

Roma Pupil from Socially Disadvantaged Backgrounds and Health Education in Primary Education

I. Introduction

Health Education is currently considered as one of the dominant target categories of educational activities with an orientation towards health as the highest value of human being existence (Liba 2016, page 17). Health, according to Liba (2016, s. 12) is a harmoniously balanced physical and mental state accompanied by satisfaction when a person is subjectively free of problems and objectively free of medical diagnosis. According to Hegyi and Ochaba (2013, page 38) the aim of health education is to provide and disseminate knowledge, to strengthen attitudes and habits aimed at protecting and supporting the health of individuals and population groups, at promoting positive and removing negative elements related to health from a human being's life.

Portik (2001) defines a socially disadvantaged child as children from a different socio-cultural background with different experiences that are a barrier to adequate adaptation in the mainstream school in which the children are enrolled. Some Roma pupils of younger school age also come from socially disadvantaged backgrounds. Roma pupils often show social, cultural or linguistic disadvantages, as a result of which they achieve weaker educational results at school.

In this article we present a partial result of the project APVV-17-0075 Health education in the education of Roma pupils from socially disadvantaged backgrounds, which involves members of the Department of Natural Sciences and Technical Disciplines of the Faculty of Education of the University of Prešov under the leadership of Professor Liba. The project team focuses on various aspects of health education with an emphasis on Roma pupils from socially disadvantaged backgrounds as the analysis of theoretical and empirical outputs on the issue under study, the analysis and evaluation of the effectiveness of supra-ministerial, ministerial and school programmes of health prevention and prevention of socio-pathological phenomena implemented in the education of Roma pupils, the analysis of the content, methods and forms of pro-health education of Roma pupils, the analysis of the effectiveness of pro-health education in the school curriculum of primary education. One of the aims of the project is to analyse the effectiveness of pro-health education – health education in the school curriculum of the primary level of education in the form of a didactic test for Roma pupils from socially disadvantaged backgrounds. For the above reason, we constructed three didactic tests based on the content of the health

curriculum and after piloting them we tested the knowledge of Roma pupils from socially disadvantaged backgrounds in real school conditions. In this paper we present the results of testing Roma pupils from socially disadvantaged backgrounds on health knowledge (didactic test 1).

II. Health Education in the Educational Areas of Primary Education

Health Education in Slovak primary school is not created as a separate teaching subject. Its content is incorporated into selected educational areas, and more specifically into the educational area as:

- Health and Physical Activity, in which pupils of younger school age acquire basic knowledge about a healthy way of life, about taking care of their health, about the importance of physical activity for health...,
- Man and Nature, in which pupils of younger school age acquire basic knowledge about the human body, about organ systems, about the principles of a healthy diet, about the importance of a drinking regime...,
- Man and the World of Work, in which pupils of younger school age acquire knowledge about eating and food preparation (National Curriculum. Primary education – 1st grade of primary school 2015).

The issue of health education is also included in some cross-cutting themes, namely in the theme:

- Education for the Environment, in which pupils acquire knowledge about the creation and protection of the environment, about the possibilities leading to the improvement of the environment of the school and its surroundings...,
- Protection of Life and Health, the aim of which is to lead pupils to protect their health and life, providing assistance to other people in case of threat to health and life... This cross-cutting theme also directs pupils to develop physical fitness and physical performance in natural conditions (National Curriculum. Primary education – Year 1 of primary school 2015).

The importance of educating pupils in Health Education at a younger school age is also declared in the National Curriculum for Primary Education – 1st stage of primary school in the section devoted to the general objectives of education and training, which defines seven main objectives of education, of which the sixth objective relates to the issue of Health Education of pupils at a younger school age. Its exact wording is: „to lead pupils to a responsible and active approach to protecting and improving their health” (National Curriculum for Primary Education – Year 1 of primary school, p. 4).

The educational area of Health and Physical Activity in the school practice of primary education is implemented by the subject Physical and Sport Education, which is taught according to the framework curriculum in the scope of two teaching hours per week in each year (from Year 1 to Year 4). The first part of the teaching standard for the subject Physical and Sport Education, entitled Health and Healthy Lifestyle, corresponds most closely to Health Education. In this part of the educational stand-

ard, pupils of younger school age acquire knowledge about a healthy lifestyle, about healthy nutrition, about the dangers of addictive substances and their negative impact on human health, about the importance of physical activity for human health, the importance of hardening of the body, observance of hygiene requirements when performing physical activities, the principles of safety during exercise, the principles of first aid in different environments, correct posture in different positions, the application of movement skills in the regime of the day... (National Curriculum. Physical and Sports Education. 2014, p. 4, 5).

The educational area Man and Nature covers two subjects, namely Primary Science, which is taught in Years 1 and 2, and Natural Science, which is taught in Years 3 and 4. In these subjects, pupils of younger school age acquire knowledge about the harmful effects on health, the importance of regular exercise for the development of skeletal muscles and the proper functioning of the heart, the food pyramid and its importance for a proper lifestyle, and the possible causes of obesity and overweight, the importance of drinking for our health, some diseases caused by droplet-transmitted infections, about fractures, muscle fatigue, food as a source of energy for the functioning of the human body, a balanced diet and its importance for health, appropriate drinking regime (National Curriculum. Primary Education, 2014, National Curriculum. Natural Science, 2014).

The educational area Man and the World of Work is less involved in Health Education. It covers the subject of practical learning, which is taught in Years 3 and 4 of primary school. In this subject, pupils of younger school age acquire the skills needed to buy food, learn about the use-by date of food, prepare simple meals, and learn about the principles of good table manners (National Curriculum. Practical Learning, 2014).

Health Education is also part of the cross-cutting theme of Protection of Life and Health, which integrates pupils' attitudes, knowledge and skills aimed at protecting life and health in emergencies. In the cross-cutting theme, pupils acquire theoretical knowledge, practical skills and form their attitude towards the protection of their own health and life, as well as the health and life of other people. The content of the cross-cutting theme consists of three areas – dealing with emergencies – civil protection, health training, physical activity and physical activity in nature (National Education Programme. Protection of Life and Health. Cross-cutting theme. Annex ISCED 1, 2009).

Health Education in the primary level is linked to Health Education in pre-primary education of children at the nursery. In the educational area the Man and Health, preschool children acquire knowledge about the importance of exercise for health, the distinguishing signs of illness and health, the importance of good nutrition for health, health-threatening situations such as insect bites, basic hygiene habits (e.g. washing hands before eating, using the toilet and toilet paper)... (National Curriculum for Pre-primary Education in Nurseries, 2016).

Liba and Taišová (2013, p. 18) state that Health Education as a universal prevention of health and socio-pathological problems currently adequately saturates the cognitive space but has little effective impact on the behavioural area and the way of

life of pupils. According to Liba (2016, p. 187), Roma pupils (especially Roma pupils from socially disadvantaged backgrounds) represent a specific and yet serious social problems, shaped by differences in lifestyle, but also by cultural, social and economic factors. Social, cultural and linguistic disadvantage is significantly manifested in the majority of Roma pupils in Slovakia and is concretised by several manifestations and related consequences, such as verbal and consequently cognitive deficits, poor level of personal and communal hygiene, polluted housing and locality environment, irregular and poor quality diet, early tolerance to use of addictive substances, increased morbidity, more frequent disabilities, underestimation of the importance of education, high unemployment (Liba – Taišová, 2013, p. 37).

III. Verification of the Acquired Knowledge of Roma Pupils of the Year 3 from Socially Disadvantaged Backgrounds about Health

1. Aim and Tasks of the Research

The main aim of the research was to verify the level of acquired knowledge of Roma pupils from socially disadvantaged backgrounds (hereafter pupils) from the science curriculum about health. The tasks of the research:

- To verify the level of knowledge acquired about the symptoms of the child's illness, the activities that a sick child can do and the things that help children recover from illness.
- To verify the level of acquisition of the terms: pharmacy, doctor, medicines, thermometer.
- To verify the level of acquired knowledge about basic hygiene habits.
- To verify the level of knowledge acquired about healthy and unhealthy foods.

2. Research Sample

The research sample consisted of 34 Roma pupils from socially disadvantaged backgrounds who attended Year 3 of primary school. Of the total number of pupils tested, 24 were boys and 20 were girls. The average age of the tested Roma pupils was 10,34 years.

3. Research Method

As a research tool, we used a cognitive didactic test of our own design, which included eight test tasks. The number of test tasks corresponded to the level of reading and writing skills of the tested pupils.

When constructing the didactic test, we based it on the content and performance standard of the educational area Man and Nature, which includes the thematic unit Man. From the curriculum of the thematic unit Man, we have selected for the di-

dactic test the content about health, which is taught in the lower grades of primary education.

In constructing the test, we used both closed-ended and open-ended test tasks. Five test tasks were closed-ended and three were open-ended. For the closed-ended test tasks, we used a polytomous multiple-choice and dichotomous form of the test task. The open-ended test tasks had the form of a production test task. We made increased use of colour pictures in the test tasks to illustrate the content of the test task. We used 22 colour pictures in the test.

The test tasks focused on three levels of learning, namely, memorizing information, understanding information, and applying information. We divided the test tasks into three groups according to Niemierko's taxonomy of cognitive objectives. The first group contained four test items for memorizing information, the second group contained two test items for understanding information, and the third group contained two test items for applying information.

4. Organisation of Research

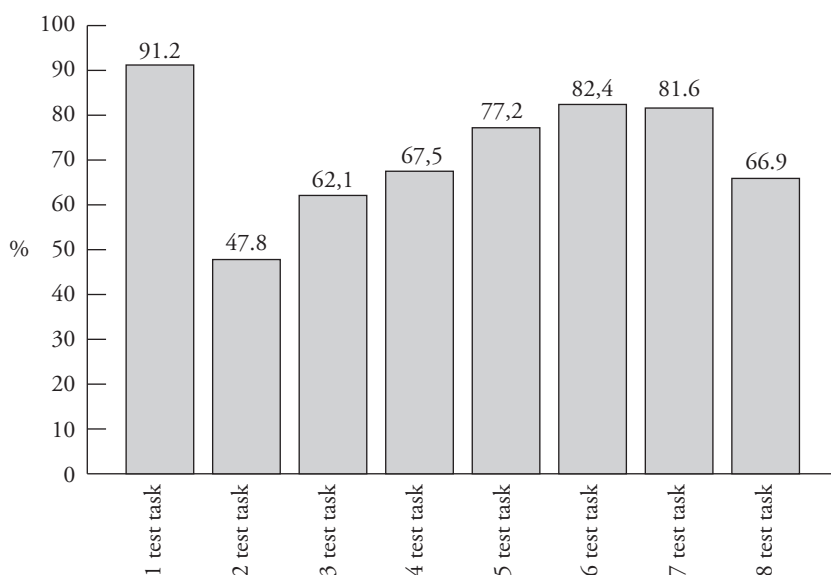
Testing of Roma pupils from socially disadvantaged backgrounds was carried out in the second half of the school year 2020/2021 in a rural primary school in the Prešov region. The testing was carried out with the consent of the management of the primary school. During the testing, each pupil had his/her own printed version of the test, which consisted of three pages (larger size of letters in the test tasks, larger coloured pictures, more space for writing the pupil's answer...). The time for solving the test was 30 minutes.

5. Results of the Research

Percentage success of solving the test tasks ranged from 47.8% to 91.2% (see Graph 1). Students had the highest solution success rates in the first test task (understanding information) and the lowest in the second test task (applying information). The success rate in solving the test tasks is presented in Graph 1.

In the first test task for understanding information, pupils were asked to mark a picture that demonstrates a boy who is ill. They had a choice of two coloured pictures, the first showing a boy sleeping in bed and the second showing a boy sitting with a dog in the open air. The test task had the highest solution success rate and it was 91.2%.

In the second test task, aimed at applying the acquired knowledge, the pupils had to mark with a pen picture that show activities that a child can do even when sick. The polytomous multiple-choice test task contained six coloured pictures of different activities. Below each picture was also a term (see picture 1). When correctly solved, students had to mark three pictures, namely lying in bed, reading a book, and eating fruit.



Graph 1. Percentage Success Rate of Solving Test Tasks by Roma Pupils from Socially Disadvantaged Backgrounds in the Didactic Test

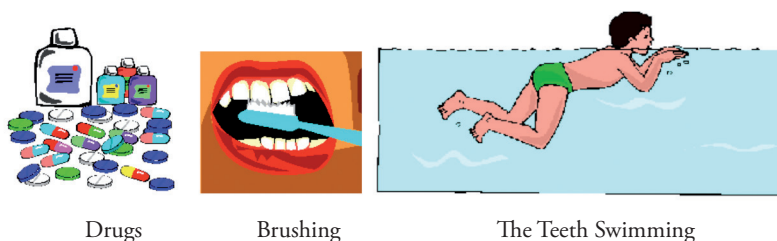
Source: own elaboration



Picture 1. Example of Colour Pictures in the Second Test Task

The success rate for the second test task was 47.8%. The distractor playing in water was marked by six pupils, the distractor birthday celebration was marked by twelve pupils and the distractor kicking the ball was marked by one pupil.

In the third test task, the test task with polytomous form aimed to applying information, students were asked to mark pictures of things that support a child's recovery from illness. Pupils had to choose from six coloured pictures depicting a child swimming in water, brushing teeth, an ice cream, an apple and tea. The success rate of solving the test task was 62.1%. The distractor brushing teeth was marked by eight pupils, an ice cream by two pupils and swimming in water was not marked as the correct answer by any pupil.



Picture 2. Example of Colour Pictures Used in the Third Test Task

In the fourth open-ended task for memorizing information, pupils were asked to write the name of a shop that sells medicines for sick children. The success rate of the test task was 67.5%. When scoring the test task, we did not address the grammatical correctness of the written word. In five answers the specific name of the pharmacy was given.

4. Napíš, ako voláme obchod, kde majú lieky pre choré deti:

Lekareň

[4. Write down what we call the shop where they have medicines for sick children]

[Handwriting in blue pen: pharmacy – misspelling]

Picture 3. Example of the Solution of the Open-Ended Test Task No. 4 by Pupil of Year 3

A higher success rate of 77.2% was achieved by the fifth test task for memorizing information, which was also in the form of an open-ended test task. In this task, the pupils had to write the name of the occupation shown in the picture. Pupils wrote the answer 'doctor' or 'physician'. Two pupils wrote the answer 'principal'. When scoring the test task, we did not address the grammatical correctness of the written word.

5. Napíš názov povolania na obrázku:

doctor



[5. Write down the name of the occupation presented on the picture: Handwriting in blue pen:

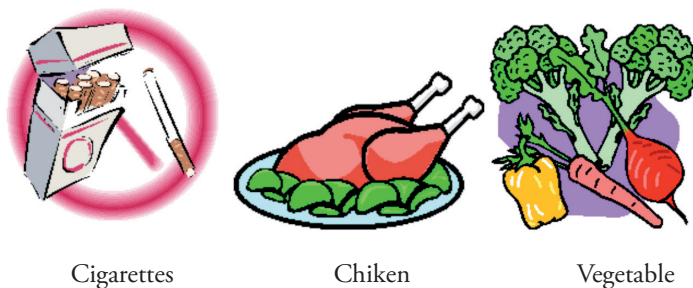
docktor – misspelling]

Picture 4. Example of the Solution of the Open-Ended Test Task No. 5 by Pupils of Year 3

In the sixth closed-ended task for memorizing information, pupils were asked to mark the correct statement about hygiene habits. The task consisted of two dichotomous statements. The success rate of the test task was 82.4%.

In the seventh open-ended test task for memorizing information, pupils had to write the name of the objects shown in the pictures. The required answer was a thermometer and medicine. Thirty pupils correctly wrote the word medicines or the word pills to the picture, 19 pupils correctly named the picture of the medical thermometer. This test task had the second highest solution success rate of 81.6%.

In the eighth task for understanding information (66.9% success rate), pupils had to mark pictures of things that can be harmful to our health. The test task contained six colour pictures, namely a picture of a cigarette, a bar of soap, a glass of beer, a roast chicken, a bottle of cola-cola and a vegetable. 32 pupils correctly marked the picture of the cigarette, 20 pupils marked the picture of the glass of beer and 18 pupils marked the picture of the cola-cola.



Picture 5. Example of Colour Pictures In The Third Test Task

IV. Summary

In this study we present the results of a research aimed at determining the level of acquired knowledge about health among Roma pupils of Year 3 from socially disadvantaged backgrounds as one of the tasks of our grant project. The results of the testing showed that the Roma pupils from socially disadvantaged background tested by us have acquired elementary knowledge of the tested curriculum. The tested curriculum was the content of science education in the first two years of primary school. The difficulty of the test tasks was adapted to the specifics of the pupils tested. In the open-ended test tasks, the lower writing literacy of the tested Roma pupils from socially disadvantaged backgrounds was demonstrated (see Graph 4 and 5). Grammatical errors were frequent in the pupils' answers.

The tested Roma pupils from socially disadvantaged backgrounds achieved a success rate of 67.5%, 77.2%, 82.4% and 81.6% in the four tasks for memorizing information. They demonstrated a lower level of acquired knowledge in task 4, in which they had to write the name of a shop with medicines for children. In the other three tasks they demonstrated the required level of knowledge. In the test tasks for understanding information, the success rates were 91.2% and 66.9%. In the test tasks for

understanding information, pupils demonstrated the required level of knowledge. In the applying information test tasks, pupils achieved a success rate of 47.8% and 62.1%. These test tasks were solved by pupils with the lowest success rate, which corresponds to the higher difficulty of the test tasks, as they were test tasks for the applying information.

We consider Health Education to be an important part of primary education, in the first years of school education (or already in pre-primary education) pupils acquire elementary knowledge about the human body and health, which forms the basic knowledge base for the formation of a healthy lifestyle of an individual.

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Abstract

In this study we present the results of a research aimed at determining the level of acquired science knowledge about health among Roma pupils of younger school age from socially disadvantaged backgrounds. Health Education is not a separate subject in the Slovak education system, but it is implemented in several subjects, especially in primary education, science, physical and sports education, practical learning and in the cross-cutting theme of protection of life and health in primary education. The study was written with the support of the project APVV-17-0075 Health education in the education of Roma pupils from socially disadvantaged backgrounds solved at the University of Prešov, Faculty of Education. One of the sub-objectives of the project is to analyse the effectiveness of pro-health education – Health Education in the school curriculum of the primary level of education in the form of a didactic test.

Keywords: health education, health, didactic test, Roma pupils of Year 3 from socially disadvantaged environment.

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