TRANSLATION AND PSYCHOMETRIC PROPERTIES OF THE GREEK VERSION OF THE SUBSTANCE ABUSE SUBTLE SCREENING INVENTORY-3 (SASSI-3)

by

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THESIS APPROVAL

"Translation and psychometric properties of the Greek version of the Substance Abuse Subtle Screening Inventory-3 (SASSI-3)" a thesis prepared by Panagiota Kontoléon in partial fulfillment of the requirements for the Master of Science degree in Counseling Psychology & Psychotherapy presented on October 4th, 2019 and was approved and accepted by the thesis committee and the School of Graduate and Professional Education.

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Abstract

This study aimed to assess the psychometric properties of the Greek version of the "Substance Abuse Subtle Screening Inventory" (SASSI-3). 508 individuals participated in this study; 248 drug abusers, 49 alcohol abusers and 211 control subjects were nationally recruited in Greece and were asked to fill in the Greek versions of the SASSI-3, the AUDIT and the DUDIT. The Cronbach's alpha coefficients for the full SASSI-3 questionnaire, the FVA and the FVOD scales for the total sample were .84, .93 and .97 respectively, and positive correlations between the FVA scale and the AUDIT (r=.81) and between the FVOD scale and the DUDIT (r=.90) indicate high reliability and convergent validity of the instrument. Mean sensitivity of the full questionnaire and specificity were found to be 96.35% and 92.9% respectively indicating strong predictive validity. The psychometric properties of the subtle scales were much lower suggesting the need for further research and evaluation on their reliability and validity.

CURRICULUM VITAE

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Graduate Studies

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Graduate Certificate in Psychology

School of Graduate and Professional Education

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GPA: 4.0/4.0

09/1994 – 5/1998	Undergraduate Studies
	Bachelor of Science Marketing
	School of Business
	George Mason University / U.S.A.
	GPA: 3.973/4.0
	Inst. Honors: “With Highest Distinction”

SCHOLASTIC ACHIEVEMENTS

1997	George Mason University Institutional Honors: “With Highest Distinction”
1997	Honorary Member of “Beta Gamma Sigma”, Honor Society for Collegiate Schools of Business
2016	Presidential Scholarship, Graduate Certificate in Psychology, The American College of Greece
2017	Presidential Scholarship, MSc in Counseling Psychology and Psychotherapy, The American College of Greece

PROFESSIONAL EXPERIENCE

02/2011 – present	Position: Managing Partner
	Company: Areo Holdings Ltd - A trading company operating in Greece and Cyprus in two fields:

1. **Telecommunications -** Valid S.A. (currently) and Gemalto (2011–15). Provision of full-service telecom solutions to leading regional Mobile Network Operators
2. **Health and Wellness -** Radiant Life Technologies Representative for Greece and Cyprus. A breakthrough technology combining natural healing radiances for tissue regeneration and chronic pain therapy. Certified somatic therapist coMra®

06/2009 – 02/2011 Position held: CEO and President of the Board of Directors

Company: BlueChip Technologies S.A.

Achievements

- Increased revenue by 70% over annual projections. Achieved 38% profit margin
- Secured sales growth with direct revenue generation and profit contribution, cash management and customer satisfaction
- Managed expanding client and supplier base, strengthened business alliance networks to stabilize sales territory management
- Introduced new products using the alliance partner network; increased smart card revenue by 6% in 6 months
- Decreased operating costs by 20% in 12 months by implementing operational efficiency measures

06/2006 – 06/2009 Position held: Chief Operations Officer

Company: BlueChip Technologies S.A.

Achievements:

- Secured sales and revenue growth
- Established performance goals, allocated resources and assessed policies to meet annual goals
- Established and directed the execution of policies to support overall company objectives
- Oversaw all pre-and post-sales activities to build trust from staff and external constituents
- Within the first year of operation, growth exceeded goals by 250%

06/2004 – 02/2006 Position held: Operations Manager for the Telecom Division

Company: GENNET S.A.

Achievements:

- Exceeded key operational performance targets with results that accounted for 75% of the company's revenue
- Consolidated fixed and mobile telephony products and services into a single operating process
- Improved the business model through operational process analysis, identified and resolved operational issues, and secured revenue growth.
- Developed and nurtured regional and local market relationships

09/2001 – 05/2004 Position held: Deputy General Manager

Company: RENAULT Cyprus (EuroVec)

Achievements:

- Administered policies established by the Board of Directors
- Led, coached and supervised a staff of five project teams to improve business processes and ensure optimum performance
- Implemented marketing and communication strategies, and led the launch of four new products
- Managed a $ 300,000 marketing and communication budget
- Monitored sales and after-sales effectiveness
- Evaluated new business opportunities
- Served as primary liaison with Renault France for product and marketing strategy
- Contributed to increased market share from 7% to 11% (from ranking 7th to ranking 3rd)
- Reshaped and upgraded web portal to improve communication flow and sales tools
- President of the Advertisers Association (Cyprus - 2004)

01/1998 – 09/2001 Position held: Director, Client Service Dept.

Company: YOUNG & RUBICAM Cyprus (Partners), Advertising

Achievements/Responsibilities:

- Executed and managed market research as the foundation for strategic advertising campaigns
- Defined and supported strategic planning and business development

- Established and implemented marketing strategies for clients in competitive industries
- Recruited, hired, trained and led the client service staff
- Assisted in strategic planning for the company's expansion, and led pitch teams that landed Coca Cola and Renault as new major accounts
- Contributed significantly in developing annual goals
- Planned and organized strategies to identify new revenue streams, increasing profits by 70% (from ranking 11th to ranking 4th)

09/1994 – 05/1998 Undergraduate Studies

11/1992 – 06/1994 Position held: Entertainment Section Manager

Company: AMERICAN EMBASSY, New Delhi, India

Achievements/Duties:

- Managed administrative operations
- Prepared revenue-maximizing business plans and negotiated purchase contracts
- Planned the association's future information technology system

09/1991 – 06/1992 Position held: Marketing Executive

Company: LEVI STRAUSS HELLAS S.A., Athens, Greece

Achievements/Duties

- Managed all imports of merchandise for this new Levi Strauss affiliate

- Assisted in developing all merchandise lines. Designed and prepared catalogues for sales representatives
- Ordered, inventoried and distributed all garment fabrics. Monitored local sourcing
- Managed merchandising and distribution departments
- Developed import/export procedures

CONTINUING PROFESSIONAL AND EDUCATIONAL DEVELOPMENT

Workshops/Training:

2018 Trauma and Psychoanalysis – Transference and Countertransference. Transference and focused psychotherapy: developing and applying object relations thinking (The American College of Greece)

2016 Water, Earth, Air, Fire Healing - Interacting with the Body/Experiential Seminar (Gestalt Foundation)

2016 Healing with coMra-Therapy/Level I, Certified Practitioner (RLT[1])

2016 Healing with coMra-Therapy/Level II, Advanced Healing Practices (RLT)

2016 Journey of Adjustment – Threshold to Excellence/Relationships Management Course (ISM[2])

2014 Back to Basics/Relationships Management Course (ISM)

2014 Spiritual Response Therapy, Advanced (SRT[3])

2013 Unveiling the Mysteries of the Female/Relationships Management Course (ISM)

[1] Radiant Life Technologies
[2] Institute for the Study of Man
[3] Spiritual Response Association

2012 Frontiers of the Self/Relationships Management Course (ISM)

2011 Relationships II – with the Self/Relationships Management Course (ISM)

2001 World of Little People/Relationships Management Course (ISM)

2010 Threshold to Excellence/Relationships Management Course (ISM)

2010 Relationships I/Relationships Management Course (ISM)

2002 Delegation and Coaching (Andersen[4])

2002 Strategic Management and Planning (Andersen)

2002 Creative Analysis and Problem Solving (Andersen)

2002 Leadership and Motivation (Andersen)

2002 Principles of Effective Time Management (Andersen)

2002 Leadership Skills Development and Personnel Motivation Methods (Andersen)

2002 Business Management and Planning (Andersen)

2001 Managing your Sales Force (Andersen)

2001 Performance Appraisal (Andersen)

2001 Evaluation Techniques (Manexcel[5])

2000 Effective Delegation (Manexcel)

2000 Effective Time Management – (Manexcel)

2000 Coaching and Supervising Skills (Manexcel)

1999 Effective Presentations (Young & Rubicam)

1999 Brain Skills (TMI[6])

1999 Personal Guarantee (TMI)

[4] Andersen: Chrysanthou – Christoforou Consultants
[5] Manexcel: Chrysanthou – Christoforou Consultants
[6] TMI: Peter Andreou Training Consultants

1999 Generating Innovative Ideas (TMI)

1998 Working under Pressure (TMI)

1998 Presenting with Impact (TMI)

1998 Putting People First (TMI)

PUBLIC SPEAKING

2003 Guest speaker on "Successful Females in Business", Human Resources Conference, Cyprus

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WRITTEN WORK – PUBLISHED ARTICLES

2017/09 Title: "*About Pain / part I*" – Definition and consequences of physical and emotional pain

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Publication: NATURA Ing – holistic health free press

2018/02 Title: "*The difficult transition from the middle to the third age*" – Vulnerabilities, stress factors, smooth ways for the transition

Publication: NATURA Ing – holistic health free press

2018/05	Title: "*Think about it again! How the second brain/gut affects your psychosomatic health*" – gut and affect, and microbioma: the secret to health. Publication: NATURA Ing – holistic health free press
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2018/10	Title: "*5 ways to remain active and mobile protecting your joints"* Publication: NATURA Ing – holistic health free press

LANGUAGES

GREEK	Native
ENGLISH	Proficient (US Citizen)
ITALIAN	Moderate (Diploma Medio, Molto Bene, 1989)

IT SKILLS

Microsoft Office Suite	Advanced
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Email Marketing	Moderate
Google Analytics	Moderate

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I. INTRODUCTION

Substance Abuse Definition and Historical Background

The *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (DSM-5), published by the American Psychiatric Association (APA, 2013), and the *International Classification of Diseases*, tenth edition (ICD-10) published by the World Health Organization (WHO, 1981) are currently the two main classification systems for psychiatric disorders including substance use disorder. There is no universal definition for substance abuse as the word "abuse" has been under scrutiny about its belittling, inaccurate and stigma-related connotations which impact greatly individuals and societies, thus having scholars questioning its usefulness (Broyles, 2014; Kelly, 2004; Linton, Campbell, & Gressick, 2016; Miller, 2006). The DSM-V (APA, 2013) positioned itself towards this debate by introducing the term "substance use disorder" (SUD), repealing the distinction between "*substance abuse*" and "*substance dependence*" existing in its previous DSM-IV (APA, 2000) as the term "dependence" was often confused with the term "addiction".

Before exploring what this change meant and how SUD is currently characterized and diagnosed, it is useful to look at the history of substance abuse definition to better understand the complexity and sensitivity of what it actually means and entails. The words "*drugs*" and "*alcohol*" first appeared in both the DSM and the ICD in the 1950s. In the first DSM which was later called first edition (DSM-I) both terms appeared under the definition of addiction, but the term "*drug addiction*" was classified as a secondary diagnosis (symptomatic of other disorders) and the term "*alcoholism*" had no diagnostic criteria (APA, 1952, p. 39). A few years later the WHO's Expert Committee on Addiction-Producing Drugs suggested a distinction between addictive and habitual drugs (WHO, 1957). Addictive illicit drugs attributes entailed

compulsion, tolerance and dependence, and consequently had adverse effects to the user and the society. Alcohol and tobacco were in the habitual drugs classification and had four characteristics: (a) using the drug for personal contentment; (b) having little or no inclination to increase the dosage; (c) experiencing possible dependence only psychologically (not physically); and (d) little or no effects to the society. As a result, there was strict control over the illicit addictive drugs and some minimal control levels and warning labels were decided for the habitual drugs (WHO, 1957, pp. 9-14). However, this view was confusing and left a lot of grey areas and questions unanswered among the scholars and professional communities. As expected, this outlook changed dramatically over the years not only because it was evidenced that it is inevitable for diseases and their classifications to be modified, but more importantly they were influenced by a multitude of social, political and economic forces throughout the years (Neuman, Bitton, & Glantz, 2005; Nutt, King, & Phillips, 2010).

In the 1960s, the same WHO expert committee suggested to substitute, or rather merge the two terms (addiction and habituation) to one term: "*drug dependence*" therefore creating the need to differentiate between the different types of drugs as well as between the physical and the psychic dependence (Eddy, Halbach, Isbell, & Seevers, 1965; WHO, 1964). The term "*dependence*" was not new to the WHO as it was used earlier to define alcoholism as part of a broader category of drugs eliciting dependence (WHO, 1951). Right around the same time the word "*dependence*" appeared also in the second edition of the DSM (DSM-II) (APA, 1968) where there is a clear diagnosis for alcoholism (alcohol dependence) and drug dependence excluding prescribed drugs, alcohol, tobacco and caffeine. Drug dependence referred to dependence on opium, cocaine, cannabis, hallucinogens, synthetic analgesics with morphine-like effects, barbiturates, other hypnotics and sedatives, and other psycho-stimulants (APA, 1968, p.

45-46). Extending the concept of dependence, a bit later another group of investigators in WHO issued a memorandum to introduce the idea of a "*dependence syndrome*" in which there are degrees of alterations in the individual's behavioral, cognitive and psychobiological levels that could result in disabilities related to alcohol dependence (Edwards, Gross, Keller, Moser, & Room, 1977).

The term "*substance abuse*" made its first appearance at the DSM-III (APA, 1980) along with the term "*substance dependence*" to classify the two subcategories of substance pathological use. Substance abuse had three characteristics: (a) a pattern of pathological use; (b) impairment in social or occupational functioning caused by the pattern of pathological use; and (c) minimal duration of disturbance for at least one month. Substance dependence was more severe than substance abuse and was characterized by the aspects of tolerance and withdrawal resulting in physiological dependence (APA, 1980, pg. 164-165). There were five kinds of substances, more specifically "*alcohol, barbiturates or similarly acting sedatives or hypnotics, opioids, amphetamines or similarly acting sympathomimetics, and cannabis*" (APA, 1980, p. 165-166). DSM-IV (APA, 2000) continued under the same logic of distinguishing the classifications of substance abuse and substance dependence only now renaming the main category to SUD instead of substance pathological use.

The rapid changes from DSM-III (APA, 1980) to DSM-III-R (APA, 1987) and DSM-IV (APA, 1994) were criticized by scholars and clinicians who had little time to absorb and adapt to the changes in such limited time especially since the DSM-IV grew immensely in categories and added 886 pages to the previous edition (Blashfield, Keeley, Flanagan, & Miles, 2014). DSM-IV defined substance abuse as "*a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances*" (APA, 1994, p.

182). There were 10 substances classified under substance abuse: alcohol, amphetamines, cannabis, cocaine, hallucinogens, inhalants, opioids, phencyclidine, sedatives – hypnotics - anxiolytics, and other (APA, 1994, p. 177). Substance dependence was defined as "*a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues use of the substance despite significant substance-related problems*" (APA, 1994, p. 176). It entailed tolerance, withdrawal and compulsive drug-taking behavior and the drugs categories were the same as in substance abuse, adding nicotine and polysubstance.

Finally, the latest revision of DSM-5 (APA, 2013) dropped the two separate diagnoses for substance abuse and substance dependence and provided criteria for the overarching SUD category which is defined exactly as substance dependence was defined in DSM-IV (APA, 1994, p.177) above. The drugs classes are 10: alcohol, cannabis, hallucinogens (phencyclidine and other hallucinogens), inhalants, opioids, sedatives (hypnotics or anxiolytics), stimulants (amphetamine-type substances, cocaine, and other unspecified stimulants), tobacco, and other or unknown substances (APA, 2013, p. 482).

In conclusion, both DSM-5 (APA, 2013) and ICD-10 (WHO, 1992) classification systems define substance abuse in the context of a harmful use of psychoactive substances (alcohol and illicit drugs) that could result to an array of cognitive, behavioral and physiological manifestations due to the repeated use of substances despite their harmful consequences. The DSM-5 (APA, 2013) suggests that the underlying mechanism of SUDs involves changes in the brain circuits, which may persist even after detoxification posing a danger for intense cravings and repeated relapses.

DSM-5 Diagnostic Criteria for Substance Use Disorders (SUDs)

SUD is characterized by a pathological pattern of behaviors pertinent to substance use. In order to facilitate diagnosis, DSM-5 (APA, 2013) introduced four diagnostic groupings: (1) Impaired control; (2) social impairment; (3) risky use; and (4) pharmacological criteria. Each grouping has its own criteria and the severity of the SUD (mild, moderate and severe) is determined by the number of the symptom criteria met.

The first grouping (impaired control) has four criteria (Criteria 1-4). Criterion 1: The period or the amount of the substance the individual takes may be longer or larger than his /her original intention respectively. Criterion 2: There could be a persistent expression of the individual about his/her desire to regulate or seize substance use and possible reported unsuccessful attempts to do so. Criterion 3: A significant amount of time could be spent in the acquisition, use or recovery from the substance. In more severe cases of SUDs the individual's daily focus is consumed all around the substance. Criterion 4: Craving is a new addition to DSM-5. It is the intensive urge for the substance that could happen at any time, but it is more likely to happen in environments where the substance was previously acquired or used. Craving is linked to the reward system in the brain and classical conditioning. As it could signal an impeding relapse it could be useful in treatment measures (APA, 2013, p. 483).

The second grouping (social impairment) has three criteria (Criteria 5-7). Criterion 5: Repeating use of substances could result in the inability to successfully carry out professional (work), academic (school) or family (home) obligations. Criterion 6: Despite the problems the individual may have in his/her social and interpersonal relationships, the substance use does not stop. Criterion 7: Staying away or withdrawing from social, familial, professional or recreational activities and hobbies due to substance use (APA, 2013, p.483).

The third grouping (risky use) has two criteria (Criteria 8-9). Criterion 8: Repeated use of the substance even in physically hazardous situations. Criterion 9: Despite the hazardous use of the substance that may result in psychological or physical issues most likely intensified by the use, the individual does not stop the substance use. The focus in this criterion is on the individual's inability to stop using the substance despite its adverse effects and not the existence or the problem per se (APA, 2013, p. 483).

Last but not least, the fourth grouping (pharmacological criteria) has two criteria (Criteria 10-11). Criterion 10: Tolerance; it is characterized either by the required increase of the dosage of the drug in order for the desired effect to be achieved, or by the significantly lower effect experienced after the usual dosage of the drug is taken. Tolerance is a challenging criterion to determine as it varies among individuals and substances, and it is related to a cluster of central nervous system (CNS) effects. History and lab tests could be helpful but tolerance needs to be distinguished from the variability and the sensitivity of the individual to the particular substance. For example, there could be a big difference in tolerance between a first-time alcohol drinker and one with a drinking history after consumption of a few drinks. The former could have little effects of intoxication whereas the latter could exhibit incoordination or slurred speech (APA, 2013, p. 484).

Criterion 11: Withdrawal; it is defined as "*a syndrome that occurs when blood or tissue concentrations of a substance decline in an individual who had maintained prolonged heavy use of the substance*" (APA, 2013, p. 484). When an individual experiences withdrawal symptoms it means that it is more likely than not to consume the substance for symptom relief. Like tolerance, withdrawal symptoms differ a lot across substances and each substance class has its own separate withdrawal criteria. Certain substances have more obvious physiological

withdrawal symptoms and some less apparent. Symptoms of tolerance or withdrawal are not mandatory for an SUD diagnosis and they are not taken into consideration when they occur as a result of a medical treatment. However, in the case where the individual uses prescription drugs inappropriately, then an SUD could be correctly diagnosed if there are symptoms of an uncontrollable drug-seeking behavior.

SUD severity is determined by the number of symptoms present; i..e., if two to three symptoms are present then the SUD severity is marked as “mild”, if the symptoms present are four to five the SUD severity is marked as “moderate”, and if the symptoms present are six or more then the severity is marked as “severe”. There are four specifiers for SUD, i.e., "in early remission," "in sustained remission," "on maintenance therapy," and "in a controlled environment." definitions of which are given in the context of the criteria sets respectively (APA, 2013, p. 484).

The DSM-5 (APA, 2013) provides specific codes that apply to the specific class of substances and need to be noted by the clinician accordingly. Moreover, each class of substances has its own diagnostic criteria but since they follow the structure of the four main SUD groupings, for the purpose of this paper will not be detailed for all 10 substance classes; they will rather be included in the exploration of the overarching SUD category.

Epidemiology of SUDs

Research has been extensive in exploring SUDs prevalence since it is a challenging task due to the different categories of substances falling under the SUD umbrella, such as alcohol and an array of other illicit and non-illicit drugs. To this end, big volumes of the literature body have either investigated alcohol use disorders (AUD) or drug use disorders (DUD) separately, thus making the overall epidemiology statistics for SUD difficult to define. Last, but not least, the

biggest part of the literature body has explored multiple SUDs, which makes sense since an SUD almost never appears in isolation.

Literature however has agreed that SUDs are common disorders, which contribute significantly to the global public health and account for a substantial proportion of the disease burden (Whiteford, Ferrari, Degenhardt, Feigin, & Vos, 2015). In the past, policy on health issues was solely determined based on mortality statistics, thus undermining the overall impact of mental disorders with lower mortality and high impairment and disability throughout life, such as SUDs. The lack of understanding the epidemiology of these disorders and the effect of culture on them made the collection of global epidemiological data challenging and delayed treatment protocols (Jorm, 2012; Wang et al., 2007).

Prevalence, age and gender differences. Overall, SUDs are among the most prevalent mental disorders worldwide. They are contributing exceedingly to the world's morbidity and mortality rates, have high comorbidity with physical and mental disorders, and are highly disabling (Blanco et al., 2007; Grant et al., 2016; McCabe, West, Strobbe, & Boyd, 2018).

United Nations Office on Drugs and Crime (NDOC, 2010) reported that globally, individuals from 15 to 64 years who have used drugs once in the past year are reported to be between 180 and 250 million people. The data is estimated from 217 countries/territories in Africa (55), United States of America (45), Asia (51), Europe (47) and Oceania (19). More specifically, 15 million people were illicit opiate drug users with opium prevalence to be the highest in Asia (at least 3 million people) where 60% of the world's opium consumption takes place (excluding China, India and Myanmar), followed by East and Southeastern Europe (2 million people) and West and Central Europe and North America (1.2 million people each). Heroin prevalence is the highest in India with over 2 million users, followed by Europe

(excluding Turkey and Russian Federation) with 1.6 million users, the USA with 1.5 million users and the Russian Federation with 1.49 million users respectively. Cocaine users are the highest in North America (6 million), followed by West and Central Europe (3 million), and South America (2 million). Cannabis prevalence is the highest in North America (31 million) followed by South Asia (27 million), West and Central Europe (20 million) and West and Central Africa (16 million at least). Lastly, amphetamine users are the highest in East and Southeast Asia (at least 5 million), followed by North America (3 million) and West and Central Europe (1.5 million).

In order to improve health care for individuals with SUDs, it was imperative to understand not only the figures and dispersion of the disorders among countries all over the world, but also to measure the overall disease burden incorporating disability along with mortality. In 1990, the first Global Center of Disease Study (GCDS) reported that neurological, mental and SUDs were found to be a compelling percentage of the world's disease burden (Murray, Lopez, & World Health Organization, 1996). The world's disease burden was defined using a health metric system in which the years lived with the disease (non-fatal component) and the years lost due to earlier than anticipated mortality (fatal component) were accounted for. The sum of the two components is called disability-adjusted life years (DALYs) and defines the disease burden.

In the latest SCDS that accessed an expanded list of disorders among males and females among 187 countries in 21 world regions and 20 different age groups, the SUDs accounted for 14.7% (37 million) of DALYs across lifespan. Age-wise, SUDs increased in early adulthood and remained consistent among age groups with men being accounted for more DALYs than women. Regionally, the burden in developed countries was 1.3 times higher compared to the

one of the developing countries, with SUDs having three times higher DALYs in Central Asia and Eastern Europe compared to sub-Saharan Africa (Whiteford et al., 2015).

Research within Europe is still young, as European countries have been working on collecting data on SUDs prevalence only over the last couple of decades. The advantage though is that research data is gathered under a unified and harmonized method by the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA), thus making it easier to compile and compare results among countries. On the other hand, each country is driven by different regional and cultural aspects that also play a role into the specific drugs used (Griffiths, Mounteney, Lopez, Zobel, & Götz, 2012).

In the latest report for Europe based on the DSM-5 (APA, 2013) criteria for DUD, it was estimated that: (a) 24 million adults (15-64) had used cannabis in the previous year and 87.6 million in a lifetime; (b) 3.5 million adults had used cocaine in the previous year and 17 million in a lifetime; (c) 2.6 million people used MDMA in the previous year and 13.5 million in a lifetime; (d) 1.7 million people had used amphetamines in the previous year and 11.9 million in a lifetime; (e) high-risk opioid users were reported to be 1.3 million out of which fatal overdoses were 84%; and (f) three percent of the 15 to 16 year old students in 24 countries used new psychoactive substances (around 670) in the previous year and four percent in a lifetime (EMCDDA, 2018)

The same study revealed that a total of 56 million males reported to have tried illicit drugs in their lifetimes, as compared to 36.3 females. The ratios varied per drug, with cocaine having the highest rate between males and females of two-point-two to one, cannabis one-point-five to one, and MDMA and amphetamines two to one respectively. Cannabis was found to be the most used drug among all ages however its lifetime use level varied greatly between

countries with France on top with 41% prevalence of adults and Malta at the bottom with 5% prevalence of adults. In terms of age, 26.3% of young adults (15-34) have used cannabis in their lifetime and 14.1% in the previous year. 17.4% of this age group was 15 – 24 years old with France again leading in prevalence rates (21.5%) and Hungary being as low as 3.5%. The ratio of cannabis user among young adults in the previous year was two to one.

Europe's latest report on AUDs at primary health care (PHC) settings included Italy and Spain as representative countries of the Mediterranean region, Germany as representative of the central-West and Western regions, and Hungary, Latvia, and Poland as representative countries of the central-East and Eastern European regions. The average AUDs prevalence was reported at 11.8%, with Latvia being the highest (15.1%) and Hungary the lowest (7.5%). Males' probability to be diagnosed with AUDs was at least three times higher than the females.

In Greece, prevalence of young adults (15-34) DUDs use of cocaine was reported to be 0.2% in the last 12 months and 0.7% in a lifetime (Mounteney et al., 2016). However, based on the latest comprehensive report of the EMCDDA (2018), these figures seemed to be a bit higher; estimated to be 0.6% in the last 12 months for young adults and 1% in a lifetime for adults (15-64 years old). The same report also estimated MDMA prevalence at 0.4% in the last 12 months for young adults and 0.6% in a lifetime for adults, and cannabis prevalence at 4.5% in the last 12 months for young adults and 11% in a lifetime for adults. There were no estimates for amphetamines. The problematic use of opioids in the EMCDDA (2018) report was estimated to be 2.1 – 2.9 in 1,000 cases, which was aligned with the EKTEPN (2017a) yearly report that estimated problematic opioid use in Greek adults to be 2.38 in 1,000 cases.

Greek males reported excessive use of cannabis as compared to females (15,8% males vs. 6,3% females) with the age group of 35-49 years old to report the highest lifetime cannabis use

14,9%) as compared to older adults of 50-64 years old (6.3%). Adolescents and young adults of 15-24 years had the highest lifetime percentages of cannabis use (17%), with 9% of them reporting use over the last 12 months and 2% reporting very recent use (in the last 30 days).

The prevalence of excessive alcohol use in Greece (more than six drinks in a row for males and more than four drinks in a row for females, more than once a month over the last 12 months) was reported to be 7.3% in the general population. Younger adults (18-34 years old) reported much higher prevalence rates (11.5%) as compared to older adults of 35-49 years old (6.8%) and 50-64 years old (3.8%). 20.1% reported being drunk at least once in the last 12 months with younger adults having again higher percentages (41%) in comparison to older adults of 35-49 years old (13.6%) and 50-64 years old (7%). Greek males reported higher rates of alcohol consumption both on a weekly basis (57.6% males vs. 30.4% females) and on a daily basis (16.1% males vs. 4.9% females) (EKTPN, 2017b).

Comorbidity with mental diseases and physical health illnesses. As expected, SUDs have a wide comorbidity range with almost all mental diseases. In the DSM-5 (APA, 2013) SUDs are found to be comorbid with ADHD (p. 65), other specified Tic disorder (p. 85), schizophrenia (p. 105), bipolar disorder (BD) I (p. 132), BD II (p. 139), persistent depressive disorder (p. 171), social anxiety disorder (p. 208), panic attacks (p. 217), agoraphobia especially with alcohol use disorder (p. 221), post-traumatic stress disorder (PTSD) (p. 280), shift work type disorder (p. 398), oppositional defiant disorder (p. 466), intermittent explosive disorder (p. 469), pyromania (p. 477), kleptomania especially with alcohol use disorder (p. 479), antisocial personality disorder especially with alcohol use disorder (p. 498) and other hallucinogens (p. 527), conduct disorder especially with cannabis disorder (p. 515), voyeuristic, exhibitionistic and frotteuristic disorders (pp. 688, 691, 694), pedophilic disorder (p. 700), short duration

hypomania (p. 789), persistent complex bereavement disorder (p. 792), suicidal behavior (p. 803) and other SUDs.

In a more recent worldwide systematic-review and meta-analysis investigating the comorbidity between SUDs and anxiety and mood disorders including studies from 17 countries, it was suggested that both AUDs and DUDs were highly associated with anxiety disorders (GAD, panic disorder and PTSD) and mood disorders (depression and BPD) (Lai, Cleary, Sitharthan, & Hunt, 2015).

In the US, the National Institute on Drug Abuse (NIDA, 2018) reported significant comorbidity between SUDs and GAD, PTSD, panic disorder, BD, depression, ADHD, BPD, APD and psychotic illnesses. It is worth mentioning that one in four individuals with MDD, BP and schizophrenia, all illnesses that seriously impair the individual's life, were found to also have SUDs. An epidemiologic survey on alcohol and related conditions also in the US indicated that AUDs are associated across the board with BD I, MDD, BPD, APD, and other SUDs. Lifetime AUDs were associated with PTSD, persistent depression, GAD, and panic disorder (Grant et al., 2015). On the other hand, DUDs were found to be comorbid across the board with AUD and nicotine use disorder. In the last twelve months DUDs were associated with MDD, BD I, PTSD, BPD, APD and schizotypal personality disorder, while lifetime DUDs were associated with MDD, dysthymia, GAD, BD I, PTSD, BPD, APD, panic disorder and schizotypal personality disorder (Grant et al., 2016).

In Europe, research findings are not that extensive however the results are similar. The latest EMCCDA's (2015) report on the comorbidity of SUDs and mental disorders with data from three countries (France, Spain and United Kingdom) suggested that SUDs were comorbid with anxiety disorders and MDD. In Greece, research is even sparser and focuses either on

specific SUDs or specific mental illnesses. For example, research suggests that SUDs are associated with depression, BD, PDs, GAD, and panic attacks (Artsanou, 2015) while heroin use is associated with psychosis and personality disorders (Rentas, 2018).

SUDs are also associated with physical health illnesses. Research suggests that SUDs are medically comorbid with a wide array of chronic diseases. Chronic pain is associated with the abuse of opioids and addiction, and it is estimated that opioids prescription is being misused by 10% of chronic pain patients (Garland, Froeliger, Zeidan, Partin, & Howard, 2013). A most recent scientific investigation in the US between SUDs and chronic diseases (arthritis, diabetes, asthma, chronic kidney disease, hypertension, acute respiratory disorders, heart disease, cancer, hepatitis, etc.) revealed a significant prevalence of SUDs in these chronically diseased patients. Patients with comorbid SUDs and chronic illnesses were also much more prone to be hospitalized as compared to the subjects with chronic illnesses but not SUDs (Wu et al., 2018).

The latest global status report on alcohol and health by the WHO (2018) suggested that heavy or chronic alcohol consumption was linked with and/or had the largest contributory impact to mortality rated due to: (a) alcohol-related liver, colorectal and esophageal cancers; (b) high-risk for diabetes mellitus; (c) fetal alcohol syndrome and alcohol poisoning; (d) cardiovascular diseases; (e) digestive diseases, such as liver cirrhosis and pancreatitis; (f) severe injuries and accidents; and (g) epilepsy and other neuropsychiatric disorders.

Tobacco use is one of the main drivers of the SUDs medical comorbidities and is the leading cause of early onset of diseases and deaths in the US. Lung cancer and other forms of cancer (liver, colorectal, etc.), impaired function of the immune system, diabetes, rheumatoid arthritis, macular degeneration in older patients, and inflammation diseases are illnesses in which there is a big smoking contribution (Courtney, 2015). Just as with all SUDs, tobacco is also

comorbid with other SUDs as a detrimental percentage of people who are treated for SUDs (at least 80 percent of them) use tobacco (Schulte & Hser, 2013).

SUDs are also increasing the risk of infectious diseases, such as Human Immunodefiency Virus (HIV) and Hepatitis C Virus (HCV) due to injecting drug use and risky sexual behaviors associated to DUDs (El-Bassel, Shaw, Dasgupta, & Strathdee, 2014; Klevens, Hu, Jiles, & Holmberg, 2012). It is evidenced that acute substance abuse leads to accidents, overdoses and deaths, while chronic substance abuse affects biology and neurology of the users by altering their functions (Abadinsky, 2014).

In the most recent global systematic review across 77 countries, including Greece, it was found that the prevalence of HCV in injecting drug users was much higher than the prevalence of HIV. Eastern Europe and East and South-East Asia had the largest HCV-positive injecting drug user subjects (above 65%), while in Greece HCV prevalence among this population was at 50% (Nelson et al., 2011).

Risk Factors

As per DSM-5 (APA, 2013), the risk factors for an individual to develop an SUD are of environmental, genetic and physiological, and temperamental nature. Under the environmental domain, a wide array of factors is considered, such as prenatal and postnatal substance use by the parents, cultural attitudes towards the substance (especially alcohol), living in an unstable or abusive home environment, stress, peer pressure to use, easy access to the substance, low socioeconomic status (especially for cannabis and tobacco use), having a psychiatric condition, associating with dealers and users, and of course the presence of another SUD. Genetic and physiological factors have to do with the degree of heritability of the SUDs, as heritable factors contribute between 30% and 80% of the total variance in risk of cannabis use, 40 to 60% for

alcohol use and 50% for tobacco use. Across lifespan, genetic factors play a significant direct and indirect role in the onset of the SUD as the user goes through puberty and into adult life and interacts with the environment, e.g., the individual, family, peer, and social factors. Behavioral disinhibition is influenced by genetics as well, and plays a key role in the onset of the SUDs in youths in families with substance and antisocial problems. Especially for alcohol use, preexisting schizophrenia or BD, impulsivity and low sensitivity to alcohol are linked with high vulnerability to AUD. Temperamental factors influencing the development of SUDs are considered to be: (a) impulsivity, and sensation and novelty seeking affecting the development of most AUDs; (b) high behavioral disinhibition, risk-taking behaviors, illegal activities, and comorbid mental illnesses (e.g., depression, BD, schizophrenia, childhood or adolescence conduct disorder, adult antisocial personality disorder, anxiety, etc.) affecting the development of most SUDs (APA, 2013, p. 483-585).

It is worth noting that all risk factors for SUDs are more often than not influencing one another making it difficult to draw clear-cut conclusions. For example, a recent meta-analysis investigating AUD genetic risk factors based on 12 twin and five adoption studies, suggested that AUD is approximately 50% heritable while evidence was found that shared environmental factors contributed to the familial aggregation of AUDs (Verhulst, Neale, & Kendler, 2015). A biological link was also found between early childhood experiences and the development of SUDs as there is an epigenetic interaction between childhood traumatic experiences and addictive phenotypes (Enoch, 2011). Other interconnections were found in a systematic review and meta-analysis which, revealed that risky sexual behaviors were significantly associated with childhood sexual abuse (Abajobir, Kisely, Maravilla, Williams & Najman, 2017), both of which are risk factors for SUD development (Boroughs et al., 2015). Another recent meta-analysis

investigating SUDs and risky sexual behavior suggested that the relationship of SUDs and risky sexual behavior was present and persistent regardless of what kind of substance the subjects have used, even though alcohol was the substance used the most (Ritchwood, Ford, DeCoster, Sutton & Lochman, 2015). Lastly, age played a significant role in the development of an AUD as research suggests that subjects using alcohol for the first time below the age of 18 and especially between the ages of 11 and 14 are at a heightened risk of developing AUD (DeWit, Adlaf, Offord, & Ogborne, 2000; Liang & Chikritzhs, 2015). Other risk factors that could aggregate early onset of SUDs in young individuals are impulsivity, conduct disorder, childhood adverse events and other disorders, such as ADHD (Mannuzza et al., 2008; Verdejo-García, Lawrence, & Clark, 2008).

It is evident that there is multidimensionality and interaction between the risk factors for SUD development, but almost in the center of each risk factor, childhood maltreatment (CM) was present. CM is a broad term that entails physical and emotional neglect and physical, emotional and sexual abuse in a child's early years of development mainly in the relationship between the child and the primary caregiver (CDC, 2014; World Health Organization & International Society for Prevention of Child Abuse & Neglect, 2006). CM is connected to adverse short and long-term health consequences and is considered to be a significant public health issue (Merrick & Latzman, 2014). Evidence between childhood trauma and adult SUD - among other adult diseases and disorders - has been well documented in epidemiological studies by SAMSHA (2016). Felliti and associates (1998) were among the first scholars who performed adverse childhood experiences studies (ACES) and drew several trajectories from CM to various adult disorders, including SUDs. Their groundbreaking results led to more research on the

ACES effects in adult life, finding a significant connection between CM and SUDs (Dube et al., 2003) even factoring out history of family AUD (Dube, Anda, Felitti, Edwards, & Croft, 2002).

There are several biological, behavioral and familial pathways connecting child maltreatment and trauma to SUDs, based on which scholars drew several theoretical models for SUD development.

Theoretical Models

An extensive body of research has investigated the theoretical models of the development and maintenance of addiction in order to propose relevant treatment protocols. The most prevalent theoretical models in the literature body will be briefly discussed.

Automatic processing theories. This model suggests that addictive behaviors are shaped through mechanisms that do not require a conscious decision or specific intent. The following models fall under the category of automatic processing theories:

(1) Learning theories: Initially derived from animals and later on were applied to humans suggesting that behavior is not the result of a self-conscious decision rather it is a result of learned associations between cues, responses and reinforcers. Operant conditioning (positive and negative reinforcement, punishment and extinction) and classical conditioning are examples of learning theories (West, 2013, pp. 35-39). There is some evidence in human behaviors, which exhibited patterns of acquisition and extinction that could be predicted by operant and classical conditioning models in relation to the reward-related learning (Hyman, Malenka, & Nestler, 2006). Treatment protocols of cue-exposure techniques have not yielded positive results (Conklin & Tiffany, 2002) however scholars continue investigating with some promising studies (Kaplan, Heinrichs, & Carey, 2011).

(2) Drive theories: Addiction is linked to powerful drives, which are controlled by homeostatic mechanisms in an effort to keep specific physiological domains in certain limits. Examples of this theory are the "brain disease model" of addiction in which addiction-provoked changes in the brain result in an uncontrolled need (craving) to engage in the addictive behavior (Volkow, Koob, & McLellan, 2016), and the "serotonin theory of nicotine addiction" in which withdrawal from nicotine was associated with symptoms (carbohydrates cravings, depressed mood, etc.) similar to decreased serotonin levels in the central nervous system (CNS) (Hughes, 2007). There is some evidence that most of addictive behaviors affect and are affected by drives that occur naturally, i.e., hunger (Kokavec, 2008; Yeomans, 2010) and that CNS changes could result to abnormal homeostatic operations (Koob, 2008). Treatment protocols based on the drive theories imply periods of enforced abstinence assuming that without the behavior, the drive will subside. There is evidence that when smokers are hungry their craving for nicotine is increased (Leeman, O'Malley, White, & McKee, 2010) and that glucose ingestion is associated with reduced cigarette craving (West, Courts, Beharry, May, & Hajek, 1999).

(3) Inhibition dysfunction theories: Impaired control is in the center of the neurobiology of addictions as it suggests that the mechanisms, which control impulses, are impaired in the addicts. Examples of this theory are the "dysfunction of inhibitory brain circuitry" theory which suggests the maladaptive responses and frequent relapses of the addicts could be considered compulsive due to their inhibitory brain circuitry dysfunction (Lubman, Yücel, & Pantelis, 2004), and the "orbitofrontal gyrus (OFG) dysfunction" mostly in cocaine users which suggests that the function of the OFG is reversed due to cocaine abuse (Goldstein et al., 2001). Treatment protocols involve inhibitory control training, either through self-control training which has

yielded very positive results especially in aggression (Denson et al., 2011), or through methylphenidate medication, such as Ritalin (Goldstein et al., 2011).

(4) Imitation theory: It is not specific to addictions but is considered relevant as it suggests that addiction is linked to reproduction of behavioral patterns and absorption of concepts and identities. Evidence of this theory is the significant association between modeling (from a parent, peers or the media) and heightened motivation to engage in or uptake of addictive behaviors (Anderson et al., 2009; Kandel & Andrews, 1987; Lovato et al., 2011).

Goal focused theories. This model suggests that addictive behaviors arise either because addicts seek pleasure or avoid distress. The theories of this model are:

(1) Positive reward theories: Unlike with the automatic processes theories in which there is no conscious decision, here it is suggested that the addict engages in this behavior because it is satisfactory and rewarding. It is evidenced that there is no habituation of the brain to some drugs even after repeated use, thus maintaining a power pull towards the addictive behavior as it remains rewarding over and over again (Koob & Le Moal, 2001). With steroids, it is suggested that the body image created could act as a powerful attraction to this type of drugs (Kanayama, Brower, Wood, Hudson, & Pope Jr, 2009). The same could also be the case with smoking, which is sought in order to achieve the attractive low body weight image (Cawley, Markowitz, & Tauras, 2004).

(2) Acquired need theories: They are prevalent in the addiction theoretical models and see addiction as a disorder. The individual starts taking a drug, develops a dependence on it due to its positive effects, the CNS adapts and when the drug is not present there are aversive withdrawal symptoms which are avoided by taking more drugs (Koob, Sanna, & Bloom, 1998; De Vries & Shippenberg, 2002);

(3) Pre-existing need theories: The definition itself suggests that addictive behaviors meet significant pre-existing needs. There is evidence that childhood abuse or distress is present in most addicts (Simpson & Miller, 2002). Examples of this model are the: (a) Self-medication theory: it is ascertained that psychological issues linked to early childhood experiences with aversive effects to the individual, are relieved by addictive behaviors which could numb the feelings, reduce the negative effects, or provide an escape (Khantzian, 1997); (b) Attachment theory: it is suggested that individuals with insecure attachments engage in addictive behaviors as a maladaptive coping mechanism to repair the damage, however the problem only becomes worse as substance abuse results in dependence and damage to their psychological structures. (Flores, 2004); and (c) Affect regulation theory: it ascertains that SUDs are the result of a maladaptive affect regulation mechanism. Individuals engage in addictive behaviors hoping their problems will be overcome, but at the same time they continue the addictive actions because their problem is exacerbated by them, ending up in an endless vicious addictive cycle (Cooper, Frone, Russell, & Mudar, 1995).

Biological theories. Addiction is considered as a "brain disease" because certain neural pathways of the brain become disorganized resulting in the amplification of certain motivational processes due to the use of certain drugs. It is evidenced that the neural circuitry involving the amyglada, the orbitofrontal cortex, the anterior cingulate cortex, the hippocampus and the hypothalamic and septal nuclei, is suffering changes in its structure due to addictive behaviors and thus contributes to the prolonged engagement in these behaviors (Brewer & Potenza, 2008). There is also significant evidence in the literature body about the importance of the midbrain dopamine pathway in the reward system and the role of the prefrontal cortex in the addictive behaviors (Ahmed, 2005; Kim et al., 2011; Peters, Kalivas, & Quirk, 2009). Treatment protocols

under this model involve medication to treat addictive behaviors and possibly surgical procedures.

Integrative theories. These theories could be the subject of a single study, but for the purposes of this paper they will be briefly described. Examples of these theories are: (1) Self-regulation theories: it is proposed that the addicts try to exercise self-control utilizing their mental capacity which is finite and is therefore depleted by this process. The theorists use the term "ego depletion" to explain the process (Baumeister & Vohs, 2007); and (2) Self-determination theory: a combination of cognitive, organismic, psychological needs, causality and goal-focused theories that are integrated into a motivational theory (Deci, Eghrari, Patrick, & Leone, 1994; Ryan & Deci, 2000); and (3) Excessive appetites theory: as the term implies, addiction is viewed as an appetite consumption for specific experiences. At first there is pleasure linked to the addictive behaviors, which later on is transcending to lack of control when the drug is craved and conflict about the frequency of the drug's use (Orford, 2001).

Difference between Screening and Assessment

Recognizing the nature and extend of an individual's SUD and how it interacts with other areas of life is crucial for accurate diagnosis, proper case management and effective treatment. For over two decades now, the SAMSHA through its Center for Substance Abuse Treatment (CSAT) has been providing Treatment Improvement Protocols (TIPs) as optimum practice guidelines for the treatment of SUDs in different populations and settings. SAMSHA/CSAT has paid special attention to the screening and assessment processes publishing specific TIPs with guidelines for screening and assessing SUDs. The first TIP was TIP3 for screening and assessing adolescents for AUD and DUD (McLellan & Dembo, 1993) followed by TIP7 for screening and assessing adults in the criminal justice system (Inciardi, 1994) and so forth and so

on. Since then SAMSHA/CSAT updated and replaced both the TIP3 with TIP31 (SAMSHA, 2012) and the TIP7 with TIP44 (SAMSHA, 2005). TIPs have also been published for specific populations, such as TIP42 for individuals with SUD comorbidity with other disorders (Sacks, Ries, Ziedonis, & Center for Substance Abuse Treatment, 2005), TIP51 addressing the specific needs of women (SAMSHA, 2009), etc.

In all TIPs, it is made clear that screening and assessment are two different processes with different purposes using different tools. Screening is the process of asking specific questions in order to determine the presence of a specific problem. It does not necessarily identify the nature or the severity of the problem as such, but it determines if further evaluation is needed or not. To this end, during screening there is no DSM-5 (APA, 2013) diagnosis for any SUD, only identification of possible problematic areas. Little or no special training is usually required for the screening process and the use of any screening tools, as most of them are limited in focus, fast to administer and have a quite simple form. Since the purpose of screening is to determine whether or not an individual needs further assessment, the result of screening is usually a simple yes or no. Lastly, there are rarely any legal or licensed constraints as to who can be qualified to conduct screening (Sacks et al., 2005, pp. 65-71; SAMSHA, 2005, pp.7-40; SAMSHA, 2009, pp. 57-74; SAMSHA, 2012, pp. 1-42).

Assessment, on the other hand, is a process of determining the nature of the issue and its severity based on which a treatment plan is being developed. The process entails the collection of key information and the engagement with the patient through which the counselor will be able to understand how ready the client is for change, if there are any problematic areas and what are they, as well as the client's strengths. Unlike the screening process, the assessment process is conducted by experienced and qualified professionals for the administration and interpretation of

the assessment tools. A DSM-5 (APA, 2013) diagnosis is crucial for an individual, especially since in specific settings and population it may have legal ramifications in case of offenders, etc. Lastly, an objective screening and assessment process could produce a treatment plan that is tailored to the client's needs and thus produce better results (Sacks et al., 2005, pp. 65-71; SAMSHA, 2005, pp.7-40; SAMSHA, 2009, pp. 57-74; SAMSHA, 2012, pp. 1-42).

Substance Abuse Screening Tools: Review

There are a number of screening tools available to mental health professionals and physicians to assist them in detecting possible problems with alcohol consumption and illicit drug use dependence (Mdege & Lang, 2011). For the purpose of this paper, the most prevalent and well researched screening tools will be discussed for three categories: (a) alcohol use/abuse; (2) illicit drug use/abuse; and (3) substance use/abuse screening instruments.

Alcohol use/abuse screening tools. The three most widely used self-administered and quick to use screening instruments detecting problematic alcohol consumption and dependence are the following: (1) AUDIT: Alcohol Use Disorders Identification Test (Babor & Grant, 1989); (2) SMAST: Short Michigan Alcohol Screening Test (Selzer, Vinokur, & van Rooijen, 1975), which is a shortened self-administered version of the Michigan Alcoholism Screening Test (MAST) (Selzer, 1971); and (3) CAGE: Cut Down, Annoyed, Guilt, Eye-opener questionnaire (Ewing,1984).

Two of them, the AUDIT and the SMAST, were used in 2003 by SAMSHA/CSAT in the biggest ever national screening and brief intervention program of its kind interviewing close to 700,000 diverse subjects (Caucasian, Hispanics, American Indians, African-Americans and Alaska Natives) in six US states for SUDs. Patients at a wide array of medical settings were screened for alcohol consumption and illicit drug use. The ones who screened positively were

put under three categories based on their severity scores, as follows: (a) in need of brief intervention; (b) in need of brief treatment; and (c) in need of referral to a special facility. SAMSHA/CSAT chose two AUD screening tools for this purpose: (1) AUDIT: Alcohol Use Disorders Identification Test (Babor et al., 1989) and (2) CAGE: Cut Down, Annoyed, Guilt, Eye-opener questionnaire (Ewing, 1984). For DUD screening, SAMSHA/CSAT chose one screening tool, the DAST: Drug Abuse Screening Test (Skinner, 1982) (Madras et al., 2009).

The AUDIT questionnaire (Babor et al., 1989) was sponsored and developed by a collaborative project of WHO in order to screen for problematic alcohol consumption (Saunders, Aasland, Babor, De la Fuente, & Grant, 1993). It is a short and fast self-administered 10-item questionnaire designed to identify hazardous and harmful alcohol use, as well as possible dependence in adult males and females. It is intended for use by trained professionals or paraprofessionals and it is administered in less than two minutes. Scores 0–7 indicate lower risk, 8–15 increasing risk, 16–19 higher risk, and 20+ possible dependence. AUDIT was initially developed for use in PHC (Babor, Higgins-Biddle, Saunders, Monteiro, & World Health Organization, 2001; Piccinelli et al., 1997; Rigmaiden, Pistorello, Johnson, Mar, & Veach, 1995; Volk, Steinbauer, Cantor, & HOLZER III, 1997) and is now in its second edition with its use having been extended to secondary care (Babor et al., 2001), emergency rooms (Cherpitel, 1995), college students (Fleming, Barry, & Macdonald, 1991), elderly hospital patients (Powell & McInness, 1994), unemployed people (Claussen & Aasland, 1993), and people with low socio-economic status (Isaacson, Butler, Zacharke, & Tzelepis, 1994).

The questionnaire's reliability was tested in a young adult college sample and 832 clients in drinking driver treatment programs in the US, where it was reported to have high internal consistency (Fleming et al., 1991; Hays, Merz, & Nicholas, 1995). Compared to other tests, high

correlation scores were found between the AUDIT and the MAST (r=.88) for both men and women (Bohn, Babor, & Kranzler, 1995), and between the AUDIT and the CAGE (r=.78) in a sample of ambulatory care patients (Hays et al., 1995). Its accuracy was also found equal or higher compared to the MAST and CAGE questionnaires in a broad range of criterion measures (Allen, Litten, Fertig, & Babor, 1997; Cherpitel, 1995; Clements, 1998; Hays et al., 1995). In a systematic review, comparing AUDIT with other questionnaires, including the MAST and the CAGE, the AUDIT was found to be the best screening tool covering a complete range of alcohol problems in primary care settings (Gitlow & Peyser, 1980).

More recent studies confirm previous findings. A study that screened 810 Nigerian college students for alcohol problems found AUDIT to be valid reporting 0.935 sensitivity and 0.915 specificity for scores >5 (Adewuya, 2005). A review on the psychometric properties of the AUDIT, e.g., test–retest reliability and internal consistency, found them to be favorable. Its validity detecting alcohol dependence and less severe alcohol issues was also evidenced, however and as in the case of the Nigerian study, the recommended cut-off point of 8 for hazardous drinking and alcohol dependence detention often needed to be lowered, especially in female population (Reinert & Allen, 2007). Lastly, AUDIT has been tested and validated in a multinational sample of six different countries across genders and was found to provide good discrimination in different settings where this population was encountered (Milhorn, 2018, p. 191-2). It has also been translated in approximately 20 languages, including Greek, making it the alcohol-screening tool of choice globally.

In Greece, Moussas and associates (2009) tested the reliability and validity of the Greek version of the AUDIT in a sample of 218 subjects. Internal reliability was found at r=0.80 for both the controls and the alcohol-dependent subjects with the former having significantly lower

average scores (t test $P < 0.001$) than the latter. AUDIT's sensitivity was found to be 0.98 and its specificity 0.94 respectively for scores >8 indicating a high validity.

The SMAST questionnaire (Selzer et al., 1975) is a shortened version of the MAST (Selzer, 1971) which was the first alcohol screening tool published and has been proven to be useful in clinical settings since (Carey, 2002). The SMAST is a self-administered 13-item questionnaire intending to screen for lifetime alcohol use in adult males and females. Scores 0-2 indicate there is no problem with alcohol problematic use or dependency, a score of 3 indicates borderline alcohol problem, and scores of 4 or more indicate potential alcohol abuse. The initial results for SMAST validation produced acceptable results of the questionnaire's internal consistency reliability, and empirical validity. Estimates of internal consistency (Cronbach's alpha) were 0.93 for combined groups, 0.78 for alcoholics and 0.76 for non-alcoholics. Also, differentiation between male alcoholics and non-alcoholics was reported to have 90% overall accuracy with 94% valid positives and 14% false positives, indicating an error-free criterion (Selzer et al., 1975).

Several studies investigated the psychometric properties of the SMAST questionnaire since its development. Zung (1984) administered the SMAST orally to 120 psychiatric inpatients, out of which only one third had lifetime alcohol problems. The study reported results of respectable internal consistency reliability (Cronhbach's alpha) coefficient ranging from 0.84 for the previous three months to 0.90 for lifetime problems. Evidence of empirical validity was low producing classification accuracy rates from 65% to 83% across reference intervals, which is speculated to be a result of excessive rates of false positive and false negative decisions found in most conditions. Later, Fleming and Barry (1988) studied two samples of alcoholics with their non-alcoholic family members as controls. Internal consistency reliability (Chronbach's alpha)

was 0.57 and 0.62 for samples A and B respectively. The sensitivity was quite high (0.98 and 0.94 in samples A and B respectively), but the specificity was quite low (0.58 and 0.70 in samples A and B respectively). When the cut-off point was raised from 5 to 10, sensitivity fell to 0.92 and 0.85 in samples A and B respectively, and specificity was raised to 0.90 and 0.95 for samples A and B respectively, thus posing question marks for the utility of SMAST. Escobar and associates (1994), who studied 60 participants with alcohol problems in a primary health care setting, yielded similar results. SMAST's sensitivity was estimated to be 50.48% and specificity was 96.48% with positive and negative predictive values of 66.67% and 93.33% respectively. Its low sensitivity was not indicative for the questionnaire's use in primary health care settings.

Contrary to the doubts on the utility of the SMAST, its reliability, which was investigated in a meta-analytic study taking into consideration 16 published studies investigating the psychometric properties of the SMAST, was acceptable as its internal consistency reliability (Chronbach's alpha) was 0.79, indicating that the SMAST can be used for most research purposes (Shields, Howell, Potter, & Weiss, 2007). In comparison studies between the AUDIT and the SMAST, the questionnaire's validity with a cut-off score of 5 was tested in comparison to AUDIT (cut-off score of 8) in 287 primary care patients meeting the criteria for problematic alcohol use or dependence. SMAST-13's internal validity was found to be 0.85 as compared to AUDIT's internal validity of 0.86 suggesting that SMAST-13 is a valid instrument for detecting alcohol problems (Barry & Fleming, 1993). Hays and associates (1995) compared all three questionnaires in 832 clients at drinking driver treatment programs in Southern California and found SMAST's internal consistency reliability to be 0.84.

Overall, it is ascertained that the SMAST questionnaire needs to be used with care. In terms of other versions, it has been translated in Spanish and it is widely used in the US and Spanish-speaking countries.

The CAGE (Ewing, 1984) is a brief and a much shorter tool than the AUDIT and the SMAST questionnaires. This four-item questionnaire is designed to detect lifetime alcohol problems in clinical practice. It is non-confrontational, can be administered in less than a minute by any professional or paraprofessional without special training. The total score ranges from zero to four, with the recommended cut-off score to be 2 indicating problematic alcohol use or dependence even though in many studies 1 has also been used as the cut-off score (Clements, 1998; Fiellin, Reid, & O'connor, 2000).

Mayfield, McLeod, and Hall, (1974) initially validated the CAGE in 366 psychiatric inpatients in Virginia, US. Using 2 as the cut-off score, sensitivity was 0.81 and specificity was 0.89 respectively, while when using 1 as the cut-off score sensitivity increased to 0.90 and specificity decreased to 0.72 as expected. A meta-analytic study accessing CAGE's psychometric properties in primary care subjects, ambulatory medical patients and hospital inpatients using 2 as the cut-off score, reported that sensitivity ranged from 0.60 (ambulatory patients) to 0.71 (primary care patients) and 0.87 (hospital inpatients). Specificity ranged from 0.77, to 0.91 and 0.92 respectively (Aertgeerts, Buntinx, & Kester, 2004).

The CAGE was assessed in 17 psychiatric outpatients and 64 community people with no history of psychiatric issues and its test-retest reliability was found to be adequate at r=.80 showing little discrepancy (degree of change) between baseline and follow up (average change in score was 0.6 points) (Teitelbaum & Carey, 2000). In the latest review of Dhalla and Kopec (2007) it was suggested that CAGE is the most widely used tool for problematic alcohol

consumption and dependence. Its test-retest reliability ranges from 0.80 – 0.95 and was found to be adequately correlated with other screening tools (0.48-0.70). Its validity has proven to be adequate in different settings, such as psychiatric inpatients, medical inpatients and ambulatory medical patients. It is ascertained that it is not suitable for screening heavy or hazardous drinking and for this purpose the AUDIT is the screening tool of choice.

In Europe, a study of 3,564 college students at the Catholic University of Leuven in Belgium assessed the subjects for drinking behavior. Using 1 as the cut-off score, CAGE yielded 42% sensitivity, 87% specificity, a positive predictive value (PPV) of 36%, and a negative predictive value (NPV) of 90%. It was ascertained that since college students tend to binge drink, perhaps CAGE is not a viable instrument to detect such kind of behavior regarding alcohol abuse. When a change of the second question from "Have people annoyed you by criticizing your drinking?" to "Have people annoyed you by criticizing you're driving under the influence?" specificity decreased to 0.80 and sensitivity increased to 0.94 (Aertgeerts et al., 2000).

Like the SMAST, the CAGE has been translated in Spanish and has been used in the US and Hispanic/Latino populations. The CAGE's validity was verified in Brazil in 747 medical inpatients in the Federal University of Santa Catarina. Using 1 as the cut-off score CAGE's sensitivity was 93.8% while its specificity was 85.5% (Castells & Furlanetto, 2005).

Even though there are quite a few comparative studies between these questionnaires, as also mentioned above, there is only one study evaluating all three questionnaires. This short comparative study of the three questionnaires found the SMAST and the AUDIT to have higher reliability and lower standard error of measurement than the CAGE, most probably due to the fact that the AUDIT and the SMAST have more items than the CAGE (Hays et al., 1995).

Before we move on to the illicit drug use-abuse screening tools, it is worth mentioning one more screening tool for problematic alcohol use and dependence, the TWEAK: Tolerance, Worry, Eye-Opener, Amnesia, Cut-Down (Russell & Bigler, 1979). The TWEAK is a five-item scale questionnaire originally developed to detect risk drinking during pregnancy. It is self-administered and takes two minutes to complete. No special training is required for the administration of the TWEAK.

Illicit drug use/abuse screening tools. The two most commonly used screening tools to specifically detect drug dependency and abuses, excluding alcohol, are the following: (1) DAST: Drug Abuse Screening Test (Skinner, 1982); and (2) DUDIT: Drug Use Disorders Identification Test (Berman, Bergman, Palmstierna, & Schlyter, (2005a).

The DAST (Skinner, 1982) is a 28-item scale self-administered screening tool which detects problematic substance use and consequences in clinical settings over the last year. Scores range from 0-28 with a recommended cut-off score of 6 indicating a drug abuse or dependence issue. The original DAST was developed using the model of MAST (Gibbs, 1985) classifying subjects on a continuum of drug use severity from low to high. Two more adult versions have been developed by Skinner (1982); DAST-10 and DAST-20 with 10-item and 20-item scales respectively. Both questionnaires yielded high internal consistency (Cronbach's alpha) at 0.85, respectable test-retest reliability ($r>.70$) and exhibited a high correlation with the original DAST discriminating problematic drug use from problematic alcohol use (Gavin, Ross, & Skinner, 1989; Skinner & Goldberg, 1986; Yudko, Lozhkina, & Fouts, 2007).

DAST-20 has been used in the US (Cocco & Carey, 1998; Skinner, 1982) and Canada (Cassidy, Schmitz, & Malla, 2008; Saltstone, Halliwell, & Hayslip, 1994) and was found to have high reliability. Most specifically, it was tested in 223 subjects seeking help for drug and alcohol

problems (Skinner, 1982), 105 narcotic users (Skinner et al., 1986), 97 psychiatric outpatients with Axis I mental disorders other than SUDs (Cocco et al., 1998), 84 psychotic patients (Cassidy et al., 2008) and 540 female offenders (Saltstone et al., 1994) yielding high internal consistency with Cronhbach alpha scores of 0.92, 0.74, 0.81, 0.99 and 0.88-0.91 respectively. Its validity was evaluated in two of these studies reporting high sensitivity and specificity scores, e.g., 85% sensitivity and 73% specificity with a cut-off score of 3 in the 84 psychotic patients, and 89% sensitivity and 68% specificity with the same cut-off score in the 97 psychiatric outpatients. The DAST-20 has been translated in Finnish (EMCDDA, 2019a) but there are no studies published evaluating the Finnish version's psychometric properties.

DAST-10 has been evaluated in the US in 97 psychiatric outpatients (along with the DAST-20) yielding high internal consistency with Cronbach's alpha score of 0.86 and test-retest kappa of 0.71. The validity of the instrument was acceptable; cut-off scores had to be lowered for acceptable specificity (74% at cut-off score of 3) and sensitivity (86% for cut-off score of 3) (Cocco et al., 1998). It was translated in Spanish and was tested and validated in 95 drug and alcohol abusers and 127 control subjects with no drug or alcohol abuse reports. The participants were Hispanic/Latinos living in the US. The results yielded test-retest reliability scores of 0.90 and internal consistency (Chronbach's alphas) of 0.94 confirming the reliability of the Spanish version of the DAST-10 (Bedregal, Sobell, Sobell, & Simco, 2006). The coefficient alpha in the Spanish version was higher than the one in the English version (0.92) (Skinner, 1982). Discriminant validity of the DAST-10 was also statistically significant. DAST-10 was also validated in India in a study of 1,349 inpatient psychiatric unit subjects in Bangalore, out of which 361 were diagnosed with an SUD and 988 had no reported substance use issues. Internal consistency reliability (Cronbach's alpha) of DAST-10 was strong at 0.94 (Carey, Carey, &

Chandra, 2003). Specificity and sensitivity were also estimated in these studies, to which one more study in the US was included; all in psychiatric patients. In all four studies, DAST-10's sensitivity ranged from 65% to 90% and specificity ranged from 68% to 98%. PPV ranged from 35% to 90% and NPV from 93% to 99% at different cut off scores (Bedregal et al., 2006; Carey et al., 2003; Cocco et al., 1998; Maisto, Carey, Carey, Gordon, & Gleason, 2000).

Overall and as evidenced by numerous studies, DAST-10 and DAST-20 have good validity and reliability. The same stands for the initial longer version; internal consistency for DAST-28 has been found to be 0.94 in 250 psychiatric patients (Staley & El-Guebaly, 1990), 0.92 in 176 adult workers (El-Bassel et al., 1997), and 0.92 in 143 adults seeking evaluation at an adult ADHD clinic (McCann, Simpson, Ries, & Roy-Byrne, 2000) and in 176 union members including identified drug users and nonusers (El-Bassel et al., 1997).

The DUDIT is an 11-item scale designed to detect drug-related abuse in clinical settings and in the general public (Berman et al., 2005a). Total scores range from zero to 44 with recommended cut-off scores of 6 for men and 2 for women indicating all types of problematic drug use, such as hazardous use, abuse and dependence (Berman, Bergman, Palmstierna, & Schlyter, 2005b; Cruce, Nordström, & Öjehagen, 2007). It was initially validated in Sweden both in the 1,109 randomly selected individuals from the general public and in 154 prisoners with drug use issues enrolled in a rehabilitation setting, yielding good internal consistency results with Cronbach's alpha at .93 and .80 respectively (Berman et al., 2005b).

The DUDIT has been translated in 21 languages and has been validated in seven countries, mostly in Europe (Sweden, Norway, Hungary, the Netherlands and Turkey) but also in the US and South Africa. Even though the DUDIT has been translated in Greek, it has not been validated in Greece (EMCDDA, 2019b). The questionnaire has yielded very good internal

consistency results in Sweden with test-retest Chronbach's alpha scores of 0.94 in 181 offenders with mental health issues (Durbeej et al., 2010), 0.97 in 1,211 individuals assessed on-line for drug use (Sinadinovic, Berman, Hasson, & Wennberg, 2010) and 0.86 in 1,833 randomly selected subjects from the general population (Sinadinovic, Wennberg, & Berman, 2011). In Norway its internal consistency results were equally strong with Cronbach's alpha being 0.95 in 60 patients in SUD treatment (Landheim, Bakken, & Vaglum, 2006), 0.93 in 205 psychotic patients (Nesvåg et al., 2010), 0.94 in 110 prison inmates with drug abuse problems (Lobmaier, Berman, Gossop, & Ravndal, 2013), and 0.94 in 161 emergency psychiatric patients (Gundersen, Mordal, Berman, & Bramness, 2013). Similar were the results in Hungary (Matuszka et al., 2014), the Netherlands (Hildebrand & Noteborn, 2015; Hillege, Das, & de Ruiter, 2010), and Turkey (Evren, Ogel, Evren, & Bozkurt, 2014; Evren, Ovali, Karabulut, & Cetingok, 2014) with Chonbach's alpha scores of 0.92, 0.92-0.94 and 0.93 respectively.

Outside of Europe, the DUDIT performed relatively well in the US and South Africa. In the US it was used in 38 females with PTSD symptomatology in risk of drug use attending a yoga intervention (Reddy, Dick, Gerber, & Mitchell, 2014), and 153 outpatients with SUD in residential treatment (Voluse et al., 2012) yielding Chronbach's alpha scores of 0.74 and 0.94 respectively. In South Africa the DUDIT was used in younger population (M=16.2 years old) with childhood trauma yielding a good internal consistency result (Cronbach's alpha=0.89) (Martin, Viljoen, Kidd, & Seedat, 2014).

As with all other screening tools, when it comes to validity the cut-off scores needed to be lowered for optimum sensitivity and specificity scores. Lower cut-off scores increased sensitivity and lowered specificity and differed based on the population studied and the setting. More specifically: (a) in Hungary the cut-off score was 2 to obtain 95% sensitivity and 81%

specificity (Matuszka et al., 2014); (b) in Norway the cut-off score was 5 to obtain 0.92% sensitivity and 85% specificity (Gundersen et al., 2013); (c) in Turkey the cut-off score was 10 to obtain 96% sensitivity and 94% specificity (Evren et al., 2014); (d) in Sweden the cut-off scores ranged from 12 to 25 to obtain sensitivities ranging from 0.85 to 0.90 and specificities ranging from 0.90 and 0.88 respectively (Durbeej et al., 2010; Berman et al., 2005b); and (e) in the US the cut-off score was 8 to obtain 0.90 sensitivity and 0.85 specificity scores. Carey and associates (2003) suggested that the cut-off scores of the DUDIT need to be selected by the professionals depending on the purpose of the study, especially since the DUDIT has not been validated for the DSM-V and ICD-11.

SUD screening tools. These are conjoint brief screening instruments detecting alcohol and other drug abuse. The most well researched and commonly used instruments are the following: (1) ASSIST: Alcohol, Smoking and Substance Involvement Screening Test (WHO ASSIST Working Group, 2002); (2) SDS: Severity of Dependence Scale (Gossop, Griffiths, Powis, & Strang, 1992; Gossop et al., 1995); (3) SASSI-3: Substance Abuse Subtle Screening Inventory-3 (Miller & Lazowski, 1999); and (4) UNCOPE: Use, Neglect, Cut down, Objection, Preoccupied, Emotional discomfort (Hoffmann, Hunt, Rhodes, & Riley, 2003).

The ASSIST was sponsored and developed by the WHO (WHO ASSIST Working Group, 2002). It is a self-administered tool and its initial version was a 12-item scale designed to measure lifetime and past 3 months substance use, abuse and dependence of 10 substances through interviews. The first version of ASSIST (ASSIST-1) was translated and validated in 236 participants from nine different countries (Australia, Brazil, Ireland, India, Israel, Palestine, Puerto Rico as part of the US, UK, and Zimbabwe) and various medical settings, treatment sites and psychiatric facilities. The test-retest kappa scores ranged from good to excellent (0.58 to

0.90) depending on the substance, and internal consistency measured by Cronbach's alpha ranged from 0.85 to 0.92 for all substances except tobacco for which the Cronbach's alpha was 0.73. Based on reliability and feasibility data collected from this study, a second version of the ASSIST was proposed with fewer questions (eight in total) and a slightly different scoring. The validity of the second version of the ASSIST was tested in 150 users in primary health care setting and drug treatment facilities in Australia. The ASSIST's discriminant validity was high, while the concurrent validity was evidenced by the significantly positive correlations between the scale's scores and scores from a range of other tools, e.g. r=0.67-0.89 ($p < 0.001$). The results of its construct validity were very good with positive correlations of r=0.40-0.81 ($p < 0.001$) with other tools (Newcombe, Humeniuk, & Ali, 2005).

Three more studies have evaluated ASSIST's reliability and validity. The first was a study of 1,047 subjects from primary care and detoxification treatment programs from nine countries (Australia, Brazil, India Israel, Thailand, UK, US, and Zimbabwe) which found its internal consistency to be high, e.g., Cronbach's alpha was ranging from 0.77 for hallucinogens to 0.94 for amphetamines use. The discriminative validity of the ASSIST, its concurrent validity and its construct validity were found to be high with positive correlations of r=0.59-0.88 and 0.48-0.76 ($p < 0.001$) respectively with other tools (AUDIT and SDS) (Humeniuk et al., 2008). The second study took place in Australia among 214 first episode psychosis patients. The ASSIST's internal consistency was acceptable, e.g., Cronbach's alpha was above 0.75 for all drugs expect for sedatives (0.71) and hallucinogens (0.65), while TSI score had a Cronbach's alpha of 0.90. ASSIST's discriminative validity was high and so were its concurrent validity and construct validity with positive correlations of r=0.59-0.88 ($p<0.001$) and r=0.48-0.76 ($p<0.001$) respectively with other tools (Hides et al., 2009). The third study evaluated the third and most

recent version of ASSIST (NIDA, 2010) which was adapted to include prescription opioids and stimulants in 101 adult PHC patients in a large New York City hospital. Its test-retest reliability measure using Cohen's Kappa for all substances having 20% or greater prevalence of moderate–high risk use in the study population yielded results of 0.836 for alcohol, 0.850 for tobacco and 0.861 for total category of drugs ($P<0.001$) (McNeely et al., 2014).

The SDS was initially created in England (Gossop et al., 1992) and was later used in the US and Australia as well (Gossop et al., 1995). The SDS is a five-item 15-point short, self-administered scale designed to measure the severity of alcohol and drug dependence of users for different types of drugs. Total score ranges from zero to 15 with a higher score indicating higher dependence. The SDS has been used to measure users' dependence on alcohol (Lawrinson, Copeland, Gerber, & Gilmour, 2007), cocaine (Gossop et al., 1995; González-Sáiz et al., 2009; Kaye & Darke, 2002), heroin (Gossop et al., 1995; Chen et al., 2008; González-Sáiz et al., 2009), ecstasy (Bruno, Gomez, & Matthews, 2011), amphetamines (Gossop et al., 1995; Topp & Mattick, 1997), cannabis (Cuenca-Royo et al., 2012; Ferri, Marsden, de Araujo, Laranjeira, Gossop, 2000; Hides, Dawe, Young, & Kavanagh, 2007), and benzodiazepines (Cuevas, Sanz, Fuente, Padilla, & Berenguer, 2000). It has been translated and validated in Spanish (Cuevas et al., 2000; González-Sáiz et al., 2009; Iraurgi, González Saiz, Lozano, Vázquez, & Lerma, 2010), Portugese (Ferri, Gossop, & Laranjeira, 2001; Ferri et al., 2000), and Chinese (Chen et al., 2008; Tsai et al., 2012).

SDS's validity and reliability is a challenging topic to determine as there is no recommended cut-off score based on which a clear evaluation could be made. The first validation of SDS by Gossop and associates (1997) measured heroin dependence in 100 users enrolled in an addiction treatment program at the Maudsley hospital in the United Kingdom

(UK) found its test-retest reliability to be 0.89 for an aggregated score of all five items, i.e., the total score of SDS. A few years later, the SDS was used in 142 cocaine users in Australia in order to determine SDS perfect diagnostic utility for cocaine dependence. The optimal cut-off point for cocaine dependence was detected using Receiver Operating Characteristic (ROC) analysis and it was found to be 3 (Kaye & Darke, 2002).

The Spanish version of SDS was validated in 100 benzodiazepine addicts enrolled in an addiction treatment program in an outpatient facility in the Canary Islands. With a cut-off score of 7, SDS's sensitivity was 97.9%, specificity was 94.2%, PPV was 94% and NPV was 98%. The test's reliability was measured by covariance matrix, which yielded a standardized alpha value of 0.814 (Cuevas et al., 2000). Another study evaluated the SDS Spanish version's cut-off score, which would optimally discriminate cocaine and heroin dependence in 146 users in three different cities in Spain. The cut-off scores for optimal discrimination of cocaine and heroin dependence were found to be 3 and 4 respectively (González-Sáiz et al., 2009). The latest study of the Spanish version in 315 opiate users in treatment in Bilbao, Spain using ROC Analysis found 5 to be the optimal cut-off score for heroin dependence (Iraurgi et al., 2010).

The Portuguese version of SDS was validated in 374 Brazilian drug users. The total scores' test-retest reliability was high for all drugs (intra-class correlation coefficients (ICC): crack cocaine: 0.81; powder cocaine: 0.88; alcohol: 0.82; and cannabis: 0.74) and the scale's construct and concurrent validity yielded significant results (Ferri et al., 2000). Lastly, the Chinese version of SDS was validated in Taiwan in: (a) 522 heroin users yielding very good test-retest reliability (ICC coefficient of total score was 0.88) and high internal consistency (Cronbach's alpha was 0.75) results. The instrument was also found to be valid as there was a strong positive correlation between the SDS scores and the DSM-IV (APA, 2000) criteria for

heroin dependence (Chen, et al., 2008); and (b) in 82 benzodiazepine users yielding high diagnostic validity with a cut-off score of 7 (sensitivity: 80.5% and specificity: 85.7%). (Tsai et al, 2012).

The SASSI was originally developed by Miller (1985) after 15 years of clinical research in order to identify individuals in high risk to develop an SUD even if they did not acknowledge – willingly or unwillingly – any substance abuse or SUD symptomatology. The initial SASSI consisted of 52 true/false (T/F) questions used to create the subsequent scales of the tool. Initial psychometric property studies of the SASSI were performed in three groups: outpatients in treatment, detoxification program patients and subjects on probation (Miller, 1985). The results were not promising as internal consistency (Cronbach's alpha) coefficients ranged from 0.16 to 0.73 in most scales with only two scales being above 0.80. Sensitivity and specificity estimates were 0.88 and 0.92 respectively.

A second version of the SASSI (SASSI-2) was developed by Miller (1994), which entailed quite a few changes in the questions and the scales/subscales in order to reduce the classification error of SASSI-1 and improve its internal consistency. It consisted of 26 face value (FV) Likert-scale items and 62 T/F items. SASSI-2 manual claimed that SASSI-2 had a high rate of accuracy (94%), sensitivity (90%) and specificity (84%) (Miller, 1994). However, subsequent studies did not confirm the same results. More specifically, the psychometric properties of the SASSI-2 were evaluated in 74 convicted subjects for driving under the influence yielding excellent classification results (89% accuracy rate) and internal consistency (Cronbach's alpha) above 0.91 in the FV scales, but very poor to moderate results in other scales (Myerholtz & Rosenberg, 1997). Similar results were reported in a sample of 164 college

students, i.e., internal consistencies (Cronbach's alpha) ranging from 0.11 to 0.93 in the subscales and moderate classifications with other tools (Myerholtz et al., 1998).

The SASSI-3 (Miller et al., 1999) was developed to reduce the false positive rate of SASSI-2 (15.5%) and had quite a lot of modifications to the questions and scales/subscales. It is brief, self-administered, takes approximately 8-15 minutes to complete and can be used in many different settings, such as health care settings, treatment centers, criminal justice settings, employee assistance programs, hospitals, etc. The tool consists of: (1) 67 T/F questions, out of which 11 are a direct measure of acknowledged symptom-related alcohol and drug abuse (i.e., "My drinking or other drug use causes problems between me and my family"), and 56 are subtle questions that seem irrelevant to alcohol and drug use (i.e., " I think I would enjoy moving to an area I've never been before") aiming to detect intentional or unintentional fake-good questions as evidence of SUD; and (2) 26 Likert-scale direct questions assessing the frequency in which the respondents have used alcohol and/or drugs. The 26 direct questions consist of 12 direct face valid alcohol (FVA) questions assessing alcohol use and 14 direct face valid other drugs (FVOD) questions assessing drug use.

The SASSI-3 (Miller et al., 1999) has ten scales and nine decision rules, which were formulated by Lazowski, Miller, Boye, and Miller (1998) in a development sample of 1,958 subjects from various settings. 40 subjects were used to measure two-week test-retest reliability and found it to be ranging from 0.92-1, and 1,821 subjects were used to measure internal consistency (Cronbach's alpha) and found it to be 0.93 ranging from 0.27 to 0.95 for the different scales with the FV alcohol (FVA) and FV other drugs (FVOD) yielding the highest scores (0.89 – 0.95) (Miller et al., 1999, p. 26). The SASSI-3 manual also suggests that the tool's overall accuracy is 94% and in five different types of settings ranged from 93% to 98%.

Furthermore, it is suggested that there was no differentiation of the accuracy between males and females and its results were not significantly affected by ethnicity, education, age, and marital or occupational status (Miller et al., 1999).

There are numerous studies evaluating SASSI-3's psychometric properties. Support for SASSI-3's high internal consistency at least for the FV scales comes from: (1) a factor analytic study of 876 SASSI protocol subjects which reported excellent internal consistency (Cronbach's alpha) above 0.90 for the FV scales and poor to moderate results for the other scales (Gray, 2001); (2) a study of 248 college students in a Midwestern state university in the US which reported internal consistency (Cronbach's alpha) coefficients to range from 0.75 to 0.92 for the FV scales and poor to moderate for the other scales (Clements, 2002); (3) a study of 230 college students in an urban Midwestern state university in the US which reported internal consistency (Cronbach's alpha) coefficient of FVA to be 0.92 with no other data on other scales. (Laux, Salyers, & Kotova, 2005a); and (4) a study of 680 college students and 102 SUD patients in treatment centers in Tehran, Iran, which reported internal consistency (Cronbach's alpha) from 0.78 to 0.96 for the FV scales and much lower to medium values for the remaining scales (Sadeghi, Najafi, Rostami, & Ghorbani, 2010).

Equally numerous studies have evaluated SASSI-3' validity. Even though Miller and associates (1999) stated that SASSI-3's classifications may not converge with other tools due to the instrument's uniqueness of the indirect scales, SASSI-3's determinations were found to converge with the: (1) CAGE, reporting kappa values of two studies to be 0.49 and 0.61 with a correlation value of r=0.58 (Laux et al., 2005b; Myerholtz et al., 1998); (2) MAST, reporting a kappa value of 0.52 with a correlation value of r = 0.53 (Laux et al., 2005b; Myerholtz et al., 1998); and (3) DSM-5 (APA, 2013) counselors' diagnosis, reporting a kappa value of 0.423

(Laux et al., 2016). The manual also claims high specificity and sensitivity scores (94%), however later studies produced conflicting results. More specifically, in studies in the US sensitivity and specificity were found to be: (a) 33% and 87% respectively in 495 university students attending a large Midwestern university (Svanum & McGrew, 1995); (b) 85% and 63% respectively in 78 patients with brain injuries in rehabilitation (Arenth, Bogner, Corrigan, & Schmidt, 2001); (c) 65% and 89% respectively in 248 college students of a Midwestern state university (Clements, 2002); (d) 72% and 82% respectively in 223 patients with traumatic brain injuries in rehabilitation (Ashman, Schwartz, Cantor, Hibbard, & Gordon, 2004); and (e) 75% and 77% respectively in 241 participants out of which 117 attended an SUD treatment program, 61 were outpatients for mental health treatment and 63 college students in an urban Ohio university (Laux et al., 2016).

Overall, SASSI-3 psychometric studies have yielded mixed results as the psychometric properties of the manual were not consistent with later research. The FVA and FVOD scales were consistently reliable in all studies and in agreement with the manual's values, but the rest of the scales ranged a lot in their reliability values. The same inconsistencies were found between the manual's validity appraisal and the independent studies' that followed. A review of the psychometric properties of the SASSI-3 suggested that it is clearly a reliable and valid instrument for measuring probability of alcohol and drug use based on the tool's direct self-report questions, but it is not clear what can be ascertained by the other scales whose reliability and validity values range tremendously (Feldstein & Miller, 2007). A Rasch analysis of the SASSI-3 suggested that the instrument meets the standards of distinguishing differences among the samples and ascertained that SASSI-3 is most probably a multidimensional tool due to the combination of the dichotomous T/F questions and the Likert-scale questions for which validity

should be measured separately in order to yield the desired results (Hill, Laux, Stone, Dupuy, & Scott, 2013).

The SASSI-3 has been translated in Spanish in order to be used in Hispanic/Latino populations (Lazowski, Boye, Miller, & Miller, 2002). It was validated in the US in 1,744 subjects from multiple treatment programs, out of which 1,020 were diagnosed with substance dependence, 435 with an SUD, and 289 did not have any SUD. Internal consistency (Cronbach's alpha) coefficient was reported to be 0.83 indicating high reliability of the SASSI-3 Spanish version. The recommended cut-off scores identified accurately 83% of the subjects for substance dependence, 62% for substance abuse and 61% without an SUD diagnosis. One-month test-retest reliability was found to be high as the same result was produced in 86% of the participants (Lazowski et al., 2002). The Spanish version of the SASSI-3 has not been validated by any other study.

Lastly, the UNCOPE (Hoffmann et al., 2003) was initially developed by the Arrestee Drug Abuse Monitoring (ADAM) system as a 15-item scale in order to screen for risk of dependence on alcohol, drugs and SUDs in recent arrestees. It has been validated on 310 state recent arrestees (in the previous 48 hours) yielding high specificity and sensitivity results of 82% and 83% respectively for the whole scale items without weighing, but with quite different results for each item. The instrument's internal consistency (Cronbach's alpha) was high at 0.85. Based on the results of this study, Hoffmann and associates (2003) suggested a six-item scale which resulted in sensitivity and specificity of 88% and 83% respectively with a cut-off score of 3. The modified and final version of the UNCOPE was validated in a huge state prison inmate population of 2,097 subjects in the US and using ROC analysis its overall accuracy was reported to be approaching 0.90. More specifically, using a cut-off score of 3, the sensitivity and

specificity were reported to be 85% and 83% respectively, with PPV to be 85% (Campbell, Hoffmann, Hoffmann, & Gillaspy, 2005).

It is worth noting that the UNCOPE's first five items are consistent with different DSM-5 (APA, 2013) SUD diagnostic criteria. In 2016, Proctor and Hoffmann validated the instrument in a massive prison population of 7,672 recent inmates admitted to the Minnesota Department of Corrections state prison from 2000 to 2003. The UNCOPE's diagnostic utility at a cut-off score of 3 was found to be high with sensitivity and specificity scores of over 70% and 99% respectively for male inmates.

In Europe, there are a lot of screening tools for adolescents, but fewer for adult population. EMCDDA (2019f) lists the following self-administered brief screening SUD instruments, excluding face-to-face structured interviews, as follows: (1) SADD: Alcohol Dependence Data Questionnaire (Raistrick, Dunbar, & Davidson, 1983). It is a 15-item self-administered tool designed to assess alcohol dependence in the general population with acclaimed good stability and validity to be used as alcohol dependence measure. There are no further versions or recent appraisals of the instrument. The tool is available only English; (2) DAST-20 (Skinner, 1982), the diagnostic validity of which has been extensively described in this section. The tool is available in English and Finnish; (3) DUDIT (Berman et al., 2005), the diagnostic validity of which has been also extensively described in this section. The tool is available in many languages, such as: Arabic, Bosnian, Croatian, Danish, Dutch, English, Farsi, Finnish, French, German, Greek, Hungarian, Icelandic, Nepalese, Norwegian, Portuguese, Romanian, Sami, Spanish, Swedish and Turkish (EMCDDA, 2019b). There are no studies validating the instrument in the Greek language; (4) TLFB Alcohol: Timeline follow back (Sobell & Sobell, 1992; Sobell & Sobell, 1995). The tool is a calendar method to assess

retrospective alcohol and drug use over a time period ranging from 7 days to 24 months. TLFB's psychometric properties have been evaluated in 113 drug abusers in outpatient treatment programs in Virginia, US reported very good test-retest reliability of ICC coefficient values from 0.71 to 0.94 (*p*s < .001) for substance use in four time intervals. Convergence validity with other tools was reported to be 0.32 to 0.44 with the MAST and 0.44 to 0.52 with the DAST for the various time intervals (Fals-Stewart, O'Farrell, Freitas, McFarlin, & Rutigliano, 2000). The latest study in 292 alcohol and drug users in Toronto, Canada reported ICCs from 0.75 to 0.91 (*p*s < .001) (Robinson, Sobell, Sobell, & Leo, (2014). The tool is available in English, Spanish, French, Polish, and Swedish (EMCDDA, 2019c). The Swedish, Spanish and Polish versions were used in a cross-cultural evaluation of the TLFB and the Inventory of Drinking Situations (IDS) tool in alcohol abusers, but the Polish version was not used in the final results due to procedural issues. The results of this study suggested that TLFB's psychometric properties for the English, Spanish and Swedish versions were satisfactory for clinical and research trials. (Sobell et al., 2001); (5) PEI-A: Personal Experience Inventory for Adults (Winters, 1999) is a long multi-scale 270-item self-report tool designed to detect SUD problems. PEI-A's purpose is to find evidence for the onset, nature and the degree of SUD involvement, detect risk factors and possible areas of attention for treatment. The tool's psychometric properties were evaluated in 1,995 subjects (895 drug clinic patients, 410 criminal offenders, and 690 control subjects) in the US yielding internal consistency reliability (Cronbach's alpha) median values of 0.89, 0.81 and 0.63 for the severity scales, psychosocial scales and validity indicators respectively. The tool is available only in English. (EMCDDA, 2019d); and (6) SDS: Severity of Dependence Scale (Gossop et al., 1995), which has been described extensively in this section. It is available in

English, Spanish, Portuguese, Chinese, Czech and Lithuanian (EMCDDA, 2019e). No studies evaluating the SDS in Czech Republic or Lithuania were found in the literature body in English.

In Greece, the two brief self-report screening tools available are the AUDIT and the DUDIT accessing problematic alcohol consumption and drug abuse respectively, out of which only the AUDIT has been validated. There is no conjoint screening instrument available.

Importance of Substance Abuse Screening and Quality of Life

There is a growing interest in the literature body on the effect of SUDs to the quality of life (QoL) and the health-related QoL (HRQoL) in alcohol and drug abusers. QoL is defined as the "individual's perception of his/her position in life in the context of the culture and value systems in which he/she lives and as related to his/her goals, expectations, standards, and concerns", while HRQoL is defined as "An individual's perception of the effects of illness on the physical, mental, and social dimensions of his/ her well-being" (Laudet, 2011, p. 45).

There were several systematic reviews on the impact SUDs to QoL and HRQoL of the users. AUD's impact to HRQoL was evidenced to be significant in all areas of the individuals' HRQoL. The areas affected were around their general health (mental and physical), overall activities (general and social), pain and sleep patterns. Overall, AUDs contributed to significant impairments in the general HRQoL of these individuals (Foster, Powell, Marshall, & Peters, 1999; Levola, Aalto, Holopainen, Cieza, & Pitkänen, 2014). Similar results were reported from other systematic reviews on the impact of SUDs to QoL of users. More specifically, it was evidenced that SUDs were related to a significant impairment in the QoL of the SUD individuals, affecting their physical, mental and social functioning, as well as employment and leisure activities (De Maeyer, Vanderplasschen, & Broekaert, 2010; González-Saiz, Rojas, & Castillo, 2009; Laudet, 2011)

As discussed earlier SUDs are also comorbid with an array of medical and psychiatric conditions. Research suggests that SUD individuals also diagnosed with another mental illness have poorer QoL/HRQoL as compared to healthy subjects with no mental disorders impairing their physical, psychological and social functioning. Poorer HRQoL was evidenced in the subjects with Axis I and Axis II disorders, with anxiety and mood disorders as well as borderline, avoidant and paranoid PDs being the ones who affected the HRQoL's deterioration the most. Overall, individuals with dual diagnosis are at greater risk of homelessness, suicide, domestic violence, hospitalization, criminal arrests, higher rates of relapse, non-compliance with mental health illness medication, and hospital emergency visits (Benaiges, Prat, & Adan, 2012; Bizzarri et al., 2005; Colpaert, De Maeyer, Broekaert, & Vanderplasschen, 2013; Lozano, Rojas, & Fernández Calderón, 2017; Urbanoski, Cairney, Adlaf, Rush, & Urbanoski, 2007).

QoL studies provide great insight into the aspects of the well-being of the SUD individuals and thus offer solutions and context based on which treatment plans can be formulated (Smith & Larson, 2003). Screening for SUDs from counselors and mental health professionals is of utmost importance in order to identify patients at risk of SUD, conduct further assessments and facilitate the development of proper treatment planning (SAMSHA, 2009). Research suggests that SUD individuals in treatment programs have positive treatment outcomes and increased levels of QoL and HRQoL significantly improving their physical, psychological and social functioning (Babor & Kadden, 2005; Lozano et al., 2007; Padaiga, Subata, & Vanagas, 2006).

Purpose of the Current Study

Currently, there is no brief self-report instrument to access SUDs in clinical and counseling settings in Greece. The purpose of this study is twofold: first, to translate and

measure the psychometric properties of the SASSI-3 in Greek; and second, to provide clinicians and counselors in Greece with a useful tool for SUD screening purposes.

II. METHODOLOGY

Participants and Sampling

562 individuals participated in the study; 15 of them did not fully complete all the questionnaires and were not included in the study and 39 of them had RAP scores above two on the SASSI-3 final decision rule and were therefore excluded from the results. Consequently, the final total number of participants for the study was 508. The participants were classified into three groups: (1) alcohol abusers (AUD, n=49) who were currently attending detoxification treatment programs and self-help groups; (2) drug abusers (DUD, n=248) who were currently attending either detoxification programs or support and damage control programs; and (3) non-alcohol and drug abusers (Controls, n=211) who had no prior SUD diagnosis or alcohol and drug abuse reported problems. The suggested number of participants was calculated based on recruiting a representative sample of SUD individuals. The SASSI-3 (Miller et al., 1999) consists of 93 items making up ten subscales and nine rules based on which the screening report is generated. Each item was answered by at least five subjects meeting the requirement common rules requirements for validating questionnaires as in the majority of factor analysis studies the prevalent subject to item ratio was found to be from 2:1 to 5:1 and a common rule about the minimum total number of subjects that is adequate for PCA analysis was suggested to be 300 respondents (Osborne and Costello, 2004; Osborne, Costello, & Kellow, 2008).

Participants were nationally recruited in Greece, mainly from the cities of Athens, Thessaloniki, Ioannina and Trikala. The SUD participants were recruited from the two main organizations dedicated to alcohol and/or drug abusers treatment programs, i.e., the “Therapy Center for Dependent Individuals” (KETHEA) and the “Organization against Drugs” (OKANA), and the Alcoholics Anonymous (AA). Prior to the visit to KETHEA and OKANA treatment

units the researcher obtained written permission to visit the programs and administer the tests. The visits to the AAs took place during their open meetings.

KETHEA's therapeutic units which participated in this study were the following: (a) KETHEA-ALPHA (AA, n=30); (b) KETHEA-DIAVASI (DA, n=15); (c) KETHEA-NOSTOS (DA, n=17); (d) KETHEA-ITHAKI (DA, n=41); (e) KETHEA-EXODOS (DA, n=20); (f) KETHEA-IPIROS (DA, n=16); and (g) KETHEA-EXELIXIS (DA=3). The OKANA units which participated in the study were methadone and/or buprenorphine substitution treatment units and were the following: (a) Unit A (DA, n=16); (b) Unit B (DA, n=16); (c) Unit ELENA (DA, n=26); (d) Unit GOUDI (DA, n=2); (e) Unit GENNIMATAS (DA, n=36.); (f) Unit ATTIKON (DA, n=25); (g) Unit SOTIRIA (DA, n=14); and (h) Unit STEKI (DA, n=3).

The control group subjects (NAD, n=211) consisted of KETHEA staff (n=24) and high school teachers (n=14) who filled in the pen-and-pencil version for a total number of control subjects of 38, and subjects who were invited to participate in an on-line version of the three questionnaires through social media and emails (n=173). Inclusion criteria for the participants were: (a) >18 years of age; (b) good understanding of the Greek language; (c) provision of signed inform consent; and (d) completion of all items of the Greek version of the SASSI-3, the DUDIT and the AUDIT questionnaires.

The study followed the ethical standards dictated by the *2002 Ethical Principles of Psychologists and Codes of Conduct* (APA, 2002), e.g. confidentiality (Standard 4.01), institutional approval (Standard 8.01), informed consent to research (Standard 8.02), debriefing (Standard 8.08), and plagiarism (Standard 8.11). All subjects were informed about confidentiality and were asked to sign an informed consent (Appendices A and B). Upon receipt of their consent they were given the Greek pen-and-pencil versions of SASSI-3, AUDIT and

DUDIT to complete and upon completion of the tests they were provided with a debriefing form (Appendix B) with information on the research study. The participants of the on-line version of the questionnaires were informed about the anonymity of their participation and their consent was indicated by their participation. Confidentiality was ensured by assigning a random number to each respondent for identification purposes to be used for all research related documentation. All documents pertaining sensitive information linked to the participants were safely kept in a secure folder, which only the investigator has access to. None of the participants received any monetary compensation. The study was reviewed and approved by the Institutional Review Board of the American College of Greece (ACG), Athens, Greece (Appendix C).

Measures

SASSI-3. The SASSI-3 (Miller et al., 1999) is a single paper screening tool printed double-sided with 67 T/F questions printed on the front side and 26 Likert-scale questions on the back side (Appendix D). The front side has age and gender spaces for demographic data and 67 T/F questions (11 direct SUD symptom-related questions and 56 subtle questions). The backside includes questions regarding income, marital, employment and educational status for demographic data, and 12 FVA and 14 FVOD direct questions about the respondents' experiences and frequency of alcohol and drugs use. There are four options regarding the instrument's time frame (e.g., entire life, past six months, the six months before and the six months since). Since the SASSI-3 was developed from data of people responding on the basis of their lifetime experience, for the purpose of this study the same time frame was selected as an option. The manual recommends the administration of the T/F questions first as they are less likely to induce anxiety as compared to the FV items of the other side.

The SASSI-3 (Miller et al., 1999) has ten scales, two of which are the FVA and FVOD scales on one side and eight scales on the T/F questions as follows: (1) symptoms (SYM) consisting of 11 questions assessing SUD symptomatology; (2) obvious attributes (OAT) consisting of 12 questions measuring the obvious SUD symptomatology; (3) subtle attributes (SAT) consisting of 8 questions indirectly accessing SUD discriminating generic defensiveness from SUD defensiveness; (4) defensiveness (DEF) consisting of 11 questions measuring denial; (5) supplemental addiction measure (SAM) consisting of 14 questions; (6) family vs. controls (FAM) consisting of 14 questions identifying neglect of own feelings/thoughts and focus on feelings/thoughts of others; (7) correctional (COR) consisting of 15 questions detecting patterns indicating history of criminal behaviors; and (8) random answering pattern (RAP) consisting of 6 questions identifying haphazard responses.

To score the SASSI-3 (Miller et al., 1999) numerical scores were obtained for each scale and were transferred to the gender-appropriate profile sheet according to the gender of the respondent (Appendix E). Scoring begun by looking at the RAP scale's score; if it was two or more the profile was considered questionable and therefore excluded from research results. The remaining nine scales forming the SASSI-3 (Miller et all, 1999) decision rules for identifying SUD probability use the following cut-off scores: (1) Rule One: FVA 18 for males and 20 for females: (2) Rule Two: FVOD 16 for males and 21 for females; (3) Rule Three: SYM 7 or more; (4) Rule Four: OAT 10 or more; (5) Rule Five: SAT 6 or more; (6) Rule Six: OAT 7 or more *and* SAT 5 or more; (7) Rule Seven: FVA 9 *or* more or FVOD 15 or more *and* SAM 8 or more; (8) Rule Eight: OAT 5 or more *and* DEF 8 or more *and* SAM 8 or more; (9) Rule Nine: FVA 8 or more *or* FVOD 6 or more *and* SAT 2 *or* more and DEF 4 or more *or* FVOD 8 or more for males, or FVA 14 or more *or* FVOD 8 or more *and* SAT 2 *or* more and DEF 4 or more *or* FVOD 8 or

more for females (Miller et al., 1999, p.32). Overall, the decision rules of the SASSI-3 (Miller et al., 1999) yielded a probability statement about the likelihood of the respondent to have an SUD.

AUDIT. The Greek version of the AUDIT (Moussas et al., 2009) has been validated in Greece and has shown high level of internal reliability and consistency in detecting alcohol abuse and dependence, as was described in the *Alcohol Use/Abuse Screening Tools* section of this study. The AUDIT (Appendix F) was used as a comparison measure for the SASSI-3 (Miller et al., 1999) to determine concurrent validity as compared with the FVA scale of the SASSI-3 (Miller et al., 1999). The AUDIT (Moussas et al., 2009) is a 10-item scale questionnaire, out of which: (a) three items screen for alcohol use; (b) four items screen for alcohol dependence; and (c) three items screen for alcohol-related problems. A total score ≥8 suggests alcohol abuse problem while a score >15 indicates alcohol dependence/addiction.

DUDIT. The DUDIT is an 11-item scale designed to detect drug-related abuse in clinical settings and in the general public (Berman et al., 2005a). The Greek version of the DUDIT (Appendix G) was used as a comparison measure for the SASSI-3 to determine concurrent validity as compared with the FVOD scale of the SASSI-3 (Miller et al., 1999). The layout of the Greek version of the DUDIT has been copyrighted by Berman and associates (2005b), is in the public domain for use in clinical settings or for research and is valid only if the DUDIT is used as is. Total scores range from zero to 44 with recommended cut-off scores of 6 for men and 2 for women indicating all types of problematic drug use, such as hazardous use, abuse and dependence (Berman, Bergman, Palmstierna, & Schlyter, 2005b; Cruce, Nordström, & Öjehagen, 2007).

The use of these three questionnaires meet the ethical standard of plagiarism (Standard 8.11) dictated by the *2002 Ethical Principles of Psychologists and Codes of Conduct* (APA,

2002), which often occurs in cross-cultural adaptations of a test without the approval of its authors and publisher (Hambleton, Merenda, & Spielberger, 2004, p. 87).

Translation Procedure

The procedure for translating the adult SASSI-3 into Greek was provided by The SASSI Institute and agreed with the researcher as per the *Research and Translation Agreement* signed between *The SASSI Institute* and the student researcher (Appendix H). The translation procedure was the following: (1) Two individuals with established credentials in fluency in both English and Greek translated the instructions, the demographic variables, response options, and the questionnaire items on the English SASSI-3 into Greek; (2) Two individuals with established credentials in fluency in both English and Greek back-translated the translated Greek SASSI-3 back into English, without providing them access to the original English version of the SASSI-3; (3) Two new individuals with established fluency in English acted as a committee in order to provide a rating for each back-translated English component of the instrument (i.e., instructions, demographic questions, response options, and questionnaire items) on the following rating scale: for each component of the back-translated questionnaire, they compared the English back-translation with its original English version on the SASSI-3 and chose a number between one and four to indicate how much the back-translated component matched the original English meaning of this questionnaire component with 1: less than 50%, 2: 50-69%, 3: 70-89%, and 4: 90% or more ratings; (4) The ratings of this Committee were collected for each component of the translated questionnaire; (5) For each questionnaire component that indicated anything other than a rating of "4" by all raters, the item was re-translated and back-translated into English and then asked the raters to provide new ratings for this component; (6) Translation and back-translation procedures were repeated twice until all components on the questionnaire had ratings from all

raters of the committee indicating “90% or more” agreement that the English back-translated component matched the meaning of the component on the original English questionnaire; (7) The initial translations of the questionnaire (#1), along with the initial back-translations (#2) and the two sets of initial ratings for each questionnaire component (#3-4), as well as the final Greek translated questionnaire, its final English back-translation and final component ratings (#6) were sent to *The SASSI Institute*; and (8) provided *The SASSI Institute* with the fluency/translation credentials and demographic information (age, gender, ethnicity, years of education, occupation) of all the translators who translated and back-translated the questionnaire, as well as the bilingual raters of the committee. In the final version of the Greek SASSI-3 the “weekly family income” was changed to “monthly family income” to reflect the Greek income reimbursement, which in its majority is monthly.

Statistical Procedure

The completion status of a participant consisted of completing both sides of the Greek SASSI-3 questionnaire and the AUDIT and DUDIT questionnaires. Participants who did not, or half-completed any of the questionnaires were excluded from the research. Statistical analysis was performed using IBM SPSS Statistics software version 20. Descriptive analysis was performed to examine the sample’s demographic profile characteristics (gender, age, marital status and educational status) and inferential analysis was performed to evaluate the reliability and validity of the Greek version of the SASSI-3.

Reliability analysis. Reliability of the instrument was assessed by estimating the internal consistency of the Cronbach’s alpha coefficient analysis for the whole sample and the separate categories, i.e., AUD, SUD and control cases for the instrument overall and the respective scales.

Validity analysis. The validity of the Greek version of the SASSI-3 was evaluated by assessing the construct validity of the Greek version of the SASSI-3 as follows: (1) used Pearson's product-moment correlation analysis to assess the convergent validity through the associations between the total FVA scale score of the SASSI-3 and the total AUDIT score, and the total FVOD scale score of the SASSI-3 and the total DUDIT score; and (2) used Pearson's product-moment correlation analysis to assess the discriminant/divergent validity of the two internal face value scales of the SASSI-3, i.e., the FVA scale and the FVOD scale which should be distinct and/or minimally correlated. The predictive validity, sensitivity and specificity of the instrument were evaluated using Crosstabs calculation and Receiving Operating Characteristic (ROC) curves analysis.

III. RESULTS

Demographics Analysis

The total sample consisted of 508 subjects; 276 were males (54.3%), 191 females (37.6%) and 41 (8.1%) did not specify their gender. DUD subjects consisted of 188 males (75.8%) and 60 females (24.2%), AUD subjects consisted of 26 males (53.1%) and 23 females (46.9%), and the control group consisted of 62 males (29.4%), 108 females (51.2%) and 41 did not specify gender (19.4%). Table 1 presents gender per category and total cases.

Table 2 depicts further descriptive analysis of the sample in terms of gender and age. Subjects' ages ranged from 19 to 66 years of age, with males being 20 to 66 years old and females from 19 to 62 years old respectively. The mean age for males was 42.54 (*SD=9.5*) and for females was 40.96 (*SD=10.0*). Per category, mean age was as follows: (1) DUD males 40.88 (*SD=8.7*) and females 40.31 (*SD=8.3*); (2) AUD males 47.63 (*SD=8.4*) and females 39.26 (*SD=7.4*); and (3) Control group males 45.31 (*SD=10.9*) and females 41.65 (*SD=11.2*).

Sample variables, such as age, education level, employment status, family status and ethnicity are depicted in Table 3. Education level was similar in the SUD subjects as follows: (1) the majority were high school graduates (DUD: 36.7% and AUD: 32.7%), followed by IEK/College graduates (DUD: 18.5% and AUD: 14.3%). However, third ranking in education differed significantly among SUD participants as DUD subjects were elementary graduates (11.7%) while AUD participants had undergraduate degrees (10.2%). 62 DUD subjects (25%) and 15 AUD subjects (30.6%) did not provide information regarding their education level. The control group had a completely different outlook as 37% were holding an undergraduate degree, 29.4% a graduate degree, 14.2% were IEK/College graduates and 13.7% had completed high school.

Out of the total sample, the majority of DUD individuals reported they were never married (n=126- 60%), whereas the AUD and control groups were mostly married (n=20-42.6% and n=116-55.2% respectively). Divorced individuals across categories ranged between 10.5%-12.8%. Males ranked higher in all family statuses as follows: (1) males and females who were never married were 120 (48.8%) and 78 (43.3%) respectively; (2) males and females who were married were 84 (34.1%) and 71 (39.4%) respectively; (3) divorced males and females were 31 (12.6%) and 15 (8.3% respectively; and (4) separated males and females were 11 (4.5% and 9 (5%) respectively. In terms of employment status, the majority of the DUD individuals were unemployed (n=100-50.5%), while the AUD and control subjects were holding full-time jobs in the majority of them (n=19-45.2% and n=160-76.9% respectively).

The majority of the participants were Greek, n=422 (83% of the total sample and 92% of the subjects who reported ethnicity) out of which 241 were males (57.1%) and 181 were females (42.9%).

Reliability

An instrument's reliability is an important measure of its internal consistency; i.e., how well the internal parts of the instrument measure the same construct (Huck, 2012; Robinson, 2010). The Cronbach's Alpha coefficient is the most widely used for internal consistency measurement of instruments, which use Likert scales. A common rule of thumb of what is considered as minimum for a good internal consistency coefficient is .70 (Whitley, 2013, Robinson, 2010). Cronbach's Alpha coefficient (α) above .90 is considered excellent reliability, .70-.90 high reliability, .50-.70 moderate reliability and below .50 low reliability (Hinton, McMurray, & Brownlow, 2014).

In the current study, the internal consistency (Cronbach's alpha coefficient) of the Greek version of the 93-item SASSI-3 was .84 indicating a highly reliable instrument. The two face valid scales for the complete questionnaire (FVA and FVOD) which use Likert-scale questions and comprise the first two SASSI-3 rules had *a'*s of .92 and .97 respectively indicating excellent reliability. Of the 12 items of the FVA scale 10 items maintained corrected item-total correlation values above .60, one item .5-.6 and one .3-.5. Of the 14 items of the FVOD scale, 13 items-maintained values above .7 and one item .6-.7 indicating that all items in these scales measure the same construct within their respective scales. The remaining seven scales for the complete questionnaire had much lower α's ranging from .05 to .86 suggesting that a scale may measure multiple facets.

The results were similar for the instrument's reliability per category, producing good internal consistency results for the complete questionnaire (α's ranging from .70 to .79) and very good to excellent reliability results for the direct FVA and FVOD scales (α's ranging from .77 to .94), and much lower internal consistency results for the remaining seven scales (α's ranging from .01 to .53).

Table 4 depicts α's for the complete Greek version of the SASSI-3 and the individual scales for all cases and per category cases.

Although reliability is important for an instrument it is not sufficient unless it is combined with validity (Wilson, 2014).

Validity

Construct validity. Construct validity has two components: convergent and discriminant validity. Table 5 depicts the results of construct validity measures.

Convergent validity of the full questionnaire was assessed investigating: (a) the relationship between SASSI-3's FVA score and AUDIT's score with the use of the Pearson correlation coefficient. Using Pearson product-moment correlation, the analysis revealed: (a) a significant positive relationship between FVA score (M=10.32, SD=8.83) and AUDIT score (M=7.80, SD=9.62), $r(508) = .81$, $p < .001$; and (b) a significant positive relationship between FVOD score (M=14.73, SD=14.13) and DUDIT score (M=15.62, SD=16.23), $r(508) = .90$, $p < .001$. Both measures indicate a strong convergent validity between the FVA and FVOD scores with the AUDIT and DUDIT scores respectively.

Divergent validity was assessed investigating the relationship between FVA and FVOD scores with the use of the Pearson correlation coefficient. The analysis revealed a weak positive relationship between FVA score (M=10.32, SD=8.83) and FVOD score (M=14.73, SD=14.13); $r(508) = .37$, $p < .001$. The results indicate that the two constructs do not measure the same thing.

Sensitivity and specificity. Table 6 shows the sensitivity and specificity results of the full Greek SASSI-3 questionnaire and the individual decision rules. The full questionnaire correctly identified 98.8% (n=245) and 93.9% (n=46) of the DUD and AUD subjects respectively who were diagnosed with an SUD, yielding an average sensitivity of 96.35%. It also correctly identified 196 control cases reporting that they were never diagnosed with an SUD, yielding a specificity of 92.9%. Type I error was 7.1% and the average type II error was 3.65% indicating a strong predictive validity of the instrument.

The individual decision rules constructed from the face valid classifications produced similar results. Rule 1 (FVA) correctly identified 91.8% (n=45) of AUD individuals and Rule 2 (FVOD) correctly identified 91.9% (n=228) of the DUD individuals producing an average

sensitivity of 91.85% for the two face valid scales. Specificities of these rules were found to be 99.1% and 98.6% for Rules 1 and 2 respectively, yielding an average specificity of 98.85%. Rule 3 (SYM) produced an average sensitivity of 75.65% and specificity of 98.60%. The remaining decision rules had very high specificities and lower sensitivities as shown in Table 6.

The SASSI-3's decision rules are used to distinguish between subjects likely to have an SUD and the ones who are not likely to have an SUD. The ROC curve analysis was used to evaluate the accuracy of the questionnaire's scales that make up these rules and revealed that the FVA, FVOD, SYM, OAT and SAT individual scales used for these decision rules were significantly greater than the diagonal line ($p < 0.001$). Among the five measures: (1) the SYM had the wider area under the curve (AUC) (0.980); (2) second in the width of the AUC was the FVOD scale (0.941); (3) third in the width of the AUC was the OAT scale (0.939); (4) fourth in the width of the AUC was the SAT scale (0.846); and (5) fifth in the width of the AUC was the FVA scale (0.801). In conclusion, ROC scores of these scales are all from good (≥.80) to excellent (≥ .90) indicating a very good agreement between the SUD diagnosis and the scales (Youngstrom, 2014).

Reviewing the coordinates of the ROC curve in distinguishing between SUD and non SUD individuals, the optimal balances between sensitivity and specificity cut-off scores for both sexes were identified as follows: (a) FVA score of 7.5 produced sensitivity .696 and specificity .153; (b) FVOD score of 10.5 produced sensitivity .859 and specificity .005; (c) SYM score of 4.5 yielded sensitivity .915 and specificity .040; (d) OAT score of 5.5 yielded sensitivity .843 and specificity .109; and (e) SAT score of 3.5 demonstrated sensitivity .739 and specificity .178. Sensitivities and specificities of the scales can be found in Table 7.

Figures 1, 2 and, 3 depict the ROC curves of the Greek SASSI-3 FVA, FVOD, and SYM, OAT and SAT scales (n=508) respectively.

IV. DISCUSSION

The SASSI-3 (Miller et al., 1999) is an alcohol and drug use screening tool consisting of 67 T/F questions and 26 Likert-scale questions, which can be used in many different settings to assess SUD probability. It is the most frequently used instrument in college settings and among addiction counselors to screen for drug and alcohol use (Juhnke, Vacc, Curtis, Coll, & Paredes, 2003; Laux et al., 2005a; Myerholtz et al., 1998). This study aimed to assess the psychometric properties of the Greek version of the SASSI-3 (Miller et al., 1999) and found them to be psychometrically sound in assessing SUD probability.

Results of this study yielded a high reliability of α = .84 for the complete questionnaire with excellent reliabilities of the direct scales which are the product of the Likert-scale questions on the second page of the instrument, e.g. FVA α=.92 and FVOD α=.97. The remaining seven scales, which are the product of the T/F questions on the first page of the instrument, yielded mixed results from negative and poor values to high reliability scores (e.g., α's ranging from .05 to .86). The α's per category followed a similar pattern with α's ranging from .70 top .94 for the complete questionnaire and the FVA and FVOD scales, and with α's ranging from .01 to 0.53 for the remaining scales.

Reliability results were similar and, in some cases, lower compared to the ones reported in the SASSI-3 manual which suggested that the questionnaire's internal consistency (Cronbach's alpha) was .93 and the remaining scales yielded α's from 0.27 to 0.95 with the FVA and FVOD scales having the strongest α's of .89 and 0.95 respectively (Miller et al., 1999, p. 26). This study's reliability results were in line with other scholars' research results who assessed the SASSI-3's psychometric properties consistently reporting high to excellent α's for the complete questionnaire (α=.81), the scales FVA (α's ranging from .78 to .94) and FVOD (α's

ranging from .82 to .94), and a wider lower range or reliability results for the remaining scales (α's ranging from .02 to .75) producing a mean α=37.5; the highest α scores for these scales were always reported for the only direct SYM scale derived by the T/F questions. (Clements, 2002; Gray, 2001; Miller et al., 2009; Laux et al., 2005a; Sadeghi et al., 2010). Moreover, Laux and associates (2005a) found that the SASSI-3 outperformed the internal consistency results of the CAGE, MAST and MacAndrew Alcoholism Scale revised version (MAC-R; Butcher, Dahlstrom, Graham, Tellegen, Kaemmer, 1989).

The low α's relevant to the subtle scales are not unique to the SASSI-3 as other screening instruments with subtle scales have yielded similar results. The Minnesota Multiphasic Personality Inventory-2's (MMPI-2; Graham & Graham, 1990) internal structure has two embedded scales: (a) the MAC-R (Butcher et al., 1989); and (b) the Addiction Potential Scale (APS; Sawrie, Kabat, Dietz, Greene, Arredondo, & Mann, 1996) both yielding mean reliability α's of .47 and .48 respectively (Miller, Shields, Campfield, Wallace, & Weiss, 2007).

Scholars have raised justified questions about the usefulness of the subtle scales in screening instruments, especially since they yield unsatisfactory internal consistency results. The authors of the SASSI-3 (Miller et al., 1999) suggested that the lower reliability scores of the seven scales which are derived from the dichotomous T/F questions are anticipated as these scales were compiled empirically by including items that identified individuals of known group status (e.g., with or without diagnosed substance use disorders). Furthermore, the scale items were not chosen on the basis of measuring unitary constructs but were chosen to identify persons with SUD who responded differently. For these scales, the α is not necessarily a primary consideration for the SASSI-3' scales score stability as they were not designed to be unidimensional in nature (Miller et al, 1999, p. 26).

In support to the Miller and associates' (1999) explanation of the significance of the lower internal consistency α scores of the subtle scales, research suggests that in certain cases the standardized Cronbach's coefficient α is not a representative measure of true reliability as it could underestimate or overestimate true reliability (Osburn, 2000; Zimmerman, Zumbo, & Lalonde, 1993). Theoretically, if an instrument consists of a small number of heterogeneous items, its α has a tendency to underestimate its reliability (Osburn, 2000). Moreover, if the items of a scale are represented by multiple moderately correlated factors, the α may be seriously underestimated when the items are dichotomous because correlations among dichotomous items (φ coefficients) tend to underestimate true correlations (Sun, Chou, Stacy, Ma, Unger, & Gallaher, 2007).

The instrument's convergent and divergent validity yielded excellent results. The strong positive correlations of r=.815 and r=.904 between SASSI-3's (Miller et al., 1999) FVA scale and the AUDIT (Moussas et al., 2009), and the FVOD scale and the DUDIT (Berman et al., 2005a) respectively indicated excellent convergence results. This study was the first to evaluate convergent validity of the instrument in comparison to the AUDIT (Babor et al., 1989; Moussas et al., 2009) and the DUDIT (Berman et al., 2005a) questionnaires, however these results are consistent with previous research which suggested high correlations between the SASSI-3 (Miller et al., 1999) and (a) the MMPI (Risberg, Stevens, Graybill, 1995); (b) the CAGE (Laux et al., 2005b; Myerholtz et al., 1998); (c) the MAST (Laux et al., 2005b; Myerholtz et al., 1998); (d) the Addiction Admission Scale (AAS; Sadeghi et al., 2010); and (e) DSM-5 (APA, 2013) SUD diagnostic criteria (Laux et al., 2016). The weak correlation (r=.375) between the FVA and the FVOD scales of the Greek version of the instrument suggest that the two scales are divergent

and do not measure the same constructs. There were no previous studies evaluating the divergent validity of the two scales.

Using the cut-off scores specified by the developers, the sensitivities and specificities of the Greek version of the SASSI-3 were found to be similar to the values reported in the SASSI-3 manual, e.g., the instrument correctly identified 96.5% of the SUD subjects and 92.9% of the control group as compared to the respective values of sensitivity and specificity of 94.6% and 93.2% reported in the manual (Miller et al., 1999, p. 26). Similarly, the direct scales FVA and FVOD produced excellent results of average sensitivity of 91.85% for the SUD individuals and 98.85% for the control group, while the SYM scale yielded sensitivity of 75.65% and specificity of 98.60%. These results are in line with previous research, which supported the validity of the SASSI-3 and its face valid scales (Laux et al., 2005a; Sadeghi et al., 2010).

The results for the remaining subtle scales did not replicate the results suggested in the SASSI-3 manual (Miller et al., 1999). This study's sensitivity for the individual decision rules using the cut-off scores of the developers ranged from 0% to 81.55% and specificities ranged from 95.70% to 100%. These results are in accordance with previous research (Ashman et al, 2004; Clements, 2002; Laux et al., 2016; Svanum et al., 1995). There is one study with opposite results by Burck, Laux, Ritchie and Baker (2008) who investigated the sensitivity and specificity of the COR scale only and reported strong sensitivity and weak specificity.

Overall, the instrument's predictive validity was found to be strong for the complete questionnaire, the FVA and the FVOD scales with the respective type I errors being 7.1%, .9% and 1.4% and type II errors being 3.65%, 8.2% and 8.1% accordingly. For the remaining scales a high type II error was observed, which ranged from 24.35% to 100% while type I error was much lower ranging from 0% to 4.3%. The weaker mean sensitivity of 38.36% and the high

false negative rate (61.67%) of the six decision rules derived from the subtle dichotomous questions could be explained by the fact that our SUD sample consisted by individuals who are known to be dependent on substances and therefore varied in the degree to which they were ready and willing to acknowledge the connection between their SUD and its consequences as well as their motivation to change.

The SASSI-3 (Miller et al, 1999) was validated against the DSM-IV (APA, 1994) criteria, which had a diagnosis of moderate to severe substance dependence and a separate diagnosis of substance abuse. The SASSI-3 has an overall accuracy rate of 94% in discriminating those with either type of substance use disorder (e.g., substance abuse-now referred to as mild SUD or substance dependence-now referred to as moderate to severe SUD) from those who have been diagnosed as having neither type of disorder. Yet, the SASSI-3 validation samples only included a small number of participants who had been diagnosed with substance abuse disorders (8%, n = 67), and the SASSI-3 decision rules accurately identified only 70% (n = 47) of those participants. Thus, the SASSI-3 is not presented as a fully validated screen for those with substance abuse disorder (mild SUD) per se. The SASSI-3 profile sheet provides guidelines for cutoffs that can help further identify those who test negative on the SASSI-3 but have elevated scores that may indicate substance abuse/mild SUD (e.g., an elevated DEF score). Therefore, further individual assessment could be very beneficial as looking at the T-scores plotted on the individual profiles could yield further useful information.

The ROC curve analysis used to identify the accuracy and the optimal scores of the five scales forming individual rules, i.e., the SAM and the DEF scales not forming an individual rule were excluded as they are not discriminators of SUD probability on their own. The FVOD, SYM, and OAT scales yielded high accuracy rates (>90%) and the FVA and SAT scales yielded

good accuracy rates (>80%) overall producing an average accuracy rate of 90.14% as compared to the 94.3% reported in the manual (Miller et al., 1999, p. 26). These scales' cut-off scores yielding the optimal specificities and sensitivities of the Greek version of the SASSI-3 were found to be much lower compared to the ones suggested by the SASSI-3 manual. The favorable accuracy results of the face valid scales were consistent with previous research (Ashman, 2004; Clements, 2000; Laux et al., 2005a; Sadeghi, 2010).

Overall, this study's results are consistent with previous research, producing strong psychometric properties for the complete questionnaire of the Greek version of the SASSI-3 (Miller et al., 1999) and its face valid scales, and a wide range from poor to acceptable reliability and validity for the instrument's subtle scales. Nevertheless, even given these mixed results the SASSI-3 is very popular and widely used in the USA as an SUD screening instrument indicating that it is a preferred SUD screening tool in various settings due to its reported higher reliability and validity in comparison studies with other instruments assessing alcohol and/or drug use (Burck et al., 2010).

Regarding the overall non-satisfactory subtle scales' results, Feldstein and associates (2007) suggested that the subtle scales' results tend to decline over time with treatment, unlike with the direct scales results. This needs to be taken into consideration in our study as the SUD sample consisted of individuals with mean age of 42 who were in detoxification programs for a wide range of time (e.g., from a few months to over 10 years), therefore it is possible that the difference in the sample's years in treatment could have played a role in these results.

Limitations

The SASSI-3's (Miller et al., 1999) scoring outcome produces a dichotomous outcome of moderate to severe substance use disorder probability; it is not designed to detect a mild

substance use disorder which requires further individual evaluation that was beyond the scope of this study.

Regarding the sample of this study, the AUD individuals were underrepresented compared to the DUD subjects due to the difficulty of the limited time of the AA meetings; taking up 15 minutes of the AUD individuals' time from their meetings limited the number of this category. This could have impacted the lower accuracy rates of the FVA scale compared to the FVOD. Moreover, the control group was convenience sample recruited through an online survey distributed through social media reducing the generalizability of the results.

The time frames of the questionnaires used in this study were not compatible. The participants of this study were specifically instructed to respond to the SASSI-3's questions for a lifetime frame, while the AUDIT and the DUDIT questions referred to the last 12 months. Moreover, the Greek version of the DUDIT has not been validated for its psychometric properties therefore the convergent validity results should be interpreted with caution.

The SASSI-3 developers calculated the instrument's accuracy using the decision rules. ROC curve analysis does not allow the examination of a combination of scales, e.g., scales forming decision rules six, seven, eight and nine, but only one scale at a time. The decision rules excluded contain important data from both the direct and the subtle scales of the instrument and could significantly contribute to the sensitivity and specificity of the instrument. The lack of this information could have impacted the results of this study.

Suggestions for Future Research

DSM-5's (APA, 2013) SUD diagnosis includes severity specifiers (mild, moderate or severe), which are not all covered by the SASSI-3 (Miller et al., 1999). It would be beneficial if future research determined the specific decision rules' cut off scores linked to each of the

severity specifiers including mild SUD specifier that is currently not detected by the instrument. Moreover, future research could translate and validate the Greek version of the SASSI-4, which is validated against the DSM-5 (APA, 2013).

Further research would be advisable in order to assess if changing item content may improve accuracy with this population. Also, conducting test-retest reliability of the translated instrument and research to investigate the instrument's ability to detect those who may be minimizing SUD would need to be investigated.

Conclusion

This study suggests that the Greek version of the SASSI-3 (Miller et al., 1999) is a sound psychometric instrument reporting high reliability and validity results for the full questionnaire and the FVA and FVOD scales. Further investigation needs to examine possible item changes in the subtle scales to improve the instrument's accuracy in the Greek population.

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LIST OF TABLES

TABLE 1: DESCRIPTION OF SAMPLE AND GENDER ANALYSIS

Table 1

Description of Sample and Gender Analysis

	Total N (%)	*Males (%)*	*Females (%)*
Total questionnaires completed	508 (**100.0**)	276 (**54.3**)	191 (**37.6**)
DUD subjects	248 (**48.8**)	188 (**37.0**)	60 (**12.8**)
AUD subjects	49 (**9.6**)	26 (**5.12**)	23 (**4.5**)
CONTROL subjects	211 (**41.5**)	62 (**12.2**)	108 (**21.3**)

Note. Percentages in **bold** are percentages upon the total sample

TABLE 2: SAMPLE DESCRIPTION OF GENDER AND AGE VARIABLES

Table 2

Sample description of gender and age variables

	N	Percent	Mean	Median	Std. Deviation	Min.	Max.
Age							
Total Sample							
Males	264	56.53%	42.54	40.00	9.50	20	66
Females	185	39.62%	40.96	40.00	10.04	19	62
Missing	18	3.85%					
Category							
AUD Males	26	9.4%	47.63	46.00	8.42	32	63
AUD Females	23	12.0%	39.26	38.00	7.42	25	53
DUD Males	188	68.1%	40.88	39.00	8.66	20	64
DUD Females	60	31.4%	40.31	40.00	8.33	19	59
Control Males	62	22.5%	45.31	47.00	10.90	22	66
Control Females	108	56.5%	41.65	43.00	11.20	20	62

Note. Valid cases (n=467)

TABLE 3: SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

Table 3

Socio-Demographic Characteristics of the Sample

	AUD	DUD	CONTROL
Employment (*N=448*)	**n=42**	**n=198**	**n=208**
Full-time	19 (8.1%)	57 (24.2%)	160 (67.8%)
Part-time	12 (21.81%)	28 (50.91%)	15 (27.28)
Unemployed	9 (8.0%)	100 (89.3%)	3 (2.7%)
Student	0 (0%)	2 (9.1%)	20 (90.9%)
Housemaker	0 (0%)	3 (37.5%)	5 (62.5%)
Disabled	0 (0%)	5 (100%)	0 (0%)
Retired	0 (0%)	1 (100%)	0 (0%)
Education (*N=508*)	**n=49**	**n=248**	**n=211**
Elementary school	1 (3.2%)	29 (93.5%)	1 (3.2%)
High school	16 (11.8%)	91 (66.9%)	29 (21.3%)
Technical/College Training	7 (8.4%)	46 (55.4%)	30 (36.1%)
Undergraduate degree	5 (5.2%)	14 (14.4%)	78 (80.4%)
Graduate degree	4 (5.6%)	6 (8.3%)	62 (86.1%)
Post graduate degree/PhD	1 (16.7%)	0 (0%)	5 (83.3%)
Missing	15 (18.1%)	62 (74.7%)	6 (7.2%)
Family Status (*N=467*)	**n=47**	**n=210**	**n=210**
Married	20 (11.2%)	43 (24%)	116 (64.8%)
Never married	18 (8.5%)	126 (59.7%)	67 (31.8%)
Divorced	6 (12%)	22 (44.0%)	22 (44.0%)
Widower	0 (0%)	3 (42.9%)	4 (57.1%)
Separated	3 (15%)	16 (80.0%)	1 (5.0%)
Ethnicity (*N=480*)	**n=46**	**n=224**	**n=210**
Greek	45 (9.9%)	216 (47.4%)	195 (42.8%)
Other	1 (4.2%)	8 (33.3%)	15 (62.5%)

Note. Percentages in parentheses are percentages per subcategory

TABLE 4: CRONBACH'S ALPHA COEFFICIENTS

Table 4

Cronbach's Alpha Coefficients

Scales	All cases	DUD cases	AUD cases	Control cases
Full Questionnaire	.84 (435)	.78 (181)	.79 (44)	.70 (210)
FVA	.93 (490)	.92 (231)	.77 (48)	.80 (211)
FVOD	.97 (483)	.82 (224)	.94 (48)	.90 (211)
SYM	.86 (498)	.45 (239)	.53 (48)	.53 (211)
OAT	-.05 (492)	.13 (235)	-.07 (47)	.24 (210)
SAT	.21 (489)	.12 (240)	.03 (49)	.06 (210)
DEF	.05 (504)	.17 (245)	-.11 (48)	.01 (211)
SAM	.24 (492)	.25 (232)	-.06 (49)	.29 (211)
FAM	.11 (495)	.04 (236)	.08 (48)	.21 (211)
COR	.38 (493)	.04 (234)	.29 (48)	.20 (211)

[1] Only items utilized in the decision rules were included

TABLE 5: PEARSON CORRELATION

Table 5

Pearson Correlation

	Mean	Std. Dev.	FVA	FVOD	AUDIT	DUDIT
FVA Score	10.32	8.83	1	**.375***	**.815***	.313
FVOD Score	14.73	14.13	**.375***	1	.228	**.904***
AUDIT Score	7.80	9.62	**.815***	.228	1	.239
DUDIT Score	15.62	16.23	.313	**.904***	.239	1

*$p < .01$. n=508

TABLE 6: AGREEMENT BETWEEN COUNSELORS' DIAGNOSES, SASSI-3 AND DECISION RULES

Table 6

Agreement between Counselors' Diagnoses and SASSI-3 and Decision Rules

	True Positive	*True Negative*	*False Positive*	*False Negative*
SASSI-3	291 (96.35%)	196 (92.90%)	15 (7.10%)	6 (3.65%)
DR1	45 (91.80%)	209 (99.10%)	2 (0.90%)	4 (8.20%)
DR2	228 (91.90%)	208 (98.60%)	3 (1.40%)	20 (8.10%)
DR3	229 (75.65%)	208 (98.60%)	3 (1.40%)	68 (24.35%)
DR4	76 (23.50%)	211 (100%)	0 (0.00%)	221 (76.50%)
DR5	76 (17.75%)	209 (99.10%)	2 (0.90%)	221 (82.25%)
DR6	126 (31.75%)	209 (99.10%)	2 (0.90%)	171 (68.50%)
DR7	246 (81.55%)	207 (98.10%)	4 (1.90%)	51 (18.45%)
DR8	0 (0.00%)	210 (99.50%)	1 (0.50%)	297 (100.0%)
DR9	81 (22.85%)	202 (95.70%)	9 (4.30%)	216 (77.15%)

TABLE 7: SASSI-E INDIVIDUAL RULES SENSITIVITIES AND SPECIFICITIES

Table 7

SASSI-3 Individual Rules Sensitivities and Specificities

	Positive if Greater Than or Equal To[a]	*Sensitivity*	*1-Specificity*
FVA Score	-1.00	1.000	1.000
	.50	.928	.926
	1.50	.908	.851
	2.50	.879	.743
	3.50	.859	.599
	4.50	.810	.470
	5.50	.765	.337
	6.50	.729	.233
	7.50	.696	.153
	8.50	.641	.119
	9.50	.605	.074
	10.50	.578	.035
	11.50	.552	.020
	12.50	.523	.015
	13.50	.497	.015
	14.50	.480	.010
	15.50	.467	.010
	16.50	.422	.010
FVOD Score	-1.00	1.000	1.000
	.50	.915	.282
	1.50	.902	.188
	2.50	.902	.114
	3.50	.895	.089
	4.50	.895	.064
	5.50	.895	.045
	6.50	.886	.020
	7.50	.882	.020
	8.50	.876	.005
	9.50	.869	.005
	10.50	.859	.005
	11.50	.552	.020
	12.50	.523	.015
	13.50	.497	.015
	14.50	.480	.010
	15.50	.467	.010
	16.50	.422	.010

SYM Score	-1.00	1.000	1.000
	.50	.993	.797
	1.50	.990	.441
	2.50	.980	.218
	3.50	.951	.124
	4.50	.915	.040
OAT Score	-1.00	1.000	1.000
	.50	1.000	.975
	1.50	1.000	.876
	2.50	.987	.713
	3.50	.974	.450
	4.50	.922	.267
	5.50	.843	.109
	6.50	.771	.040
	7.50	.595	.005
SAT Score	-1.00	1.000	1.000
	.50	1.000	.970
	1.50	.964	.752
	2.50	.882	.411
	3.50	.739	.178
	4.50	.474	.04

α. The smallest cutoff value is the minimum observed test value minus 1, and the largest cutoff value is the maximum observed test value plus 1. All the other cutoff values are the averages of two consecutive ordered observed test values.

LIST OF FIGURES

FIGURE 1: ROC CURVE FOR THE FVA SCALE

Figure 1

ROC Curve for the FVA Scale

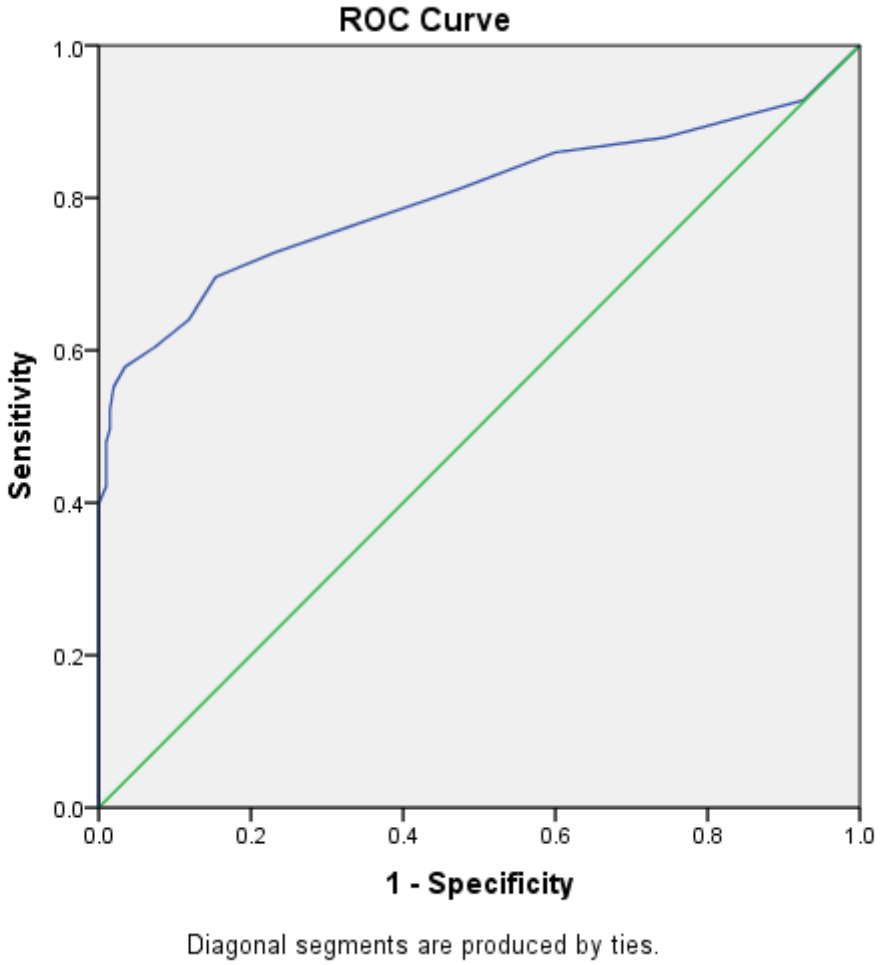


FIGURE 2: ROC CURVE FOR THE FVOD SCALE

Figure 2

ROC Curve for the FVOD Scale

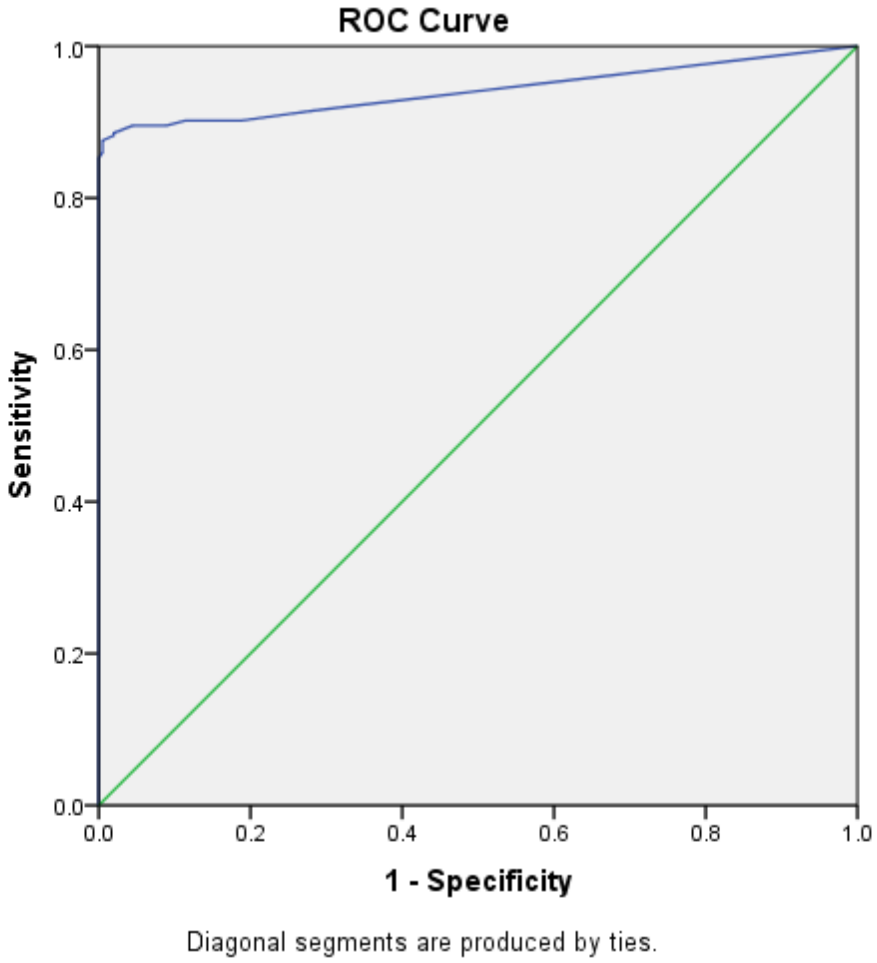
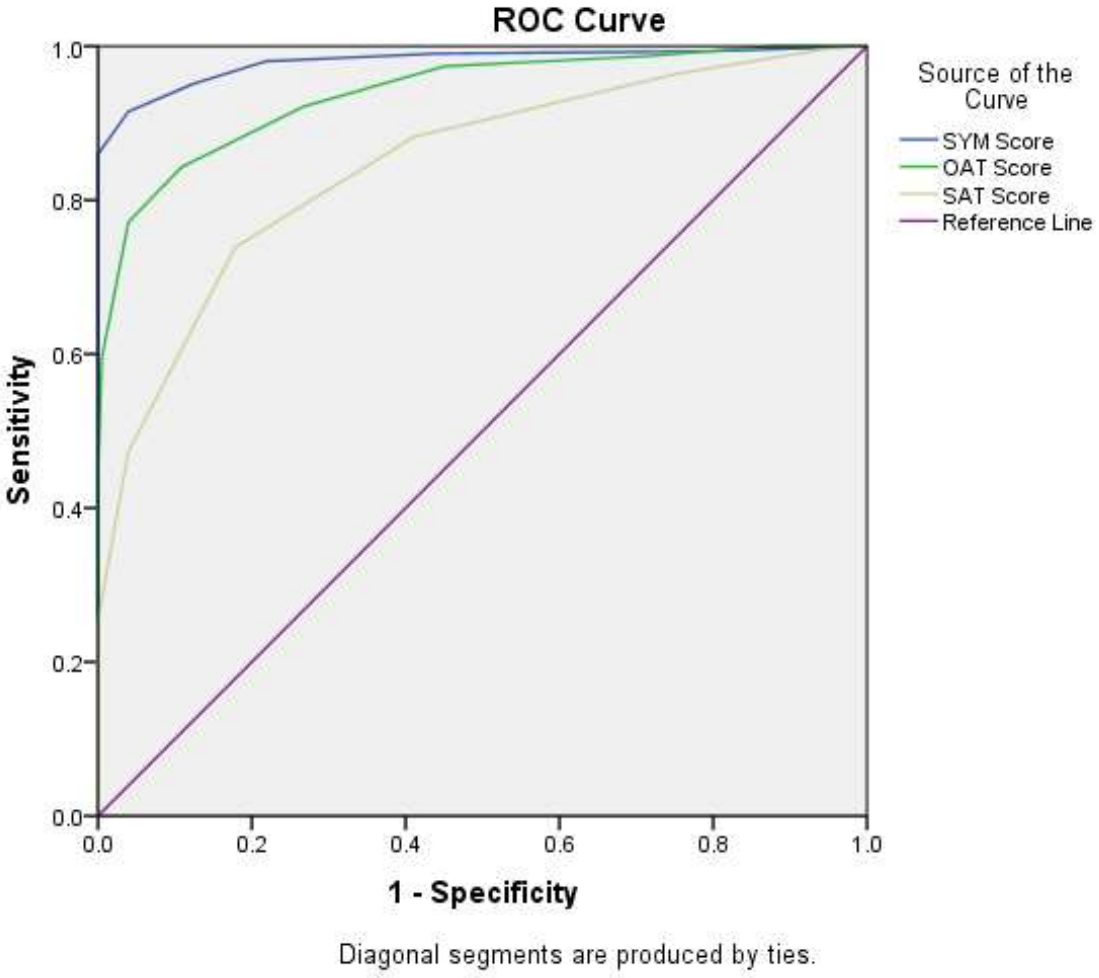


FIGURE 3: ROC CURVE FOR THE SYM, OAT AND SAT SCALES

Figure 3

ROC Curve for the SYM, OAT and SAT Scales



APPENDICES

A. INFORMED CONSENT AND DEBRIEFING FORMS – ENGLISH VERSIONS

INFORMED CONSENT FOR PARTICIPATION IN RESEARCH

Translation, cultural adaptation and psychometric properties of the Greek version of the Abuse Subtle Screening Inventory (SASSI-3)

Study Investigator: **Panagiota S. Kontoléon**

Supervisor: **Dr. Mari Janikian**

Purpose of Study: The primary purpose of this research study is to examine the psychometric properties of the Greek adaptation of the Abuse Subtle Screening Inventroy (SASSI-3).

Participation Withdrawal or Refusal to Participate: Participation in this study is completely voluntary and you may choose to quit the research project at any time without any penalty.

Description of Study Procedures: The principle researcher will explain the study to you, answer any questions you may have, and witness your signature to this consent form.

What you will do in this research: If you decide to participate, you will complete the Greek version of the SASSI-3 questionnaire. Some of the questions will be about your age, gender, marital, educational and employment status and others will be about your lifetime alcohol and drug use. It is estimated that it will take 8-15 minutes to complete the questionnaire.

Confidentiality of Information Obtained: Results of this research will be kept confidential. You will be given a random number for identification purposes. Individual research responses will be kept separately from any identifying information. All information obtained will be stored in a locked file cabinet accessed only by the principal investigator and the supervisor. Information from this study may be reported or published in aggregated form, but your identity will be kept confidential in any publications or presentations.

Expected Risks of the Study: There are no known or anticipated risks for participating in this study. Nevertheless, you will be asked to disclose personal substance use information and some

questions may contain items about symptoms that may be troubling to you. You may experience some emotional discomfort when responding to these items, but it is not expected to last longer than it takes you to complete the questionnaire. If, however, you experience emotional reactions that are difficult for you to manage, please contact the principal investigator of this research study or if you are visiting a psychologist mention your reactions to him/her. Referral information for additional appropriate services is available if necessary.

Expected Benefits of the Study: Your participation in this study should enhance your general knowledge about how substance abuse may impact various domains of life. Also, you will have the opportunity to experience first-hand how psychological research is conducted. You might also find it useful to reflect on your own experiences and perceptions as evoked by the questions.

Use of Research Results: Findings from this study will be presented in a committee of three supervisor psychologists of the Master's Program in Counseling Psychology and Psychotherapy. The presentation will have open access to all interested college students and stuff. As a participant, you are entitled to meet with the principal investigator to obtain the results of the study and for any other questions or concerns. Data collected will be destroyed at the end of three years.

Future Questions: If, at any time, you have questions about study procedures or your participation in the study, please contact the principal investigator (Panagiota Kontol**é**on, 698 5551 888) or the supervisor (Dr. Mari Janikian, mjanikian@acg.edu).

Emergency Contact Information: You may contact the study investigator if you feel that you need to discuss concerns about substance abuse.

Human Subjects Review Board: This research study has been reviewed and approved by the Institutional Review Board of the American College of Greece.

_____ _____

Researcher Signature Researcher Name

CONSENT TO PARTICIPATE: I have read and understood the information provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.

_____ _____

Participant Signature Date

_____

Participant Name

DEBRIEFING FORM

Translation, cultural adaptation and psychometric properties of the Greek version of the Abuse Subtle Screening Inventory (SASSI-3)

Substance abuse has received increasing empirical and clinical attention due to its detrimental effects on the individual's physical and mental health, as well as in his/her quality of life. Early identification of problematic alcohol use and drug abuse is essential to the development of appropriate interventions and treatments of substance use disorders in various populations. Your generosity and willingness to participate in this study are greatly appreciated. Your input will help contribute to the advancement of the field of substance abuse screening research. There are times that people find the subject matter of these questionnaires disturbing. If answering any of these questions led you to feel distressed and you would like to speak to someone about your thoughts, please contact one of the following:

Deree Student Counselling Service: 210 – 600 9800, ext. 1080

If you have any complaints, concerns, or questions about this research, please feel free to contact, Dr. Apergi, the Graduate Department of Psychology Coordinator (tel: 210-600 9800, εχτ. 1505, tapergi@acg.edu).

If you are interested in this area of research, you may wish to read the following references:

Courtney, R. (2015). The Health Consequences of Smoking-50 Years of Progress: A Report of the Surgeon General, 2014. *Drug & Alcohol Review*, *34*(6), 694–695. doi: 10.1111/dar.12309

De Maeyer, J., Vanderplasschen, W., & Broekaert, E. (2010). Quality of life among opiate-dependent individuals: A review of the literature. *International Journal of Drug Policy*, *21*(5), 364-380. doi:10.1016/j.drugpo.2010.01.010

Fiellin, D. A., Reid, M. C., & O'connor, P. G. (2000). Screening for alcohol problems in primary care: a systematic review. *Archives of Internal Medicine*, *160*(13), 1977-1989. doi:10.1001/archinte.160.13.1977

Lai, H. M. X., Cleary, M., Sitharthan, T., & Hunt, G. E. (2015). Prevalence of comorbid substance use, anxiety and mood disorders in epidemiological surveys, 1990–2014: A systematic review and meta-analysis. *Drug & Alcohol Dependence*, *154*, 1-13. doi: 10.1016/j.drugalcdep.2015.05.031

Levola, J., Aalto, M., Holopainen, A., Cieza, A., & Pitkänen, T. (2014). Health-related quality of life in alcohol dependence: A systematic literature review with a specific focus on the role of depression and other psychopathology. *Nordic Journal of Psychiatry*, *68*(6), 369–384. doi:10.3109/08039488.2013.852242

Mdege, N. D., & Lang, J. (2011). Screening instruments for detecting illicit drug use/abuse that could be useful in general hospital wards: A systematic review. *Addictive Behaviors*, *36*(12), 1111-1119. doi: 10.1016/j.addbeh.2011.07.007

Schulte, M. T., & Hser, Y. I. (2013). Substance use and associated health conditions throughout the lifespan. *Public Health Reviews*, *35*(2), 3. Retrieved from: https://www.ncbi.nlm.nih.gov/pubmed/28366975

Once again, I thank you for taking part in the present study.

Please feel free to contact Panagiota Kontoléon at P.Kontoleon@acg.edu or 698 5551 888 if you have any questions or comments regarding this study.

B. INFORMED CONSENT AND DEBREIFING FORMS – GREEK VERSIONS

ΠΙΣΤΟΠΟΙΗΤΙΚΌ ΣΥΓΚΑΤΑΘΕΣΗΣ ΓΙΑ ΣΥΜΜΕΤΟΧΗ ΣΕ ΕΡΕΥΝΑ

Μετάφραση, πολιτισμική προσαρμογή και ψυχομετρικές ιδιότητες της Ελληνικής εκδοχής του Διακριτικού Προσυμπτωματικού Ελέγχου Κατάχρησης Ουσιών (SASSI-3)

Ερευνήτρια: **Παναγιώτα Σ. Κοντολέων**

Επικεφαλής Καθηγήτρια: **Μαρί Τζανικιάν, PhD**

Σκοπός έρευνας: Ο πρωταρχικός σκοπός της παρούσας έρευνας είναι η εξέταση των ψυχομετρικών ιδιοτήτων της Ελληνικής προσαρμογής του ερωτηματολογίου «Substance Abuse Subtle Screening Inventory» (SASSI-3).

Αναίρεση Απόφασης Συμμετοχής ή Άρνηση Συμμετοχής: Η συμμετοχή στην παρούσα έρευνα είναι απολύτως εθελοντική και μπορείτε να επιλέξετε να αποσύρετε τη συμμετοχή σας στην έρευνα, ανά πάσα στιγμή, χωρίς καμία κύρωση.

Περιγραφή της ερευνητικής διαδικασίας: Ο βασικός ερευνητής θα σας εξηγήσει την έρευνα, θα απαντήσει τυχόν ερωτήσεις και θα επιβλέψει την υπογραφή της παρούσας φόρμας συγκατάθεσης από εσάς.

Ο ρόλος σας στην έρευνα: Στην περίπτωση που αποφασίσετε να συμμετέχετε, θα χρειασθεί να συμπληρώσετε ένα πακέτο ερωτηματολογίων. Κάποιες ερωτήσεις αφορούν στην ηλικία, στο φύλο, στην οικογενειακή, επαγγελματική και εκπαιδευτική κατάσταση και στις συνήθειές σας για χρήση ουσιών. Εκτιμάται ότι η συμπλήρωση των ερωτηματολογίων παίρνει 8-15 λεπτά.

Προστασία Προσωπικών Δεδομένων: Τα αποτελέσματα αυτής της έρευνας θα κρατηθούν απόρρητα. Θα σας δοθεί ένας τυχαίος αριθμός για εξακρίβωση στοιχείων. Οι ατομικές σας απαντήσεις θα κρατηθούν ξέχωρα από οποιοδήποτε στοιχείο ταυτότητας. Όλες οι πληροφορίες θα κρατηθούν κλειδωμένες σε μέρος στο οποίο έχουν πρόσβαση μόνο η βασική ερευνήτρια και

η επιβλέπουσα καθηγήτρια. Πληροφορίες από αυτή την έρευνα ενδέχεται να παρουσιασθούν ή να δημοσιοποιηθούν συγκεντρωτικά, αλλά η ταυτότητά σας θα παραμείνει εμπιστευτική σε οποιαδήποτε δημοσίευση ή παρουσίαση.

Ενδεχόμενοι Κίνδυνοι Μελέτης: Δεν υπάρχουν γνωστοί ή ενδεχόμενοι κίνδυνοι σχετικά με τη συμμετοχή σας στην εν λόγω έρευνα. Ωστόσο, θα κληθείτε να αποκαλύψετε προσωπικές πληροφορίες σχετικά με τη χρήση ουσιών και ορισμένες κατηγορίες ερωτημάτων μπορεί να εμπεριέχουν στοιχεία συμπτωμάτων που σας αφορούν. Απαντώντας τα εν λόγω ερωτήματα, ενδέχεται να βιώσετε σε κάποιο βαθμό δυσφορία, η οποία όμως αναμένεται να περιορισθεί μόνο στο χρόνο που απαιτεί η απάντηση των ερωτημάτων. Εάν, παρ' όλα αυτά, βιώσετε συναισθηματικές αντιδράσεις που δυσκολεύεστε να διαχειριστείτε, παρακαλείσθε να επικοινωνήσετε με την βασική ερευνήτρια της εν λόγω μελέτης ή εάν επισκέπτεστε κάποιον ψυχολόγο να του τις αναφέρετε. Επιπρόσθετες πληροφορίες για χρήση αρμόδιων υπηρεσιών είναι διαθέσιμες σε περίπτωση που χρειασθούν.

Αναμενόμενα Οφέλη Μελέτης: Η συμμετοχή σας στην εν λόγω έρευνα μπορεί να διευρύνει τις γνώσεις σας στον τρόπο με τον οποίο καταναλώνετε αλκοόλ ή χρησιμοποιείτε ουσίες και πώς αυτό δύναται να επηρεάσει διάφορους τομείς της ζωής. Επίσης, θα έχετε την ευκαιρία να παρακολουθήσετε από κοντά τον τρόπο διεξαγωγής μιας ψυχολογικής έρευνας. Τέλος, ενδέχεται να βρείτε χρήσιμο το να σας δοθεί η αφορμή μέσω των ερωτήσεων να σκεφτείτε τις προσωπικές εμπειρίες και αντιλήψεις σας.

Χρήση Αποτελεσμάτων Μελέτης: Τα ευρήματα της μελέτης θα παρουσιασθούν σε μια επιτροπή τριών επιβλεπόντων καθηγητών του Μεταπτυχιακού Τμήματος Συμβουλευτικής Ψυχολογίας και Ψυχοθεραπείας του Αμερικανικού Κολλεγίου Ελλάδος. Η παρουσίαση θα είναι ανοιχτή σε όλους τους ενδιαφερόμενους φοιτητές και προσωπικό. Ως συμμετέχοντας,

έχετε το δικαίωμα να συναντηθείτε με τη βασική ερευνήτρια, ώστε να λάβετε τα αποτελέσματα της μελέτης ή για οποιοδήποτε άλλο ερώτημα ή ανησυχία. Τα δεδομένα που θα έχουν συλλεχθεί από την έρευνα θα αποθηκευθούν για περαιτέρω έρευνα.

Μελλοντικές Ερωτήσεις: Εάν, ανά πάσα στιγμή, έχετε ερωτήσεις σχετικά με τις διαδικασίες της μελέτης ή με τη δική σας συμμετοχή σε αυτήν, παρακαλείσθε να επικοινωνήσετε με τη βασική ερευνήτρια (Παναγιώτα Κοντολέων, 698 5551 888) ή με την επιβλέπουσα καθηγήτρια (Δρ. Μαρί Τζανικιάν, email: mjanikian@acg.edu).

Στοιχεία Επικοινωνίας σε Περίπτωση Ανάγκης: Εάν σας δημιουργηθεί η ανάγκη να συζητήσετε περαιτέρω προβληματισμούς σχετικά με τη χρήση ουσιών, μπορείτε να επικοινωνήσετε με την ερευνήτρια της μελέτης.

Επιτροπή Αναθεώρησης Ανθρώπινων Δικαιωμάτων: Η παρούσα ερευνητική μελέτη έχει αναθεωρηθεί και εγκριθεί από το Συμβούλιο Θεσμικών Αναθεωρήσεων του Αμερικανικού Κολλεγίου Ελλάδος.

_____ _____

Υπογραφή Ερευνήτριας Όνομα Ερευνήτριας

ΣΥΓΚΑΤΑΘΕΣΗ ΣΥΜΜΕΤΟΧΗΣ: Έχω διαβάσει και κατανοήσει τις πληροφορίες που μου δόθηκαν. Έχουν απαντηθεί ικανοποιητικά όλες μου οι ερωτήσεις και συμφωνώ οικειοθελώς να συμμετάσχω στην παρούσα έρευνα.

_____ _____

Υπογραφή Συμμετέχοντος/ουσας Όνομα συμμετέχοντος/ουσας

_____

Ημερομηνία

ΦΟΡΜΑ ΑΝΑΦΟΡΑΣ

Μετάφραση, πολιτισμική προσαρμογή και ψυχομετρικές ιδιότητες της Ελληνικής εκδοχής του Διακριτικού Προσυμπτωματικού Ελέγχου Κατάχρησης Ουσιών (SASSI-3)

Η κατάχρηση ουσιών έχει γίνει το αντικείμενο εκτεταμένης εμπειρικής και κλινικής προσοχής λόγω των επιζήμιων επιπτώσεών της στη σωματική και ψυχική υγεία του εξαρτημένου ατόμου καθώς και στην ποιότητα ζωής του. Η έγκαιρη αναγνώριση της προβληματικής χρήσης αλκοόλ και της κατάχρησης ουσιών είναι απαραίτητη για την ανάπτυξη κατάλληλων παρεμβάσεων και θεραπευτικών αγωγών για διαταραχές της χρήσης ουσιών σε διάφορους πληθυσμούς.

Η γενναιοδωρία και η προθυμία σας να συμμετάσχετε σε αυτή τη μελέτη εκτιμώνται ιδιαιτέρως. Η συνεισφορά σας θα συμβάλει στην προώθηση του τομέα έρευνας για την κατάχρηση ουσιών. Υπάρχουν στιγμές που ορισμένοι άνθρωποι βρίσκουν το περιεχόμενο ερωτηματολογίων ενοχλητικό. Εάν απαντώντας οποιαδήποτε ερώτηση νοιώσετε δυσάρεστα και θέλετε να μοιραστείτε τις σκέψεις σας, παρακαλώ επικοινωνήστε με την:

Υπηρεσία Συμβουλευτικής Φοιτητών του Deree στο τηλ. 210-600 9800, εσωτ. 1080

Για παράπονα, προβληματισμούς, ή ερωτήσεις σχετικά με την παρούσα έρευνα, παρακαλώ επικοινωνήστε με την Συντονίστρια του Μεταπτυχιακού Τμήματος Ψυχολογίας, Δρ. Απέργη στο 210-600 9800, εσωτ. 1505).

Εάν ενδιαφέρεστε περισσότερο για το εν λόγω αντικείμενο μελέτης, μπορείτε να παραπεμφθείτε στα ακόλουθα κείμενα:

De Maeyer, J., Vanderplasschen, W., & Broekaert, E. (2010). Quality of life among opiate-dependent individuals: A review of the literature. *International Journal of Drug Policy*, *21*(5), 364-380. doi:10.1016/j.drugpo.2010.01.010

Fiellin, D. A., Reid, M. C., & O'connor, P. G. (2000). Screening for alcohol problems in primary care: a systematic review. *Archives of Internal Medicine*, *160*(13), 1977-1989. doi:10.1001/archinte.160.13.1977

Levola, J., Aalto, M., Holopainen, A., Cieza, A., & Pitkänen, T. (2014). Health-related quality of life in alcohol dependence: A systematic literature review with a specific focus on the role of depression and other psychopathology. *Nordic Journal of Psychiatry*, *68*(6), 369–384. doi:10.3109/08039488.2013.852242

Mdege, N. D., & Lang, J. (2011). Screening instruments for detecting illicit drug use/abuse that could be useful in general hospital wards: A systematic review. *Addictive Behaviors*, *36*(12), 1111-1119. doi: 10.1016/j.addbeh.2011.07.007

Schulte, M. T., & Hser, Y. I. (2013). Substance use and associated health conditions throughout the lifespan. *Public Health Reviews*, *35*(2), 3. Retrieved from: https://www.ncbi.nlm.nih.gov/pubmed/28366975

Για μία ακόμη φορά, σας ευχαριστώ θερμά για την συμμετοχή σας στην παρούσα μελέτη. Παρακαλώ μη διστάσετε να επικοινωνήσετε με την Παναγιώτα Κοντολέων στο μέιλ P.Kontoleon@acg.edu ή στο 698 5551 888 για οποιαδήποτε ερώτηση ή διευκρίνηση σχετική με αυτή τη μελέτη.

C. INSTITUTIONAL REVIEW BOARD APPROVAL

INSTITUTIONAL REVIEW BOARD APPROVAL

Institutional Review Board

March 8, 2019

Panagiota Kontoleon, Graduate Student
MS in Counseling Psychology and Psychotherapy
The American College of Greece

Re: Expedited review (IRB protocol #201902160)

Dear Ms. Kontoleon,

Thank you for submitting your study entitled, "Translation-Cultural Adaptation-Psychometric Properties of the SASSI-3". The IRB reviewed and **approved** your study under the **Expedited** review process, pending subject to the following conditions:

1. In the informed consent, Use of Research Results, add the following information:
   Data collected will be destroyed at the end of three years OR stored for further research (SPECIFICALLY STATE IF DATA WILL BE KEPT OR IF IT WILL BE DESTROYED).
2. In the informed consent, Use of Research Results, replace the phrase *"..supervisor psychologists of the Graduate Psychology Department.."* with *"..supervisor psychologists of the Master's Program in Counseling Psychology and Psychotherapy..."*
3. Submit the approval letters for recruitment of participants from all institutions mentioned in the protocol, before the collection of data.

Please keep in mind that the IRB Committee must be contacted if there are any changes to your research protocol. Feel free to contact the IRB [irb@acg.edu] if you have any questions.

Best Wishes for your research work.

Sincerely,

Chrysanthi Nega, Ph.D.
Chair, IRB
Cc: Office of Provost

6 Gravias Street, 153 42
Aghia Paraskevi
Athens, Greece
t: +30 210 600 9800
www.acg.edu

D. SASSI-3 ENGLISH AND GREEK VERSIONS

If a statement tends to be TRUE for you, fill in the square in the column headed T: that is,
If a statement tends to be FALSE for you, fill in the square in the column headed F: that is,
Please try to answer all questions.

T F

Fill in this way ■
Not like this ☑

SASSI - 3
ADULT FORM

	T	F	
1.	☐	☐	Most people would lie to get what they want.
2.	☐	☐	Most people make some mistakes in their life.
3.	☐	☐	I usually "go along" and do what others are doing.
4.	☐	☐	I have never been in trouble with the police.
5.	☐	☐	I was always well behaved in school.*
6.	☐	☐	My troubles are not all my fault.*
7.	☐	☐	I have not lived the way I should.
8.	☐	☐	I can be friendly with people who do many wrong things.
9.	☐	☐	I do not like to sit and daydream.*
10.	☐	☐	No one has ever criticized or punished me.
11.	☐	☐	Sometimes I have a hard time sitting still.
12.	☐	☐	People would be better off if they took my advice.
13.	☐	☐	At times I feel worn out for no special reason.*
14.	☐	☐	I think I would enjoy moving to an area I've never been before.
15.	☐	☐	It is better not to talk about personal problems.
16.	☐	☐	I have had days, weeks or months when I couldn't get much done because I just wasn't up to it.
17.	☐	☐	I am very respectful of authority.
18.	☐	☐	I like to obey the law.*
19.	☐	☐	I have been tempted to leave home.*
20.	☐	☐	I often feel that strangers look at me with disapproval.
21.	☐	☐	Other people would fall apart if they had to deal with what I handle.
22.	☐	☐	I have avoided people I did not wish to speak to.
23.	☐	☐	Some crooks are so clever that I hope they get away with what they have done.
24.	☐	☐	My school teachers had some problems with me.*
25.	☐	☐	I have never done anything dangerous just for fun.
26.	☐	☐	I need to have something to do so I don't get bored.
27.	☐	☐	I have sometimes drunk too much.*
28.	☐	☐	Much of my life is uninteresting.*
29.	☐	☐	Sometimes I wish I could control myself better.*
30.	☐	☐	I believe that people sometimes get confused.
31.	☐	☐	Sometimes I am no good for anything at all.*
32.	☐	☐	I break more laws than many people.*
33.	☐	☐	If some friends and I were in trouble together, I would rather take the whole blame than tell on them.
34.	☐	☐	Crying does not help anything.
35.	☐	☐	I think there is something wrong with my memory.*
36.	☐	☐	I have sometimes been tempted to hit people.*
37.	☐	☐	My most important successes are not a direct result of my effort.
38.	☐	☐	I always feel sure of myself.
39.	☐	☐	I have never broken a major law.*
40.	☐	☐	There have been times when I have done things I couldn't remember later.
41.	☐	☐	I think carefully about all my actions.*
42.	☐	☐	I have used alcohol or "pot" too much or too often.
43.	☐	☐	Nearly everyone enjoys being picked on and made fun of.
44.	☐	☐	I know who is to blame for most of my troubles.
45.	☐	☐	I frequently make lists of things to do.
46.	☐	☐	I guess I know some pretty undesirable types.*
47.	☐	☐	Most people will laugh at a joke at times.
48.	☐	☐	I have rarely been punished.*
49.	☐	☐	I smoke cigarettes regularly.
50.	☐	☐	At times I have been so full of energy that I felt I didn't need sleep for days at a time.
51.	☐	☐	I have sometimes sat about when I should have been working.*
52.	☐	☐	I am often resentful.
53.	☐	☐	I take all my responsibilities seriously.*
54.	☐	☐	I have neglected obligations to family or work because of drinking or using drugs.
55.	☐	☐	I have had a drink first thing in the morning to steady my nerves or get rid of a hangover.
56.	☐	☐	While I was a teenager, I began drinking or using other drugs regularly.
57.	☐	☐	My father was/is a heavy drinker or drug user.
58.	☐	☐	When I drink or use drugs I tend to get into trouble.
59.	☐	☐	My drinking or other drug use causes problems between me and my family.
60.	☐	☐	I do most of my drinking or drug using away from home.
61.	☐	☐	At least once a week I use some non-prescription antacid and/or diarrhea medicine.
62.	☐	☐	I have never felt sad over anything.
63.	☐	☐	I am rarely at a loss for words.*
64.	☐	☐	I am usually happy.*
65.	☐	☐	I am a restless person.
66.	☐	☐	I like doing things on the spur of the moment.
67.	☐	☐	I am a binge drinker/drug user.

Name _____ Date _____ Sex _____ Age ____

The SASSI

*These items are taken from the Psychological Screening Inventory. Copyright© 1988 by Richard I. Lanyon, Ph.D. and are used here by permission.

Form SASSI-3 #2-14-97

For each item below, circle the number which reflects how often you have experienced the situation described during:

- ❒ your entire life
- ❒ the past six months
- ❒ the six months before _____
- ❒ the six months since _____

ALCOHOL (FVA)

Never	Once or Twice	Several Times	Repeatedly	
0	1	2	3	1. Had drinks with lunch?
0	1	2	3	2. Taken a drink or drinks to help you express your feelings or ideas?
0	1	2	3	3. Taken a drink or drinks to relieve a tired feeling or give you energy to keep going?
0	1	2	3	4. Had more to drink than you intended to?
0	1	2	3	5. Experienced physical problems after drinking (e.g. nausea, seeing/hearing problems, dizziness, etc.)?
0	1	2	3	6. Gotten into trouble on the job, in school, or at home because of drinking?
0	1	2	3	7. Become depressed after having sobered up?
0	1	2	3	8. Argued with your family or friends because of your drinking?
0	1	2	3	9. Had the effects of drinking recur after not drinking for a while (e.g. flashbacks, hallucinations, etc.)?
0	1	2	3	10. Had problems in relationships because of your drinking (e.g. loss of friends, separation, divorce, etc.)?
0	1	2	3	11. Become nervous or had the shakes after having sobered up?
0	1	2	3	12. Tried to commit suicide while drunk?

OTHER DRUGS (FVOD)

Never	Once or Twice	Several Times	Repeatedly	
0	1	2	3	1. Taken drugs to improve your thinking and feeling?
0	1	2	3	2. Taken drugs to help you feel better about a problem?
0	1	2	3	3. Taken drugs to become more aware of your senses (e.g. sight, hearing, touch, etc.)?
0	1	2	3	4. Taken drugs to improve your enjoyment of sex?
0	1	2	3	5. Taken drugs to help forget that you feel helpless and unworthy?
0	1	2	3	6. Taken drugs to forget school, work, or family pressures?
0	1	2	3	7. Gotten into trouble with the law because of drugs?
0	1	2	3	8. Gotten really stoned or wiped out on drugs (more than just high)?
0	1	2	3	9. Tried to talk a doctor into giving you some prescription drug (e.g. tranquilizers, pain killers, diet pills, etc.)?
0	1	2	3	10. Spent your spare time in drug-related activities (e.g. talking about drugs, buying, selling, taking, etc.)?
0	1	2	3	11. Used drugs and alcohol at the same time?
0	1	2	3	12. Continued to take a drug or drugs in order to avoid the pain of withdrawal?
0	1	2	3	13. Felt your drug use has kept you from getting what you want out of life?
0	1	2	3	14. Been accepted into a treatment program because of drug use?

Marital Status: Married or equivalent [] Never Married [] Divorced [] Widowed [] Separated []

Employment Status: Full-time [] Part-time [] Not employed [] Student [] Homemaker [] Disabled [] Retired []

Highest Grade Completed _____ Ethnic Origin _____

Weekly Family Take Home Income:

[] Prefer not to answer [] $301-400 [] $701-800
[] $0 [] $401-500 [] $801-900
[] Less than $200 [] $501-600 [] Over $900
[] $200-300 [] $601-700 [] Not Sure

Number of People in your Family: _____

Miscellaneous

A [] D []
B [] E []
C [] F []

the SASSI

SASSI – 3 ΕΝΤΥΠΟ ΕΝΗΛΙΚΩΝ

Form SASSI-3 #2-14-97

Αν μια δήλωση τείνει να είναι ΑΛΗΘΗΣ για εσάς, συμπληρώστε το τετράγωνο στη στήλη με το γράμμα Α: δηλαδή ■ Α □ Ψ

Αν μια δήλωση τείνει να είναι ΨΕΥΔΗΣ για εσάς, συμπληρώστε το τετράγωνο στη στήλη με το γράμμα Ψ: δηλαδή □ Α ■ Ψ

Συμπληρώστε έτσι ■

Όχι έτσι ☑

Παρακαλώ προσπαθήστε να απαντήσετε σε όλες τις ερωτήσεις.

	Α	Ψ	
1	□	□	Οι περισσότεροι άνθρωποι θα έλεγαν ψέματα για να πετύχουν αυτό που θέλουν.
2	□	□	Οι περισσότεροι άνθρωποι κάνουν κάποια λάθη στη ζωή τους.
3	□	□	Συνήθως «πάω με το ρεύμα» και κάνω ό,τι κάνουν οι άλλοι.
4	□	□	Δεν είχα ποτέ προβλήματα με την αστυνομία.
5	□	□	Είχα πάντοτε καλή συμπεριφορά στο σχολείο.*
6	□	□	Τα προβλήματά μου δεν είναι αποκλειστικά δικό μου φταίξιμο.*
7	□	□	Δεν έχω ζήσει όπως θα έπρεπε.
8	□	□	Μπορώ να έχω φιλικές σχέσεις με άτομα που κάνουν πολλά λάθος πράγματα.
9	□	□	Δεν μου αρέσει να κάθομαι και να ονειροπολώ.*
10	□	□	Κανείς ποτέ δεν με έχει κριτικάρει ή τιμωρήσει.
11	□	□	Μερικές φορές δυσκολεύομαι να καθίσω ακίνητος/η.
12	□	□	Οι άνθρωποι θα ήταν σε καλύτερη κατάσταση αν ακολουθούσαν τη συμβουλή μου.
13	□	□	Κάποιες φορές νιώθω εξαντλημένος/η χωρίς ιδιαίτερο λόγο.*
14	□	□	Νομίζω ότι θα μου άρεσε να μετακόμιζα σε κάποια περιοχή όπου δεν έχω ξαναπάει ποτέ.
15	□	□	Είναι καλύτερα να μην συζητούνται τα προσωπικά προβλήματα.
16	□	□	Υπήρχαν μέρες, εβδομάδες, μήνες που δεν μπορούσα να κάνω πολλά, επειδή απλώς δεν είχα αντοχές.
17	□	□	Σέβομαι πολύ την εξουσία.
18	□	□	Μου αρέσει να υπακούω στους νόμους.*
19	□	□	Έχω μπει στον πειρασμό να φύγω από το σπίτι.*
20	□	□	Συχνά νιώθω ότι με κοιτούν ξένοι άνθρωποι με αποδοκιμασία.
21	□	□	Άλλοι άνθρωποι θα είχαν καταρρεύσει εάν είχαν να αντιμετωπίσουν όσα χειρίζομαι εγώ.
22	□	□	Έχω αποφύγει άτομα στα οποία δεν ήθελα να μιλήσω.
23	□	□	Μερικοί απατεώνες είναι τόσο έξυπνοι που ελπίζω να έχουν ξεφύγει χωρίς να τιμωρηθούν.
24	□	□	Οι δάσκαλοί μου στο σχολείο είχαν κάποια προβλήματα μαζί μου.*
25	□	□	Δεν έχω κάνει ποτέ κάτι επικίνδυνο απλά για να διασκεδάσω.
26	□	□	Πρέπει να έχω κάτι να κάνω για να μην βαριέμαι.
27	□	□	Μερικές φορές έχω πιει πάρα πολύ.*
28	□	□	Μεγάλο μέρος της ζωής μου δεν είναι ενδιαφέρον.*
29	□	□	Μερικές φορές εύχομαι να μπορούσα να ελέγχω καλύτερα τον εαυτό μου.*
30	□	□	Πιστεύω ότι μερικές φορές οι άνθρωποι μπερδεύονται.
31	□	□	Μερικές φορές δεν κάνω για τίποτα απολύτως.*
32	□	□	Παραβαίνω πιο πολλούς νόμους από τον περισσότερο κόσμο.*
33	□	□	Εάν φίλοι μου κι εγώ μπλέκαμε, θα προτιμούσα να αναλάβω εγώ την ευθύνη, παρά να τους μαρτυρήσω.
34	□	□	Το κλάμα δεν βοηθάει σε τίποτα.
35	□	□	Πιστεύω πως κάτι δεν πάει καλά με τη μνήμη μου.*
36	□	□	Έχω μπει στον πειρασμό μερικές φορές να χτυπήσω άνθρωπο.*
37	□	□	Οι σημαντικότερες επιτυχίες μου δεν αποτελούν άμεσο αποτέλεσμα της προσπάθειάς μου.
38	□	□	Αισθάνομαι πάντοτε σίγουρος/η για τον εαυτό μου.
39	□	□	Δεν έχω παραβεί ποτέ κάποιον σημαντικό νόμο.*
40	□	□	Έχουν υπάρξει φορές που έκανα πράγματα τα οποία δεν μπορούσα να θυμηθώ αργότερα.
41	□	□	Σκέφτομαι προσεκτικά όλες μου τις πράξεις.*
42	□	□	Έχω κάνει χρήση αλκοόλ ή μαριχουάνας υπερβολικά πολύ ή υπερβολικά συχνά.
43	□	□	Σχεδόν όλοι διασκεδάζουν όταν τους πειράζουν και τους κοροϊδεύουν.
44	□	□	Ξέρω ποιόν να κατηγορήσω για τα περισσότερα προβλήματά μου.
45	□	□	Φτιάχνω συχνά λίστες με πράγματα που πρέπει να κάνω.
46	□	□	Νομίζω ότι γνωρίζω μερικούς αρκετά ανεπιθύμητους τύπους.*
47	□	□	Οι περισσότεροι άνθρωποι θα γελάσουν με κάποιο αστείο κατά καιρούς.
48	□	□	Σπάνια έχω τιμωρηθεί.*
49	□	□	Καπνίζω τσιγάρα τακτικά.
50	□	□	Έχουν υπάρξει φορές που είχα τόση ενέργεια που ένιωθα ότι δεν χρειαζόταν να κοιμηθώ για μέρες.
51	□	□	Μερικές φορές τεμπέλιαζα ενώ θα έπρεπε να εργάζομαι.*
52	□	□	Συχνά νιώθω μνησικακία.
53	□	□	Παίρνω στα σοβαρά όλες μου τις ευθύνες.*
54	□	□	Έχω αμελήσει υποχρεώσεις προς την οικογένεια ή την εργασία μου επειδή έπινα ή έκανα χρήση ουσιών.
55	□	□	Έχω πιει αλκοόλ πρωί-πρωί για να καλμάρουν τα νεύρα μου ή να απαλλαγώ από χανγκόβερ.
56	□	□	Όταν ήμουν έφηβος/η, άρχισα να πίνω ή να χρησιμοποιώ άλλες ουσίες τακτικά.
57	□	□	Ο πατέρας μου ήταν/είναι σκληρός πότης ή χρήστης ναρκωτικών.
58	□	□	Όταν πίνω ή χρησιμοποιώ ουσίες έχω την τάση να μπλέκω σε μπελάδες.
59	□	□	Το ότι πίνω ή χρησιμοποιώ ουσίες προκαλεί προβλήματα ανάμεσα σε εμένα και την οικογένειά μου.
60	□	□	Τις περισσότερες φορές που πίνω ή χρησιμοποιώ ουσίες, το κάνω μακριά από το σπίτι μου.
61	□	□	Τουλάχιστον μία φορά την εβδομάδα χρησιμοποιώ κάποιο μη συνταγογραφούμενο αντιόξινο ή/και αντιδιαρροϊκό φάρμακο.
62	□	□	Δεν έχω νιώσει ποτέ λυπημένος/η για κάτι.
63	□	□	Σπάνια χάνω τα λόγια μου.*
64	□	□	Συνήθως είμαι χαρούμενος/η.*
65	□	□	Είμαι ανήσυχο άτομο.
66	□	□	Μου αρέσει να κάνω πράγματα συνθόρμητα.
67	□	□	Πέφτω με τα μούτρα στο ποτό/στα ναρκωτικά.

*Αυτά τα στοιχεία προέρχονται από το Psychological Screening Inventory. Πνευματικά δικαιώματα© 1968 του Richard I. Lanyon, PhD, και χρησιμοποιούνται εδώ κατόπιν αδείας.

Για κάθε στοιχείο παρακάτω, κυκλώστε τον αριθμό που αντικατοπτρίζει το πόσο συχνά έχετε βιώσει την κατάσταση που περιγράφεται στη διάρκεια: ☐ ολόκληρης της ζωής σας ☐ των τελευταίων έξι μηνών ☐ των έξι μηνών πριν από _____ ☐ των έξι μηνών από τις _____

	ΑΛΚΟΟΛ (Φ.Ε.Α.)	Ποτέ	Μία ή δύο φορές	Αρκετές φορές	Επανειλημμένα
1	Έχετε πιει αλκοόλ με το μεσημεριανό;	0	1	2	3
2	Έχετε πιει ένα ή περισσότερα ποτά για να σας βοηθήσουν να εκφράσετε τα συναισθήματα ή τις ιδέες σας;	0	1	2	3
3	Έχετε πιεί ένα ή περισσότερα ποτά για να σας περάσει το αίσθημα κόπωσης ή να σας δώσει/ουν ενέργεια να συνεχίσετε;	0	1	2	3
4	Έχετε πιεί περισσότερο από όσο σκοπεύατε;	0	1	2	3
5	Έχετε αντιμετωπίσει σωματικά προβλήματα μετά την κατανάλωση αλκοόλ (ναυτία, προβλήματα όρασης/ακοής, ζαλάδες, κλπ.);	0	1	2	3
6	Είχατε προβλήματα στο χώρο εργασίας, στο σχολείο ή στο σπίτι εξαιτίας του αλκοόλ;	0	1	2	3
7	Έχετε πέσει σε κατάθλιψη αφότου ξεμεθύσατε;	0	1	2	3
8	Έχετε λογομαχήσει με την οικογένεια ή τους φίλους σας επειδή πίνετε;	0	1	2	3
9	Έχετε αντιμετωπίσει τις συνέπειες της κατανάλωσης αλκοόλ μετά από ένα διάστημα που δεν πίνατε (π.χ. μακροπρόθεσμες αναδρομές στο παρελθόν/φλας μπακ, παραισθήσεις κ.λ.π.);	0	1	2	3
10	Είχατε προβλήματα στις σχέσεις σας εξαιτίας του αλκοόλ (π.χ. απώλεια φίλων, χωρισμός, διαζύγια κ.λ.π.);	0	1	2	3
11	Έχετε γίνει νευρικός/ή ή σας έπιασε τρέμουλο αφότου ξεμεθύσατε;	0	1	2	3
12	Έχετε προσπαθήσει να αυτοκτονήσετε ενώ ήσασταν μεθυσμένος/η;	0	1	2	3

	ΑΛΛΕΣ ΟΥΣΙΕΣ (Φ.Ε.Α.Ο.)	Ποτέ	Μία ή δύο φορές	Αρκετές φορές	Επανειλημμένα
1	Έχετε πάρει ουσίες για να βελτιώσετε τη σκέψη ή τα συναισθήματά σας;	0	1	2	3
2	Έχετε πάρει ουσίες για να σας βοηθήσουν να νιώσετε καλύτερα για κάποιο πρόβλημα;	0	1	2	3
3	Έχετε πάρει ουσίες για να αντιληφθείτε καλύτερα τις αισθήσεις σας (π.χ. όραση, ακοή, αφή κ.λ.π.);	0	1	2	3
4	Έχετε πάρει ουσίες για να βελτιώσετε την απόλαυσή σας κατά τη διάρκεια του σεξ;	0	1	2	3
5	Έχετε πάρει ουσίες για να σας βοηθήσουν να ξεχάσετε ότι νιώθετε αβοήθητος/η και ανάξιος/α;	0	1	2	3
6	Έχετε πάρει ουσίες για να ξεχάσετε τις πιέσεις στο σχολείο, στο χώρο εργασίας, στην οικογένεια;	0	1	2	3
7	Είχατε προβλήματα με τον νόμο εξαιτίας των ουσιών;	0	1	2	3
8	Έχετε μαστουρώσει τελείως ή έχετε γίνει τελείως κομμάτια από ουσίες (περισσότερο από απλά να φτιαχτείτε);	0	1	2	3
9	Έχετε προσπαθήσει να πείσετε τον γιατρό σας να σας γράψει κάποιο συνταγογραφούμενο φάρμακο (π.χ. ηρεμιστικά, παυσίπονα, κάπια διαίτης κ.λπ.);	0	1	2	3
10	Έχετε περάσει τον ελεύθερο χρόνο σας, κάνοντας δραστηριότητες σχετικές με ουσίες (π.χ. κουβέντα για ουσίες, αγορά, πώληση, χρήση κ.λ.π.);	0	1	2	3
11	Έχετε κάνει χρήση ουσιών και κατανάλωση αλκοόλ ταυτόχρονα;	0	1	2	3
12	Έχετε συνεχίσει να κάνετε χρήση μιας ή περισσοτέρων ουσιών για να αποφύγετε τους πόνους του στερητικού συνδρόμου;	0	1	2	3
13	Έχετε νιώσει ότι η χρήση ουσιών σας έχει εμποδίσει να καταφέρετε πράγματα στη ζωή σας;	0	1	2	3
14	Σας έχουν δεχθεί σε κάποιο πρόγραμμα θεραπείας λόγω χρήσης ουσιών;	0	1	2	3

Φύλο: ☐ ΑΝΤΡΑΣ ☐ ΓΥΝΑΙΚΑ Ηλικία _____
Υψηλότερη βαθμίδα εκπαίδευσης _____
Εθνοτική καταγωγή _____

Οικογενειακή κατάσταση: Παντρεμένος/η ή καοδύναμο ☐ Δεν έχω παντρευτεί ποτέ ☐ Διαζευγμένος/η ☐ Χήρος/α ☐ Σε διάσταση ☐

Εργασιακή κατάσταση: Πλήρους απασχόλησης ☐ Μερικής απασχόλησης ☐ Άνεργος/η ☐ Φοιτητής/φοιτήτρια ☐ Οικοκυρικά ☐ Ανάπηρος/η ☐ Συνταξιούχος ☐

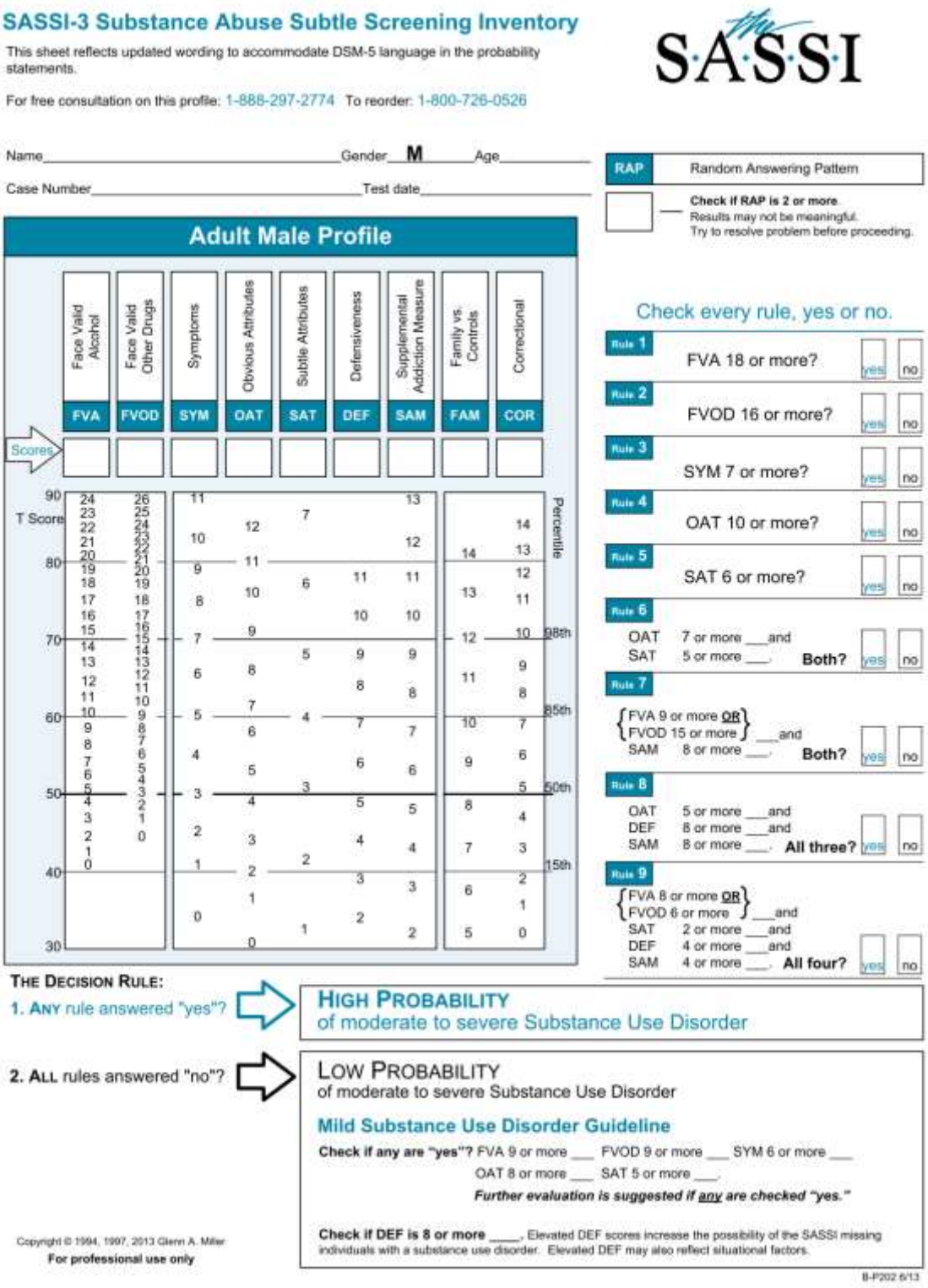
Μηνιαίο οικογενειακό εισόδημα: ☐ Προτιμώ να μην απαντήσω ☐ 0 € ☐ Κάτω από 200 € ☐ 200–400 € ☐ 401–600 € ☐ 601–800 € ☐ 801–1000 € ☐ 801–1000 € ☐ Πάνω από 1000 € ☐ Δεν είμαι βέβαιος/η

SASSI

Εξουσιοδοτημένη μετάφραση και προσαρμογή στην Ελληνική:
Παναγιώτα Κοντολέων, email: panagiota@kontoleon.com.gr

E. SASSI-3 PROFILE SHEET ACCORDING TO GENDER

SASSI-E ADULT MALE PROFILE



SASSI-3 Substance Abuse Subtle Screening Inventory

This sheet reflects updated wording to accommodate DSM-5 language in the probability statements.

For free consultation on this profile: 1-888-297-2774 To reorder: 1-800-726-0526

SASSI

Name_____ Gender M Age_____

Case Number_____ Test date_____

RAP Random Answering Pattern

Check if RAP is 2 or more.
Results may not be meaningful.
Try to resolve problem before proceeding.

Adult Male Profile

Face Valid Alcohol	Face Valid Other Drugs	Symptoms	Obvious Attributes	Subtle Attributes	Defensiveness	Supplemental Addiction Measure	Family vs. Controls	Correctional
FVA	FVOD	SYM	OAT	SAT	DEF	SAM	FAM	COR
Scores								

T Scores: 90, 80, 70, 60, 50, 40, 30 — Percentile: 98th, 85th, 50th, 15th

Check every rule, yes or no.

Rule 1 FVA 18 or more? yes no

Rule 2 FVOD 16 or more? yes no

Rule 3 SYM 7 or more? yes no

Rule 4 OAT 10 or more? yes no

Rule 5 SAT 6 or more? yes no

Rule 6
OAT 7 or more ___and
SAT 5 or more ___. **Both?** yes no

Rule 7
{FVA 9 or more **OR** / FVOD 15 or more} ___and
SAM 8 or more ___. **Both?** yes no

Rule 8
OAT 5 or more ___and
DEF 8 or more ___and
SAM 8 or more ___. **All three?** yes no

Rule 9
{FVA 8 or more **OR** / FVOD 6 or more} ___and
SAT 2 or more ___and
DEF 4 or more ___and
SAM 4 or more ___. **All four?** yes no

THE DECISION RULE:

1. **ANY** rule answered "yes"? ⇨ **HIGH PROBABILITY** of moderate to severe Substance Use Disorder

2. **ALL** rules answered "no"? ⇨ **LOW PROBABILITY** of moderate to severe Substance Use Disorder

Mild Substance Use Disorder Guideline

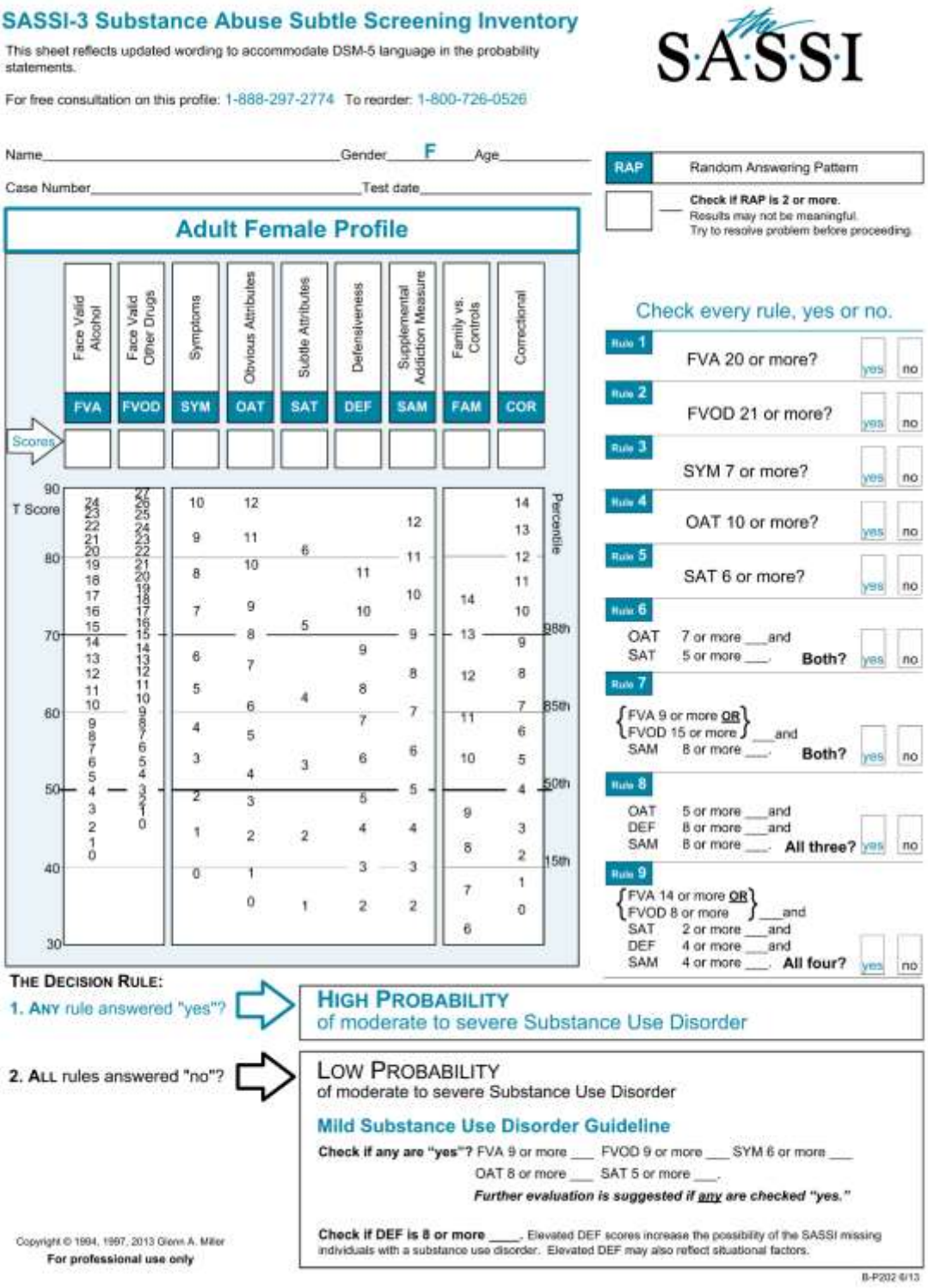
Check if any are "yes"? FVA 9 or more ___ FVOD 9 or more ___ SYM 6 or more ___
OAT 8 or more ___ SAT 5 or more ___.

Further evaluation is suggested if any are checked "yes."

Check if DEF is 8 or more ____. Elevated DEF scores increase the possibility of the SASSI missing individuals with a substance use disorder. Elevated DEF may also reflect situational factors.

B-P202 6/13

SASSI-E ADULT FEMALE PROFILE



F. AUDIT ENGLISH AND GREEK VERSIONS

AUDIT questionnaire

Please circle the answer that is correct for you

1. How often do you have a drink containing alcohol?

· Never
· Monthly or less
· 2-4 times a month
· 2-3 times a week
· 4 or more times a week

2. How many standard drinks containing alcohol do you have on a typical day when drinking?

· 1 or 2
· 3 or 4
· 5 or 6
· 7 to 9
· 10 or more

3. How often do you have six or more drinks on one occasion?

· Never
· Less than monthly
· Monthly
· Weekly
· Daily or almost daily

4. During the past year, how often have you found that you were not able to stop drinking once you had started?

· Never
· Less than monthly
· Monthly
· Weekly
· Daily or almost daily

5. During the past year, how often have you failed to do what was normally expected of you because of drinking?

· Never
· Less than monthly
· Monthly
· Weekly
· Daily or almost daily

6. During the past year, how often have you needed a drink in the morning to get yourself going after a heavy drinking session?

· Never
· Less than monthly
· Monthly
· Weekly
· Daily or almost daily

7. During the past year, how often have you had a feeling of guilt or remorse after drinking?

· Never
· Less than monthly
· Monthly
· Weekly
· Daily or almost daily

8. During the past year, have you been unable to remember what happened the night before because you had been drinking?

· Never
· Less than monthly
· Monthly
· Weekly
· Daily or almost daily

9. Have you or someone else been injured as a result of your drinking?

· No
· Yes, but not in the past year
· Yes, during the past year

10. Has a relative or friend, doctor or other health worker been concerned about your drinking or suggested you cut down?

· No
· Yes, but not in the past year
· Yes, during the past year

Scoring the AUDIT

Scores for each question range from 0 to 4, with the first response for each question (eg never) scoring 0, the second (eg less than monthly) scoring 1, the third (eg monthly) scoring 2, the fourth (eg weekly) scoring 3, and the last response (eg. daily or almost daily) scoring 4. For questions 9 and 10, which only have three responses, the scoring is 0, 2 and 4 (from left to right).

A score of 8 or more is associated with harmful or hazardous drinking, a score of 13 or more in women, and 15 or more in men, is likely to indicate alcohol dependence.

Saunders JB, Aasland OG, Babor TF et al. Development of the alcohol use disorders identification test (AUDIT): WHO collaborative project on early detection of persons with harmful alcohol consumption — II. Addiction 1993, 88: 791–803.

Ερωτηματολόγιο [Questionnaire]

Το Τεστ Εντοπισμού Δυσλειτουργιών από την Χρήση Αλκοόλ: Εκδοχή Αυτοαναφοράς

Ασθενή, επειδή η χρήση του αλκοόλ μπορεί να επηρεάσει την υγεία σας και να παρέμβει στην λήψη ορισμένων φαρμάκων και θεραπειών, θεωρούμε σημαντικό να σας κάνουμε μερικές ερωτήσεις για την δική σας χρήση αλκοόλ. Οι απαντήσεις σας θα παραμείνουν εμπιστευτικές γι αυτό σας παρακαλούμε να είστε ειλικρινείς στις απαντήσεις σας.
Σημειώστε με Χ στο κουτί που περιγράφει καλύτερα την απάντησή σας σε κάθε ερώτηση.

1 standard drink =

1.5 standard drinks =

1 κανονικό ποτό =
μεσαίο ποτήρι μπύρας (285mls) ή μικρό κουτάκ κρασί (100mls) ή «σφηνάκι» οινοπνευματωδών (30mls)

1.5 κανονικά ποτά =
1 μεγάλο ποτήρι μπύρας (425mls) ή 1 ι ποτήρι (375mls) ή 1 μικρή μπουκάλα (375mls)

Ηλικία: _____ Φύλο: Άνδρας □ Γυναίκα □

1. Πόσο συχνά πίνετε ποτό που περιέχει αλκοόλ;
   - Ποτέ [Πηγαίνετε στις Ερ. 9-10]
   - 1 φορά το μήνα ή λιγότερο
   - 2 ως 4 τέσσερις φορές το μήνα
   - 2 ως 3 φορές τη βδομάδα
   - 4 ή περισσότερες φορές τη βδομάδα

2. Πόσα αλκοολούχα ποτά πίνετε σε μια συνηθισμένη ημέρα;
   - 1 ή 2
   - 3 ή 4
   - 5 ή 6
   - 7, 8, ή 9
   - 10 ή περισσότερα

3. Πόσο συχνά πίνετε έξι ή περισσότερα ποτά κάθε φορά;
   - Ποτέ
   - Λιγότερο από 1 φορά το μήνα
   - 1 φορά το μήνα
   - 1 φορά τη βδομάδα
   - Καθημερινά ή σχεδόν καθημερινά

4. Πέρυσι, πόσο συχνά βρήκατε ότι δε μπορούσατε να σταματήσετε να πίνετε από τη στιγμή που αρχίσατε να πίνετε;
   - Ποτέ
   - Λιγότερο από 1 φορά το μήνα
   - 1 φορά το μήνα
   - 1 φορά τη βδομάδα
   - Καθημερινά ή σχεδόν καθημερινά

5. Πέρυσι, πόσο συχνά δεν πετύχατε να κάνετε ότι συνήθως κάνετε λόγω κατανάλωσης οινοπνευματωδών ποτών;
   - Ποτέ
   - Λιγότερο από 1 φορά το μήνα
   - 1 φορά το μήνα
   - 1 φορά τη βδομάδα
   - Καθημερινά ή σχεδόν καθημερινά

6. Πέρυσι, πόσο συχνά χρειαζόσαστε ένα πρώτο ποτό το πρωί για να μπορέσετε να αρχίσετε την ημέρα μετά από μεγάλη κατανάλωση οινοπνευματωδών ποτών;
   - Ποτέ
   - Λιγότερο από 1 φορά το μήνα
   - 1 φορά το μήνα
   - 1 φορά τη βδομάδα
   - Καθημερινά ή σχεδόν καθημερινά

7. Πέρυσι, πόσο συχνά είχατε συναίσθημα ενοχής ή τύψης μετά από κατανάλωση οινοπνευματωδών ποτών;
   - Ποτέ
   - Λιγότερο από 1 φορά το μήνα
   - 1 φορά το μήνα
   - 1 φορά τη βδομάδα
   - Καθημερινά ή σχεδόν καθημερινά

8. Πέρυσι, πόσο συχνά δε μπορούσατε να θυμηθείτε τι συνέβηκε το προηγούμενο βράδυ λόγω κατανάλωσης οινοπνευματωδών ποτών;
   - Ποτέ
   - Λιγότερο από 1 φορά το μήνα
   - 1 φορά το μήνα
   - 1 φορά τη βδομάδα
   - Καθημερινά ή σχεδόν καθημερινά

9. Έχετε τραυματιστεί εσείς ή κάποιος άλλος λόγω της δικής σας κατανάλωσης οινοπνευματωδών ποτών;
   - Όχι
   - Ναι, αλλά όχι πέρυσι
   - Ναι, πέρυσι

10. Ανησυχούν οι συγγενείς, ή φίλοι ή γιατρός ή άλλος επαγγελματίας υγείας για την κατανάλωσή σας ποτού ή σας συνέστησαν να το μετριάσετε;
   - Όχι
   - Ναι, αλλά όχι πέρυσι
   - Ναι, πέρυσι

G. DUDIT ENGLISH AND GREEK VERSIONS

Id. nr.

DUDIT

Drug Use Disorders Identification Test

Here are a few questions about drugs. Please answer as correctly and honestly as possible by indicating which answer is right for you.

☐ Man ☐ Woman Age

1. How often do you use drugs other than alcohol? (See list of drugs on back side.)	Never ☐	Once a month or less often ☐	2-4 times a month ☐	2-3 times a week ☐	4 times a week or more often ☐
2. Do you use more than one type of drug on the same occasion?	Never ☐	Once a month or less often ☐	2-4 times a month ☐	2-3 times a week ☐	4 times a week or more often ☐
3. How many times do you take drugs on a typical day when you use drugs?	0 ☐	1-2 ☐	3-4 ☐	5-6 ☐	7 or more ☐
4. How often are you influenced heavily by drugs?	Never ☐	Less often than once a month ☐	Every month ☐	Every week ☐	Daily or almost every day ☐
5. Over the past year, have you felt that your longing for drugs was so strong that you could not resist it?	Never ☐	Less often than once a month ☐	Every month ☐	Every week ☐	Daily or almost every day ☐
6. Has it happened, over the past year, that you have not been able to stop taking drugs once you started?	Never ☐	Less often than once a month ☐	Every month ☐	Every week ☐	Daily or almost every day ☐
7. How often over the past year have you taken drugs and then neglected to do something you should have done?	Never ☐	Less often than once a month ☐	Every month ☐	Every week ☐	Daily or almost every day ☐
8. How often over the past year have you needed to take a drug the morning after heavy drug use the day before?	Never ☐	Less often than once a month ☐	Every month ☐	Every week ☐	Daily or almost every day ☐
9. How often over the past year have you had guilt feelings or a bad conscience because you used drugs?	Never ☐	Less often than once a month ☐	Every month ☐	Every week ☐	Daily or almost every day ☐
10. Have you or anyone else been hurt (mentally or physically) because you used drugs?		No ☐	Yes, but not over the past year ☐		Yes, over the past year ☐
11. Has a relative or a friend, a doctor or a nurse, or anyone else, been worried about your drug use or said to you that you should stop using drugs?		No ☐	Yes, but not over the past year ☐		Yes, over the past year ☐

Turn the page to see the list of drugs

LIST OF DRUGS

(Note! Not alcohol!)

Cannabis	Amphetamines	Cocaine	Opiates	Hallucinogens	Solvents/inhalants	GHB and others
Marijuana Hash Hash oil	Methamphetamine Phenmetraline Khat Betel nut Ritaline (Methylphenidate)	Crack Freebase Coca leaves	Smoked heroin Heroin Opium	Ecstasy LSD (Lisergic acid) Mescaline Peyote PCP, angel dust (Phencyclidine) Psilocybin DMT (Dimethyltryptamine)	Thinner Trichlorethylene Gasoline/petrol Gas Solution Glue	GHB Anabolic steroids Laughing gas (Halothane) Amyl nitrate (Poppers) Anticholinergic compounds

PILLS – MEDICINES

Pills count as drugs when you take

- more of them or take them more often than the doctor has prescribed for you
- pills because you want to have fun, feel good, get "high", or wonder what sort of effect they have on you
- pills that you have received from a relative or a friend
- pills that you have bought on the "black market" or stolen

SLEEPING PILLS/SEDATIVES

Alprazolam	Glutethimide	Rohypnol
Amobarbital	Halcion	Secobarbital
Apodorm	Heminevrin	Sobril
Apozepam	Iktorivil	Sonata
Aprobarbital	Imovane	Stesolid
Butabarbital	Mephobarbital	Stilnoct
Butalbital	Meprobamate	Talbutal
Chloral hydrate	Methaqualone	Temesta
Diazepam	Methohexital	Thiamyal
Dormicum	Mogadon	Thiopental
Ethcholorvynol	Nitrazepam	Triazolam
Fenemal	Oxascand	Xanor
Flunitrazepam	Pentobarbital	Zopiklon
Fluscand	Phenobarbital	

PAINKILLERS

Actiq	Durogesic	OxyNorm
Coccilana-Etyfin	Fentanyl	Panocod
Citodon	Ketodur	Panocod forte
Citodon forte	Ketogan	Paraflex comp
Dexodon	Kodein	Somadril
Depolan	Maxidon	Spasmofen
Dexofen	Metadon	Subutex
Dilaudid	Morfin	Temgesic
Distalgesic	Nobligan	Tiparol
Dolcontin	Norflex	Tradolan
Doleron	Norgesic	Tramadul
Dolotard	Opidol	Treo comp
Doloxene	OxyContin	

Pills do NOT count as drugs if they have been prescribed by a doctor and you take them in the prescribed dosage.

A.M. ☐☐☐☐☐☐

DUDIT Drug Use Disorders Identification Test

Εδώ είναι μερικές ερωτήσεις σχετικά με τη χρήση ουσιών που κάνεις. Παρακαλούμε, απάντησε στις ερωτήσεις με όσο το δυνατόν περισσότερη ακρίβεια και ειλικρίνεια, σημειώνοντας την απάντηση που σου ταιριάζει.

☐ **Άντρας** ☐ **Γυναίκα** **Ηλικία** ☐☐

1. Πόσο συχνά κάνεις χρήση άλλων ουσιών εκτός από αλκοόλ; (δες τη λίστα με τις εξαρτησιογόνες ουσίες στην πίσω σελίδα)	ποτέ ☐	μία φορά το μήνα ή λιγότερο ☐	2-4 φορές το μήνα ☐	2-3 φορές την εβδομάδα ☐	4 φορές την εβδομάδα ή παραπάνω ☐
2. Κάνεις παράλληλη χρήση διάφορων ουσιών;	ποτέ ☐	μία φορά το μήνα ή λιγότερο ☐	2-4 φορές το μήνα ☐	2-3 φορές την εβδομάδα ☐	4 φορές την εβδομάδα ή ☐
3. Μια τυπική μέρα χρήσης, πόσες φορές τη μέρα παίρνεις ουσίες;	0 ☐	1-2 ☐	3-4 ☐	5-6 ☐	7 ή περισσότερες ☐
4. Πόσο συχνά είσαι υπό έντονη επήρεια ουσιών;	ποτέ ☐	λιγότερο από μία φορά το μήνα ☐	κάθε μήνα ☐	κάθε εβδομάδα ☐	καθημερινά ή σχεδόν κάθε μέρα ☐
5. Τον προηγούμενο χρόνο, στάθηκε ποτέ αδύνατο να αντισταθείς στην επιθυμία σου για χρήση ουσιών;	ποτέ ☐	λιγότερο από μία φορά το μήνα ☐	κάθε μήνα ☐	κάθε εβδομάδα ☐	καθημερινά ή σχεδόν κάθε μέρα ☐
6. Τον περασμένο χρόνο, σου ήταν ποτέ αδύνατο να σταματήσεις τη χρήση μετά την έναρξή της;	ποτέ ☐	λιγότερο από μία φορά το μήνα ☐	κάθε μήνα ☐	κάθε εβδομάδα ☐	καθημερινά ή σχεδόν κάθε μέρα ☐
7. Πόσο συχνά στη διάρκεια του προηγούμενου χρόνου έκανες χρήση ουσιών και στη συνέχεια αμέλησες τις υποχρεώσεις σου;	ποτέ ☐	λιγότερο από μία φορά το μήνα ☐	κάθε μήνα ☐	κάθε εβδομάδα ☐	καθημερινά ή σχεδόν κάθε μέρα ☐
8. Πόσο συχνά στη διάρκεια του προηγούμενου χρόνου χρειάστηκε να κάνεις πρωινή χρήση μετά από έντονη χρήση την προηγούμενη ημέρα;	ποτέ ☐	λιγότερο από μία φορά το μήνα ☐	κάθε μήνα ☐	κάθε εβδομάδα ☐	καθημερινά ή σχεδόν κάθε μέρα ☐
9. Πόσο συχνά μέσα στον προηγούμενο χρόνο είχες αισθήματα ενοχής ή αισθανόσουν άσχημα επειδή έκανες χρήση ουσιών;	ποτέ ☐	λιγότερο από μία φορά το μήνα ☐	κάθε μήνα ☐	κάθε εβδομάδα ☐	καθημερινά ή σχεδόν κάθε μέρα ☐
10.Έχεις εσύ ή κάποιος άλλος υποστεί (σωματική ή ψυχική) βλάβη επειδή είχες κάνει χρήση ουσιών;	Όχι ☐	Ναι, αλλά όχι κατά τη διάρκεια του περασμένου χρόνου. ☐		Ναι, κατά τη διάρκεια του περασμένου χρόνου. ☐	
11. Έχει ανησυχήσει κάποιος συγγενής ή φίλος, γιατρός ή νοσηλευτής ή οποιοσδήποτε άλλος για τη χρήση που κάνεις ή σου έχει πει ότι θα έπρεπε να τη σταματήσεις;	Όχι ☐	Ναι, αλλά όχι κατά τη διάρκεια του περασμένου χρόνου. ☐		Ναι, κατά τη διάρκεια του περασμένου χρόνου. ☐	

Λίστα με τις εξαρτησιογόνες ουσίες στην πίσω σελίδα

Λίστα Ψυχοτρόπων Ουσιών
(σημείωση! εκτός αλκοόλ !)

Κάνναβη	Κοκαΐνη / άλλα διεγερτικά	Οπιούχα / οπιοειδή	Παραισθησιογόνα	Νέες Ψυχοτρόπες Ουσίες / ουσίες σε πειραματικό στάδιο	Άλλες ουσίες
Μαριχουάνα («χόρτο», «φούντα») Χασίσι («μαύρο», «σοκολάτα») Χασισέλαιο	Κοκαΐνη Freebase Κρακ Αμφεταμίνη («speed») Μενθαμφεταμίνη («ΣΙΣΑ», «crystal meth», «ice») Έκσταση (MDMA, m-CPP, «έψιλον», «XTC») DOC Ριταλίνη (μεθυλφαινιδάτη) DMT (Διμεθυλτρυπταμίνη) BZP (πιπεραζίνη, «A2», «Herbal Ecstasy», Khat (καθίνη, καθινόνη)	Ηρωίνη («πρέζα», «παραμύθα») Δεξτρομεθορφάνη («DXM») Όπιο Βουπρενορφίνη (Suboxone, Subutex, «σούμπο») Μεθαδόνη («μέθα») Φαιντανύλη (Durogesic, Fentadur)	LSD («τριπάκι», «τριπ») PCP («αγγελόσκονη», «angel dust»)	Συνθετικά παράγωγα καθινόνων Μεφεδρόνη («μιάου», «meow») α-PVP («Flakka») MDPV («Cloud Nine», «Super Coke») 4-MEC Συνθετικά κανναβινοειδή («Πατπουρί», όπως π.χ. Headtrip, Freedom EU Edition, Ultra Cloud 10 κλπ)	GHB («Liquid Ecstasy») Κεταμίνη («Special K») Αναβολικά στεροειδή Διαλύτες / εισπνεόμενες ουσίες (βενζίνη πετρέλαιο, κόλλα, διαλύτες αέρια)

Συνταγογραφούμενα φάρμακα

Φάρμακα/χάπια που καταναλώνονται ως ουσίες όταν τα παίρνεις

- περισσότερα ή πιο συχνά απ' ό, τι αναφέρεται στη συνταγή του γιατρού
- χάπια επειδή θες να διασκεδάσεις, να νιώσεις καλά, να «ανέβεις» ή αναρωτιέσαι τι είδους επίδραση θα έχουν σε σένα
- χάπια που πήρες από κάποιο συγγενή ή φίλο
- χάπια που αγόρασες ή έκλεψες από τη «μαύρη αγορά»

υπνωτικά / ηρεμιστικά

Akineton	Halcion	Rivotril
Apollonset	Hipnosedon	Sonata
Atarviton	Ilman	Stedon
Ativan	Imovane	Stesolid
Alprazolam	Kaneuron	Stilnox
Chloral hydrate	Kalinicta	Tavor
Clomethiazole	Lorazepam	Temazepam
Clonazepam	Lumidrops	Thiopental
Clonotril	Midazolam	Titus
Diazepam	Modium	Triazolam
Diphenal	Normison	Trankilium
Distedon	Novhepar	Viperiden
Dormicum	Oxazepam	Vulbegal
Dorm	Oniria	Xanax
Distraneurin	Pentothal	Zaleplon
Flunitrazepam	Phenobarbital	Zaplon
Gardenal	Phenytoin	Zolpidem

παυσίπονα

Actiq	Ketogan	Vellofent
Brufen Plus	Lonalgal	Vibralis
Buprenorphin	Lonarid-N	Zaldiar
Codeine	Matrifen	Zideron
Dexketoprofen	Methadone	
Demogyl	Mongol	
Dextropropoxyphene	Morficontin	
Dihydrocodeine	Oxycodone	
Dolcontin	Pecfent	
Dolfen	Risperidone	
Dolotard	Sival-B	
Doloxene	Suboxone	
Durogesic	Subutex	
Fentadur	Tramadol	
Fentanyl	Tramal	
Ketogan	Temgesic	
	Tiparol	

Φάρμακα ΔΕΝ μετράνε ως ναρκωτικά όταν έχουν συνταγογραφηθεί από γιατρό και χρησιμοποιούνται με βάση την καθορισμένη δοσολογία.

H. RESEARCH AND TRANSLATION AGREEMENT

RESEARCH & TRANSLATION AGREEMENT

THIS AGREEMENT, effective as of October 10, 2018 (the "Effective Date"), is entered into by and between THE SASSI INSTITUTE, 201 Camelot Lane, Springville, IN 47462 ("The Institute") and PANAGIOTA KONTOLEON, The American College of Greece, 6 Gravias Street GR-153 42 Aghia Paraskevi, Greece ("Student Researcher").

The Institute is engaged in the development and distribution of the Substance Abuse Subtle Screening Inventory (the "Instrument"), and is the exclusive licensee of the copyright holder. The Student Researcher is conducting thesis research in Greece to measure the psychometric properties of the instrument (SASSI-3) in Greek.

The Institute wishes to grant to the Student Researcher and the Student Researcher wishes to accept from the Institute the right to translate the Instrument into the Greek language and to use the translated version of the Instrument for the non-commercial research purpose of collecting Instrument questionnaire item-response data from a clinical sample, in order for the student researcher to assess the psychometric properties of the Instrument when translated into Greek.

Now therefore, in light of the foregoing, the parties hereby agree to the following terms and conditions:

1. Conditioned upon (a) Student Researcher completion and approval of the User Qualification form stipulated in point 10, (b) Student Researcher's demonstration that the psychometric standard for reliability of the translated instrument stipulated in point 4 has been met, and (c) Student Researcher's compliance with the other terms and conditions of this Agreement, the Institute grants permission to the Student Researcher to translate the Instrument into Greek (the "Translation") and to use the Translation for the aforementioned data collection research purposes.
2. This Agreement does not grant any other permissions, including any rights to reprint, paraphrase, or revise any analytical narratives, accompanying scoring rules, cut-off scores or algorithms, specific item composition of the scales, or reports produced or distributed by the Institute.
3. The Instrument is protected by copyright law, as are all SASSI questionnaire items, scoring decision rules, and scoring algorithms all of which are identified on the Instrument or the Instrument profile sheet and in the Instrument User's Guide and Manual. Student Researcher may only discuss such proprietary information and materials generically in any publication and must receive written approval from the Institute on the Instrument-related content before any such publication is made. No samples, excerpts, or other reproduction of the Instrument, in any language, or any other proprietary information of the Institute may be included in any report without the Institute's prior written approval in each instance. The Instrument and other copyrighted materials remain the property of the Institute or its licensors. Further, only the Institute may determine how the Instrument, whether in English, Greek, or any other language, will be used for research, clinical, commercial, and/or any other purposes. The Institute shall own all the rights in and to the copyright of the Translation. To the extent that the copyright in the Translation do not vest in the Institute, Student Researcher hereby grants, assigns and transfers to the Institute all right, title and interest in and to the Translation to the extent Student Researcher has had or will have any right, title or interest therein. The Institute shall have the exclusive right throughout the universe and in perpetuity to use and exploit the Translation, in any format or version, by any means and in any media, whether now known or hereafter developed.

4. Subject to the terms of this Agreement, the Institute hereby grants to the Student Researcher a non-exclusive, non-assignable, and non-transferable right to use the Institute's registered and common law trademarks, trade name and trade dress, solely as incorporated into the Translation and/or to provide written thanks and credit. The Student Researcher may not make any other use of the Institute's name, trademarks, or the Institute's member's names or likenesses without the Institute's prior written approval.

5. Student Researcher agrees to translate the Instrument using both forward and backward translation procedures. The initial, or "forward" translation, should be prepared by at least two qualified bi-lingual translators. The "backward" translation should also be prepared by at least two independent bi-lingual translators. The backward translation of the Translation back into English are necessary so that inter-rater reliabilities can be calculated for each item, where the student researcher provides the Institute with data marked on each back translation regarding independent reviewers' ratings of the extent to which **each** back-translated item is consistent with the meaning of the original English language item. Correlations should then be calculated between the raters' item ratings and returned to the Institute along with the back-translations, translator credentials, and item ratings. The forward-backward translation procedure should continue until inconsistencies in the translated item meanings have been resolved and the researcher can demonstrate that the psychometric standard of .90 (90%) inter-rater reliability for each translated item to be retained in the translated instrument has been established. The back translators cannot have access to the original English versions of the instrument or each other's back translations.

6. The Institute, agrees if requested, to provide the student researcher with a copy of the Instrument-related support materials, including the User's Guide and Manual which is to be discarded (electronic form) at the conclusion of the research as stipulated in point 7 below.

7. The Student Researcher agrees to remove from its computers and systems (and from all third party services or systems under Student Researcher's care, custody, or control) all Instrument-related support materials, including the User's Guide and Manual, and any other Instrument-related software and support materials provided to Student Researcher sent to the Student Researcher at the completion of the research, on or before the research end date: _____,20___.

8. Within 30 days of the conclusion of the research, Student Researcher agrees to provide the Institute with an electronic and/or print copy of all research reports and papers submitted for publication (if applicable) on the findings of the study as well as a final copy of all papers accepted for publication on these findings when available, along with an electronic copy of the de-identified data collected for all cases in the study, including the individual test item responses, collected demographic variables, criterion grouping variables, scale scores, and decision rule variable scores for the Instruments. Electronic research reports and data shall be sent to both scarlett@sassi.com and research@sassi.com.

9. Student Researcher may not assign this Agreement or the rights herein to any third party, unless agreed in writing by the Institute.

10. Student Researcher agrees to complete and return to the Institute prior to the beginning of the research a User Qualification Form, attached as Exhibit A, and certifies Student Researcher will supervise all individuals who will administer the Instrument for this project. Student Researcher agrees to comply with best-practice standards for the use of psychological, personnel, and survey testing as delineated by professional testing industry standards and in accordance with state, federal and international statutes, codes and regulations.

11. Student Researcher agrees to use the Instrument-related materials only in conformity with the Institute's Mission Statement, located at https://sassi.com/about-us/ (as of October 10, 2018), and that the Institute will not be responsible or liable for any use or misuse of the materials provided to Student Researcher. The Student Researcher assumes all responsibility for use or misuse of the same, and agrees to defend and indemnify the Institute against any claim arising therefrom. The Student Researcher understands that the INSTITUTE DOES NOT MAKE ANY WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND THE INSTITUTE EXPRESSLY DISCLAIMS SAME.

12. At no time will the Student Researcher mislead, exaggerate, or otherwise misrepresent any aspect of the screening instrument distributed by the Institute or their relationship with the Institute, or omit a fact necessary to make a statement not misleading.

13. The Student Researcher agrees to indemnify, defend, and hold the Institute harmless from and against any and all loss, liability, claims, suits, demands and judgments to which the Institute may be subject or suffer by reason of any breach by Student Researcher of any obligation of this Agreement, representation made in this Agreement, or use of the Instruments outside of their appropriate and recommended clinical context.

14. This Agreement shall become effective from the above date and will expire on the project end date as listed in point 7; however, this Agreement may be terminated by written notification by one party to the other at any time for any reason. Such notification will be deemed given (i) when delivered personally, (ii) when sent by facsimile or email transmission, with receipt confirmed (iii) one (1) day after being sent by nationally recognized overnight courier with written verification of receipt, or (iv) three (3) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or upon actual receipt thereof, whichever first occurs.

15. Upon termination of this Agreement, all rights granted to the Student Researcher under the provisions of this Agreement will be terminated, including but not limited to the right to continue using the Instrument in any research study.

16. Nothing in this Agreement shall be construed to make any party the agent of the other for any purpose whatsoever. None of the parties is authorized to enter into any contract or assume any obligation for the other. Nothing in this Agreement shall be construed to establish a partnership or joint venture between the parties hereto.

17. This Agreement constitutes the entire agreement between the parties regarding the subject matter hereof.

18. This Agreement shall be governed by and construed under the laws of the State of Indiana, USA.

19. In the event suit is commenced to enforce this Agreement or otherwise relating to this Agreement, the prevailing party shall be entitled to reasonable attorney's fees and costs incurred in connection therewith.

20. *By signing this Agreement, Student Researcher agrees to comply with the following statement of compliance*: I agree to abide by and understand that entering into an Agreement with the Institute does not mean I can include an entire copy of the English or Greek version of the SASSI-3 instrument or any of the copyrighted SASSI-3 materials in an appendix or elsewhere in my write ups; however, I can request sample items.

The parties hereto have agreed to and executed this Agreement as of the date first written above.

THE SASSI INSTITUTE (The "Institute")

By: _____
Nelson J. Tiburcio, Ph.D.
President

PANAGIOTA KONTOLEON ("Student Researcher")

By: _____
Panagiota Kontoleon