#### **REVIEW**

# On Dissertation work of Petia Veskova Pandurova For the Academic degree PhD

Topic: "Psychosocial correlates of overweight and obesity"

Sofia University ,, ST. Kliment Ohridski",

FACULTY OF PHILOSOPHY

DEPARTMENT OF "GENERAL, EXPERIMENTAL, DEVELOPMENTAL

AND HEALTH PSYCHOLOGY"

Scientific supervisor: Prof. Ph.D. D.Sc. Sonya Karabelova
Reviewer: Professor Radka Ivanova Massaldjieva, PhD
Health care management department, Medical University in
Plovdiv

scientific specialty: 3.2. Psychology
(Health Psychology)

Brief professional and biographical data for the doctoral student

Petya Veskova Pandurova has a bachelor's degree in psychology from New Bulgarian University, Sofia and a master's degree in health psychology from Sofia University "St. Kliment Ohridski". From her postgraduate studies in Bulgaria and abroad, she has acquired the qualification of a psychodrama therapist and training in Integral constellations and techniques, as well as training in working with TEMAS - a methodology for the study of cognitive, personal and affective functions in children and adolescents. In 2012-2013 she gained experience as a consultant in eating disorders. From 2014 until now, she has been working as a psychologist and psychotherapist. Since 2019, she

is a doctoral student in Health Psychology at Sofia University "St. Kliment Ohridski".

Petya Pandurova's research activity in recent years shows a lasting interest in eating behavior and behavior change. Information on participation in two scientific projects and two scientific forums with three scientific announcements is presented. The minimum national requirements for the educational and scientific degree "doctor" for the field of doctoral studies, according to the Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria, require 30 points. In the auto-abstract, the doctoral student has described publications that carry a total of 33.3 points, with two of the publications being "in press".

## Relevance and importance of the topic

The topic of the presented scientific work is located within the framework of health behavior and its consequences and in the specific case – psychosocial dimensions of obesity and overweight. In health psychology, eating behavior and weight can be located on a continuum from healthy to risky eating or eating disorders/ and from normal to underweight or overweight, with corresponding health risks and consequences—good health or disease.

Obesity is a significant public health problem because of its high prevalence and well-established association with serious chronic diseases, including hypertension and other cardiovascular diseases, metabolic disorders, arthritis, cancer, and sleep disorders (Clark & Goldstein, 1995).

In the biopsychosocial model of health, a conceptual basis of health psychology, health and illness have biological, psychological, and social components, and diagnosis, treatment, and prevention must consider all three aspects. Health depends on attitudes, emotions and personality characteristics. Petya Veskova Pandurova's dissertation presented for discussion here takes into account the biopsychosocial perspective and poses and seeks answers to important questions regarding overweight and obesity.

The actuality and significance of the described problem and the need for its scientific research are well argued by the doctoral student. The dissertation topic and its research may contribute to more effective health behavior change programs as well as successful psychotherapy for eating behavior and weight problems.

## Knowledge of the problem

The design, rationale, organization and interpretation of the study, being the basis of Pandurova's dissertation, convincingly show the doctoral student's very good familiarity with the problem being developed. It is described and analyzed theoretically and studied experimentally – with impressive thoroughness.

In psychology and health psychology, obesity is a multifactorial problem that can only be successfully studied with a relevant scientific design, developed after a detailed acquaintance with existing achievements and problem areas. Pandurova has presented a comprehensive comprehensive overview of both the achievements and the difficulties in researching overweight and the factors that influence it. The design of this scientific work meets the requirements for a psychological study of a problem of such specificity - with multiple available approaches for its analysis and a large number of influencing factors. Overweight and obesity are approached through the prism of the eco-behavioral approach, which allows combining psychological and social aspects in the study of health behavior - in this particular case - nutrition and physical activity. The constructs, occupying an important place in the issues of the dissertation, are presented in detail in the literature review, in the selected methodology, as well as in the processing and interpretation of the results.

The doctoral student also shows a very good knowledge of the scales for measuring and evaluating eating behavior, physical activity and factors with a significant influence on them, applied in the scientific research conducted to date, as well as the requirements for the application of psychometric tools and processing of the obtained results.

### Research methodology

The theoretical research model representing the research variables included the factors hypothesized to influence eating behavior and physical

activity as the leading behavioral components associated with overweight. This model allows hypothesizing relationships between the analyzed psychological, social and environmental factors.

The study design is described in detail. It is carefully thought out, coherent and balanced. The steps of the experimental procedure are detailed.

A pilot survey of 562 respondents was carried out with the main objective of validating the instrument and testing the theoretical model, and a subsequent main empirical survey of 712 respondents, using the Internet platform "Google forms" and in paper form, which allowed covering respondents with different characteristics. The persons studied were appropriately selected and grouped based on sociodemographic characteristics, which favors the possibility of drawing valid conclusions from the study.

Methods include: Two questionnaires developed for the specific objectives of the dissertation study and optimized after the pilot study; 1. Questionnaire on eating behavior and physical activity and 2. Questionnaire on social support of a healthy lifestyle (Pandurova & Karabelova, 2022), as well as 3. Questionnaire on beliefs about overweight (Wamsteker et al. 2005); 4. Dutch Eating Behavior Questionnaire (DEBQ, van Strien et. al., 1986); 5. Revised Bulgarian version of the Generalized Self-Efficacy Questionnaire (Schwarzer & Born, 1997; Stamova et al., 1993); 6. Short version of a questionnaire about personality traits (BFI, John & Srivastava, 1999; Stoyanova & Karabelova, 2020); 7. Analog Silhouette Rating Scale (Thompson & Gray, 1995); 8. Questionnaire on environmental support for a healthy lifestyle (Pandurova & Karabelova, 2022) 9. Life satisfaction scale (SWLS, Pavot & Diener, 1993; Ivanova, 2011).

The selection of methods shows an extremely serious attitude to the set goal and a professional approach to the study of the problem.

The statistical methods used are an impressively rich set and correspond to the data collected and the objectives. Methods were applied to study the psychometric characteristics of the questionnaires, including factor analysis; correlation analyses; stepwise regression analysis; tests to compare the formed groups of respondents and, accordingly, to study the effect of sociodemographic factors on the main variables. The selection and overall

application of these methods demonstrates high statistical literacy of Pandurova.

#### **Evaluation of the dissertation work and contributions**

The presented dissertation contains 186 pages, with 32 tables and 34 graphs and 37 pages references and appendix. The appendix contains the research questionnaires - 11 scales. The literature is mainly in English - 305 sources and 18 titles in Bulgarian. The content is organized into three chapters - overview, empirical studies and results; summary and conclusion, references and appendix.

The literature review is focused on: 1. The prevalence and trends of obesity and overweight; 2. Overweight as a risk factor for diseases; 3. Theoretical concepts about obesity and overweight. Papers are presented that discuss patterns and trends in overweight and obesity, eating behavior and physical activity, as well as approaches to their study. The psychosomatic theory, the theories of the external effect and of cognitively restricted eating are analyzed; the spiral and ecological model, as well as the homeostatic theory of overweight and obesity and the stress-reward model. The literature review is logically structured, thorough, and consistent, and demonstrates conscientious and motivated familiarity with the topic. The ability of the doctoral student to analyze, compare, summarize and derive important research problems, to include in the analysis multiple concepts and models, as well as to accurately use references that allow a fuller perception of the text is impressive.

Acquaintance with the theoretical views on the studied issues gives grounds for deriving five hypotheses regarding sociodemographic influences on eating behavior and physical activity, body weight and their relationship with psychological, social and environmental factors. The hypotheses are presented and explained in great detail.

The purpose and tasks are clearly formulated and correspond to the title and content of the work. The main objective is to investigate the relationships and interaction between eating behavior, physical activity and overweight and obesity, while controlling for the effect of psychosocial factors. The questionnaires and scales used show high validity and reliability.

The results, discussion and conclusions are presented according to the research hypotheses.

The experimental model of the present work is based on the consideration of health behavior through the prism of the ecological model of overweight, taking into account the influence of environmental factors.

The main study included 712 respondents between the ages of 16 and 76, divided into groups based on age, weight and marital status.

The results present the influence of the studied sociodemographic characteristics on eating behavior and physical activity, as well as the role of factors - of an individual, social and contextual nature.

Correlation analyzes (low to moderate correlations) confirmed the existence of many interrelationships between dietary behavior, physical activity and factors at different levels, indicating that the ecological model is an appropriate framework for the study.

Regarding the effect of socio-demographic characteristics on eating behavior and physical activity, the following significant trends have been identified:

identified:
☐ Higher levels of healthy eating among people with higher education,
those living in the capital and large cities, and among family participants.
Unhealthy eating rates are higher among younger, middle-educated and low-
income people.
$\hfill \square$ Higher values on the "Emotional Eating" scale in women, people with
higher education and those from small settlements.
☐ Higher physical activity in men, younger participants, people with
secondary education and without chronic diseases.
Regarding grouping by weight criterion:
<ul> <li>Obese subjects demonstrated the highest levels of unhealthy,</li> </ul>
emotional and externally stimulated eating and correspondingly low levels of
healthy eating, physical activity and cognitively restricted eating. Overweight
participants had higher levels of emotional eating and lower physical activity.

☐ The underweight group has the highest level of healthy eating and physical activity and the lowest level on the "Emotional Eating" scale.

The hypothesis that overweight and obese people are expected to have higher levels of negative affective experiences, body dissatisfaction, beliefs about a lack of behavioral control over weight and lower overall life satisfaction, social support of a healthy lifestyle is partially supported. The analysis confirmed these assumptions for the obese, but did not confirm all of them for the overweight respondents.

The relationship between the studied phenomena and their influence on eating behavior, physical activity and weight were investigated with correlation and regression analyses. The results show that:

- 1. dietary patterns that are associated with overweight and obesity are positively correlated with each other.
- 2. they interact negatively with healthy eating, cognitively restricted eating, and physical activity
- 3. healthy eating, cognitively restricted eating and physical activity are positively correlated, which reflects the relationship of a healthy diet with the ability to control food intake and engage in physical activity.
- 4. as negative emotions increase, eating behavior increases, which is most often associated with overweight and obesity; for healthy eating and physical activity, the trend is the opposite.
- 5. in terms of self-efficacy, life satisfaction, social support of a healthy lifestyle from family, friendly environment, and contextual factors, unhealthy, emotional, and food taste-stimulated eating were found to be negatively correlated with these constructs, and positive correlations were registered with healthy, limited nutrition and physical activity.
- 6. the most pronounced interrelation was found between nutrition, physical activity, "Consciousness/Purpose" and "Neuroticism".
- 7. the results show that positive affect has a predictive role for increased food consumption stimulated by food taste cues. With regard to limited nutrition, a negative relationship with unhealthy eating and a positive relationship with physical activity is reported.
- 8. the significance of body self-image, conscious control over eating, healthy eating and beliefs related to overweight is outlined.
- 9. a direct effect on weight gain are two behavioral trends a decrease in physical activity and higher levels of emotional eating.

Results are reported clearly, consistently and convincingly and are discussed through the lens of data from other author teams, which confirms the PhD student's skills in scientific data analysis and interrelationships.

The tables and figures in the dissertation are of very good quality and sufficient in number.

Formulated conclusions and conclusions fully correspond to the obtained results and their interpretation. A tendency for grouping behaviors and food patterns (healthy and risky) has been deduced - a positive correlation between them. The study expands knowledge about the influence of sociodemographic characteristics on eating behavior and physical activity and establishes the predictive role of individual, social and contextual factors for each of the studied eating behaviors and physical activity.

Limitations of the research on which the dissertation is based are conscientiously acknowledged - in terms of the sample, the data collection procedure and the lack of an objective criterion for evaluating the social and obesogenic support of a healthy lifestyle.

The inferred scientific contributions of the dissertation work correspond to the actual work carried out. They are also related to the scientific novelty of the idea and the research carried out in the direction of: deeper theoretical understanding of the researched issues; differences between overweight and obese participants in terms of psychosocial parameters and levels of dietary control; expanding the scope of researched variables related to dietary behavior and physical activity with contextual determinants; construction of new quantitative scales for eating behavior.

Practical recommendations for psychotherapy and prevention of overweight and its negative effects are made. The results of the dissertation work have the potential to increase the effectiveness of counseling for eating and body weight problems.

In conclusion, I believe that:

1. The proposed topic is significant and current, contains scientific novelty and has the potential to add substantial theoretical and applied contributions to scientific knowledge and counseling and psychotherapy practice.

- 2. The PhD student demonstrates serious familiarity with the literature and the opinions contained therein, as well as the ability to process data and present results, in-depth analysis and formulation of conclusions.
- 3. The conducted study and the obtained results contribute to a better understanding of the problems related to overweight and obesity and to their more effective treatment.

All above gives me reason to express a categorically positive assessment regarding the volume and quality of the work performed by Petya Veskova Pandurova, regarding the proposed dissertation work, abstract and the results and contributions reported therein.

I propose to the honorable scientific jury to award the educational and scientific degree "doctor" /PhD/ to Petya Veskova Pandurova in the doctoral program in Psychology / Health Psychology.

16.08.2023

Professor R.Massaldjieva, PhD