

REFERENCE

By **Camellia Doncheva Hancheva**, Associate Professor in 3.2. (Developmental Psychology), PhD in Psychology; Department of General, Experimental, Developmental and Health Psychology, Faculty of Philosophy, Sofia University "St. Kliment Ohridski "

for obtaining PhD degree in a professional field 3.2. Psychology (General Psychology),

by **Elena Hristova Psederska**, PhD program "General Psychology", NBU,

of dissertation on the topic: "IMPULSIVENESS AND NEGATIVE AFFECTIVITY IN OPIAT DEPENDENT INDIVIDUALS IN DIFFERENT STAGES OF REMISSION"

with supervisors: Assoc. Prof. Dr. Jasmin Vasileva, Assoc. Prof. Dr. Nikola Atanasov and consultant: Ch. Assistant Professor Dr. Armine Janyan

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1. Significance of the researched problem in scientific and applied field

Addiction to psychoactive substances is a phenomenon with many dimensions in clinical, social and individual realms. Opiate use and dependency, as a part of the general problem of addictions, has a clearly distinguishable clinical picture of its course and long-term consequences in the overall psychosocial functioning of a person. Global epidemiological data on the growing prevalence and mortality due to opiate dependence suggest that this dependence is comparable to an epidemic. Clinically and psychologically, of particular interest and challenge are the periods of remission, changes and dynamics in the long run in neurocognitive and affective functioning. The importance of the researched issues in clinical, rehabilitation and prevention plan is indisputable. The dissertation represents a significant contribution to the construction of an explanatory theoretical model of the factors related to the maintenance and quality of mental functioning in long periods of remission, as well as to the predictors (among personality characteristics) of relapses.

In the applied field of psychological knowledge, the dissertation lays the foundation for the development of general guidelines and evidence-based individualized programs for recovery and resocialization of

people with addiction, by supporting executive cognitive functions and building effective mechanisms for emotional self-regulation.

The chosen topic, the conducted research and the richness of the data occupy an important place in the modern theoretical research in the field of addictions. They contribute immensely to the immediate practical application of the latest scientific discoveries and provide an opportunity for Bulgarian researchers and practitioners.

2. Formulated goals and objectives of the dissertation

The goals of the presented work are clearly defined. After examining data from current research, two of the three key neuro-functional areas (and their main dimensions) were selected to be assessed in order to gain an understanding of recovery and overall functioning after chronic opiate use. The specification of two goals is justified by the need to include the time factor "duration of remission" as a potentially significant predictor of general mental functioning and specific addictive behavior. The main goal to differentiate opiate dependence and its long-term consequences from other addictions is combined with the development and application of an individualized approach to treatment, recovery and prevention of subsequent relapses, supported by neuro-cognitive and psycho-affective assessment with the proposed methods. To achieve both goals correctly and unambiguously, seven hypotheses have been formulated in advance.

The main constructs studied, according to literature sources and previous research, may have the status of both risk factors and consequences of chronic opiate use. Longitudinal study design is needed to define them more clearly, but in the present work, the PhD student ingeniously includes the variable "duration of remission" to identify possible mediator effects.

3. Degree of knowledge of the state of the problem and correspondence of the used literature

The dissertation follows the classical structure of theoretical and empirical part, presented in three theoretical and three methodological-research chapters, introduction, conclusion, literature and appendices with a total volume of 273 pages, of which 179 are actual text. The volume and selection of cited sources is impressive: 531 titles, 7 in Bulgarian and the rest in English, among which publications

after 2000 in prestigious, specialized periodicals predominate. Such scope, depth and comprehensiveness is rare even in habilitation theses and in dissertations for the degree of "Doctor of Science".

The theoretical presentation, structured in three chapters, focuses on the definition and theoretical contextualization of the phenomenon of "addiction to psychoactive substances" and the personal characteristics of "impulsivity" and "negative affectivity". The framework for diagnosing and treating this condition is presented in detail in a consistent historical study of the concept of addiction.

The fourth chapter is a kind of transition to empirical research and critically discusses the methodological limitations of previous research as the doctoral student introduces a typology of problems, extremely useful in planning further research and evaluation and comparative analysis of data. In the in-depth analysis of a huge amount of literature, the doctoral student found the presence of a small number and highly contradictory research. The lack of data on the peculiarities of neurobiological and neuropsychological functioning in periods of remission hinders the development of an explanatory model for the mechanisms of regulation and self-regulation responsible for continued remission or relapse, respectively. The presented research is a successful attempt to fill the gap in scientific knowledge in the field.

4. Correctness in quoting a representative number of authors

The presented text is almost a unique example of comprehensive and in-depth knowledge of contemporary publications on the subject. References to previous research, analysis and reviews are consistent with all recommendations and standards for citation in the scientific literature.

5. Existence of a substantiated and developed theoretical model of the research

The theoretical model set in the framework of the dissertation research follows the contemporary hypotheses, formulated on the basis of neuro-functional research and imaging for the presence of deficits in executive functions and problems of affective functioning. The chosen theoretical model is adequately translated into the terms of the studied psychological constructs: impulsiveness and negative affectivity. The understanding of the presence of stable personality traits and states or situational emotional and behavioral reactions is reflected in the selection of tools that assess both aspects of personality functioning. The various components of impulsivity (personal impulsivity, impulsive choices, impulsive actions) and negative affectivity (depression, anxiety, sensitivity to anxiety and alexithymia) are

distinguished. Impulsiveness, anxiety and general psychopathy, as stable personality traits, are measured with self-report questionnaires, while performance tasks, clinical interview or specific self-report questionnaires are selected to assess personality states and behaviors. The verification of the theoretical assumption for the influence of the duration of the remission period on the studied variables of mental functioning is embedded in the design by dividing the clinical sample into two groups, conditionally "short" and "long" remission.

6. Correspondence of the chosen methodology and research methodology with the set goal and tasks of the dissertation

The research methodology fully corresponds to the set goals and objectives. As part of a larger international study (credits are given accordingly), the design is precise (quasi-experimental, comparative, cross-sectional), allowing adequate testing and verification of hypotheses, but also revealing the potential for discoveries led by the vast amount of ideographic data (such as case studies) collected for each participant.

In terms of methods, a very good combination of rating expert assessments (clinical interviews) with self-report questionnaires and performance tasks has been achieved. Such an abundance of applied methods allows reliable assessment of the studied constructs, especially of impulsivity in two out of three dimensions - impulsive choices and impulsive actions. The applied hierarchical regression analyzes are an adequately chosen statistical method of analysis for determining the direction of influence in dependent and independent variables. Accumulating more data on this methodology would also make it possible to study the interactions between predictors and mediating variables using structural modeling. The present study makes a valuable contribution and is a first step in this direction.

One of the discussed methodological problems, namely polydependence and difficulty in studying more homogeneous groups, has been overcome in the present study, with a sample selected only from opiate addicts in remission. The data on negative affectivity and impulsivity in these people undoubtedly advance our understanding of the factors and predictors of return to use, but the question remains about the environmental validity and extrapolation of data obtained on the rare group of mono-addicts. A future study would benefit from the inclusion of more experimental groups, but this proposal in no way disputes the great importance of the present work in revealing the peculiarities of opiate addicts.

7. Scientific contributions

The presented work is an authentic author's text, including theoretical understanding and synthesis of models, empirical research with a clear contribution to the adaptation of the methodology for the Bulgarian socio-cultural context, data collection and analysis. The candidate has theoretical and methodological training at the highest level, clearly proven in the high quality of the text and prestigious publications on the dissertation. Working in a national and international team is a testament to the research competence of the researcher and her ability to contribute to the study of significant problems in science worldwide. Elena Pseuderska definitely has the ability for independent and original thinking, proven in the present text and the publications of which she is a leading author.

The dissertation is a contribution to the study of opiate dependence in theoretical and clinical applications. I fully accept the well-structured and reasoned contributions of the doctoral student in all three areas - methodological, empirical and applied.

Methodological and empirical contributions are related to the development and verification of a model that includes previously unexplored variables in the Bulgarian context (impulsiveness and negative affectivity), adapting a diverse and rich battery of psychometric instruments to study various aspects of personality constructs and establish patterns and variations in functioning in time control in remission. The following instruments have been adapted: Toronto Alexithymia Scale-20 (TAS-20; Toronto Alexithymia Scale-20), Wender's Abbreviated Scale of Hyperactivity and Attention Deficit Disorder (WURS-25), Levenson Self-Assessment Scale for Psychopathy (LSRP), Substance Use Risk Profile Scale (SURPS), Barat-11 Revision Impulsivity Scale (BIS-11), Anxiety Sensitivity Index (ASI)

A definite contribution of the dissertation in the applied aspect are formulated guidelines for individualized approach to assessment and work in the rehabilitation and prevention of relapses in chronically opiate addicts. General guidelines have also been formulated, which could put the development of addiction prevention and intervention programs on a qualitatively new level.

The abstract is prepared in accordance with the high standard for presentation of a dissertation. The theoretical framework is synthesized, the empirical data and results of the analyzes are illustrated in diagrams and tables and commented in detail, the conclusion is highly informative, precise and critical. The methodological, empirical and practical-applied contributions are presented in detail.

The presented publications on the dissertation are six - four of them are in English in the prestigious publication *Frontiers in Psychology*, two are in Bulgarian - in Bulgarian specialized scientific periodicals.

All publications are co-authored with a team of Bulgarian and / or international scientists, and Elena Psederska is the first (leading) author in three of the six publications.

Personal impressions. Elena Psederska's research interests demonstrate persistence and continuity during the years of her academic development, traceable through the topics of the bachelor's, master's theses and the present dissertation. The rapidly deepening of knowledge and the increasingly well-advocated use of research results put in the service of clinical and social wellbeing goals is impressive.

Opinions, recommendations and notes.

To the presented work and the perspectives in the research development of Elena Psederska I allow myself to formulate the following recommendations:

- To publish in a separate author's text the presented habilitation work.
- To plan, conduct and develop research in the chosen field, applying longitudinal design.
- Consider the inclusion of protective factors and their interaction with risk factors when planning further studies on the long-term, persistent effects of chronic opiate use.
- To participate in establishment of rehabilitation programs based on the results and effects highlighted / revealed by the dissertation research.

8. Conclusion

The presented work reveals depth and persistency in the scientific interests of Elena Psederska. It undoubtedly confirms the research maturity and the post-formal stage in the development of thinking, proven in the ingenious discovery and presentation of hitherto unexplored problems. The merits of the work begin with the selection of an interesting problem, go through active participation in an intensive process that requires flawless coordination of data collection, analysis at the highest level and end with wonderful and truthful to the data summary of results. The empirical research was carried out at a high international level, providing seamless tracking of conclusions in the verification of hypotheses, the

ability to reproduce data in future research on the presented design and reliably adapted tools for use in practice by a wide range of specialists. The research contributions are indisputable.

With definite conviction and professional satisfaction, I give a positive assessment and propose that Elena Psederska be awarded the scientific and educational degree PhD.

Sofia, May 27, 2022



/assoc prof PhD Camellia Hancheva/