

# Relations occurring between health-related behaviour categories and quality of life made by children brought up in a children's home, in the Podlaskie Province

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## Abstract

**Purpose:** The purpose of the study was to determine relations between health-related behaviour categories and quality of life (QoL) categories made by children brought up in a children's home and to compare the results obtained with the results for a group of peers brought up by their own families.

**Material and methods:** The study was performed on a group of 180 children living in children's homes located in Białystok, Krasne, Supraśl, Łomża, Nowa Pawłówka; and on a control group of children living with their own families in the same places where children's homes were located. The diagnostic survey method with the Health Behaviour Scale questionnaire, composed of 40 statements defining various behaviours connected with health, and the Children's Questionnaire, based on The World Health Organization Quality of Life (WHOQOL-BREF) was used.

**Results:** Strong correlations between assessments of the Health Behaviour Scale categories and assessments of quality of life categories were found in the group of children living in children's homes, mostly in respect to the relation between health self-assessment and physical activity  $r=0.77$ , mental activity  $r=0.74$  and environment  $r=0.72$ , and between the physical domain and eating habits  $r=0.70$ , and physical activity and the physical domain  $r=0.69$ . The determination coefficient  $R^2$  for the study group had high values for three QoL categories: physical domain 71.5%, mental domain 69.7% and environment 70.1%.

**Conclusions:** Correlations between Health Behaviour Scale categories and QoL categories were found in the group

of children living in children's homes compared to children living with their own families. The relationships for health self-assessment and the physical and mental domains and the environment, and for the physical domain and eating habits and physical activity were found.

**Key words:** theoretical relations, quality of life, health-related behaviour, children's home, children.

## Introduction

Actions aimed at the improvement of health, which is a basic element of quality of life, should be undertaken in many areas: in the family, at home, at school, and in the society of peers. The health needs of young people depend on numerous factors, including healthy surroundings, the information, knowledge and skills necessary to stay healthy, proper individual psycho-social and psycho-sexual development; proper healthcare; health-promotion and health-protection policy; and a healthy lifestyle and favourable conditions for it [1,2].

The purpose of the study was to determine relations occurring between assessments of health-related behaviour categories and assessments of quality of life (QoL) categories made by children brought up in a children's home and to compare the results obtained with the results for a group of peers brought up by their own families.

## Material and methods

The study was performed after obtaining consent No R-I-00.23/2006 from the Bioethical Commission in the Medical University of Białystok. The following children participated in the study: a group of 180 children living in children's homes located in the Podlaskie Province, in Białystok, Krasne, Supraśl, Łomża, Nowa Pawłówka; and 180 children in a control

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**Table 1. Correlations between the categories of the Health Behaviour Scale and categories of quality of life in the study group of children (coefficient  $R^2$ )**

Health-related behaviour	Quality of life					
	Quality of life	Health	Physical domain	Psychological domain	Social relations	Environment
Health valuation	0.33	0.33	0.47	0.48	0.41	0.48
Health self-assessment	0.60	0.63	0.77	0.74	0.53	0.72
Stressful situations	0.50	0.50	0.66	0.59	0.39	0.62
Stimulant usage	0.40	0.39	0.55	0.47	0.30	0.54
Eating habits	0.52	0.45	0.70	0.57	0.41	0.65
Physical activity	0.55	0.50	0.69	0.62	0.45	0.66
Prophylactics	0.32	0.18	0.26	0.20	0.20	0.31
Social support	0.49	0.42	0.58	0.70	0.53	0.60

**Table 2. Correlations between the categories of the Health Behaviour Scale and categories of quality of life in the control group (coefficient  $R^2$ )**

Health-related behaviour	Quality of life					
	Quality of life	Health	Physical domain	Psychological domain	Social relations	Environment
Health valuation	0.12	0.19	0.04	0.10	0.09	0.17
Health self-assessment	0.36	0.47	0.48	0.50	0.30	0.45
Stressful situations	0.35	0.28	0.35	0.52	0.29	0.37
Stimulant usage	0.16	0.10	0.22	0.23	0.05	0.21
Eating habits	0.15	0.14	0.18	0.25	0.19	0.24
Physical activity	0.18	0.22	0.32	0.47	0.20	0.22
Prophylactics	-0.03	0.05	-0.10	-0.09	0.16	0.06
Social support	0.40	0.23	0.40	0.48	0.45	0.49

group, living with their own families, in the same places where the children's homes were located. The purpose of the study was realised using a diagnostic survey method applying the following questionnaires: the Health Behaviour Scale, provided by its author, Dr. M. Banaszkiwicz from the Medical Academy in Bydgoszcz, composed of 40 statements defining behaviour connected with health in the study group and the control: health valuation, health self-assessment, stressful situations, stimulant usage, eating habits, prophylactics, physical activity, social support; and the Children's Questionnaire developed based on The World Health Organization Quality of Life (WHOQOL-BREF), in its Polish adaptation by Wołowicka and Jaracz [3], containing questions regarding: the physical domain, psychological domain, social relations and environment. The Scale contains also items (questions) which are analyzed separately: questions concerning individual, general perception of quality of life, and regarding individual, general perception of one's own health. Data were analyzed using Statistica 6.0. computer software (Spearman correlation).

## Results

Compared to the control group, strong correlations between assessments of the Health Behaviour Scale categories and assessments of the quality of life (QoL) categories were

found for children living in children's homes. The correlations regarded mainly: health self-assessment and physical domain  $r=0.77$ , psychological domain  $r=0.74$  and environment  $r=0.72$ ; physical domain and eating habits  $r=0.70$ ; and physical activity and physical domain  $r=0.69$ . The weakest correlations found were between: prophylactics and health  $r=0.18$ ; prophylactics and psychological domain  $r=0.20$ ; and prophylactics and social relations  $r=0.20$  (Tab. 1). It is worth noting that health valuation and other categories of health-related behaviour were rather strongly correlated with various QoL categories.

It should be mentioned that the correlations in the control group were much weaker, and there was no correlation in many cases. Medium correlations found between the areas were: health self-assessment and psychological domain are correlated with  $r=0.50$ ; stressful situations and psychological domain are correlated with  $r=0.52$  (Tab. 2).

To answer the question concerning the level of explanation of four QoL categories, namely: physical domain, psychological domain, social relations and environment, with all areas of the Health Behaviour Scale, or in other words, to determine to what extent the broadly understood "health self-assessment" influenced assessments for individual QoL categories, where individual QoL categories have been assumed to be dependent variables, and all categories of the Health Behaviour Scale were assumed to be independent variables, a statistical test was applied that determined the value of the determination coefficient.

**Table 3. Percent of variability of the QoL categories explained by the values of all areas of the Health Behaviour Scale (value of the determination coefficient  $R^2$ )**

Group	Physical domain	Psychological domain	Social relations	Environment
Study	71.5%	69.7%	43.8%	70.1%
Control	35.1%	43.1%	26.5%	38.4%

cient  $R^2$  (Tab. 3), which makes it possible to estimate in what percentage the variability of a dependent variable (selected QoL category) is explained by linear combination of the independent variables (Health Behaviour Scale categories). The coefficient adopts values between 0% and 100%.

In the case considered, high values of the coefficient were obtained in the study group for three QoL categories: physical domain – 71.5%, psychological domain – 69.7% and environment – 70.1% (with the exception of social relations – 43.8%). In the control group, the values were much lower for all four QoL categories: physical domain – 35.1%, psychological domain – 43.1%, social relations – 26.5% and environment – 38.4%. In no case were the values even close to 50%, which confirms the previous conclusions drawn based on the Spearman's rank correlation coefficients analysis.

## Discussion

Numerous reports in literature [4-11] indicate the poor health condition of children brought up in children's homes, and state that this poor condition influences the level of their quality of life. The majority of the children presented improper physical development (height and weight below the standard value) and poor overall health. A significant percentage of those children has features of a lack of social adaptation. Without positive models presented by their families, they frequently show habits and behaviours contrary to the accepted social standards, and have difficulties in establishing social contacts with adults and peers. Frequent school problems result from environmental negligence and the children's non-harmonic development. Younger children, in post-infant and pre-school age, present development disturbances connected with orphan's disease, resulting from unsatisfied emotional needs.

Children living in a care and upbringing institution since birth do not understand basic family relations [4,11,12]. Opponents of this kind of institutions indicate their anonymity, the poor level of experience and views, and the child's feeling of being lost [7,12,13]. Those are institutions aimed at collective education, presenting a risk of suppressing children's individuality, and presenting no possibilities for projecting their own fate [10,12,14-16].

However, a children's home is a special part of the society that created it. And this part should undoubtedly be normal and healthy – for this is necessary to ensure the proper quality of life and adequate preparation of children for independent life in society [17-20]. Its purpose is, therefore, to create proper

conditions for normal development of children in terms of educational, health and material conditions. The homes should also enable processes of development and resocialization [9,10,21].

In conclusion, children living in children's homes, compared to those in the control group, presented strong correlations between assessments of the Health Behaviour Scale categories and assessments of quality of life categories, mainly regarding the correlation of health self-assessment and the physical domain, the psychological domain and the environment; and between the physical domain and eating habits and physical activity.

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