

STATEMENT OF EVALUATION

By **Prof. Drozdostoy S. Stoyanov, MD, PhD, DSc, PgCert, IDFAPA**

Head of the Department of Psychiatry and Medical Psychology

Scientific Secretary of the Research Institute, Medical University Plovdiv

Vice President of the Bulgarian Academy of Sciences and Arts

Vice Chair of the Philosophy SIG, Royal College of Psychiatrists

Of dissertation thesis to obtain PhD degree in a program of Psychology, entitled

“IMPULSIVITY AND NEGATIVE AFFECTIVITY IN INDIVIDUALS ADDICTED TO OPIATES IN DIFFERENT STAGES OF REMISSION”

By **Elena Hristova Psederska, PhD candiadate**

Supervisors: Associate prof. Jasmin Vassileva; associate prof. Nikola Atanasov

1. General presentation of the procedure and the doctoral student

The presented set of materials on paper / electronic media is in accordance with the regulation of the procedure for acquiring PhD degree at New Bulgarian University.

2. Significance of the researched problem in scientific and applied contexts.

Elena Psederska's dissertation is dedicated to a topic that is particularly relevant to public health. Modern society is exposed to an ever-increasing number and type of addictions. Their pathopsychological mechanisms remain a challenge due to the multiple and heterogeneous causal structure of the various addictions, which hinders their study in clear form. There is a large body of research on the role of impulsivity and affectivity in addictive behavior, but there are still opportunities for new and different approaches and perspectives. This investigation of opiate dependence in remission through the dimensions of negative affectivity and executive functioning contributes to a more in-depth explanation of the mechanisms and factors that predispose to addictive behavior in this population.

3. Justification of the aims and tasks in the dissertation.

The doctoral student is aware of the state-of-the-art and critically evaluates the literature. The first three chapters offer a literature review, which sets out comprehensive theoretical concepts on existing previous research on psychoactive substance dependence, types of impulsivity and negative affectivity. The notions of negative affectivity such as the constellation of anxiety,

depression and alexithymia and other components are reflected. The connection of the considered factors and components with the vulnerability to opiate dependence is indicated. In this sense, the goals and objectives of the dissertation are extremely well formulated.

4. Correspondence between the chosen methodology and research methodology and the set goal and tasks of the dissertation.

The selected panel of research methods allows to achieve the set goal of obtaining an adequate answer to the tasks solved in the dissertation.

5. Scientific and scientific-applied contributions of the dissertation (description and evaluation), including original contribution to science.

The dissertation is focused on the study of correlations between executive and affective functioning and opiate addiction.

The main objective of the present study is to assess the profiles of disorders and resources in two of the neurofunctional areas that play a key role in better understanding the recovery processes after chronic opiate use: executive functioning, in particular impulsivity (with its personal, psychopathological and neurocognitive characteristics), and negative affectivity, and its main dimensions (depression, anxiety, sensitivity to anxiety and alexithymia).

The dissertation encompasses 273 pages and is structured with an introduction, three-chapter literature review, empirical research, discussion, conclusion, bibliography and appendix. The bibliographic reference list contains 531 sources, of which 7 - in Bulgarian. All cited titles are completely relevant to the issues discussed in the dissertation and show a thorough understanding of the topic. The tools of the empirical research are presented in the Appendix. The obtained results are comprehensively illustrated with tables and figures.

The Introduction points out its innovative meaning - unlike many existing studies on the psychopathology of opiate addiction, the main issue here is the emphasis on the association of pathopsychological and neuroplastic mechanisms that predetermine a specific "vulnerability" of the studied population. In this sense, the applied tools in their revised and abbreviated version can be considered as an adequate basis for a psychodiagnostic panel in screening, secondary prevention and intervention programs.

I acknowledge the following original contributions to the dissertation:

- a. Specific disturbances identified for the first time in the different dimensions of impulse choices among opiate-dependent individuals in different periods of remission

b. For the first time, variations in the performance of opiate-dependent participants in different periods of remission in relation to the individual processes underlying impulsive actions and behavioral inhibition have been identified.

c. The present study identifies for the first time both general and specific profiles of disturbances in the dimensions of negative affectivity (personality anxiety, depression, alexithymia) among opiate-dependent individuals who maintain different periods of abstinence.

d. The research of the doctoral student reports for the first time variations in the effects of the duration of remission on the individual components of impulsivity and negative affectivity. Our results suggest that the duration of remission has, albeit minimal, effects only on some dimensions of impulsivity and negative affectivity, while having no effect on other aspects of the same neurofunctional areas. Affectiveness is not significantly affected by the duration of abstinence.

Based on the obtained results, ideas for future research in the field were discussed, and proposals for possible practical applications in the treatment and rehabilitation of opiate addiction were discussed.

The main feature of the contributions in this dissertation is the fact that all the tools used have already been validated and / or can be validated by the methods of neuroscience. The concept of translational validity (*Stoyanov, Borgwardt, Varga, 2014*) suggests the possibility of cross-validating psychodiagnostic tests through functional brain imaging, converging with other neurobiological measurements (genetic, immunological, etc.) specific to a given clinical condition. Such are, in particular, the computer-adapted tests for assessing impulsive choices and impulsive actions Go-no-Go task; Stop Signal Task, and others that have recently been further developed as an experimental design for the Monetary Incentive Delay task.

6. Evaluation of the publications on the dissertation: number, nature of the publications in which they are published.

On the topic of the dissertation 6 peer reviewed papers have been published, 4 of them in full text in indexed and referenced in international databases of scientific information journals with impact factor. In essence, they are the personal merit of the doctoral student.

7. Abstract (executive summary)

The abstract covers 43 pages and fully reflects the most important highlights of the work. The abstract is made according to the requirements and reflects the main results achieved in the dissertation.

8. Conclusion

The dissertation contains scientific and applied contributions, which represent an original research contribution and meet the requirements of the Academic Staff Development Act in the Republic of Bulgaria, the Regulations for its implementation of and local requirements of NBU. The presented materials and dissertation results fully comply with the specific requirements concerning this procedure.

Based on the above, I confidently give my positive assessment of the research presented by the above peer-reviewed dissertation, abstract, results and contributions, and I invite the esteemed scientific jury to vote positively for the educational and scientific degree 'Doctor' (PhD) of Elena Hristova Psederska in a doctoral program in psychology.



05.06.2022

Prof. Drozdstoy Stoyanov, MD, PhD, D.Sc.

PgCert, IDFAPA

#2 Best Scientist in Country (Philosophy),

Stanford University and Scientist Rankings 2022