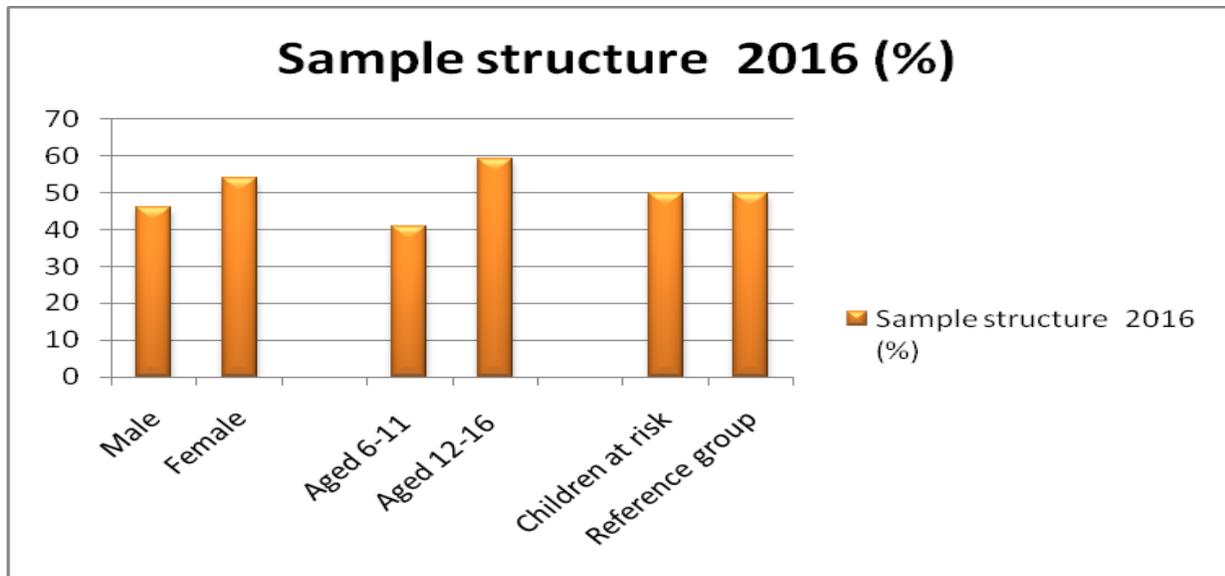
**Diagram 1.** Sample structure by gender, age and presence of family risk factors according to 2014 data

Diagram 1 shows the sample structure by gender, age and presence of family risk factors in the scope of the first stage of the survey in 2014. The survey encompassed the total of 231 respondents (N=231), of which 46.7% were boys and 53.3% were girls (124). Of the entire sample, 54.1% (125 respondents) were younger respondents aged between 6 and 11, while the children in the risk group (105 of them) represented 45.5% of the entire sample.



**Diagram 2.** Sample structure by gender, age and presence of family risk factors according to 2015 data

Diagram 2 shows the sample structure by gender, age and presence of family risk factors in the scope of the second stage of the survey conducted in 2015. This stage encompassed the total of 157 respondents (N=157), of which 52.9% were girls (88 respondents) and 47.1% boys. 35.7% of the sample were younger respondents aged 6-11, while 64.3% were older respondents (101 respondents). The group of children at risk (88) comprised 56.1% of the entire sample.



**Diagram 3.** Sample structure by gender, age and presence of family risk factors according to 2016 data

Diagram 3 shows the sample structure by gender, age and presence of family risk factors in the scope of the third, final stage of the survey conducted in April of 2016. The whole sample included 100 respondents (N=100), of which 54% were girls (54 respondents) and 46% boys. 41% of the sample were younger respondents aged 6-11, while 59% were older respondents (59 respondents).

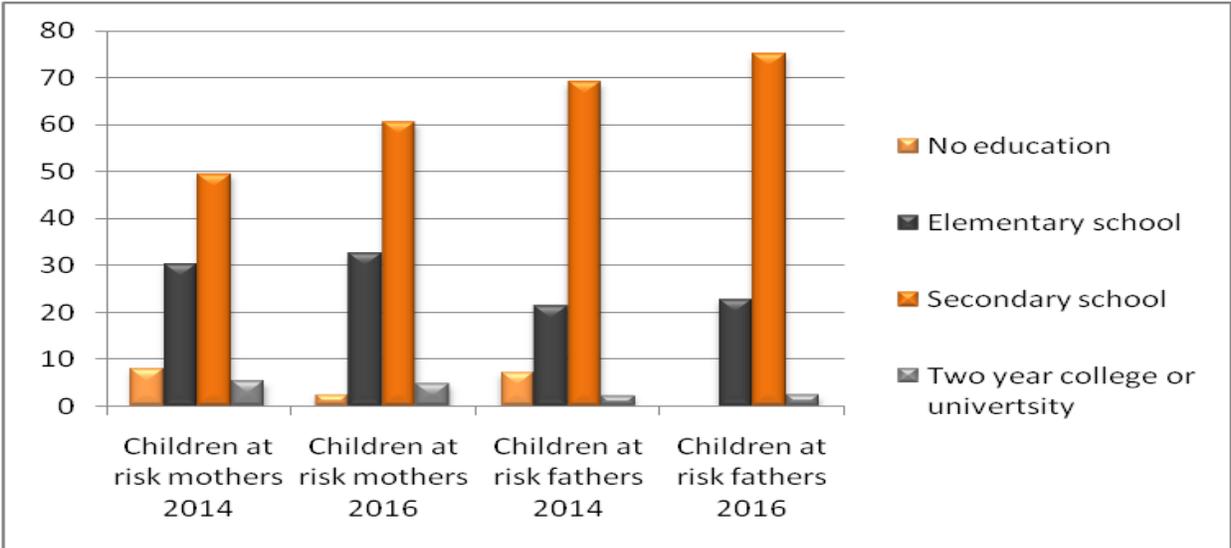
### Sample description

100 children were surveyed in the third repeated survey. The group of children at risk included 50 respondents and the reference group also had 50 children.

### Description of multi-problem families

Data on the families of children at risk was collected on the basis of their files, observations made by centres' staff and a battery of tests created for this survey.

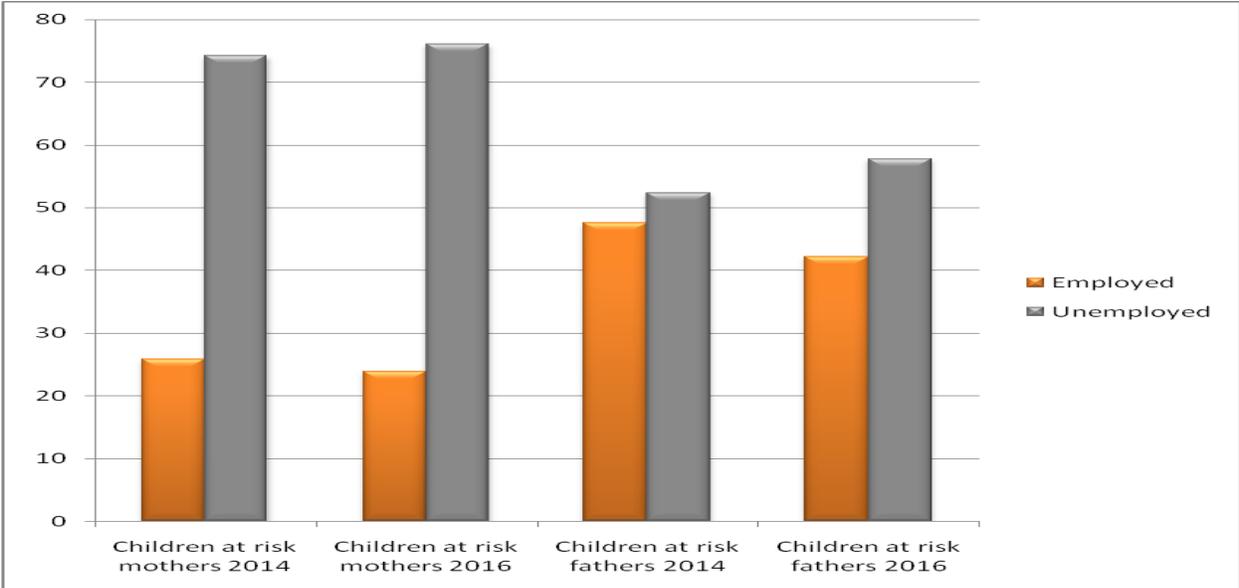
**Education levels of parents of children from multi-problem families**



**Diagram 4.** Sample structure of parents of children at risk in relation to education levels according to 2014 and 2016 data

Diagram 4 gives the sample structure of parents of children at risk in relation to the level of education. The majority of parents have secondary education, with the fathers’ levels a bit higher than the mothers’. The education level of parents in this survey is a little better in relation to the 2014 data, most probably due to the shrinking of the sample and considerably smaller number of the respondents.

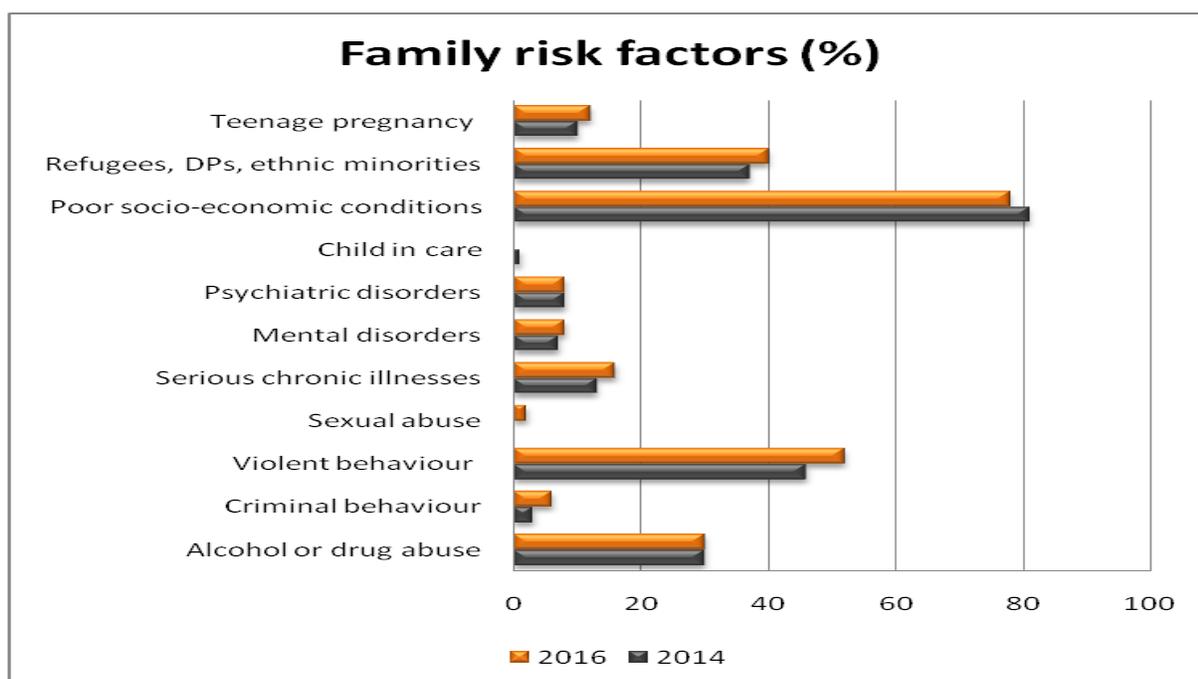
**Employment rate of parents of children from multi-problem families**



**Diagram 5.** Sample structure of parents of children at risk in relation to employment status according to 2014 and 2016 data

Diagram 5 shows the sample structure of parents of children at risk in relation to employment status. It was observed that a considerably higher number of parents of children at risk were unemployed, particularly in the case of mothers. The unemployment rates increased between 2014 and 2016. According to the 2014 data, 74.2% of mothers and 52.4% of fathers of the children at risk were unemployed, while according to the 2015 data, the percentage increased to 76.1% in the case of mothers and 57.8% of fathers of the children at risk.

### Risk factors in families of children involved in day-care centres according to 2014 and 2016 data



**Diagram 6.** Percentage of individual risk factors in families according to 2014 and 2016 data

Diagram 6 gives a comparative overview of the presence of individual risk factors in multi-problem families. According to the 2014 data, the most frequent risk factor was *poor socio-economic conditions* (81%) in the families of the children at risk, followed by *violent behaviour* (46% of families). In the risk group, 37% of families had the status of *refugees, DPs or ethnic minorities*, while in 30% of those families, *alcohol or drug abuse* was present. *Serious chronic illnesses* occurred in 13% of families, while the remaining risk factors occurred in less than 10% of the families.

According to the data obtained in the 2016 survey, the most frequent risk factor was still *poor socio-economic conditions*, which occurred in 78% of families of the children at risk, followed by *violent behaviour* registered in 52% of the families. There was 40% of the families of children at risk with the status of *refugees, DPs or ethnic minorities*, while *alcohol or drug abuse* occurred in 30% of the families. *Serious chronic illnesses* occurred in 16% of the families, while *teenage pregnancy* occurred in 12% of the surveyed families. Other risk factors occurred in 10% of the families (Diagram 6).

## Scores and discussion

### The Rosenberg Self-Esteem Scale (RSES)

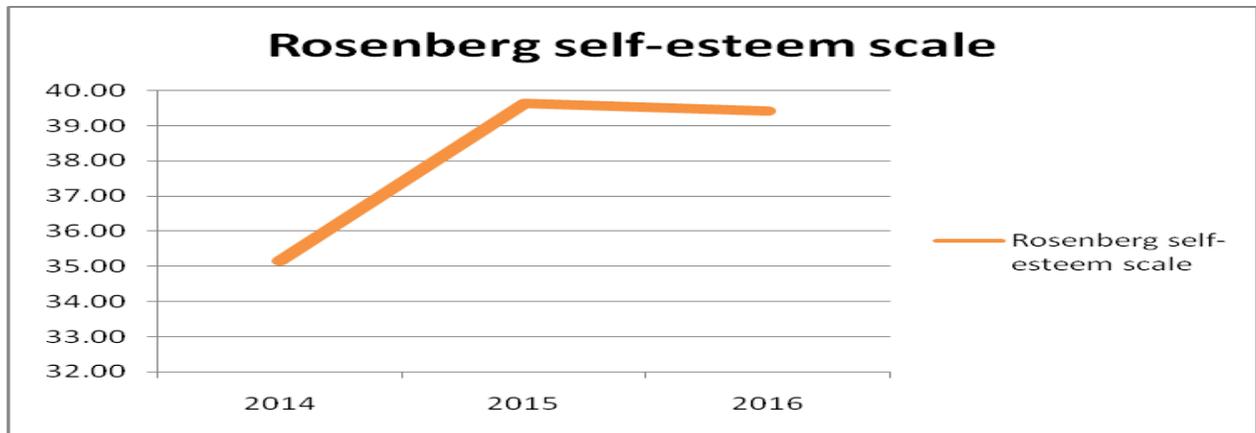
Self-esteem is a term denoting global or general feelings of self-worth and represents a correlation between an individual's competencies and aspirations, i.e. a person values himself/herself on the basis of competence in selected fields. This evaluation has a direct effect on self-esteem (Bezinović, 1988). Rosenberg (1965, cf. Bezinović, 1988) defines self-esteem as a positive or negative feeling of self-worth. Maintaining self-esteem is important for maintaining emotional stability and mental balance and begins to develop between the age of 2 and 3 when the child is praised or criticised by parents (Trebješanin, 2004). Rosenberg stresses the importance of social conditions and subjective experiences which are connected to higher or lower self-esteem. For instance, the amount of parental care and interest in the child significantly correlates with self-esteem. Children showing high self-esteem are more assertive, more independent and more creative than the children with low self-esteem. The respondents with high self-esteem are more resistant to environmental influences that are not in accordance with their own observations; they are more flexible and more imaginative and resolve problems in more original ways than the individuals with low self-esteem. A subjective evaluation of self-esteem relates to the individual's different behaviours (Bezinović, 1988).

**Table 1.** Differences in the older age group reporting self-esteem in 2014 and 2016

	Self-report 2014		Self-report 2016		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Rosenberg self-esteem scale	6	35.17 (5.95)	6	40.17 (4.22)	-1.62	5	0.17

Table 1 shows the average value of self-report of the older age group of children (aged 12-16) on the *Rosenberg self-esteem scale* obtained in the initial (2014) and final survey (2016). Statistically significant differences were not registered, but observed was an increase in self-esteem in the children at risk in the 2016 survey in relation to the initial survey of 2014.

Such results are partially the reflection of the sample shrinking during the last survey, which is why any statistically significant differences are unlikely even though the tendency for increased self-esteem in the children at risk is evident (by five points). In addition, we presume that the children from this sample did not have enough encouragement for building adequate self-esteem and that it takes longer for significant changes than was the case here.



**Diagram 7.** Overview of average values of children at risk on the Rosenberg self-esteem scale obtained in the 2014, 2015 and 2016 surveys.

Diagram 7 gives an overview of average results of self-report of the children at risk on the Rosenberg self-esteem scale obtained in all three stages of the survey, in 2014, 2015 and 2016. Self-esteem visibly increased in the first year of activities (2014-2015), while in the subsequent period (2015-2016) the values remained approximately the same, indicating a certain stabilisation of results on the self-esteem scale for children at risk.

**Table 2.** Differences in the older age group reporting self-esteem in relation to the presence of family risk factors during the initial (2014) and final survey (2016)

	Children at risk		Reference group		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Rosenberg self-esteem scale <b>2014</b>	34	35.76 (4.90)	64	38.80 (5.83)	-2.59	96	<b>0.01</b>
Rosenberg self-esteem scale <b>2016</b>	21	39.43 (4.77)	37	41.57 (7.24)	-1.21	56	0.23

Table 2 gives a comparative overview of average values of self-report of the older age group (12-16) between the children at risk and reference group on the Rosenberg self-esteem scale, as well as the significance of differences obtained in the initial, 2014 interview and final, 2016 interview.

It is visible from Table 2 that differences in self-esteem between the children at risk and reference group, which were measured in 2016, are less prominent and not statistically significant ( $p=0.23$ ), unlike the data shown by the 2014 interview, when the significance level was  $p<0.01$ .

The results imply a reduction in differences between the groups of children, i.e. the children at risk nearing the reference group of peers in self-reporting self-esteem, which is one of the important project objectives. The qualitative data shows that the children at risk improved their school results, reduced the number of absences from school, and improved their behaviour and

position within the peer group. Furthermore, parents of the children at risk had adequate support during the children's stay in the centres, so we presume that there were certain changes concerning the quantity and quality of parental care and interest in the child, which contributed to a slight increase in the children's self-esteem. Centre staff report that parents established better communication and built trust in relation to the previous period (they came to the centres more often and asked about their children, etc.), which resulted in better inclusion and supervision of children. All these elements led to a partial improvement in self-esteem, as one of the important aspects of psychological functioning of children.

## **Strengths and Difficulties Questionnaire (SDQ) Scores**

In order to have the fullest possible insight in the studied psychological domains, this questionnaire was filled out by the children, their parents and teachers.

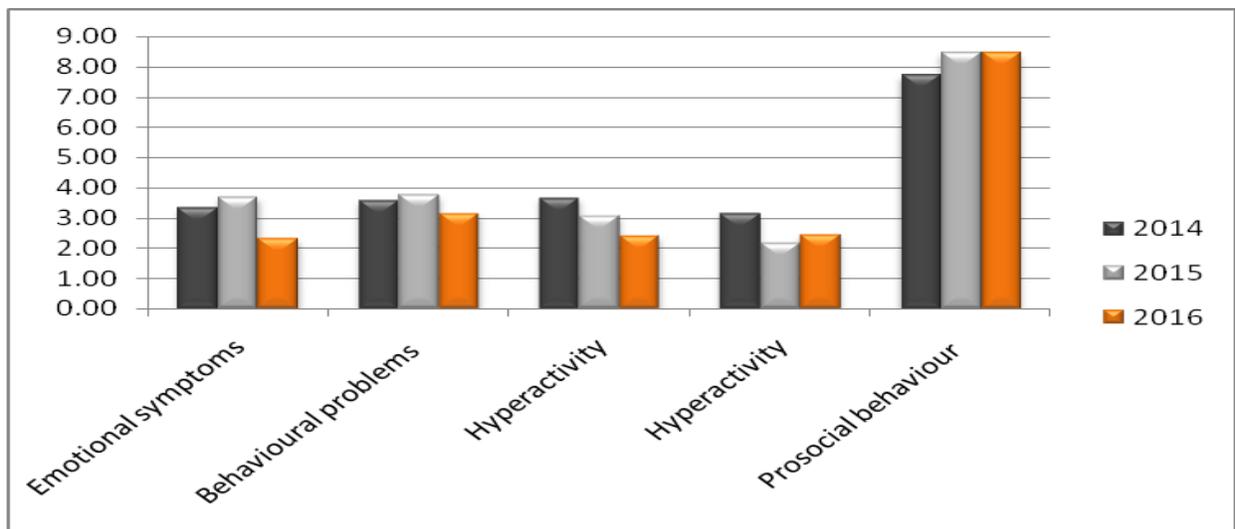
Apart from identifying emotional and behavioural problems and disorders, SDQ gives us the data about the strengths and resources of a child for overcoming difficulties and/or family problems (divorce, illness of a family member, death in the family, traumatic experience, move, addiction problems and substance abuse by a family member, etc.). A child's resources for successfully coping with life's problems are the feature of a normal adaptive behaviour of the child and have an active protective role called resilience. It is a complex process involving cognitive understanding of the situation, an emotional opinion of the event and the skill of using a purposeful action. Resilience is a very dynamic system which constantly changes under the influence of individual experience and innate potential, and is related to self-esteem, social skills, optimism, problem solving, and emotional awareness of the child. Some children are more resilient and despite problems grow into successful adults (Vulić-Prtorić, 2002). Resilience can increase thanks to quality relationships within the family, warmth, caring and positive relationship with one parent at least (Bradley et al., 1994, Fergusson & Lynskey, 1996, Master et al., 1988, cf. Deković, 1999). The previous research and approaches to working with children from multi-problem families mainly focused on risk factors. In working with this group of children, it is important to focus on the protective factors and use an approach directed to the strengths and build resilience (Deković, 1999).

**Table 3.** Differences in the self-report SDQ of children at risk obtained in the initial (2014) and final survey (2016)

	2014		2016		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Emotional symptoms scale	6	3.33 (1.75)	6	2.00 (1.67)	1.87	5	0.12
Behavioural problems scale	8	3.38 (0.92)	8	3.00 (1.31)	0.75	7	0.48
Hyperactivity scale	7	3.43 (1.31)	7	2.00 (1.41)	1.59	6	0.16
Peer problems scale	8	3.00 (1.77)	8	1.88 (1.13)	1.69	7	0.14
Prosocial scale	8	8.00 (2.67)	8	8.25 (1.58)	-0.30	7	0.78
Total difficulties score	6	13.67 (4.55)	6	9.00 (3.16)	2.51	5	<b>0.05</b>

Table 3 shows average scores of self-report, standard deviations and the significance of differences in the average SDQ scores for older children at risk (aged 12-16) obtained in the initial (2014) and final survey (2016).

Even though the differences obtained in the individual subscales are not statistically significant, a tendency for a decrease in difficulties is observed on the *emotional symptoms subscale*, *behavioural problems scale*, *hyperactivity scale*, and *peer problems scale*, while the score on the *prosocial scale* increases. In addition, a statistically significant reduction ( $p < .05$ ) is observed in the total difficulties score.



**Diagram 8.** Overview of average SDQ scores of children at risk achieved in 2014, 2015 and 2016

Diagram 8 shows average scores of self-report of the children at risk in individual SDQ subscales obtained in all three stages of the survey, in 2014, 2015 and 2016. Values on four

subscales have gradually decreased, indicating difficulties in functioning and a gradual increase in the level of prosocial behaviour.

Comparing these studied domains over 2.5 years of centres' operations, changes have occurred in the overall functioning of the children, which can be observed in terms of development and action. The positive changes are noticeable in emotional functioning, behaviour and hyperactivity, while peer problems which showed a declining trend between 2014 and 2015 have now slightly increased. The increase may be the result of better recognition and differentiation of socially acceptable and unacceptable behaviours among peer.

**Table 4.** Differences in the self-report SDQ of older children by the presence of family risk factors obtained in the initial (2014) and final survey (2016)

	2014				<i>t</i>	<i>df</i>	<i>p</i>	2016				<i>t</i>	<i>df</i>	<i>p</i>
	Children at risk		Reference group					Children at risk		Reference group				
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>				<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Emotional symptoms	36	4.31 (2.10)	64	2.80 (2.06)	3.5	98	<.01	22	2.32 (2.23)	37	2.08 (2.18)	0.40	57	0.69
Behavioural problems	35	2.29 (1.30)	62	2.34 (1.76)	-0.16	95	0.88	22	3.14 (1.36)	37	3.89 (1.22)	-2.21	57	<b>0.03</b>
Hyperactivity	34	3.24 (2.32)	63	3.05 (1.84)	0.44	95	0.66	22	2.41 (1.97)	37	2.59 (2.53)	-0.29	57	0.77
Peer problems	36	3.0 (1.70)	66	2.85 (1.96)	0.39	100	0.7	22	2.45 (1.71)	37	1.59 (1.28)	2.20	57	<b>0.03</b>
Prosocial scale	36	8.67 (1.62)	67	8.49 (1.70)	0.5	101	0.62	22	8.45 (1.71)	37	9.00 (1.25)	-1.41	57	0.16
SDQ total	33	13.0 (4.75)	58	11.16 (5.52)	0.61	89	0.11	22	10.32 (5.36)	37	10.16 (4.65)	0.12	57	0.91

Table 4 shows a comparable overview of self-report SDQ for older children (aged 12-16) in relation to the presence of family risk factors, as well as the significance of differences in the average scores obtained in the initial (2014) and final survey (2016).

In the initial survey (2014), statistically significant differences of  $p<.01$  in the self-report of the children at risk and reference group were registered on the *emotional symptoms scale*, i.e. the children at risk reported considerably bigger difficulties in this aspect of functioning in relation to the reference group. According to the results of the final measurement in 2016, statistically significant differences between the children at risk and reference group are evident in the *behavioural problems scale* ( $p<.05$ ) and *peer problems scale* ( $p<.05$ ).

Even though there were differences in emotional functioning between the interviewed groups of children in both previous surveys, the final survey of 2016 shows that this difference is no longer statistically significant and that the two groups have come considerably closer to each other in this type of functioning. The reference group shows an increase in emotional problems, most probably due to developmental factors. The children at risk do not show an increase in this subscale, most probably thanks to the continued and focused support.

In addition, the children's self-reports in the final survey indicate that the children in the reference group had more behavioural problems than the children at risk, which had not been recorded in the previous results. Such results were not expected because the children at risk demonstrated more negative tendencies. One of the possible explanations is that the reference group was undergoing developmental changes more, and possibly a greater peer influence. Despite noticeable family and social risk factors and existing behavioural problems, we presume that the behavioural problems of the children at risk were controlled nonetheless through everyday monitoring and support including various educational, psychosocial and extracurricular activities. This data indicates a positive effect of the actions at the day-care centres.

The children at risk have more peer problems than the children in the reference group. The biggest difference since the beginning of this survey has been marked in peer problems. We can assume that this difference is the result of a better integration of the reference group in peer relationships. Even though the children at risk have been empowered, this domain has proved less susceptible to changes visible in other domains. While children mature, peer influence becomes more important and adolescents spend more and more time with their peers without adult supervision, so the peers become the most important reference group (Deković, 1999).

It is important to emphasise that in the final stage of the survey there was no statistically significant difference between the interviewed groups of children in the total score of the Strengths and Difficulties Questionnaire, which implies a potential empowerment and better resilience of the children at risk in comparison to the previous two years.

## Teacher version of the Strengths and Difficulties Questionnaire (SDQ)

**Table 5.** Differences in the teacher version of SDQ concerning children at risk obtained in the initial (2014) and final survey (2016)

	2014		2016		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Emotional symptoms scale	48	2.21 (2.09)	48	2.44 (2.67)	-0.54	47	0.60
Behavioural problems scale	46	2.98 (1.48)	46	3.00 (1.80)	-0.09	45	0.93
Hyperactivity scale	48	4.48 (3.22)	48	3.94 (2.64)	1.16	47	0.25
Peer problems scale	48	1.73 (1.98)	48	2.35 (2.02)	-1.78	47	0.08
Prosocial scale	47	6.72 (2.76)	47	7.28 (2.21)	-1.34	46	0.19
Total difficulties score	46	11.39 (6.33)	46	11.83 (7.29)	-0.42	45	0.68

Table 5 shows average scores in the teacher version of the SDQ for the children at risk including standard deviations and the significance of differences in the average scores obtained in the initial (2014) and final survey (2016).

Even though no statistically significant changes were observed, the teachers reported slightly increased symptoms in the children at risk in emotional experiences, behaviour and relations with peers, while they reported lower hyperactivity. The teachers also reported that prosocial behaviour was more prominent in the children at risk compared to the year 2014.

The teachers' reports have not shown any significant differences in the behaviour of the children at risk in relation to the previous two years, meaning that those changes were most probably less noticeable in the peer group. On the other hand, the teachers are not sufficiently involved or sensitised to recognise subtle, especially emotional changes in children.

**Table 6.** Differences in the teacher version of SDQ by the presence of family risk factors obtained in the initial (2014) and final survey (2016)

	2014				<i>t</i>	<i>df</i>	<i>p</i>	2016				<i>t</i>	<i>df</i>	<i>p</i>
	Children at risk		Reference group					Children at risk		Reference group				
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>				<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Emotional symptoms	100	2.67 (2.13)	77	1.05 (1.54)	5.87	174.4	<.01	49	2.39 (2.66)	50	1.28 (1.99)	2.34	88.90	<b>0.02</b>
Behavioural problems	99	2.05 (2.30)	81	1.03 (1.36)	3.67	162.9	<.01	49	2.96 (1.77)	50	2.46 (0.76)	1.82	64.95	0.07
Hyperactivity	101	4.48 (3.08)	80	2.30 (2.15)	5.58	176.5	<.01	49	3.90 (2.62)	50	1.66 (2.29)	4.52	97	<b>0.00</b>
Peer problems	96	2.42 (2.06)	74	1.38 (1.69)	3.61	167.4	<.01	49	2.35 (2.00)	50	0.80 (1.28)	4.58	81.45	<b>0.00</b>
Prosocial scale	100	6.52 (2.63)	80	8.04 (2.30)	-	178	<.01	49	7.14 (2.30)	50	8.78 (1.78)	-3.97	97	<b>0.00</b>
SDQ total	93	11.73 (6.73)	69	5.80 (5.27)	6.29	159.5	<.01	49	11.59 (7.14)	50	6.20 (4.54)	4.47	81.07	<b>0.00</b>

Table 6 compares teacher reports of average SDQ scores in relation to the presence of family risk factors and the significance of differences in those average scores obtained in the initial, 2014 and final, 2016 survey.

Similar to the scores of the 2014 teacher reports, statistically significant differences have been observed on the *emotional symptoms scale* ( $p<.05$ ), *hyperactivity scale* ( $p<.01$ ), *peer problems scale* ( $p<.01$ ), and *prosocial scale* ( $p<.01$ ) in the final survey of 2016 too.

According to the teacher reports, the children at risk display significantly bigger difficulties in emotional functioning, higher hyperactivity and bigger peer problems than the reference group. Furthermore, prosocial behaviour of the reference group is reported to be at a higher level than the children at risk.

Like in the previous years, the teachers report significantly more problems in the children at risk on the overall scale and all subscales apart from behavioural problems. This year, the teachers did not observe a significant difference in behavioural problems between the studied children, while behavioural problems increased in both groups. The teachers observed more behavioural problems in both groups, especially in the reference group, which may be associated with developmental changes. Behavioural problems are visible and teachers recognise and spot them more easily, while subtle forms of behaviour regarding emotions are more difficult to recognise in the classroom.

Objectivity of teachers' reports may be partially reduced due to negative expectations and views, as well as prejudices about the children from problem and marginalised families. This implies the need for specific knowledge, skills and methods in facing the many problems of these children and continual monitoring.

## Parent version of the Strengths and Difficulties Questionnaire (SDQ)

**Table 7.** Differences in the parent version of SDQ of children at risk obtained in the initial (2015) and final survey (2016)

	2015		2016		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Emotional symptoms scale	41	2.02 (1.75)	41	2.49 (2.72)	-0.97	40	0.34
Behavioural problems scale	42	2.83 (1.46)	42	3.48 (1.61)	-2.15	41	<b>0.04</b>
Hyperactivity scale	41	4.02 (2.24)	41	4.05 (2.04)	-0.07	40	0.95
Peer problems scale	40	2.28 (1.77)	40	2.63 (1.92)	-1.16	39	0.25
Prosocial scale	41	8.22 (2.13)	41	8.73 (1.69)	-1.32	40	0.20
Total difficulties score	38	11.16 (4.92)	38	12.03 (6.27)	-0.84	37	0.41

Table 7 shows average scores in the parent version of the SDQ for the children at risk obtained in the 2015 survey, when the first parent reports were made, and in the final, 2016 survey. It also shows the significance of differences in the average scores. Statistically significant differences occur only in the *behavioural problems scale* ( $p < .05$ ), with parents reporting more behavioural problems in 2016 than in 2015. No statistically significant differences have been observed in other subscales.

This can be explained by possibly increased involvement of the parents, better monitoring and insight in the children's behaviour and more critical views of unacceptable behaviours, which may be the result of the support and cooperation with centre staff in solving the current problems within families.

## Strengths and Difficulties Questionnaire (SDQ) Scores – differences in parent and teacher reports

**Table 8.** Differences in the parent and teacher versions of the SDQ for children at risk

	Teacher report		Parent report		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Emotional symptoms scale	47	2.49 (2.67)	47	2.40 (2.42)	0.22	46	0.82
Behavioural problems scale	47	2.98 (1.78)	47	3.38 (1.55)	-1.71	46	0.10
Hyperactivity scale	47	3.87 (2.63)	47	4.06 (1.96)	-0.51	46	0.61
Peer problems scale	47	2.34 (2.04)	47	2.57 (1.79)	-0.73	46	0.47
Prosocial scale	47	7.17 (2.34)	47	8.57 (1.81)	-3.85	46	<b>&lt;.001</b>
Total difficulties score	47	11.68 (7.22)	47	12.43 (6.53)	-0.76	46	0.45

Table 8 shows average scores in the parent and teacher version of the SDQ for the children at risk, as well as standard deviations and the significance of differences in the average scores. Statistically significant differences are observed only in the *prosocial behaviour scale* ( $p < .001$ ). Namely, the parents report better prosocial behaviour in the children at risk than the teachers, while the differences in other subscales are not statistically significant. We presume that the parents were more involved and monitored their children better than in the previous year, but it is also important to mention the possible effect of subjectivity of the parents as opposed to the teachers.

According to the said reports by the children, parents and teachers, it is noticeable that everyone agrees on the presence of behavioural problems of the children at risk. Behavioural problems are the most visible and directly obstruct the children's functioning in their prosocial environment (family, school, peers).

## Self-Esteem Questionnaire

Self-esteem is defined as a personal feature expressed as confidence in one's own worth or abilities and depends on one's life experience and relative success in solving major problems in life (Trebješanin, 2004).

**Table 9.** Differences in the self-report Self-Esteem Questionnaire for children at risk obtained in 2014 and 2016

	Self-report 2014		Self-report 2016.		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Self-esteem questionnaire	49	17.31 (3.55)	49	16.57 (2.81)	1.24	48	0.22

Table 9 shows average self-report scores, standard deviations and the significance of differences of the average scores for the older group of children at risk (aged 12-16) in the Self-Esteem Questionnaire obtained in the initial (2014) and final survey (2016). As we can see, the changes in self-reporting of self-esteem by the children at risk are not statistically significant ( $p=.22$ ).

**Table 10.** Differences in the children's self-report Self-Esteem Questionnaire in relation to the presence of family risk factors obtained in the initial (2014) and final survey (2016)

	Children at risk		Reference group		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Self-esteem questionnaire 2014	124	17.36 (3.50)	101	16.23 (3.15)	2.53	223	<b>0.01</b>
Self-esteem questionnaire 2016	50	16.54 (2.79)	49	17.14 (3.23)	-0.99	97	0.32

Table 10 shows average scores for self-report, standard deviations and the significance of differences of the average scores in the *Self-Esteem Questionnaire* in relation to the presence of family risk factors obtained in the initial survey in 2014 and final survey in 2016. Unlike the statistically significant differences observed in the initial survey ( $p=.01$ ), no statistically significant differences were recorded in the final survey in the self-report of the children at risk and the reference group of children, i.e. there are no differences in self-esteem between the observed groups.

**Table 11.** Differences in teacher reports on children in the Self-Esteem Questionnaire obtained in the initial (2014) and final survey (2016)

	2014		2016		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Self-esteem questionnaire	45	14.80 (6.20)	45	15.16 (6.02)	-0.53	44	0.60

**Table 12.** Differences in teacher reports on children in the *Self-Esteem Questionnaire* in relation to the presence of family risk factors obtained in the initial (2014) and final survey (2016)

	Children at risk		Reference group		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Self-esteem 2014	95	14.26 (5.47)	82	17.74 (5.62)	-4.17	175	<.001
Self-esteem 2016	49	15.18 (6.13)	50	19.46 (4.30)	-4.01	85.91	<.001

Table 11 shows average scores in teacher reports on the children at risk in the *Self-Esteem Questionnaire*, standard deviations and the significance of differences of the average scores obtained in the initial (2014) and final survey (2016). Table 12 shows average scores in teacher reports in the *Self-Esteem Questionnaire* in relation to the presence of family risk factors, standard deviations and the significance of differences of the average scores obtained in the initial (2014) and final survey (2016).

Even though the average scores of self-esteem of the children at risk increased between 2014 and 2016 according to the teacher reports (Table 12), those differences are not statistically significant. Similar to the initial survey (2014), teachers reported differences in self-esteem in favour of the reference group in relation to the children at risk in the third, final stage of the survey (2016). The statistical significance of those differences is  $p < .001$  (Table 12).

**Table 13.** Differences in parent reports on children at risk in the *Self-Esteem Questionnaire* obtained in 2015 and 2016

	2015		2016		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Self-esteem questionnaire	44	16.95 (4.70)	44	17.64 (4.73)	-1.00	43	0.32

Table 13 shows average scores in parent reports on the children at risk in the *Self-Esteem Questionnaire* obtained in the initial (2014) and final survey (2016) by examining the significance of differences in those average score. Even though the average scores of self-esteem of the children at risk increased between 2015 and 2016, those differences are not statistically significant ( $p=0.32$ ).

In the third stage of the survey, there was no difference in reporting self-esteem by the children at risk and reference group. A statistically significant difference occurred only in the initial survey of 2014. We believe that better school results contributed to the positive self-esteem self-report in the third stage of the survey.

Parents of the children at risk did not report statistically significant differences in self-esteem over the past years, but self-esteem visibly increased over time.

The teachers reported self-esteem in the studied children, with the data indicating statistically significant differences. The reference group was assessed as having significantly higher self-esteem, which was expected taking into account more favourable life circumstances of those children. In addition, comparing the teacher reports on the children at risk during the three stages of the survey, the data indicates no significant differences in those children's self-esteem. This can be explained by the fact that self-esteem is a complex and distinct psychological construct whose change requires longer and more complicated interventions, as well as positive changes in the children's psychosocial environment.

## Level of Aspirations

Motivation is anything that drives people and a reason for their actions. It defines the intensity and duration of those actions. Motivation is key to school success and views of the teachers and parents are important for its development. Children have various levels of aspirations for learning and selection of vocation. *The level of aspiration is closely related to the parents' qualifications and their motivation for learning and academic achievements of their children. It happens that children with developed potential opt for three-year or four-year vocational schools in order to enter the labour market as soon as possible, mostly due to family circumstances. Practice has shown that a considerable number of children and youths from socially vulnerable families are forced to give up on schooling and thus fail to acquire a secondary education diploma (UNICEF, 2014).*

**Table 14.** Differences in the level of children's aspirations in life in relation to the presence of family risk factors obtained in the initial 2014 survey

	Secondary education					Higher education				
	Three-year secondary school	Four-year secondary school	$\chi^2$	<i>df</i>	<i>p</i>	Yes	No	$\chi^2$	<i>df</i>	<i>p</i>
Children at risk	18	18	10.82	1	<b>&lt;.01</b>	21	17	5.30	1	<b>.02</b>
Reference group	11	54				52	14			

Table 14 shows the differences in the level of aspirations in relation to the presence of family risk factors, i.e. differences in the frequency of children at risk and reference group regarding the level of education they opt for, and the significance of those differences, obtained in the initial survey in 2014.

**Table 15.** Differences in the level of children’s aspirations in relation to the presence of family risk factors obtained in the final 2016 survey

	Secondary education					Higher education				
	Three-year secondary school	Four-year secondary school	$\chi^2$	<i>df</i>	<i>p</i>	Yes	No	$\chi^2$	<i>df</i>	<i>p</i>
Children at risk	16	34	9.08	1	<b>&lt;.01</b>	33	17	6.79	1	<b>&lt;.01</b>
Reference group	3	46				44	5			

Table 15 shows the differences in the level of aspirations in relation to the presence of family risk factors, i.e. differences in the frequency of children at risk and reference group regarding the level of education they opt for, and the significance of those differences, obtained in the final survey in 2016.

The 2014 survey (Table 14) determined that a statistically significantly higher number of children from the reference group ( $p<.01$ ) chose to attend a four-year secondary school, as well as that a statistically considerably higher number of children from the reference group ( $p<.05$ ) intended to go to university. Even though the new data implies that the number of children at risk interested in four-year secondary school and university is increasing (Table 15), these differences are still present with the statistical significance of  $p<.01$ .

This leads us to conclude that activities at the centres did have a partial effect on the general level of aspirations of the children at risk for further education, which can be seen by the increased number of children motivated for secondary and two-year college/university education.

## Family Flexibility and Cohesion Questionnaire (FACES III) Scores

Family, especially the parent-child relationship is a continuing process that changes as the child matures. When children enter early adolescence, family is still important for their psychological adaptation, while the parenting role becomes more advisory and directs the development (Reitz, Deković, Meijer, & Engels, 2006). The majority of researchers agree that emotional closeness between family members is a significant factor of support and maintenance of mental health and stability in adolescents.

Cohesion and flexibility are significant protective factors of functional families. Cohesion is defined as the emotional bonding, togetherness, and closeness family members have toward one another (Riesch, 2003, cf. Zotović et al., 2008). Cohesion is associated with parental support and family relations, as well as the level of psychological adjustment (Buescher, 1986,

cf. Caplan et. al., 2002; Caplan et al., 2002, cf. Pekić, Kodžopeljić, & Genc, 2013). Emotional closeness between family members is important as it raises the level of a child's general self-respect and intensifies family cohesion (Kawash & Kozeluk, 1990, cf. Pekić, Kodžopeljić, & Genc, 2013). In dysfunctional families, there is often no emotional closeness between family members. Adolescents in families with low cohesion often have problems concerning togetherness and separation from the family.

The feature of flexibility (or adaptability) is understood as the capacity and willingness of the family to change its power structure, roles and rules for the purpose of its own development (Riesch et. al., 2003, cf. Zotović et al., 2008).

**Table 16.** Differences in child reports on the Family Flexibility and Cohesion Questionnaire with respect to the presence of risk factors

	Children at risk		Reference group		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Family cohesion	22	40.32 (5.93)	37	42.30 (4.42)	-1.46	57	0.15
Family flexibility	22	29.09 (3.91)	37	31.00 (5.01)	-1.53	57	0.13

Table 16 shows the average values of family cohesion and flexibility reported by the children at risk and reference group, as well as the standard deviations and significance of the differences of those average values. Even though the children in the reference group perceive their families as more cohesive and flexible than the children at risk, no statistically significant differences have been recorded.

These results are unexpected and may be explained by the small sample as well as the children's need to portray their families in a good light, i.e. the way they would like them to be.

**Table 17.** Correlation between the self-report SDQ and Family Flexibility and Cohesion Questionnaire (FACES III) of children

	Family cohesion		
	<i>N</i>	<i>r</i>	<i>p</i>
Emotional symptoms scale	22	-0.02	0.95
Behavioural problems scale	22	-0.41	0.06
Hyperactivity scale	22	-0.37	0.09
Peer problems scale	22	-0.46	<b>0.03</b>
Prosocial scale	22	0.49	<b>0.02</b>

Table 17 shows the correlation between the children's self-reports on the Strengths and Difficulties Questionnaire (SDQ) and Family Flexibility and Cohesion Questionnaire (FACES III), as well as the significance of the correlation. We observed a negative correlation between family cohesion and the *peer problems scale*, and slightly positive correlation with the *prosocial*

*behaviour scale*, both having the statistical significance of  $p < .05$ . The correlation of cohesion with other subscales on the Strengths and Difficulties Questionnaire is not statistically significant even though slightly negative correlation occurs between cohesion and behavioural problems, and cohesion and hyperactivity.

Therefore, the children at risk, who assess their families to be more cohesive, report having less problems with their peers, and a higher level of prosocial behaviour. In this survey, cohesion correlates more significantly with psychological domains measured by the Strengths and Difficulties Questionnaire. It derives from these results that the children growing up in more cohesive families have less peer problems and in their social relations focus more on cooperation and helping others (prosocial behaviour). Family flexibility did not turn out to be statistically significantly correlated with either of the SDQ subscales.

## Emotion Regulation Questionnaire (ERQ) Scores

Since emotions play a critical role in an individual's entire behaviour and regulate the individual's attitude of him/herself and his/her environment, we thought it important to examine emotion regulation so we introduced another instrument to examine emotion regulation in children at risk and their peers. *Emotion regulation* is defined as the process of recognising and understanding one's own emotional experiences which defines how one experiences or expresses these emotions (Gross, 1998, 2007, cf. Macuka, 2012). Emotion regulation in children is the ability to delay the gratification of a wish or need in accordance with an actual life situation and the given circumstances. Emotion regulation allows for the harmonisation of expressing one's emotions with the demands of the environment, protection from negative emotions, it suppresses them and guides them so that they do not disturb one's functioning, which is a significant component of a successful emotional adjustment in children (Macuka, 2012).

As emotion regulation in children is a significant developmental component and a part of the adjustment process, we tried to further examine this part of emotional functioning by applying the Emotion Regulation Questionnaire (Takšić, 2003).

**Table 18.** Differences in children's reports on the Emotion Regulation Questionnaire (ERQ) in relation to the presence of risk factors

	Children at risk		Reference group		<i>t</i>	<i>df</i>	<i>p</i>
	<i>N</i>	<i>M(SD)</i>	<i>N</i>	<i>M(SD)</i>			
Emotion regulation	22	51.09 (13.79)	37	55.16 (16.31)	-0.98	57	0.33

Table 18 shows the average values of self-reports of emotion regulation by the children at risk and reference group, as well as the standard deviations and significance of those average values. Even though the reference group shows a bit lower emotion regulation (higher scores in

the questionnaire), differences between the children at risk and reference group are not statistically significant.

Analysing the data obtained in the previous surveys, we observed that the recognition, understanding and assessment of emotional experiences was a complex aspect to evaluate, both for the children and for the parents and teachers. As we do not have the results for the previous years, we assume that psychosocial activities through group and individual work with the children at risk contributed to the fact that there were no significant differences between them and their peers in terms of emotion regulation.

## Conclusions

During 2.5 years of carrying out activities at Nest Centres in BiH, we conducted three surveys using the same instruments to define the effects of those activities on certain psychological domains of the children at risk.

The data obtained in these surveys implies the following conclusions:

- The most represented risk factors in the children involved in the centres in the third stage of the survey are: poor socio-economic conditions (approx. 78%), violent behaviour (52%), displacement, refugee status or ethnic minority status (40%), alcohol and drug abuse (over 30%), chronic illnesses (16%) and teenage pregnancy (12%). Other risk factors (psychiatric disorders, mental disorders, serious chronic diseases, criminal behaviour, sexual abuse, etc.) occur in less than 10% of families, which confirms the consistent application of the previously set criteria for the selection of children for centres. In the majority of cases, the aforementioned factors rarely work in isolation and occur considerably more frequently concerted in different combinations. In relation to the 2014 survey, the same risk factors are still present in multi-problem families.
- Educational status of the parents of the children attending Nest Centres is considerably lower compared to the parents of the reference group. The majority of fathers and mothers have secondary education. It is notable that mothers as opposed to fathers have lower levels of education. The structure of parents of children at risk concerning the level of education was almost identical in the 2014 and 2015 surveys, while a slight improvement was observed in the 2016 survey, which is most probably connected with the shrinking of the sample and a considerably lower number of the respondents.
- A greater percentage of the parents of children at risk are unemployed in relation to the parents of the reference group of children, which increases the family risk factors for those children. In addition, the 2016 survey found that the unemployment rates of the children at risk increased, both in the mothers and the fathers.
- According to the centre staff reports, children have shown positive changes in behaviour in relation to the first and second stage of the survey. Less “incidents” and cases of socially unacceptable behaviour have been recorded. Children are more open and more involved in centre activities.
- Centre staff also report better school results of the children at risk (up by 1.5 grades) and reduced number of class absences and children also approaching schoolwork with less resistance, indicating better developed work habits.
- Overall, the children at risk observe improvement in their own functioning in the majority of the studied aspects.
- Self-esteem in the children at risk has improved and come nearer to the average scores of the reference group’s self-esteem.

- The children at risk report to have fewer difficulties after 2.5 years of continually attending activities at Nest Centres.
- According to the total score of the final Strengths and Difficulties Questionnaire of 2016, there is no statistically significant difference between the children at risk and reference group. There are, however, differences in certain aspects. Namely, there is an evident difference in the *behavioural problems scale* and *peer problems scale*, with the children at risk reporting more peer problems, and the reference group reporting to have more behavioural problems.
- Unlike the children, the teachers and parents observe somewhat less positive developments. The teachers report that the children at risk slightly showed positive changes, even though they still observed more significant differences in relation to their peers in all domains except the behavioural problems.
- Parents of the children at risk report that their children had more behavioural problems in relation to the previous report (2015).
- Parents report improved prosocial behaviour of the children at risk as opposed to the teachers.
- Self-report of self-esteem by the children at risk approach the scores of the reference group, i.e. there is no longer a difference in relation to the initial survey.
- Monitoring, support, caring and loving relationships as well as permanent supervision help children at risk better cope with their developmental challenges.
- Teachers report that the children in the reference group had considerably higher self-esteem than the children at risk, even though they report certain improvements on the children at risk.
- Parents report that the children's self-esteem did not considerably change in comparison to the previous year.
- In terms of continuing education, a statistically significant difference between these two groups of children has been identified: the children from the centres are more oriented on three-year schools, while the majority of the reference group of children opt for four-year secondary schools and continue their education further. In the repeated survey (2015 and 2016), the number of the children at risk intending to continue their education has notably increased.
- There have been no significant differences between the studied groups of children in terms of family flexibility and cohesion.
- There is a negative connection between family cohesion and peer problems, and a positive connection with prosocial behaviour.

- No significant difference has been found in the emotion regulation test between the studied groups.

## ***General conclusion***

After 2.5 years of continued work and monitoring of the children at Nest Centres in BiH, the results of the repeated surveys indicate changes in the studied domains of psychosocial functioning, even though the risk factors remained unchanged or worsened.

Continual support, safe environment, supportive relationships and positive learning models contribute to a more stable development and growth of these children. This method of work and specific approach has proved efficient in working with children at risk. This is supported by the results of their self-reports, as well as the reports by teachers, parents and centre staff.

Changes in the children's functioning were more significantly perceived by the children themselves than by the teachers, parents and/or centre staff.

It can be confirmed by these findings that the children's general functioning improved on the personal, family, school and social (peer) level and that they have come closer to their peers in that respect.

Our experiences and similar research can offer the following recommendations for future activities with this population:

- These children's problems are complex and cannot be resolved through individual interventions. Interventions should instead be directed to the parents, peers, teachers and the community.
- Apart from identifying the risk factors, it is important to focus on building the strengths and resources as well as resilience in children and their families (Deković, 1999).
- On selecting the beneficiaries, it should be made sure that apart from the children with externalised behavioural problems, the children with internalised forms of behaviour, who are not spotted in a group that easily (withdrawal, anxiety, depression, psychosomatic reactions, etc.) should be equally involved.

Low motivation for school or poor school results should be a significant marker for identifying children at risk, because it forces them to give up on school and minimises their chances in life (Deković, 1999).

Given the complexity of the problem, it is important to apply a multi-sectoral approach in order to be able to recognise the problems of children and their families as early as possible and resolve them as quickly and as successfully as possible.

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