### **OPINION**

by Prof. Dr Pelagia Terziyska, South-West Unversity "Neofit Rilski"

regarding dissertation work on the topic: "Attitudes towards nutrition and supplementation of children with special educational needs" for obtaining the educational and scientific degree "Doctor" in Professional field 1.2. Pedagogy (Special pedagogy)

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## General presentation of the procedure and the doctoral student

Bianca Ivanova Stankova is a full-time doctoral student in the professional field 1.2. Pedagogy (Special Pedagogy) in the Department of Special Pedagogy at the Faculty of Educational Sciences and the Arts of Sofia University "St. Kliment Ohridski".

The procedure and the submitted set of documents are in accordance with the Law on Academic Staff Development of Republic of Bulgaria and the Regulations for the Development of Academic Staff of Sofia University.

The education and professional experience of doctoral student Stankova direct her towards the educational and scientific degree of "doctor" and towards the choice of the topic of her dissertation research.

# Relevance of the topic

Today, we increasingly encounter problems caused by improper nutrition - an undeveloped diet and eating culture, and consumption of poor-quality foods, leading to high levels of risk factors that threaten health. Of essential importance is the creation of eating habits in early childhood, which influence the health status and diet of children, but also shape eating habits and eating patterns in adulthood and prevent deterioration of the quality of life. Research in the field of children's nutrition shows that changes and specific actions are needed, including a study of attitudes towards nutrition and supplementation of children with special educational needs. This necessitates the need for a school policy aimed at forming skills for proper nutrition and making sufficient efforts in relation to these children - getting to know their nutritional needs, specifics in the acceptance of different foods and ways to form their eating culture. Therefore, the dissertation research of doctoral student Bianca Stankova is necessary, relevant and significant, deserving great attention.

# Presentation of the dissertation work and evaluation of the content

The dissertation submitted for review contains a total of 206 pages, of which 174 are the main text structured in an introduction, 3 chapters, conclusions and recommendations, and a conclusion. The bibliography is listed on 17 pages, including 181 sources, of which 79 are in Cyrillic and 102 are in Latin; Internet sources -25.

The application, spread over 15 pages, includes two surveys - a survey for students (to study the attitudes, theoretical preparation and practical experience of students in Bulgaria regarding the nutrition of children with special educational needs) and a survey for specialists (to study the attitudes and practical experience of specialists in Bulgaria regarding the nutrition of children with special educational needs).

The dissertation is illustrated with 2 diagrams, 16 tables, 12 figures and 21 graphs, which present the results of the survey.

The introduction provides a reasoned justification for the significance and relevance of the chosen topic and presents the conceptual framework of the study. Children with special educational needs, for whom nutrition and diet are of particular importance, are specified – with autism spectrum disorder, with attention deficit hyperactivity disorder, with dyslexia, with dyspraxia and with Down syndrome.

The literature review on the researched issues is skillfully done in the first chapter. A thorough scientific review is presented on current and significant issues for the dissertation research. Specifically, publications are examined and analyzed, revealing the nature, symptoms, features, definitions and classifications of the above-mentioned children with SEN and the specifics related to their nutrition. Based on the critical analysis, it is summarized that the diet of children on the autism spectrum should be implemented against the background of individual work with a psychologist, speech therapist, or resource teacher, to apply various interventions corresponding to their individual condition; balanced nutrition and healthy food choices help to improve the functioning of the child with ADHD in cognitive, motor and behavioural aspects; a balanced diet would be useful for children with dyslexia; nutritional changes can be applied and have an effect if they are part of the multifactorial support of children with dyspraxia; The diet for children with Down syndrome requires the consumption of foods that contain monosaccharides or foods that lack carbohydrates. This provides the body with healthy food and starvation of the microbial flora. Doctoral student Stankova formulates working recommendations for parents so that they can instil a culture of nutrition in their children.

This chapter presents global and European documents, initiatives and good practices regarding nutrition. The importance of the EU Strategy on Nutrition, Overweight and Obesity-Related Health Problems is emphasized; the WHO Health Assembly Strategy on Diet, Physical Activity and Health; the messages of the UNICEF Lancet Commission to the WHO; the WHO publication "Healthy Diet". Special attention is also paid to National Regulations, studies and analyses regarding nutrition and supplements, which, as well as on a global scale, children's nutrition, the culture of eating and the quality of food consumed are subject to detailed analysis and the implementation of a system of measures through which to influence the identified deficiencies.

I consider it particularly valuable and significant to consider the problem of forming a food culture through the prism of educational content. The content presented corresponds to modern understandings of healthy eating. It provides opportunities for more effective formation of a food culture and attitude towards health in children and students. The presented working definitions and statements of some basic concepts related to healthy eating are useful.

Chapter 3 and Chapter 4 present the research methodology, analysis and summary of the results obtained. The object and subject of the study, the main goal, 4 sub-goals and tasks, 3 hypotheses are correctly specified. The contingent is described and the research methods are also indicated. The total number of respondents is 352 - 179 students from pedagogical specialities at 8 Bulgarian universities and 173 specialists supporting the education of children with special educational needs. Criteria for the selection of students and specialists are indicated. For the purposes of the study, the following methods were used: theoretical analysis; questionnaire survey; interview with specialists; and statistical and graphical methods for processing the results of the study. The Chi-square Test of Independence method was applied to process the empirical data. Python version 3.8 was used. with the Pandas, SciPy and Matplotlib libraries.

Specific numerical parameters of the majority of the responses in the surveys and quantitative and qualitative processing and analysis of the data obtained were determined. A qualitative methodological approach was chosen to highlight the perspectives in the respondents' opinions, especially regarding the place of topics related to healthy eating and supplements.

Doctoral student Stankova demonstrates significant skills in conducting quantitative and qualitative analysis of the empirical data from the study.

The analysis of the results obtained allows her to draw important conclusions: despite the various activities in class and extracurricular activities, students do not have a developed culture of nutrition, as well as formed sustainable attitudes towards

the correct selection of foods that are useful for them; 90% of respondents are interested in the principles of healthy nutrition and will have motivation to form a culture of nutrition in children with SEN; interest in healthy nutrition is related to the level of awareness of specialists on the topic; it is necessary to expand and enrich the training of students and specialists in terms of healthy eating; students (even those in Special Education and Speech Therapy) during their studies do not receive sufficient scientific and complete information about specific diets that are part of the complex therapy for children with various developmental disorders and about the specifics of healthy nutrition and supplementation of children with special educational needs; in the education of current students and working specialists, there is a lack of sufficient knowledge about food additives (supplements), they do not have information about diseases or health problems related to taking supplements; students are not sufficiently prepared and do not have the necessary information in which academic disciplines they would receive systematized knowledge about healthy nutrition and supplementation; teachers have sufficient practical experience in developing lessons and implementing issues related to nutrition, supplementation and food culture would not be difficult for them; they are oriented in which academic subjects children can receive knowledge about healthy nutrition and supplements, but few of them see the potential opportunities of other academic subjects; respondents are aware of which forms of work with students are effective in terms of children's healthy nutrition in practical terms, etc.

Based on the formulated conclusions, recommendations essential for pedagogical theory and practice are outlined.

# Evaluation of publications:

There are 4 publications in total, two of which are co-authored. All of them are on the issues of the dissertation research.

## Abstract

The abstract presents the dissertation work in a summarized manner. The content of the individual chapters is presented in a sufficiently informative manner. The summarized conclusions, recommendations and contributions of the author are highlighted.

## Contributions:

I fully accept the contributions indicated by doctoral student Stankova.

# **Recommendations and notes for the dissertation:**

I recommend that more publications be made on the topic of the dissertation in order to share with more readers the scientific ideas that the author has reached.

### CONCLUSION:

The presented dissertation, developed by doctoral student Bianca Ivanova Stankova, meets the requirements for dissertations for the acquisition of the educational and scientific degree "Doctor".

Based on the outlined merits of the work, the demonstrated skill in scientific research and analysis, competent formulation of conclusions, as well as the contributions of the author, I give a positive assessment and propose to the esteemed scientific jury to award the educational and scientific degree "Doctor" to Bianca Ivanova Stankova in the field of higher education: 1. Pedagogical Sciences, professional field 1.2. Pedagogy, doctoral program "Special Pedagogy".

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