

OPINION

Doctoral dissertation on the topic: Application of screening methodology in the study of patients using alcohol in the clinical population

PhD student: Dr. Svetla Milcheva Borisova

Head: Prof. Dr. Hristo Kozhuharov, MD

Prepared the opinion: Assoc. Prof. Pavlina Petkova, Ph.D.

Borisova's doctoral dissertation is in the field of traditional psychiatry, but at the same time with the complicating issue of alcohol abuse in patients. The dissertation is written on 166 pages, includes 29 figures and 45 tables. The bibliography includes 156 titles, 16 in Bulgarian and 140 in English. The doctoral student has good professional experience working with patients with addictions to surfactants and the ambition to contribute to the creation of a test tool for screening for alcohol abuse.

The first chapter is a great overview in several ways: from the beginnings of ritual religious mystical behavior for change and ancient healing practices with the "spirit of wine", to modern experiences of relief and pleasure through alcohol. The PhD student makes a systematic review of the use of surfactants, their types, medical qualifications, setting the parameters for abuse of brain damage, personality change, stages of the disease, diagnostic criteria, treatment approaches, the impact of anxiety on use and pandemic context.

In a separate subsection the questionnaires for assessment of alcohol use are systematized in detail. The used AUDIT questionnaire, which is the main diagnostic tool in the dissertation, is presented in detail. This questionnaire can be used as a self-assessment or in a diagnostically structured interview with a specialist. The doctoral student for the first time in our country is developing an adaptation of the questionnaire, through a WHO project, which includes 6 countries with different socio-economic status, education systems, health care and political conditions. This project provides an opportunity for future comparative international analyzes of diagnostic assessments of alcohol abuse and dependence. The possibilities of the evaluation questionnaire, the specifics of the items, diagnostic criteria and range, the recommendations to the research procedure, the changes made over the years and the abbreviated forms are described in great detail.

The aim of the dissertation is to validate the AUDIT methodology. Four hypotheses are very well developed, the methods and criteria for data collection are described. The total number of subjects was 161, divided into two groups: persons from the group of harmful use / alcohol dependence were clinically diagnosed and tested in two stages. The study used a structured interview, the AUDIT questionnaire, CAGE and Spielberger's anxiety. The methodologies are very well selected for scientific research of the set goal.

The third chapter of the dissertation presents the data and analyzes from the conducted research. The data from the experimental and control groups, the demographic factors, the age period of alcohol abuse / dependence are described and compared in great detail. Detailed

comparative analyzes on the diagnostic criteria, style, frequency, percentage, valid and cumulative percentage of alcohol use / dependence determined by AUDIT are presented. Comparative analyzes and interpretations between the data from the three methodologies have been made precisely and in detail. The data on personal and situational anxiety in the experimental and control groups are very well analyzed. The higher situational and personal anxiety of people with harmful alcohol use / dependence on the AUDIT questionnaire is clear. A separate section describes the data for both groups on the reliability of the scales from the questionnaire. The high degree of reliability, measured in both groups, is clear. The reliability of the AUDIT questionnaire in the control group is relatively lower, but satisfactory, but high in the use / abuse group. The values obtained for the internal consistency of the items at AUDIT are high and very close to the first Bulgarian version. The correlations performed between the tests show a high correlation between the two measurements of the test, including high test-retest reliability of the questionnaire and they prove its value as a screening methodology. Borisova also presented an exploratory factor analysis using the method of the main components for estimating the number of domains that can best explain the observed variations in the answers to the AUDIT questionnaire. The analyzes are tabulated and very understandably illustrate the data. The final analysis shows that all variables in the correlation matrix have correlations with each other and can be included in the factorial decision. The reproduced correlation matrix and the inverse correlation matrix were also calculated. The results show three main factors, with higher values than one and this confirms the data from many other studies, replicating the original three-factor structure of the questionnaire. The analysis of ROC curves and area of curves shows high sensitivity of the questionnaire regarding the three questions, constructing the short version AUDIT - C for screening screening of conditions due to harmful use or alcohol dependence.

Then Borisova makes a concise and step-by-step discussion of statistical analyzes and interpretations of the research hypotheses. Here you can read extremely valuable and detailed data on specific comparative analyzes regarding alcohol use / abuse, the influence of age, education, gender, anxiety. The discriminatory qualities of the questionnaire for many parameters that are important both in diagnostic medical practice and for the purposes of psychosocial analysis in different populations of the large social group are very clear. Evidence suggests that the questionnaire provides guidance for future research to assess the risk of harmful use or dependence. The very good interrelation and supplementation of the information between the three applied methodologies for the purposes of psychiatric diagnosis and therapeutic practices is also shown.

The fourth chapter presents the summarized 10 conclusions, commensurate with the research and analyzed data on the subjects and the specifics of their use and abuse of alcohol, as well as all important analyzed data on the good diagnostic capabilities of the AUDIT Questionnaire. The fifth chapter presents three main contributions from the dissertation, which are fully consistent with the research and data analysis. Here I would like to add the serious practical contribution made by the doctoral student, with the validation of this diagnostic questionnaire for the practice of psychiatry, clinical psychology and psychotherapy.

In conclusion of my opinion, I would like to emphasize that Svetla Borisova's doctoral dissertation meets the high criteria for a doctoral degree and makes a significant contribution to raising the level of diagnostic practice compared to international standards for the assessment of alcohol problems and disorders. With personal and professional conviction, I will vote in favor and invite the members of the Scientific Jury to award Svetla Borisova the educational and scientific degree "Doctor" in the scientific specialty "Psychiatry".

20.06.2022

**Prepared the opinion:
Assoc. Prof. P. Petkova**

A handwritten signature in blue ink, appearing to read 'Petkova', is written over a blue horizontal line.