SUMMARIES OF THE SCIENTIFIC PUBLICATIONS
of Assist. Prof. Rositsa Racheva, PhD

I. Monographs

1**. Racheva, R. (2023).** Personality characteristics of addicts. Publishing house of BAS "prof. Marin Drinov", ISBN 978-619-245-383-1 (Print), ISBN 978-619-245-384-8 (Online)

The book reflects a problem with outstanding public importance – substance use disorders. Over the last decades research reveals that there are number of negative consequences related to the alcohol and drugs abuse and dependence. There are both direct negative effects to the quality of life of addicts and their relatives and indirect harm to society in general. Although a lot of studies have been done in this field, the characteristics of the personality profile of addicts are still subject of discussion. At the same time, an in-depth knowledge related to the personality characteristics of people with substance use disorders is essential for development of evidence-based programs for prevention, treatment, and rehabilitation of addictions.

The focus of the work is identification of the main characteristics related to the personality profile of addicts and their integration in a model that reflects the basic forms of manifestation of psychological functioning of the individual. It presents a comparative analysis of externalizing and internalizing personality characteristics in individuals with substance use disorders (designated as the treatment group) and individuals from the general population (the control group). The treatise is structured in three chapters.

The first chapter systematizes the basic concepts related to the use, abuse, and dependence on psychoactive substances, as well as their classification and description. An overview of biological (genetic and neurobiological), psychological and social (psychodynamic, behavioral, social-cognitive) theories related to substance use is given and the widely used in addictions bio-psycho-social model is presented. Factors associated with progress to substance addictions are summarized in three groups: physiological, environmental, and individual.

The second chapter is devoted to the relationship between personality and substance use disorders. Contemporary models and approaches to personality research are discussed, including the popular and widely used five-factor model. Data on the personality profiles of addicts are

summarized. Finally, a conceptual model of personality dispositions summarizing behavioral, emotional, and social problems in addicts is proposed, based on a distinction between externalizing and internalizing characteristics.

The third chapter presents thorough analysis of empirical studies of the most common externalizing (antisocial behavior, impulsivity, sensation seeking, aggressiveness and risk-taking) and internalizing (emotional stability, self-esteem, anxiety and depression) characteristics of individuals with substance use disorders. Special attention is paid to studies that consider these characteristics as a symptom of the psychopathology that occurs along with substance abuse or addiction. To assess these characteristics among patients with substance use disorders in Bulgaria self-report scales are constructed using questions from the International Personality Item Pool-IPIP. Initially selected items for each scale are reduced when needed, based on reliability and factor analyses. The relationship between the externalizing characteristics on one hand and the internalizing one on the other is studied. Comparisons of levels of the manifestation of the studied characteristics are made both between the control and treatment groups and between the two subgroups from the treatment group and the control group. Analyses of the association between early onset/ presence of relatives with substance abuse or dependence and the studied characteristics are also performed.

Results show that the developed scales for assessment of externalizing and internalizing characteristics have very good internal consistency and high reliability. There are positive and significant relationships between the studied personality characteristics of the externalizing spectrum. Positive and significant relationships were also found between the following pairs within the internalizing spectrum: Emotional Stability and Self-esteem; Anxiety and Depression. Although the characteristics are related and mutually defining, all of them also have distinct differentiating functions.

The data also reveals that the participants from the treatment group (both alcoholics and drug addicts) had significantly higher levels of antisocial behavior, impulsivity, sensation seeking, aggressiveness, risk-taking (without significant difference when split to subgroups and compared with controls), anxiety and depression and significantly lower levels of emotional stability and self-esteem in comparison to the representatives from the control group. Antisocial behavior is the only characteristic that is significantly higher in drug addicts in comparison to alcoholics.

The analysis of the association between the specifics of substance use and studied personality characteristics shows that addicts with early onset have significantly higher levels of

antisocial behaviour, impulsivity, sensation seeking, aggressiveness and significantly lower levels of emotional stability. Only the charactersistic sensation seeking has significantly higher levels among addicts with relatives with substance abuse or dependence.

The ultimate goal of this book is to draw the attention of the researchers, practitioners and policy makers working in the area of addictions to the potential of the knowledge about personality characteristics of addicts for development of evidence-based programs for prevention, treatment and rehabilitation of substance use disorders. Data about the personality characteristics can be used both for early identification of youth at risk and as a hint for better treatment and rehabilitation and relapse prevention strategies when working with addicts. The results presented in the treatise are good initial point for further research of the potential of the personality as a key factor in the process of formation and overcoming of the problems related to the substance use disorders

II. Published book based on a dissertation for educational and scientific degree "Doctor"

1. Racheva, R. (2024). Substance use disorders in adolescence. Specifics of the personality profile. Publishing house "prof. Marin Drinov", ISBN 978-619-245-451-7

The book presents a topic of paramount importance – substance use disorders in adolescence. The period of adolescence is considered both as related with risks and opportunities. As the onset of psychoactive substance use is predominantly associated with this period, a better understanding of the factors that influence the process of substance use disorders formation is very important to improve interventions in this area. Personality is among the key factors that can make a person vulnerable to abuse and addiction and at the same time can contribute to motivation and good outcomes in the recovery process. Therefore, this book focuses on identification of the personality profile of adolescents with substance use disorders and its relations with socio-demographic factors and characteristics of substance use. This knowledge is important for practice and can be used to optimize the prevention, treatment and rehabilitation of these young people. The book consists of three chapters.

The first chapter provides information about development during adolescence and psychoactive substance use in this period. This knowledge is an important first step in

understanding the processes of maturation and the related risks. The various groups of risk factors that influence adolescent substance use are also presented here. The bio-psychosocial model, recognized by Donovan and Marlatt (1988) and Wallace (1990) as closely related to the multidimensional nature of substance use disorders, is set as a framework for the presentation of risk factors and the theoretical model of research presented in the book.

The second chapter presents a literature review on personality characteristics most commonly associated with substance use disorders in adolescents and summarize them in three categories based on the psychopathology – externalizing, internalizing and atypical. Four main groups of co-occurring mental disorders in this target group are identified – behavioral, mood and anxiety and psychotic disorders.

The third chapter presents the conceptual model of the study. The model includes the identified personality categories, socio-demographic factors and characteristics related to substance use that outline the specifics of the profile of adolescents with substance use disorders. An important step in the research process - the adaptation of the MMPI-A (the adolescent version of the best studied and most commonly used personality test in the world) for Bulgaria – is also presented in this chapter. The inventory provides important information about the psychopathological aspects of the profile of the participants included in the study. The results outline the profile of Bulgarian adolescents with substance use disorders and the specific subtypes that are distinguished within this profile. The subgroups identified highlight the need for a differentiated approach in working with adolescents. The relations between specific personality characteristics on one hand and socio-demographic factors and factors related to substance use on the other highlight the need for a broad spectrum assessment of individual needs in order to optimize the outcomes of interventions focused on adolescents with substance use disorders.

The ultimate goal of the book is to draw the attention of the researchers, practitioners and policy makers working in the area of addictions to the potential of the knowledge about personality characteristics of adolescents with substance use disorders. This knowledge can be integrated in prevention, treatment and rehabilitation of adolescents in this target group. It can be used both for early identification of youth at risk and as a hint for better treatment and rehabilitation and relapse prevention strategies when working with adolescents with substance use disorders. The results presented in the book are good initial point for further research of the potential of the personality as a key factor in the process of formation and overcoming of the problems related to the substance use disorders in adolescents.

III. Papers, published in scientific editions, referenced and indexed in world - renowned databases of scientific information

1. **Racheva, R., Raycheva. R., Krasteva, M. & Andreev, B. (2024)**. Quality of life of alcoholics with early onset and prolonged drinking. Bulgarian Journal of Public Health, 16 (3), 5-15

Introduction: Alcohol addiction is associated with many negative outcomes that influence the quality of life. However, the factors that contribute to these effects remain a subject of research interest. **Aims:** The present study compares the quality of life of alcoholics and non-alcoholics and explores the role of age of onset and years of alcohol abuse as predictors of quality of life. **Materials and methods:** The study was conducted among 120 adults aged >18 years in Sofia, Bulgaria. The experimental group consists of 45 male and 15 female with alcohol addiction. The representatives of the control group are balanced by gender and age with the experimental group. The WHOQOL-Bref was used for the purposes of measurement of Quality of life. The data was analysed via independent t-test and Linear Regression Analysis. **Results:** The results reveal that people with alcohol dependence have significantly worse results on all domains of quality of life in comparison to the representatives of the control group. The regression analysis of the data of the participants from the experimental group shows that the earlier the onset of alcohol abuse is the worse is the quality of life. Additional regression analyses illustrate that the longer alcohol abuse is the worse is the quality of life. **Discussion and conclusion:** Although these data are indicative of the reduced quality of life of alcohol dependent people in the studied Bulgarian cohort, further research is needed to confirm or challenge the results. Knowledge about the quality of life of alcohol dependent people and the factors that influence it can contribute to optimizing the prevention, treatment and rehabilitation of alcohol dependence.

2. **Raycheva, C., Racheva, R. (2024).** Internet-based psychoactive substance use prevention programs, Bulgarian Journal of Public Health, 16 (2), 44-54

Advances in modern technology create the opportunity for widespread access to Internet-based interventions and programs to address a wide range of health problems. The application of digital health practices to the prevention, treatment, and rehabilitation of alcohol and drug

addictions has become increasingly popular over the past decade. This article presents some of the most popular Internet-based universal, selective, and indicative prevention programs and discusses benefits and risks associated with their implementation in practice. The introduction of these programs as a component of prevention work sets out the prospects for wider access to different stakeholder groups (adolescents, parents, teachers, relatives) and opens the field for discussion on the mechanisms by which they can be integrated into the education and health systems in Bulgaria.

3. **Racheva, R., Totkova, Z. Andreev, B**. (2024). Nonverbal Intelligence and negative driving outcomes in addicts. *Bulgarian Journal of Psychiatry*, 9 (1),ISSN: 2367-881X, 20-27

Driving under the influence of alcohol and drugs is among the main reasons for road fatalities. The present study investigates the relationship between one of the key cognitive components related to driving behaviour – nonverbal intelligence – and driving outcomes in people with addictions. The sample consists of 270 participants equally divided into two groups. The treatment group includes patients with substance use disorders (alcohol and drugs). The control group consists of people from the general population balanced by age and gender with the treatment group. A modification of the Domino logic test is used to measure nonverbal intelligence. Driving outcomes considered as traffic accidents and license suspension are self-reported by the participants. Results show that participants with addictions have significantly lower levels of nonverbal intelligence (NVI) than the representatives from the control group. Results related to driving outcomes reveal that addicts have significantly more serious road traffic accidents and license suspensions than controls. In addition data shows that about half of addicts with major road accidents and suspended driving licenses have low levels of nonverbal intelligence. Despite the promising results further research is needed to investigate in more details the relation between the NVI and driving outcomes in addicts. Such results can benefit the treatment and rehabilitation of addictions on one hand and the level of road traffic accidents on the other.

4. **Hristova, Antoaneta**, **Racheva, Rositsa**, **Andreev, Borian**. (2022). Occupational area, stress and coping strategies in the outbreak of Covid-19 Pandemic, *Psychological thought,* 15 (2), 187-203, ISSN:21937281, https://doi.org/10.37708/psyct.v15i2.661

The study investigates the levels of perceived stress and coping strategies of the participants in relation to their occupation. We argue that the levels of perceived stress vary in relation to the area of occupation and that there are specific coping strategies for dealing with stress among the representatives of the different areas of occupation. The study was conducted online via the Kwiksurveys platform. The data were collected during the period of first lock down - last week of March 2020. A total number of 688 people took part in the survey. Four occupational areas were distinguished – Social work, law or politics; Education and science; Economics and business; Engineering and IT. The method used collects socio-demographic data, measures perceived stress and distinguish coping strategies. The results reveal the highest levels of perceived stress among representatives working in the area of Education and Science. They use Categorical thinking, Naïve optimism and Esoteric thinking as coping strategies significantly more often than other groups. An interesting outcome is that Emotional Coping, Behavioural coping and Superstitious thinking seem to be universal coping strategies. Possible factors underlying the stress among the representatives of the most stressed group and possible implications of the results are discussed.

5. Krasteva, M., Koycheva,Y., Racheva, R.**, Taseva, T., Raycheva, T., Simeonova, S., Andreev, B**. (2020). Desceased FMR1 mRNA levels found in men with substance use disorders. *Heliyon*, 6 (10), 1-7, ISSN:24058440, https://doi.org/10.1016/j.heliyon.2020.e05270

FMR1 gene (fragile X mental retardation 1) represents a genetic and epigenetic factor in a number of human diseases. Though the role of FMR1 gene in substance use disorders (SUDs) is not well studied, a number of investigations indicate that SUDs and FMR1-accociated disorders may share common underlying mechanisms. We examined the relative FMR1 mRNA levels and their sex-distribution in leukocytes from patients with alcohol and
drug dependence compared to healthy controls. The study included 44 participants, 16 with alcohol dependence (mean age 43, 10 males and 6 females), 17 with drug dependence (mean age 41, 12 males and 5 females) and 11 healthy controls (mean age 47, 5 males and 6 females).

Participants donated 5–6 ml of blood and completed a specialized questionnaire. Total RNA was isolated and cDNA was synthesized and used as a template for qRT-PCR analysis. The studied persons with alcohol and drug dependence share common socio-demographic and substance-use related characteristics. Significant FMR1 down-regulation was observed in the alcohol dependent group (25 % decrease; p . 0.005). Sex-associated analysis revealed that FMR1 down-regulation was primarily in alcohol-dependent men (40% decrease; p . 0.001) and did not reach significance in women. A similar sex dependent pattern was observed among drug-dependent individuals. Drug-dependent men had significantly lower FMR1 mRNA levels (24% decrease; p . 0.015) compared with controls, while no significant difference was observed in drug-dependent females. These data indicate FMR1 mRNA down-regulation in persons with alcohol and drug-dependence, relative to controls, is sex-dependent. This implies a role for FMR1 in substance use disorders. These findings require confirmation by including protein measures and the recruitment of larger cohorts.

6. **Racheva, R., & Totkova, Z**. (2020). Reliability and Validity of a Method for Assessment of Executive Functions in Drivers. Behavioral Sciences, 10(1), 37. MDPI AG. http://dx.doi.org/10.3390/bs10010037

The quality of drivers' performance is one of the crucial components related to road safety. One of the key cognitive characteristics related to the ability to drive safely are executive functions. The main goal of the presented research is to propose a new method (Trace-route task) for assessment of executive functions in drivers. The present article discusses the results of two consecutive studies. Study one aims to determine the validity and reliability of the method used and includes 134 participants, equally divided in two groups—people with disturbances in executive functions and people from the general population. Study two aims to assess the ability of the method to distinguish drivers with risky behaviour. It includes 1440 participants divided in two groups— people with and without actual risky driving behaviour. The results from the studies show that people with different neurological or psychiatric diseases and drivers with different road violations demonstrate worse planning ability, working memory, decision making, and cognitive flexibility. This data show that the trace-route task method is a valid and reliable instrument for assessing executive functions and has the ability to distinguish people with risky driving behaviour from those who drive safely. This study reveals

that the proposed method can be used for implementation in the area of traffic psychology.

7. Totkova, Z., & Racheva, R. (2019). The Bulgarian Version of the Multidimensional Driving Style Inventory: Psychometric Properties. Behavioral Sciences, 9 (12), 145; https://doi.org/10.3390/bs9120145

Road safety is one of the main priorities for the European Union. Different strategies and policies strive to increase the level of road safety across Europe and although this level has increased in the last couple of years the number of injuries and fatalities resulting from traffic accidents is still very high. The multidimensional driving style inventory (MDSI) is a self-reported instrument for the assessment of a person's habitual driving style and its connection to risky driving behaviour and involvement in different traffic accidents. The instrument was originally developed in Israel and there are several previous adaptations in different countries such as Argentina and Romania. The main objective of this study is to develop a valid and reliable version of the MDSI in Bulgaria. A study was conducted to evaluate the construction validity of the instrument and to test the validity of the factors in a Bulgarian sample (n = 456, male = 204; female =252; average age = 37). Eight factors representing a specific driving style—dissociative, anxious, risky, angry, high-velocity, distress reduction, patient and careful and irrational—identified by previous versions of the MDSI are included in this study. The overall number of items in the inventory is 57 with Cronbach's alpha = 0.78. The current study in Bulgaria confirmed the structural organization of the initial version of the inventory. The results of the conducted study supported the reliability and validity of the Bulgarian version of the MDSI. The possible implementation of the instrument for the development of different programs for preventions and interventions is discussed here within.

8. Vasilev, G., Alexieva, D., Pavlova, R. (2006)**.** The safety and efficiency of oral slow release morphine for maintenance treatment of heroin addicts: a 6-month open non comparative study. *European Addiction Research*,, 12 (2), 53-60. DOI:10.1159/000090423

This open-label, non-comparative, single-center trial evaluated the safety and efficacy of once-daily treatment with slow release oral morphine (SROM) capsules for the maintenance treatment of 20 outpatients with heroin dependency over 6 months at the National Institute for Addictions in Sofia, Bulgaria. Doses were individually titrated up to a mean daily maintenance

dose of 760 mg (range 440–1,200 mg). SROM was effective in significantly reducing the signs and symptoms of opioid withdrawal and craving for heroin, with stabilization generally evident within two weeks. Nineteen patients completed 6 months of treatment and illicit opioid use was virtually eliminated. One patient withdrew voluntarily at 22 weeks. Validated questionnaires and tests indicated improvements in patients' well-being from baseline assessments. These included significant improvements with regard to suicidal depression (85%), anxiety and dysphoria (66%), general illness (58%), social dysfunction (54%), sense of hopelessness (34%), attention (25%), and self-reported typical depressive (27%) and disease-related (11%) symptoms. No deaths, serious adverse events, or withdrawals due to adverse events occurred. Five episodes of constipation and one episode of sweating (all non-serious and of mild or moderate severity) were reported. Vital signs were unaffected by SROM and no weight change was evident over the study period. The observations made in this study indicate a promising role for once-daily treatment with SROM in the clinical management of heroin dependency.

IV. Papers, published in non-referenced journals or collections with scientific review (20 to 99 standard pages)

1. **Totkova, Z., & Racheva, R.** (2019). Multidimensional method for assessing personality characteristics related to risky driving behavior. Psychological research, 22 (3); 746-775; ISSN 0205-0617 (Print) ISSN 2367-9174 (Online)

A study of contemporary theories and researches in the field of transport psychology shows that certain personality characteristics have a direct link to risky behavior on the road. The purpose of this study is to construct a complex method for assessing precisely those personality characteristics that are important for the safe driving process. The analysis of a variety of theoretical and empirical data outlined seven personality traits that are significant for the behavior on road: emotional stability, anxiety, locus of control, anger, aggression, risk taking, and sensation seeking. The results of the analysis indicate that these characteristics influence the behavior of drivers of motor vehicles. Outlined features are explored through a constructed self-report personality questionnaire structured in

seven major scales. This report presents the procedure of construction and selection of the items for each of the scales. In addition, the results of a pilot study, the main purpose of which is to verify the reliability of the instrument, are also presented. The constructed questionnaire allows the study of personality characteristics that influence risky driving behavior. The results can be used as a basis for setting up appropriate training programs for drivers who are systematically violators, which in turn is the real work of prevention, which may lead to effectively reducing the number of road traffic accidents.

2. **Zografova, Y., Bakalova, D., Hristova, A., Andreev, B., Nedeva-Atanasova, V., Racheva, R. & Z. Totkova** (2019). Personality and family environment: Antecedents of Student Aggression. Psychological research, 22 (3); 689-711; ISSN 0205-0617 (Print) ISSN 2367-9174 (Online)

The report presents findings from a survey of the most common forms of aggression and some of the most significant antecedents of the formation and manifestation of aggressive behavior in students in view of both personological and socio-cognitive approaches, including Bandura's Social learning theory. A total of 994 students from four different grades (4th, 6th, 8th and 10th) in six Bulgarian towns (Sofia, Veliko Tarnovo, Burgas, Radnevo, Mezdra, Haskovo) were studied. The effects of a range of personality traits (anger, revengefulness, suspiciousness, rancor, striving for control) relating to trans-situational manifestation of aggressiveness and the effects of family climate (both parental and parent-child relationships) on the main forms of aggression (physical, verbal and indirect) were examined. The dynamic and specific manifestations of these antecedents were discussed according to the students' grade and gender. A questionnaire consisting of several different scales was developed for the purposes of the study. In order to compare the results of students over a wide range of age the questions were structured in a way understandable even for the youngest participants. The findings show that both personality traits and family climate characterized by conflicts and aggression appear to be important factors for manifestation of aggressive behavior among students. Implications for prevention and aggression-reduction programs for students are discussed.

3. **Totkova, Z., & Racheva, R. (2018).** Personality characteristics related to risky driving behaviour. Psychological research, 21 (2), 171-195, ISSN: 0205-0617 (Print) ISSN 2367-9174 (Online) (in Bulgarian)

The report provides an in-depth analysis of the theoretical and empirical studies that examine the personality traits most often associated with risky driving behavior. The purpose of the analysis is to provide a thorough understanding of the problematic aspects of driver's personality and to distinguish those personality traits that predominantly predict dangerous driving. A large number of studies have been researched and seven personality characteristics have been derived: emotional stability, anxiety, locus of control, anger, aggression, risk taking, and sensation seeking. The results of the analyses revealed that this characteristics influence the driver's behavior and are closely related with risky driving behavior. These results can contribute for development of a complex method for measurement of those characteristics that distinguish the drivers prone to risky and dangerous driving. In addition the results can be used as a basis for establishment of educational programs for prevention of risky driving.

4. **Raycheva, Ts., Racheva, R. , Groshkova, T., Vassilev, P., Nikolova, E. and Naslednikova-Rainova, R. (2009).** Guidelines for good practice in the psychosocial rehabilitation of addictions. Sofia, National Center for Addictions.

Drug use is a major concern for Europe's citizens and a major threat to the security and health of European society. However, drug use in Europe remains high. Significant differences still exist among European countries in the nature and scale of national problems and in the scope and configurations of responses. There is, however, a consensus on common basic principles: drug policies must be balanced, comprehensive and evidence-based. In the area of demand reduction, there is consensus on the need for prevention, treatment and social rehabilitation activities. The Guidelines for Good Practice in Psychosocial Rehabilitation aim to improve the quality and effectiveness of psychosocial rehabilitation work in the Republic of Bulgaria. The guidelines provide information on the following important topics for the rehabilitation process: basic characteristics of addiction to psychoactive substances; basic concepts and definitions; objectives of psychosocial rehabilitation; normative framework; stages of the rehabilitation process; basic programs for psychosocial rehabilitation of addicted patients; standards of good practice in addiction rehabilitation; monitoring and evaluation of the effectiveness of rehabilitation programs;

basic ethical principles in addiction treatment and rehabilitation; and ethical principles in addiction rehabilitation.

V. Articles and reports, published in non-referenced journals or collections with scientific review (up to 20 standard pages)

1. Racheva, R. (2023). Individual factors related to psychoactive substance use. In: Proceedings of the XXII International Conference "Applied psychology: possibilities and perspectives" at Varna Free University Chernorizets Hrabar 30 June – 2 July 2023. 162-172, Varna Free University Chernorizets Hrabar University Press, ISSN:1314–0507 (In Bulgarian)

The report examines a range of individual-related factors that personify the profile of people who use psychoactive substances. Three groups of individual factors have been identified – demographic characteristics, personality traits and substance use characteristics. The demographic characteristics of gender and age are emerging as leading in deriving the profile of the users. Among the substance use specifics, the role of the early onset stands out as a factor of decisive importance for the subsequent development of substance use disorders. Personality traits typical for users are summarized in two large groups – internalizing traits (anxiety, depression, low self-esteem, emotional instability) and externalizing traits (impulsivity, sensation seeking, aggressiveness, risk taking and antisocial behavior)

2. Racheva, R. . (2023). Alcohol and drug dependence. Theoretical models. In: Proceedings of the XXII International Conference "Applied psychology: possibilities and perspectives" at Varna Free University Chernorizets Hrabar 30 June – 2 July 2023. 147-162, Varna Free University Chernorizets Hrabar University Press, ISSN:1314–0507 (In Bulgarian)

The report presents main theories explaining substance use disorders. The key biological and psycho-social models, related to alcohol and drug abuse and dependence are discussed. The biological theories address the genetic and neurobiological components of addictions. The psychological and social theories reflect psychodynamic, behavioral, and social cognitive reflections of the phenomenon. The analysis of the leading theoretical trends also includes the

widely recognized over the last decades bio-psycho-social model whose complex nature draws attention to the multicomponent nature of the problems, related to the use of psychoactive substances and to the need for a complex approach in the implementation of programs for prevention, treatment, and rehabilitation of addictions.

3. Racheva, R., Totkova, Z., Shtetinski, D., & Andreev, B. (2019). Validity and reliability of methods for assessment of cognitive functions in drivers. Psychological research, 22 (3); 776-788; ISSN 0205-0617 (Print) ISSN 2367-9174 (Online)

The analysis of the theoretical and empirical research outlined the following cognitive characteristics as directly related to fitness to drive: attention, memory, executive functions, visual-spatial functions, language and praxis functions. Some of these characteristics (language and praxis functions) are predominantly studied individually, while others (attention, memory, executive and visuo-spatial functioning) can be also studied in a group setting. This article presents the psychometric characteristics of the methods for assessment of cognitive functions with proven effectiveness in clinical practice that have been modified for the purposes of assessment of drivers. The purpose of the pilot studies performed is the assessment of the psychometric characteristics of the modified methods. The results of the studies show significant and high levels of validity and reliability of the constructed methods. The data provides sound evidence for the aptitude of the methods to distinguish people with disturbances in attention, memory, visual-spatial and executive functions and thus for the possible benefits from their future implementation in the process of assessment of fitness to drive. These data can also be used as a basis for development of programs for prevention and intervention in the field of traffic psychology.

4. **Racheva, R. & Totkova, Z. (2018).** Cognitive characteristics related to driving. Psychological research, 21 (2), 195-211, ISSN: 0205-0617 (Print) ISSN 2367-9174 (Online) (in Bulgarian)

The report provides a detailed analysis of the theoretical and empirical studies that examine the cognitive characteristics related to driving. The purpose of the analysis is to distinguish those characteristics that influence the ability to drive. The analysis of the

literature reveals the following cognitive processes and behavioural patterns as crucial for aptitude to drive: attention, memory, visual-spatial orientation, executive functions, praxis functions and language. The results of the analysis shows that those characteristics are related to safe driving on one hand and with the overall performance of the driver on the road. These results can contribute for development of a complex method for measurement of those characteristics that distinguish the drivers whose cognitive functioning is risky for the traffic. In addition the results can be used as a basis for establishment of educational programs for prevention of risky driving.

5. Racheva, R. (2017). Risk factors associated with substance abuse in adolescents. Psychological research, 20, 1, 2017, pp.85-94, ISSN 0205-0617 (Print); ISSN 2367-9174 (Online)

The article presents the key groups of risk factors that influence the development of substance abuse and dependence in adolescents – biological factors; family and parents; peers; school; contextual and individual factors. A review of the results of the studies in these areas has been done and key components related to substance abuse and addictions have been derived. The importance of the implementation of these components into prevention, treatment and rehabilitation programs targeting adolescents has been addressed.

6. **Racheva, R., Nikolov,N., Dimov, M. (2014**). Personality profile of adolescents with substance use disorders. *Bulgarian Journal of Psychology* / In: Proceedings of the VII National Congress of Psychology,.*1045-1057*

The report presents the results of an empirical study on personality profile of Bulgarian adolescents with substance use disorders. The method used for the purposes of the research is Minnesota Multiphasic Personality Inventory – Adolescents (MMPI-A). The target group of the study consists of adolescents between 14 and 18 years old. The results show that the personality profile of these adolescents consists entirely of externalizing characteristics. The profile is characterized by acting-out symptomatology and is being related to drug abuse, impulsivity, low constrains and problem behavior. Within the identified profile the following subgroups have been determined: 1) Adolescents with impulsive, acting-out personality type with increased levels of

bizarre sensory experiences, impatience and superficiality; 2) Adolescents with wide array and great intensity of emotional problems and distress; 3) Adolescents without any clinically significant elevations. Comparison between genders revealed that the profile of the girls included in the study is characterized by more expressive psychopathological symptomatology (with elevated levels of externalizing and atypical characteristics – impulsivity, low self-control, problem behavior, unrealistic experiences, strange thoughts) in comparison to the profile of the boys.

7. **Racheva, R.** (2011). Evidence-based psychosocial interventions for adolescents with substance use disorders. *Psychological research*, 2, 239-248. ISSN 1311-4700 (Print); ISSN 2367-4563 (Online)

The report examines the potential and role of psychosocial help and support for problem drinking and drug use in adolescence. It analyses research findings on the main interventions that have been shown to be effective in working with this age group - brief interventions, motivational interviewing, the 12-step model, behavioral and family interventions, cognitive behavioral therapy. The paper justifies the applicability of the interventions in Bulgarian conditions and outlines the need for research on their effectiveness in working with adolescents abusing or dependent on psychoactive substances in our country.

8. Racheva, R. & Pencheva, E. (2011). Personality characteristics of adolescents with substance abuse disorders. *Bulgarian Journal of Psychology/* In: Proceedings of the VI National Congress of Psychology,.3-4, 622-628. ISSN 0861-7813

The present report discusses the personality traits as one of the factors related to the initiation of substance use and the progression of alcohol and drug abuse and dependence among adolescents. The analysis of recent scientific articles focused on this topic clearly points out the following trends: 1) Several characteristics displayed during the childhood seemed to be indicative for substance abuse in adolescence. Some examples of this tendency are the presence of depressive mood during the childhood and the manifestation of physical aggression in early childhood that persists during the following stages of development. 2) Certain personality dispositions as low self-esteem, emotional disturbance, novelty seeking and risky behaviors

displayed in early adolescence are indicative for early onset of drug use and subsequent substance abuse. 3) A number of articles pay attention to personality traits such as an anxiety and some risky behaviors that are closely related to the maintenance of the drug abuse over the time. Sensation seeking also belongs to this set of traits. It is seen as a factor related to treatment drop out among adolescents. The data provided in this analysis allows specific guidelines for prevention, treatment and rehabilitation of drug abusing adolescents to be outlined.

9. **Racheva, R. & Nikolov, N.** (2011). Bulgarian adaptation of MMPI-A: Main psychometric characteristics of the inventory and its application to the clinical practice. *Bulgarian Journal of Psychology* / In: Proceedings of the VI National Congress of Psychology,. 3-4, 614-621. ISSN 0861-7813

The report presents the main results of the Bulgarian adaptation of the MMPI-A and the possibilities for the application of the test in clinical practice. The MMPI-A is one of the most popular instruments for studying personality characteristics in adolescence. It is tailored to the specifics of adolescent development and allows reliable identification of the characteristic manifestations of psychopathology at this age. The results of the conducted studies show that the Bulgarian version is functionally equivalent to the original test. The report presents group profiles on the test of different clinical groups.

10. **Racheva, R., Raicheva, C., Panayotov, A. (2011).** Drug-related treatment: treatment demand and accessibility. Annual report on drug-related problems and drug addiction in Bulgaria, 42-57, available at:
http://anketi.info/images/folder/2011_national_report_bg_bg_fin2.pdf

The report examines strategy and policy in the field of drug treatment, presents the specifics of the treatment system and characteristics of clients in treatment, and highlights key trends in clients in treatment and in treatment delivery. In examining the topic in the context of the report, attention is paid to drug treatment policy, the treatment system in place in the Republic of Bulgaria and the treatment options available. This information is based on the assessments of experts from the National Centre for Drug Addiction, the Directorate for Narcotic Drugs at the Ministry of Health, reports of substitution support programs and

rehabilitation programs, etc. The presentation of the characteristics of clients in treatment and the tendencies in recent years in relation to them is based on the data from the National Monitoring System for treatment seeking in relation to drug use, as well as on the reports from substitution and rehabilitation programs.