

Effects of abuse and neglect on children intelligence

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Abstract – *The results of empirical research of intellectual characteristics of children from Shelter at the age between 10-16 years have been processed. According to results, two distinct groups of children due to their intellectual abilities were distinguished. The first group consisted of 34% of children who does not have significant intellectual difficulties, the second group – 76% of children have considerable inelectual delays. Also the results of comparison of the children's from Shelter and Secondary School intellectual abilities are presented. The opportunities of further studies and the ways of promoting Shelter children's intelectual development are discussed.*

Key words: intelligence, Street children, psychological assessment, mental retardation.

I. Introduction

The research was conducted in Lviv Shelter for children. There is temporary placement for children who for various reasons are systematically deprived by parental care. In some cases parents feel inability to cope with their children behaviour. In others children are forced to stay on the street because of the parent's alcoholism or antisocial behaviour. All of these children once went to school and it is expected that they will return there again. But mainly adults responsible for those teenagers don't ask such questions as: What are the mental abilities of the child? Or what kind of educational program does he need? One possibility to answer these questions is to measure of these children intellectual abilities in comparison with peers from Secondary Schools.

II. Problem of Street Children in Ukraine

Child needs to be cared for. And if the family pays no attention or severely abused the child, he becomes neglected and very often occasionally or completely lives the family and become a Street Child. There are four main reasons in Ukraine why children live their homes. Those are parents neglect, alcoholism, asocial parents' behavior and poverty [3].

How many homeless and neglected children are in Ukraine? According to the official statistics there were nearly 21 thousand in 2006, 20,6 – in 2007 and 17,8 – in 2008 year. In 2011 official statistics reported about 12 thousand of Street Children in Ukraine, while the UNICEF called a number of 120 thousands [5]. The majority of such children, which is 76%, are at age between 6 to 16 years old. There were 163 children got to Lviv Shelter during 2014 year, 147 of whom (90%) were from 6 to 18 years old. Most of them systematically avoided schooling.

III. Methods

This study was conducted during 2015 among children from Shelter and pupils of two ordinary secondary schools. Study involved 122 children in general: 52 students of 8th form, aged 13-14, 42 students of 5th form, aged 10-11, and 28 Shelter children between 10-16 years old.

Based on DSM-V criteria it was supposed that child meets the diagnosis of mild intellectual retardation if his scores for the Intelligence Scales are of approximately two standard deviations or more below the population mean, including a margin for measurement error (generally +5 points).

The IQ test administered during 45 minutes. Children were asked to solve different intellectual tasks from Wechsler intelligence test. Also, children were asked to memorize and reproduce 10 words and solve in mind brief logical problems (reasoning test). Pupils performed tasks in the group, while children from Shelter completed tests individually.

To get the final results we use Statistics 6.0. Software.

IV. Key Research Findings

Cluster analysis by K-means clustering results that there are two types of children in the Shelter as to the intelligence: with higher and lower scores, 36% and 64% respectively (Fig.1).

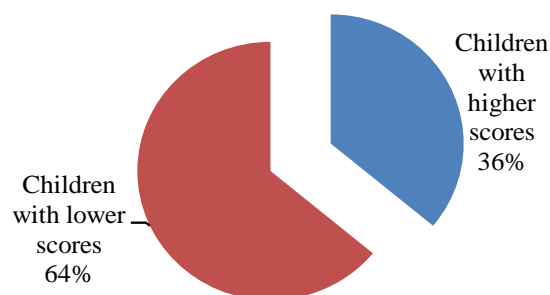


Fig. 1 Distribution of intelligence scores among Shelter Children

Results of K-means clustering shows existence of two statistically different groups of children (aged 10-16) with higher and lower intelligence scores

These groups differ statistically on the following scales: attention, reasoning, arithmetic skills, vocabulary and general knowledge.

What percentage of children from Shelter does enter the diagnosis of mild mental retardation? Scores of Shelter children aged 10-11 were compared with those of the pupils from 5th form, and Shelter children aged 13-16 with 8th form pupils.

The result shows, that all children from the group of lower intelligence (64%) have more than two standard deviations below the same age pupils mean for 2 and more scales (Fig. 2).

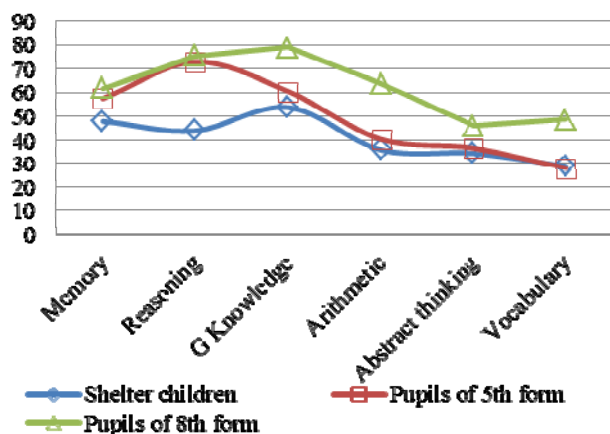


Fig. 2. Comparison of intelligence scores among Shelter children (aged 10-16) and pupils of 5th and 8th forms

Statistically they have poorer results on reasoning, general knowledge and arithmetic scales. Typically they had problem with understanding the meaning of such words as diagonal, right/left, horizontal/vertical, square shapes, the vowels/consonants letters, even/odd numbers etc. In the general knowledge test they did not know the answers for such questions as: what is the color of ruby, when is it a leap year, or what does it mean SOS letters. In arithmetic problems Shelter children normally were good at adding, dividing and multiply primes. But when the problem needed schematic entry terms, had two or more solving steps, fractions, proportions or percents children feel confused.

Conclusion

In the study we supposed that one of the possible reasons why Shelter children did not retain in the school environment is not only lacking of the social support but their intellectual capacities. This reason affects the child desire to learn, peers and teachers attitudes which resulting in the child's abandoning school.

The results suggest the existence of two intellectually different groups of children who come to the Shelter. Approximately 36% of them does not have significant problems with intelligence and cognitively are ready to study at school. But most part of the children and it is 76% experiencing significant intellectual difficulties: the

average development of children aged 10-16 is on the level of 5th graders or even lower. Especially they have problems with reasoning, general knowledge and arithmetic.

On the one hand, such findings are very important for future academic planning for those children. The one should take into account that without ongoing support such children are not ready to return to secondary school and study with peers.

On the other hand, the children's misbehaviour might partly be explained by their cognitive abilities. Mainly they are not good at problem solving, social reasoning or judgment in novel situations or school task organization among others.

However, these children require particularly intensive care on the development of intelligence competences. Our results show that much professional attention need the areas of reasoning, general knowledge and arithmetic. Children should be provided with individual guidance, shorter lessons and simpler tasks.

Also we believe that people around need to see and develop not only deficits but valuable and strong sides of these children.

Of course, cognitive development of the Shelter children is not the only one problem needed to fix. Children need to be taught pro-social skills, not violent communication, self-control and better self-management skills as well.

And we think that it is the only way to create better future for those 120 thousands children all over Ukraine.

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