STATEMENT

for PhD Thesis

Personality profiles in patients with cardiac and cardiac surgery interventions

for awarding the educational and scientific degree "Doctor"
Professional field: 3.2. Psychology (Clinical Psychology)

Author: Violeta Kamenova Azis

by Prof. Plamen Kalchev, PhD, D.Sc.

The dissertation presents an analysis of the potentially traumatic nature of cardiac and cardiac surgery, accompanied by stress, fears, anxiety in patients before and after surgery. Dealing with them is a prerequisite for the use of protective mechanisms, a significant part of which - unproductive. From this point of view, the aim of the work is to assess personal characteristics as risk factors for the development of heart disease, not only for prevention, but also in view of the successful rehabilitation in the postoperative period. This circumstance undoubtedly indicates to the current nature of the work and its emphasized applied orientation.

The paper includes 156 pages and consists of an introduction, three chapters, a conclusion and a list of references. The bibliography includes 220 sources, of which 31 in Bulgarian and the rest in English, French and German.

The first chapter presents the theoretical framework of the problem and analyzes the psychogenic factors in the etiology of the disease, with an emphasis on cardiovascular disease. Four psychosomatic theories are consistently distinguished about the relationship between mental and physical illness, each of which is discussed in detail, with reference to the works of major authors. In a separate paragraph, the author presented the views of the Paris Psychosomatic School. In this context, the basic constructs in psychoanalytic psychosomatics are discussed.

The author also considered the topic of psychocardiology, in particular personality types, as a potential risk factor for deteriorating health and the occurrence of cardiac heart disease (CHD), as well as five modern models of personality relationship with CHD: model of psychophysiological reactivity; model of psychosocial vulnerability; transaction model; model of health behavior and model of constitutional vulnerability.

In the concluding parts of the first chapter the medical conception for the development of cardiovascular diseases is discussed, incl. types of heart disease, cardiac surgery and cardiac interventions, as well as psychological aspects of the consequences of the Covid-19 pandemic in patients with heart disease.

The theoretical analysis covers a scientific field on the border of two fields - psychology and medicine and provides a good basis for formulating research hypotheses, planning and organization of empirical research, described in the second chapter.

Hypotheses are related to certain personality traits, such as alexithymia, sensitivity to anxiety, emotional lability, depression, withdrawal, avoidance of intimacy, etc., on the one hand, as a predisposition to heart disease, and on the other - as a prerequisite for successful rehabilitation. In addition, an assumption is made about the effects associated with the occurrence of the Covid-19 pandemic, in particular, for higher levels of withdrawal and psychoticism, due to the imposed measures to control the spread of the infection.

149 persons were studied, whose number, after the removal of 7 invalid protocols, as well as another 7, based on extreme values, was reduced to 135, divided into three groups: 48 who underwent invasive cardiac intervention, 41 - in cardiac surgery, and the remaining 46 individuals formed the control group. Clinical samples include a relatively small number of individuals, but data collection implies specific competence related to motivating and ensuring the cooperation of individuals who are often under severe stress. The author undoubtedly coped with the challenge of such a task.

For the purposes of the study, three rock scales were used: (a) Self-assessment scale for alexithymia, Toronto (TAS-20), the Bulgarian version of which has a two-factor solution); (b) Anxiety Sensitivity Index (ASI) and (c) Personal Questionnaire for DSM-5, Short Form (PID-5-SF), to assess 5 domains (domains) comprising 25 components. Previously obtained psychometric data are available for all three instruments. The toolkit is carefully selected, with a wide range of personal variables, with potential effects in the direction of the formulated hypotheses.

The third chapter presents an analysis and interpretation of the results. After the analysis of the descriptive characteristics, on the basis of analysis of variance, the scores in both the experimental and the control group were compared. In particular, according to the results obtained, patients who underwent invasive cardiac and cardiac surgery are characterized by higher levels of externally oriented thinking (as a component of alexithymia), as well as the overall rate of alexithymia. However, sensitivity to anxiety is not among the characteristics of patients in the two experimental groups: no higher levels were found in patients who underwent cardiac interventions or in those who underwent cardiac surgery. From this point of view, there are arguments in favor of Hypothesis 1 and Hypothesis 2, but Hypothesis 3 is not confirmed. Regarding Hypothesis 4, which is expected to be dominated by emotional lability, depression, withdrawal and avoidance of intimacy in past interventions and operations compared to the control group, the data are not conclusive, as some of the criteria are confirmed at the level of trends for the group of patients who underwent cardiac interventions but not in the cardiac surgery group. To test Hypothesis 5, a comparative analysis of patient data before and after the Covid-19 pandemic also did not identify expected differences.

During the discussion, the author summarizes the results obtained, focusing on data that do not meet preliminary expectations. From a formal point of view, one of the possible explanations was sought in the relatively small number of participants from the

experimental groups, which makes the statistical conclusions very conservative (this circumstance is obviously influenced by the difficulties in collecting data related to the pandemic situation). From a substantive point of view, the author emphasizes the quasi-experimental (correlation) design of the study, which does not allow conclusions of a causal nature. Cardiovascular diseases are undoubtedly related, but the direction of influence remains unclear. For example, alexithymia is considered a stable personality disposition and, therefore, patients are less likely to have a high level due to their disease-related experiences. Also, in a future study, it is advisable to collect data on the medical history of the subjects, their duration and severity of the disease, the etiology of the disease, as well as psychological help received.

The contribution moments are correctly reflected in the report presented by the author.

Some recommendations related to the expansion of the analysis could be addressed to the work, in particular the assessment of the connections between the researched personal constructs. For example, the original study of the Alexithymia Scale (Bagby et al., 1994) extracted three factors, while the Bulgarian adaptation testified in favor of a two-factor variant (Popov et al., 2016). However, the data were obtained in a specific clinical group and it is therefore of interest whether the results of the present study will provide additional arguments in favor of one of the two solutions. More broadly, the correlations between the assessed personality constructs (using TAS-20, ASI and PID-5-SF) are of interest. For example, assumptions about the links between alexithymia and sensitivity to anxiety could be tested with the DSM-5 Personal Questionnaire domains. These tools are not yet widely used in our country and the data for their validation, based on the results of this study, would expand the contribution of dissertation. This recommendation, of course, does not call into question the author's analysis focused on the data in the experimental groups, but essentially points to the potential of the collected empirical data.

The strengths of dissertation include also excellent structuring, as well as the professional language of the presentation.

In conclusion: the dissertation contains a carefully planned and successfully implemented empirical investigation, with a strong applied character. The organization of the work, the collection of data and the interpretation of the results undoubtedly testify to the professional competence of the author. The study meets the requirements for dissertation research and for this reason I recommend to the esteemed jury to award Violeta Kamenova Azis the educational and scientific degree "Doctor".

March 26, 2022   Prof. Plamen Kalchev, PhD, D.Sc.