

Review

from

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In connection with Order of the Rector of Medical University of Varna № R-109-489 from 22.11.2021, on the grounds of art. 42 para. 6 and art. 30 para. 3 of the Regulations for the implementation of the law on the development of the academic staff in the republic of Bulgaria and art.68, para.1 of the Regulations for the development of the Academic staff of Medical University - Varna, Decision of the Faculty Council of the Faculty of Medicine at Medical University - Varna (Protocol №54 from 09.11.2021) and Protocol № 1 of the meeting in absentia of the Scientific Jury from 25.11.2021.

Regarding: Competition for obtaining the educational and scientific degree "Doctor" in the field of higher education 7. Health and sports, professional field 7.1. Medicine and the scientific specialty "Psychiatry" of Dr Raya Zlatislavova Dimitrova. Enrolled by Order of the Rector of Medical University - Varna № R-109-89 from 01.02.2019.

Topic of the dissertation: "Assessment of non-suicidal self-injurious behaviour in a non-clinical population of adolescents aged 14-19 years in Varna."

Scientific and research supervisor: Assoc. Prof. Dr Petar Petrov, MD, DSc

Biographical information

Dr Raya Dimitrova was born on February 2, 1990 in the city of Varna. In 2009 she graduated from First Language High School Varna, and in 2015 from Medical University "Prof. Dr. Paraskev Stoyanov", Varna. Immediately after graduation she started working as a doctor in the Fourth Psychiatric Clinic at the University Hospital "St. Marina" - Varna. Since 2017 she has been an "assistant professor" in the Department of Psychiatry and Medical Psychology at Medical University of Varna, and since 2019 she has been enrolled as a full-time doctoral student at the same department. In 2020 she acquired a specialty degree in Child Psychiatry. Dr Raya

Dimitrova is a member of BMA, BPA and the Bulgarian Association of Child and Adolescent Psychiatry and Related Professions.

The dissertation topic deals with an extremely important emotional and behavioral aspect of adolescence. In recent years, the engagement in non-suicidal self-injury by adolescents has turned into a significant and serious problem, and its prevalence is constantly increasing. Globally, the topic is being actively worked on, as evidenced by the expressed publishing activity on the topic in specialized publications. The accumulation of data specific to our population on this issue is necessary in order to uncover ethnically and culturally specific features of the behaviour. At this stage, studies of non-suicidal self-injurious behaviour in the general population in our country are extremely modest, and in the clinical population such have not been conducted.

A significant percentage of adolescents aged 14-19 declare that they engage in self-injurious actions to deal with situations of increased vulnerability and stress. Increased interest in and study of non-suicidal self-injury has been observed only in the last half a century. In most cases, the occurrence of NSSI is associated with the experience of strong negative emotions, to overcome which adolescents use various methods of self-harm.

From a medical and social point of view, the significance of the issue is unquestionable, and carrying out focused research into the behaviour will give us the information we need to address it adequately. At this stage, there is not even a consensus among experts on where in the scientific classifications of psychiatric disorders non-suicidal self-injury should be included. The current definition of non-suicidal self-injury as "intentional, direct injury to one's own body tissues without suicidal intent" dates back to 2007. This definition also requires a number of clarifications for its proper application. However, these are outside the scope of the current paper.

The prevalence, frequency, functions, and other characteristics of non-suicidal self-injurious behaviour highlighted in numerous studies necessitated its differentiation as a separate nosological unit, outside the inclusionary criteria of other psychiatric diagnoses, in which autoaggressive manifestations may also be observed. This led to its inclusion in DSM-5 in 2013 in a separate diagnostic group, called "Conditions for

further study", with proposed diagnostic criteria, which allow the accumulation of empirical data for this type of disorder in the following years.

International studies show that the incidence of non-suicidal self-injury is between 11% and 18% in adolescence. There is a growing tendency of this percentage in the last 7 years. Most of the publications show a higher prevalence among girls.

Although there is a considerable diversity in the methods of self-injury, from various publications it can be concluded that the most preferred method of self-harm is cutting with a sharp object, followed by hitting an object, while considering that there are gender differences in the preferred method.

A number of authors consider self-injury as one of the main risk factors for future and subsequent suicidal behaviour, and their coexistence is possible. According to current studies on suicide risk factors, frequent NSSIs and the use of more than one method of self-injury rank second and third after suicidal ideation. This only adds to the importance of the problem subject of the dissertation.

The factors that give rise to and maintain non-suicidal self-injurious behaviour are divided into psychological, interpersonal and social. They are presented as Theoretical Models, none of which is exhaustive, but rather a model deals mainly with a certain aspect of the overall picture of non-suicidal self-injurious behaviour.

The literature review examines all known aspects of non-suicidal self-injury, from historical data to epidemiology - gender distribution, frequency of episodes, methods, functions, functional disturbances, risk factors, classification difficulties and others. An integrative model of non-suicidal self-harm is also considered, which tries to unite the many existing theoretical models of the disorder.

The aim and the tasks and the working hypotheses of the research are formulated accurately and clearly; the tasks are deduced logically from the goal. The study population includes 294 adolescents between 14 and 19 years of age, 267 of whom have completed the in full the instruments used in the study. The criteria for inclusion and exclusion in the sample are clearly set. In the hypotheses are formulated several important and interesting ideas to consider, such as gender differences in the methods used, the formation of a group with a more severe course and the presence of characteristics of addictive behaviour.

Design, contingent and methodology: The assessment of the sample was conducted with appropriate tools assessing the symptoms of non-suicidal self-injurious behaviour and showed the ability of the author to adapt and modify some tools for better applicability in our country. The scales used are self-reported, meet the set goals and objectives and are supplemented appropriately to receive the maximum possible amount of information. The study was conducted over a period of about 1 year in public high schools in the city of Varna, pointed out by RDE-Varna and with the approval of the Ethics Committee at MU-Varna.

The applied methods for statistical data processing include descriptive analysis, frequency analysis, factor analysis, cluster analysis, Chi-square test and others. A good level of knowledge and practical use of various statistical analyses has been demonstrated.

The obtained results are presented together with the subsequent discussions. The presented tables and figures facilitate the understanding of the analysed data. The epidemiological data on the prevalence and distribution of non-suicidal self-injury and the main functions and other characteristics of this type of behaviour were assessed.

The analysis of the obtained results provides the morbidity of non-suicidal self-injurious behaviour in our country, which is in the middle of the wide range formed by international studies on the topic. Nearly a quarter of participants reported non-suicidal self-injury, and about 5% would meet the criteria for Non-Suicidal Self-Injury Disorder. The author discusses the possibility of data distortion due to the self-assessment format used. Even in this version, the results obtained confirm data obtained by other authors. The use of DSM criteria for determining morbidity is no exception in psychiatric research, but rather a common practice.

The tools used are easy to implement and meet the DSM-V criteria. They also allow for the assessment of the different degrees of severity of the syndrome, as well as the assessment of the predictor significance of some functions. The reliability and validity of the Non-Suicidal Self-Injury Scale were analysed.

The **results** support the data established by other authors that it is the inability to delay the impulse, mental and behavioural preoccupation, and the frequency of

episodes of non-suicidal self-injury that are the main distinguishing features of the non-suicidal self-injury disorder as a diagnosis.

The course and progression of non-suicidal self-injury as a form of addictive behaviour are also assessed. The hypothesis of NSSI as an addictive behaviour is not new, with evidence emerging 30 years ago that self-harming behaviours share common features with addictive behaviours, namely that they are experienced as "coercive" and "relieving" by the individuals. The results confirm these data, as a significant percent of the sample show characteristics of addictive behaviour regarding their non-suicidal self-harm. The mechanism that reinforces the act of self-harm is also noted - in most adolescents with NSSI there is negative reinforcement (coping with negative stimuli), while in real addictions more positive reinforcement is presented (achieving pleasure).

The considered **limitations and shortcomings** of the work are objective and commonly observed, especially when conducting population studies. They can also serve as a guide for future work on the topic. Of the 1,000 sent informed consents for parents, about half were signed - 516, with only 267 adolescents completing the questionnaires in full. This shows about a quarter of data collection and compliance. One can speculate in different ways why the percentage of completed questionnaires is such, but undoubtedly non-suicidal self-injurious behaviour is a socially unacceptable act and is associated with stigmatization by a large part of the population. The inclusion of a larger sample would provide even more reliable data on non-suicidal self-injury, and support with data from a clinical population would be the first study in our country.

The Cluster analysis allows the formation of a diagnostic cluster, with the main indicator discriminating between the diagnostic and non-diagnostic cluster is the presence of "preoccupation with thoughts of self-injury".

The author has made 15 **summary** points, which correspond to the set goals and objectives, and are derived from the results and discussion and are presented clearly and precisely.

Nine **contributions** were made, of which 4 were original theoretical, 2 were confirmatory and 3 were mostly practical.

The **presented dissertation contains** 145 pages, divided into 9 chapters and bibliography and including 61 tables, 5 figures and 1 appendix. The bibliography includes 193 literary sources, 5 of them in Bulgarian and 188 in English. The dissertation is structured according to the adopted scheme: content, introduction, literature review, aim and objectives, material and methods, hypotheses, results, discussion, summary and contributions, conclusion and ends with a bibliography.

In conclusion: The dissertation presented by Dr Raya Zlatislavova Dimitrova on "Assessment of non-suicidal self-injurious behaviour in a non-clinical population of adolescents aged 14-19 years in Varna" is based on an in-depth literature research and research approach. The study was conducted correctly and with appropriate tools. The summary points made are correct and correspond to the purpose of the study. The dissertation fully meets all the criteria for obtaining an educational and scientific degree "Doctor" according to the Law on the Development of Academic Staff in the Republic of Bulgaria, the Regulations for its implementation and the Regulations for the development of academic staff at the Medical University - Varna. In this regard, I confidently give my positive assessment and recommend the members of the esteemed scientific jury to vote positively for the award of educational and scientific degree "Doctor" in Medicine to Dr Raya Zlatislavova Dimitrova.

08.12.2021

Written by:


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