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# THE EFFECTS OF EARLY INSTITUTIONAL REARING ON MENTAL HEALTH OF CHILDREN AGED 8 TO 12 YEARS

M.Remetić[1], H.Tahirović[2], S.Loga[3]
*Health Center Tuzla[1], Pediatrics' Clinic Tuzla[2], Academy of Sciences and Arts of B&H[3]*

**Abstract**
The aim of my study was to investigate the consequences of early institutional rearing on the mental health of a sample of children aged 8-12 years. This study was conducted between the 15th May and the 15th June 2003 in two institutions in Bosnia and Herzegovina. These institutions were chosen because they share the same care model. A sample of 30 children completed structured questionnaires, which had been translated from English. These were the Child Behavior Check List-form for parents, TRF- for teachers and YSRF for youngster. I also used my own socio-demographic questionnaire, which measured other characteristics of the sample. The control group was 60 children who attended the elementary schools in Tuzla. Our research confirmed that early deprivation in an institution has a negative effect on behavior in every day's life. The lack of parental authority and family protection, together with suffered personal losses among close relatives, contribute to trauma of institutionalized children and diminish their invulnerability. Institutionalized children lean towards apathy, which can be a sign of emotional stress they are submitted to and point towards significant sources of deprivation in every day's life. Mental health problems are much more represented among children in institutions. Our research confirmed that young children from institutions are a vulnerable group of people and emphasizes the need for equalization of the Bosnian care model to the European standards.
**Key words**: institutional rearing, mental health

## Introduction

In many European countries 3-4% of children below 18 years of age are entrusted to social care services for a certain period of time (1). In Bosnia & Herzegovina the number ranges between 3000 to 3500 children entrusted. There are 1130 living in orphanages, 120 in the institutions for children with special needs, and 2200 in foster homes (2).

While abandoning or death of either parent are most common reasons children are entrusted to the institutions, particular medical and/or social reasons (disease in family, psychosis or mental retardation of parents, negligence or child maltreatment, poverty, and distressed families) are not uncommon.

Physical and mental health of children, living in disrupted conditions, is endangered, and therefore orphanage presents safe environment in which

a child can continue to grow and develop outside the influence of its biological family.

In such cases institutionalization may contribute to psychical recovery and enable the child to develop to its full biological potential. The outcome is affected by the age by which a child has been institutionalized, circumstances under which the child was admitted and the duration of the institutionalization, genetic factors in addition to the quality of accommodation (continuity and sensitivity of care).

Institutional or foster placement are primarily run by professionals in field of social welfare, however due to the fact that this age group is very vulnerable it is critical to have a multidisciplinary approach (2,3).

Physical, cognitive and socioemotional development of a child in an institutions differs from development of a child living in a family (4, 5). Besides the separation (4), institutionalization is characterized by other negative circumstances: the number of care-takers/nurses versus the number of children below the optimal, work shifts of staff and poor stimulation (5), possibility of failure to diagnose serious medical conditions due to staff fluctuation (3). Besides these factors there are risk factors, such as dysfunctional of the biological family, trauma, fatal exposition to substance abuse and inheritance of vulnerabilities that are influential to the level of behavioural morbidity amongst the children without parents (1). Familiarization with the normal psychological development and research on institutionalized children's emotional, social and behavioural problems led many western states to change their public opinion on how to take care of the institutionalized children. Child's characteristics and the age became important parameters while choosing an optimal solution for his or her care taking. The adequate foster family secures continuity in personalized care and presents most accepted care-taking solution for children below the age of 5 (3). Clinical trials show that older children, and adolescents, requiring alternative care due to family circumstances, do not adapt well with the foster family, therefore institutionalization is optimal solution for them (3).

The purpose of this research was to test the impact of early institutionalization on the mental health of children ages 8 to 12.

## Place of Study, Subjects And Methods

### *Place of Study*

The research was conducted at two orphanages located in Bosnia and Herzegovina. The subjects live in "orphanage families" numbering 8 to 12 children of different ages and sex in which older children, to an extent, take care of the younger children depicting the model of development of a traditional Bosnian family. One mentor (care-taker) is present for each "orphanage family" during the day, while there is only one mentor for all during the night. The number of care-takers/nurses versus the number of children was close in both institutions and below the optimal at the time of surveying.

### *Subjects*

The Group A was made up of 30 institutionalized children ages 8 to 12. There were an equal number of males and females. Fifteen children were below the age of 3 and the other fifteen were below the age of seven at the time of institutionalization. Fifty-six percent (17) of children had brothers or sisters at the same environment.

The control Group B was made up of 60 children ages 8 to 12 who lived with their biological families. The subjects were randomly selected from five elementary schools in Tuzla.

The sample distribution of both groups according to sex and age is shown in Table 1.

**Table 1:** The sample distribution of both groups according to sex and age

| Gender | Age | | Group A | | Group B | |
|---|---|---|---|---|---|---|
| | Years | $\bar{x}\pm SD$ | N | % | N | % |
| Female | 8-10 | 8.75 ±0.69 | 11 | 36.6 | 21 | 35.0 |
| | 11-12 | 10.52 ±0.51 | 4 | 13.3 | 8 | 13.3 |
| Male | 8-10 | 8.36 ±0.48 | 5 | 16.6 | 11 | 18.3 |
| | 11-12 | 10.75 ±0.70 | 10 | 33.3 | 20 | 33.3 |
| Total | 8-12 | 90 | 30 | 33.3 | 60 | 66.7 |

*Methods*

This research is quantitative, transversal and descriptive. The research lasted from 15th of May 2003 to 15th of June 2003. Parents, care-takers, teachers and sampled children were informed about the research project, its goals, and their consent to participate in the research through a letter. Children attending school with special needs were excluded from this research. Parents, teachers and students agreed to be surveyed. The survey was anonymous and they were filled out in the privacy of ones homes. The first author personally monitored surveying in the orphanages.

*Survey questionnaires*

Socio-demographic survey adopted for either group was used. The survey inquired for basic demographic information, social situation, family and other important life events, such as death of immediate and extended family members, and hard diseases within the family.

Standardized questionnaires were used to determine mental health (6,7,8) – Child Behaviour Check List -for Ages 4-18 (CBCL) (6), Teacher's Report Form for Ages 4 -18 (TRF) (7), Youth Self-Report Form for Ages 11-18 (YSRF) (8).

The CBCL was designed to be filling out by biological parents and parent surrogates (6), and consists of 118 behavioral problems sorted into internal and external problems. Internal problems consist of withdrawn behavior, somatic complaints and anxious/depressed behavior, while external problems consist of delinquency and aggressive behavior. In orphanages mentors (care-takers) filled out the survey regarding the children that were familiar to them for at least 6 months. CBCL and YSRF are compatible questionnaires with minor wording differences due to the subject difference (6,8). Many questions coincide with the questions from the TRF. Even though correlation between the answers may be low, it does not necessary denote unreliable subjects, but different aspects of child functioning (6,7,8).

Teachers, or other adults from school environment who knew the student by at least two months filled out TRF. The advantage of gathering reports on student's behavior from teachers is avoidance of family's dynamic influence (7).

## Statistics

Epi Info version 6 was used for survey design, data entry and statistics, while SPSS was used for evaluation of standardized questionnaires. Graphics were done using Microsoft Excel. Descriptive statistics model was used to analyze data (mean ± standard deviation). To test the significance of the difference between the samples, $\chi^2$ test was used. Statistical hypothesis has been tested at the level of significance $\alpha=0.05$; the difference between samples is considered significant only if $p < 0.05$.

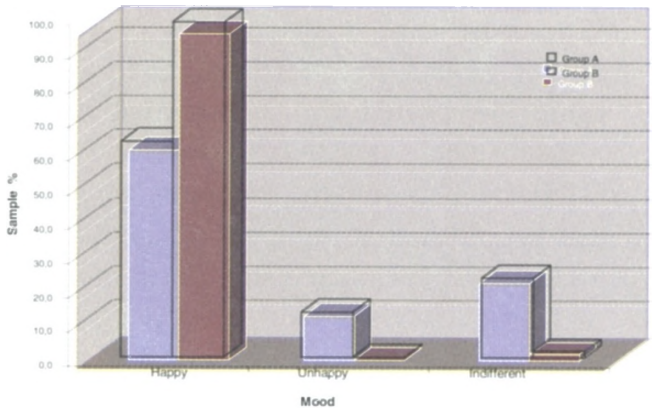
## Results

There has been total of 90 surveyed children, 30 (33%) of which live in orphanage (Group A) and 60 (66.7%) of which live with their biological families (Group B). Children who belong to Group A have suffered more family losses due to illness, disabilities and deaths compared with Group B (Table 2).

**Table 2:** Family losses due to disease, disability, and death of immediate and extended family members

| | Disease and disability | | | | Death in family | | | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Close Relatives | | Extended family | | Close relatives | | Extended family | | | |
| | n | % | n | % | n | % | n | % | n | % |
| **Group A (N=30)** | 6 | 20.0 | 5 | 16.7 | 6 | 29.0 | 5 | 16.7 | 22 | 73.3 |
| **Group B (N=60)** | 8 | 13.3 | 12 | 20.0 | 3 | 5.0 | 15 | 25.0 | 38 | 63.3 |
| **Statistic Significance** | p<0.05 | | p>0.05 | | p<0.05 | | p>0.05 | | p>0.05 | |

Children from Group A have had significantly more ill and disabled ones among their close relatives ($p < 0.05$) as well as more death cases ($p<0.05$) compared to children from Group B which have experienced more illnesses, disabilities and death cases that had happened to their extended family. The subject's dominating mood is charted (Picture 1).




Picture 1: Subjects' mood

At the moment of the examinations, there were 19 (63.3%) children in the Group A that felt well, 7 (23.3%) indifferent children and 4 (13.3%) unhappy children. In the B Group, 59 (98.3%) children felt happy, whereas only 1 (1.7%) child was indifferent. A significant difference was found between these two examined groups ($p<0.05$).

CBCL questionnaire has been filled out by 30 mentors (care-takers) (Group A) and by 60 parents (Group B). The questionnaire measured internal, external and total problems that children experienced (Table 3).

**Table 3:** Behavioral problems of children based on care-takers and parental report

| **Behavioral problems (CBCL problem scale)** | **T score ($\bar{X}$ ±SD)** | | **Significance** |
|---|---|---|---|
| | **Care-Takers (Group A, N=30)** | **Parents (Group B, N=60)** | |
| **Internal** | 52.77±10.01 | 45.52±8.97 | $p<0.05$ |
| Withdrawn | 57.03±8.56 | 51.20±3.11 | $p<0.05$ |
| Somatic complaints | 53.77±5.90 | 53.30±6.01 | $p>0.05$ |
| Anxious/Depressed | 55.80±6.23 | 50.45±4.33 | $p<0.05$ |
| **External** | 52.33±10.36 | 44.35±8.89 | $p<0.05$ |
| Aggressive behavior | 54.93±7.76 | 50.83±7.33 | $p<0.05$ |
| Delinquent behavior | 60.03±8.94 | 52.28±5.50 | $p<0.05$ |
| **Total** | 54.83±9.92 | 47.22±9.75 | $p<0.05$ |

A simple variants analysis has shown statistically significant difference ($p<0.05$) between Groups A and B at all the problems scales measured by CBCL, except at the scale of somatic symptoms.

The presence of the problems from the internal, external and total group of problems has been shown in Table 4, and it is based on teachers' report.

**Table 4 :**Behavioral problems of children based on teachers' report

| Behavioral problems (TRF problem scale) | T score ($\bar{X}$ ±SD) | | Significance |
|---|---|---|---|
| | Group A ( N=30) | Group B( N=60) | |
| **Internal** | 58.21±12.12 | 51.69±9.92 | p<0.05 |
| Withdrawn | 58.96±10.42 | 54.61±7.97 | p>0.05 |
| Somatic complaints | 53.86±6.63 | 52.74±6.19 | p>0.05 |
| Anxious/depressed | 60.64±9.71 | 55.35±6.10 | p<0.05 |
| **External** | 57.46±9.48 | 54.13±10.11 | p>0.05 |
| Aggressive behavior | 57.82±7.41 | 56.28±7.99 | p>0.05 |
| Delinquent behavior | 60.18±9.55 | 56.51±7.72 | p>0.05 |
| **Total** | 61.75±12.15 | 56.69±10.30 | p<0.05 |

Report on teachers' questioner shows that there are significantly more anxious/ depressed, internal and total problems in Group A. Even though withdrawn, somatic symptoms, delinquency and aggressive behavior as well as external problems have been somewhat more expressed in Group A, there has not been any statistically significant difference (p>0.05) compared to Group B.

YSRF has been filled out by 10 children from Group A and 13 children from Group B. Internal, external and total problems are shown in Table 5, and they are based on self assessment of the children.

**Table 5:** Behavioral problems of children based on their own assessment

| Behavioral problems (YSRF problem scale) | T score ($\bar{X}$ ±SD) | | Significance |
|---|---|---|---|
| | Group A ( N=30) | Group B ( N=60) | |
| **Internal** | 54.60±7.88 | 43.00±8.62 | p<0.05 |
| Withdrawn | 54.20±7.37 | 50.77±2.49 | p>0.05 |
| Somatic complaints | 54.70±5.73 | 52.69±5.37 | p>0.05 |
| Anxious/depressed | 58.50±7,41 | 51.31±2.06 | p<0.05 |
| **External** | 51.60±8.35 | 35.85±10.39 | p<0.05 |
| Aggressive behavior | 54.40±6.67 | 50.15±0.55 | p<0.05 |
| Delinquent behavior | 54.80±6.58 | 51.31±3.50 | p>0.05 |
| **Total** | 57.70±7.12 | 40.08±8.15 | p<0.05 |

The mean T scores for internal problems measured by YSRF is higher for Group A. Statistically significant difference ($p<0.05$), accordingly, has been found with the anxious/ depressed and internal problems. Even though, delinquent behavior has been expressed more within the Group A, statistically significant difference ($p>0.05$) has not been found between the examined groups in terms of this problem. Aggressive behavior, external and total problems have been more fully expressed with the Group A's examinees and this difference has been statistically significant ($p<0.05$)

**Discussion**

The sample of 30 children, either sex, ages 8 through 12; living in two orphanages in Bosnia & Herzegovina were surveyed in order to test the effects of early institutionalization on mental health. Group A had significantly more diseased and disabled immediate family members, in addition to higher death cases involving immediate family. Group B had higher numbers of diseased and disabled extended family members, and higher death cases involving extended family members. Besides high family loses children from Group A have less information about or contact with their extended family, as compared to children from Group B, adding more traumas to children from Group A.

Similar studies researched positive and negative effects of institutionalization, but only in children who were released from the institution after a period of time (3). Even though there was heterogeneity a big percentage showed very serious psychosocial unconformity. It has been observed that the overall outcome depends on the length of institutionalization, and that males are more vulnerable compared to females. Males have shown to develop more deficiency even after a short period of time. Primary problem for male adolescents who once lived in an orphanage is the law, while primary problem for female adolescents is non-marital teenage pregnancy (3). Some residents may develop mental problems during adolescence or later in life, and may require psychiatric treatment (3).

63% from Group A were happy, and 36.7% were unhappy and indifferent. The numbers are not consistent with basic characteristics of school-age children regarding positive attitude towards future (9). Children in Group A are leaning towards apathy, which can be emotional sign of stress they are exposed to. Institutionalization and separation of school-age children from their relatives creates intensive and long-term reactions that can be signalized through depression, emotional frigidness, or anger (10).

UNICEF's qualitative study (2) shows that every child without parental guidance carries a heavy burden of its own past and faces stigmatism and limitations in every aspect of life. This indicates a need for psycho pedagogical support for this group of children.

According to the statistics from CBCL, there is a significant difference between Groups A and B on the scale of withdrawn, anxious/depressed behavior, aggressive behavior, delinquency, internal, external and total problems. The only problem without significant difference was somatic complaints. Wolkind and Rutter (11) found similar results by observing 2% of children ages 11-12 who spent some time in institutions from the age of 5.

The overall range of psychiatric dysfunctions was high. Gender was a significant factor; males had more behavioral dysfunctions; mostly conductive. This research clearly showed asperity in differencing between effects of institutionalization from others, such as reasons why was the person institutionalized and what happened after the person was released. Notable difference between the control group and institutionalized group was the quality of family life, respectively family disharmony.
The results of this research are consistent with other studies conducted in large orphanages which showed 50-60% of dysfunctions amongst the children according to care-takers and teachers (3).

CBCL was used by Verhulst and associates in one large study in Holland (12,13). The sample had 2148 internationally adopted children ages 10-15, who spent at least few days up to 10 years in orphanages. The adopter parents reported more behavioural problems in comparison to the control group, even though the difference was not significant due to lack of males ages 12-15 (23% males in comparison to 100% males in controlled group). Their sample shows that children institutionalized after the age of two were more problematic then others (12,13). Thanks to the CBCL, Verhulst and associates (12,13) noticed psychiatric dysfunctions prevalence rate at 28%; which was higher in comparison to the general population.

Problems relating mental health are considerably higher present in institutionalized children alarmingly indicating a need for psycho-pedagogical support.

Group A has considerably more anxious/depressed, internal and total problems according to teachers' assessment. Goldfarbov's study (14) had

similar results showing that early institutionalization has different long-term effects, such as anxiousness, scariness, lack of sentiment, and acceptance that will remain evident even after the child was adopted.

There is a compatibility between care-takers' and teachers' assessment relating anxious/depressed behaviour, internal and total problems. Delinquent and aggressive behaviour is not reported by teachers, unlike care-takers do; meaning delinquent and aggressive behaviour is not significantly high at school.

However, both groups, according to their self-perception, statistically differed in opinions about problems of anxious/depressed behavior, aggressive behavior, internal, external and total problems. These results can be explained by the high-risk environment surrounding children throughout their development process. Tizard and Hodges (15) noticed that is almost impossible to create a satisfactory accommodation for small children. A well organized institution secures a good amount of stimulation and can improve cognitive development, but deficit in social development still remains.

All three surveys showed similar results on anxious/depressed behavior, aggressive behavior, internal problems, and total problems. Much higher aggressive behavior was reported by youth and care-takers, while teachers are not considerably aware of this behavior at schools. This indicates aggressive behavior (conductive deformity) of children within institutions due to lack of adults supervising and individual attention. Unless aggressive behavior is suppressed at an early age, it may contribute to delinquent behavior later on (16). According to the literature (16), if problematic behavior becomes common in different aspects (at school, home, playground), there is a bigger chance that it will continue in future.

Poor psychological adjustment found in one third of those who were institutionalized for a certain period of time in the age of 0-7 years, could also be found in the study of Mapstone (17) who followed a sample of 340 children out of the large sample of 15,000 from the British National Study of Child Development. One third of all of those surveyed functioned three times more poorly than the general population. This difference increased significantly until the age of 11. The National Study of Child Development (18) showed that the children who have been adopted from an institution showed little difference to their control group living with biological parents in the age group from 0-7 years, while their adjustment seemed to have worsened until the age of 11. This is taking into account their improved living situation. Maughan and Pickles (19)

continued to follow this group into their adolescence and later. Significant worsening between the age 7 and 11 does not seem to continue beyond this age. The most significant disturbance present in adopted children appeared at the age 11 and vanished soon afterwards. This period has been portrayed as a period of great vulnerability in connection with identity issues (9).

Results of this study show that institutionalized children, in many areas, are functioning worse than children from the general population, which is in accordance with other researches by Tizard and Hodges (15). Their research indicates that institutionalzied children ages 8 behave differently at school than children raised in a family enviroment. Despite of their results Tizard and Hodges (15) note that it is early to tell any long-term effects in children ages 8 due to their early childhood experience.

## Conclusion

The lack of the parental care at an early age has a negative impact on the every day behaviour of institutionalized children. Loss of a close relative adds to even higher degree of trauma. The children without parental care represent specially vulnerable, sensitive and risky group that demands multidisciplinary research and intervention. They lean more towards apathy that can represent emotional stress indicator to whom they were exposed to and point to substantial sources of deprivation in every day life. Their depression, expressed indifference or extensive anger can be reactions to institutionalization and separation from relatives. The stress level with older adolescents can be increased even with a fact that patrons of state residential institutions remain a burden to the society until age of maturity (18) when they must leave the highly protected and protective environment and face the realities of independent life.

The results from this research should help better the quality of health care for children raised in institutions, taking over necessary measures for overcoming of recognized problems and prevention of behaviour disorders in puberty and adolescent age.

**Apstrakt**
**EFEKTI RANOG INSTITUCIONALNOG ODGAJANJA NA MENTALNO ZDRAVLJE DJECE UZRASTA OD 8 DO 12 GODINA**

Cilj studije bio je utvrditi posljedice ranog institucionalnog odgajanja na mentalno zdravlje djece. Ispitano je 30-ero djece uzrasta od 8 do 12 godina. Istraživanje je sprovedeno u periodu od 15. maja do 15. juna 2003. u dvije institucije u Bosni i Hercegovini. Obje institucije su organizovane na istom principu dom-porodica. Iz studije su isključena djeca koja pohadjaju školu za djecu sa specijalnim potrebama. Ispitivani uzorak od 30–ero djece ispunjavao je standardizirane upitnike koji su prevedni sa engleskog jezika: Upitnik za procjenu dječijeg ponašanja za uzrast od 4 do 18 godina - forma za roditelje (Child Behavior Check List - CBCL), Upitnik za procjenu dječijeg ponašanja za uzrast od 4 do18 godina - forma za učitelje i nastavnike (Teachers' Report Form -TRF) i Upitnik za mlade za uzrast od 11-18 godina (Youth Self Report Form - YSRF). U istraživanju je korišten i vlastiti sociodemografski upitnik koji je mjerio druge karakteristike uzorka. Kontrolnu grupu sačinjavalo je 60-oro djece istog uzrasta iz nekoliko osnovnih škola u Tuzli. Istraživanjem je potvrdjeno da rano lišavanje u instituciji negativno utiče na ponašanje osobe u svakodnevnom životu. Nedostatak roditeljskog autoriteta i zaštite i porodične povezanosti, uz pretrpljene lične gubitke medju bliskim srodnicima, doprinose traumatizaciji institucionalizovane djece i smanjenju njihove otpornosti. Institucionalizovana djeca naginju apatiji koja može predstavljati emocionalni pokazatelj stresa kojem su djeca izložena i ukazivati na znatne izvore deprivacije u svakodnevnom životu. Problemi iz oblasti mentalnog zdravlja su značajnije prisutni medju institucionalizovanom djecom. Sve navedeno ukazuje na vulnerabilnost navedene populacije i potrebu približavanja bosanskog modela njihovog zbrinjavanja evropskim standardima.

**Ključne riječi** : institucionalno odgajanje, mentalno zdravlje

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