Problematic Alcohol Use: A Call for Validated Screening Instruments in Lithuania

Julija GECAITE, Julius BURKAUSKAS, Vesta STEIBLIENE

Laboratory of Behavioral Medicine, Neuroscience Institute, Lithuanian University of Health Sciences, Palanga, Lithuania

THE PREVALENCE OF PROBLEMATIC ALCOHOL USE

Problematic alcohol use, characterised as either heavy drinking or drinking which is accompanied by negative consequences [1], is an immense health and social problem worldwide. Based on data from the World Health Organisation (WHO), at least 3 million deaths annually are caused due to maladaptive consumption of alcohol, which represent 5.3 % of all deaths globally [2]. Nevertheless, the number of deaths significantly increases when taking into account harmful alcohol consumption as a contributing factor for development and cause of more than 200 diseases and injuries [2]. According to data from the health information centre (Institute of Hygiene) in Lithuania, in 2018, there were 913 deaths due to alcohol intoxication [3]. Among those, the most common causes of death were liver cirrhosis and fibrosis (44.5 %), alcoholic liver disease (24.6 %), and accidental alcohol intoxication and its effects (17.2%) [3]. Therefore, in spite of its legality, problematic alcohol use represents a serious public health concern in Lithuania.

In the latest 2018 WHO annual compilation of data, Lithuania was depicted as third in terms of total alcohol consumption and average daily intake of all European Union countries[4]. Lithuania is typically illustrated as a country with a high liver cirrhosis rate in line with its high level of alcohol consumption, according to a comparative WHO risk assessment. It was also ranked as sixth among all WHO European Region countries in alcohol-related deaths [5].

NEGATIVE CONSEQUENCES OF PROBLEMATIC ALCOHOL USE

Problematic alcohol use may result in countless negative consequences, both physiological and psychosocial. It may lead to various health consequences, such as cardiovascular diseases [6] and gastrointestinal diseases [7], as well as psychosocial consequences, including family [8, 9] and work related problems [10, 11] and poor stress coping strategies [12]. Problematic alcohol use may also contribute to, coexist with, or result in various psychiatric conditions, including mood and anxiety disorders, stressor-related disorders, and psychotic disorders [13-16]. It has been estimated that problematic alcohol use may bring an immense impact on individual’s mortality and morbidity [4] and may have a long-term effects on mental health [13-15], risky sexual behaviour [17], obesity [18], and criminal behaviour [19]. Problematic alcohol use does not only create a significant burden to the individuals and those surrounding them, but also produce problems on national level, thus resulting in serious public concern (WHO, 2018).

RECOMMENDATIONS BY THE WORLD HEALTH ORGANIZATION

In 2017, WHO introduced recommendations for effective country wide management of problematic alcohol use. The WHO Global Non Communicable Diseases (NCDs) Action Plan (2013-2020) provides a list of procedures and interventions to prevent and control major NCDs.

Corresponding author: Julija Gecaite, Lithuanian University of Health Sciences, Neuroscience Institute, Laboratory of Behavioral Medicine, Palanga, Lithuania, Vydūno Str. 4, Palanga LT-00135. E-mail: Julija.Gecaite@lsmuni.lt
Governments are recommended to primarily change their pricing policies to reduce problematic alcohol use. According to WHO (2017), alcohol taxation has several benefits as it has the capacity to:
1) generate tax revenue,
2) reduce alcohol consumption,
3) prevent the initiation of drinking.

However, along with alcohol taxation, several other interventions are also listed including enactment and enforcement of drink-driving laws and blood alcohol concentration limits via sobriety checkpoints and providing brief psychosocial interventions for people with hazardous and harmful alcohol use.

Considering the health issues caused by problematic alcohol use, WHO also raised awareness by suggesting the implementation of cost-effective brief screening methods in health services for risky and maladaptive drinking (WHO, 2018).

**THE IMPORTANCE OF CROSS-CULTURALLY VALIDATED MEASUREMENTS**

The multi-diversity of cultures worldwide creates a need for cross-culturally validated measurement on various constructs, including problematic alcohol use. Instrument development and ensuring that its psychometric properties are fit for a specific country of use are critical for quality research in health, social and behavioural sciences [20]. It is very common for researchers to translate previously validated instruments from other languages or populations and apply them in their studies [21]. However, translation of the instrument alone, though based on a rigorous translation process such as two independent translators and a quality check of back translation, together with a harmonization procedure, does not guarantee the applicability of the scale in a culture different from that for which it was originally developed [22]. Thus, health care researchers and practitioners should have access to valid and reliable, culturally adapted instruments to measure problematic alcohol use, which may provide better health care as well as enhance the quality of research in related fields in the country.

It is worth noting that culture has a marked effect on both - the experience and reporting of negative effects due to drinking. International differences in negative consequences are linked with drinking patterns [23, 24], thus respondents in one country may report more consequences than do respondents in another country, even though the overall level of alcohol consumption in both regions is similar [25, 26]. These self-report biases based across different cultures may depend on established cultural norms and attitudes towards drinking [27, 28] as well as the frequency of drinking in public versus private settings [29]. Hence, validation and adaptation of such questionnaires may also be of benefit in the setting of clinical practice by enabling the instrument to be used appropriately in different culturally sensitive settings. Unfortunately, there is still a lack of well-validated instruments measuring problematic alcohol use in Lithuania, even though interest in standardized methods for assessment of those with potential or fully developed alcohol problems has recently increased in the Lithuanian health care settings [30]. Considering the importance of cultural factors in measuring the level of alcohol use in Lithuania, it is essential to not only adopt by translating but also adapt by validating the instrument originally developed, to evaluate self-reported alcohol use.

**EXISTING INSTRUMENTS FOR MEASURING PROBLEMATIC ALCOHOL USE**

The interest in standardized methods of assessment for those with potential or fully developed alcohol problems has increased in Lithuanian health care recently [30]. To date, a number of instruments have been employed in research and clinical practice to measure alcohol related problems [31], including the CAGE questionnaire [32], Alcohol Use Inventory (AUI) [33], Quick Drinking Screen (QDS) [34], CRAFT substance abuse screening test for adolescents [35], Alcohol Timeline Followback (TLFB) [36], Drinking Self-Monitoring Log (DSML) [37], Lifetime Drinking Measure (LDH) [38], Quantity-Frequency (QF) measures [39], as well as Alcohol Use Disorders Identification Test (AUDIT) and its shorter version of AUDIT-C [40, 41]. Despite the vast variety of screening tools to evaluate problematic alcohol use, to our knowledge, there are no psychometric studies in Lithuania that would report a full validation process of any of those scales. To date, there is an absence cross-culturally adapted scales measuring problematic alcohol use, even though this process is highly encouraged by scientific medical community in order to ensure the precise assessment of a construct [42]. Currently, the AUDIT is one of the most commonly used assessment tools with good psychometric properties [41] for measuring problematic alcohol use, particularly evaluating harmful and hazardous alcohol consumption in different languages and populations [40, 41].

**THE ADVANTAGES OF THE ALCOHOL USE DISORDERS IDENTIFICATION TEST (AUDIT)**

There are several reasons for AUDIT to be so commonly used. First of all, in previous studies it has been shown that AUDIT outperforms other instruments for alcohol use disorder identification [43, 44]. Second, the AUDIT consists of ten items, which could be scored as subscales to produce separate assessments of hazardous use, harmful use, and alcohol dependence. Thus, the screening tool could be used to differentiate these separate domains, and AUDIT could be more effectively linked to specific educational and treatment approaches. Third, as a general measure of alcohol use disorder severity, the AUDIT total score may be useful for stepped-care approaches to clinical management. For example, providing the lowest level of intervention that addresses patients’ immediate needs, followed by the higher intensity of care if patients do not respond, as well as for rating the effectiveness of interventions. The AUDIT, or shorter version AUDIT-C, has also been suggested by the Institute of Hygiene in Lithuania as a primary instrument to evaluate maladaptive alcohol consumption [45]. Even though the AUDIT has been translated for use in various countries [46], to the best of our knowledge, no studies in Lithuania have investigated its psychometric characteristics.
CONCLUSION
In summary, problematic alcohol use is a tremendous public burden that may lead to serious psychological consequences. Even though Lithuania is categorised as a country with the highest alcohol consumption, alcohol-related disease and mortality rates per capita, yet valid, culturally applicable and psychologically sound instruments for measuring harmful and hazardous alcohol consumption are still scarce in the country. The use of appropriate screening methods in Lithuania is essential to identify and ensure early treatment for alcohol-attributable problems. The AUDIT questionnaire could be a potential tool for an accurate evaluation of psychometric characteristics. Therefore, further research in the area of scale cross-cultural validation for alcohol use is warranted.

LITERATŪRA
32. Watson DA, Grant BF and Stinson FS. The AUDIT-C: screening for alcohol use disorders and risk drinking in the presence of other psychiatric disorders. Comprehensive psychology 2005; 46: 405-416.