Development, Validation, and Application of Alcohol Use Disorders Identification Test (AUDIT) In the Kenyan Context

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ABSTRACT

The Alcohol Use Disorders Identification Test (AUDIT) is one of the most widely used multi-item tools, combining consumption indicators (frequency, quantity, and heavy episodic drinking [HED]) with dependency indicators. AUDIT was developed in the early 1980s by the World Health Organization (WHO) as an outcome of a multinational collaborative initiative designed to establish a standardized screening instrument for the early identification of hazardous and harmful drinking behaviours across various cultural settings (Saunders et al., 1993). The tool's relevancy in the Kenya context is inevitable because according to the National Authority for the Campaign Against Alcohol and Drug Abuse (NACADA) reports, Kenyans (approximately 3.2 million people) consumes alcohol, highlighting associated public health challenges. The aim of this article is to enhance precision in diagnosis and supports culturally valid clinical and counselling practice through the use of systematic and culturally customized tools. The study was restricted to secondary sources like online databased, books, government reports and published materials. The research criteria for the articles reviewed was based on the sample used, recommended year of publication was 2022 and above with few exceptions for classical materials and variables of study. Data were collected using descriptive analysis and thematic analysis. The results indicated that AUDIT requires cultural contextual adjustment to fit diverse communities in Kenya. Informed by the findings, the recommendation is that for AUDIT's full psychometric properties to be used, it is imperative to construct indigenous metrics (or contextually modified counterparts) that are informed by the Kenyan cultural milieu, beverage consumption practices, regional vernacular, and linguistic nuances.

Keywords: AUDIT, hazardous and harmful drinking, cultural adaptation, psychometrics

INTRODUCTION AND BACKGROUND TO PSYCHOMETRICS IN COUNSELLING PSYCHOLOGY

Psychometrics is the science of psychological measurement, concerned with the construction, validation, and application of psychological tests to assess constructs such as intelligence, personality, attitudes, resilience, and self-control (Swan et al., 2023). Over more than a century, psychometrics has evolved significantly and has been fundamental to counselling psychology. Early scientific attempts include Galton's research on intelligence and sensory abilities, Binet and Simon's creation of the first contemporary intelligence test, and Spearman's introduction of factor analysis and the general intelligence factor (g) (Brody & Galton, 2000). Aptitude, personality, and vocational tests, such as the Strong Vocational Interest Blank, became popular in the 1920s and 1940s following extensive testing initiatives after World War I (Brint & Karabel, 1989). After World War II, trait-factor approaches to career matching and widespread use of standardized instruments like the Minnesota Multiphasic Personality Inventory (MMPI) contributed to the recognition of counselling psychology as a specialty field (Davidson, 2020).

Modern personality models, including the Five-Factor Model (Patel, 2025), technological and cultural advances and AI-enabled assessments, have improved the accuracy, usability, and relevance of psychometrics in counselling contexts since the 1990s (Reise & Revicki, 2014).

Currently, psychometrics emphasizes strengths-based models, dynamic real-time assessment strategies, and culturally sensitive testing methods to promote fairness and clinical effectiveness. In counselling psychology,

psychometrics facilitates the development, standardization, validation, and use of assessment tools to evaluate client functioning and progress while supporting evidence-based intervention and referral decisions.

In Kenya, the need for mental health services is on the rise among individuals, organizations, and various industries. About 5% of the population, especially in rural regions, shows a considerable demand for these services (Were., 2021). Namamba (2024) notes that despite growing demand, Kenya lacks sufficient evidence-based interventions, leaving many without adequate care. Addressing this gap requires improved access, supportive policies, and increased funding for mental health initiatives.

Psychometrics and its Role in Assessments Intervention

Assessment encompasses the methods and results utilized to gather information that characterizes phenomena, whereas measurement involves the methods and results employed to quantify a phenomenon (Prabowo, Tuswan, & Ridwan, 2021). Well established measurement procedures and metrics have the potential to communicate information with precision and efficiency. Also, it is useful to integrate common measurements into decision-making systems. For example, schools' systems that adopt the procedures and metrics that correspond with curriculum-based measurement (CBM) of oral reading fluency are likely to benefit from the commonalities associated with standardized approach to assessment

Importance of Evidence Base Assessment (EBA)

Both APA and Canadian psychological association have adopted policies on EBA, and many psychologists view it as the optimal choice for client care since it depends on research and theory to inform the choice of constructs assessed for particular purposes, the methods and measures utilized in the assessment, and the process through which the assessment progresses (Cohen, Swerdlik, & Phillips, 2021). It removes bias since the evidence base quality is viewed as a continuum, and the psychologist is prompted to utilize the highest level evidence in the hierarchy when deciding treatment options for the client (Melchert et al., 2024).

Purpose of the Assignment and Contribution in Counselling Psychology

The purpose is to enhance precision in diagnosis and supports culturally valid counselling practices. AUDIT in counselling psychology is essential for improving the accuracy and dependability of diagnostic decision-making with alcohol users (Swan et al., 2023). In order to comprehend current concerns and customize therapies to meet the needs of each client, counsellors can use AUDIT to systematically evaluate important client characteristics around alcohol use (Heinonen & Nissen-Lie, 2020). Furthermore, with contemporary emphasis on contextual verification, AUDIT when culturally and contextually validated, can provide relevant counselling approaches by integrating rigorous test creation procedures and cultural adaption methodologies (Timmons et al., 2025). In multicultural counselling contexts, this guarantees that evaluations reduce bias, represent the real-life experiences of clients from various backgrounds, and encourage moral and just service delivery.

Development of The Alcohol Use Disorders Identification Test (AUDIT)

AUDIT was developed in the early 1980s by the World Health Organization (WHO) as part of a multinational collaborative project designed to create a standardized screening tool for early detection of hazardous and harmful drinking across diverse cultural contexts (Saunders et al., 1993). The development process involved testing items across six countries of Australia, Bulgaria, Kenya, Mexico, Norway, and the United States to ensure cross-cultural applicability. Today, the AUDIT remains a central instrument in public health surveillance, clinical screening, and alcohol-related research, demonstrating strong utility in identifying hazardous and harmful drinking across both high-income and low- and middle-income countries (Preusse, Neuner, & Ertl, 2020).

Theoretical Framework

AUDIT has featured in public health domain as a specific evidence-based intervention assessment tool focusing on alcohol use (Deluca et al., 2020). Its theory framework is informed by the major three (3) domains; i) Consumption. Theory is that early intake of alcohol is the primary pointer to future alcohol use challenges. This is predicated on the population-level risk theory, founded by British epidemiologist Sir. Geoffrey Rose in 1985,

contends that negative consequences increase in direct proportion to consumption (Haber, 2021). Further emphasized, small amounts of alcohol might lower the risk of some health outcomes but increase the risk of others, suggesting that the overall risk depends, in part, on background disease rates, which vary by region, age, sex, and year (Bryazka et al., 2022). ii) dependence. Here, a theory where drinking starts to interfere with everyday functioning, self regulation and negative outcomes.

It is based on dependence theory, founded in 1976 Edwards & Gross defines addiction as a transition from usage to self-reinforcing, compulsive behaviour (Edwards, 2023). iii) harmful consequences. Theory is that alcohol consumption has negative effects on the body, mind, and emotions. This is based on the harm-reduction theory by Alan Marlatt in 1985, built upon an explicit acknowledgement of the harm that can occur through practices thus connecting public health harm-reduction (Payne, 2022). It emphasizes avoiding or reducing adverse effects even in cases where abstinence is not attained (Black, Mullan, & Sharpe, 2017). Each of domain exhibits numerically the category where user belongs to clinician or counsellor to identify level of use and the most probable intervention. It is most recommended for brief intervention, referral for treatment and screening purposes (Babor et el., 2023).

Target Population

AUDIT use is not limited to any population. Its application is informed by the interest of clinician, psychologist, counsellors and any other train user on the targeted settings; hospital, school, work place, fields of research, court houses and others. For instance, academic research study in Kenya by Musyoka, Mbwayo, Donovan and Mathai (2020) use AUDIT among first-year students at the University of Nairobi on alcohol and substance use topic, community-based brief interventions in rural western Kenya by (Takahashi, Wilunda, Magutah, Mwaura-Tenambergen, Atwoli & Perngparn, 2018), Physicians at Mathari Hospital, Nairobi used AUDIT as a tool for determining alcohol use (Mwangi, Onsongo & Mwenda., 2022).

Validation of AUDIT

Global Validation

AUDIT have for long been use by global settings as a rapid reliable screening instrument to detect risky and hazardous alcohol consumption (Nguyen & Searby, 2025). Americans and the Canadian are among the longest user, with APA and Canadian psychological association encouraging AUDIT use, even though the contextual use recommendation debate has featured in many clinical use settings (Hunsley et al., 2010). The threshold score for alcohol dependence based on DSM-IV criteria is set at 15 points. The internal consistency was assessed through Cronbach's α and McDonald's ω for both the overall scale and its subscales, with α/ω values of $\geq .70$ deemed acceptable and $\geq .80$ preferred for practical screening situations. The reliability analysis yielded statistically significant results, $\chi^2(5) = 59.87$, $p < .001$, which suggests that the five-item AUDIT scale exhibits reliable internal consistency (Lenninger et al., 2025). In study, a three-step factor analysis approach was employed to assess the validity and reliability of the AUDIT among Australian nurses. The findings revealed that the initial confirmatory factor analysis indicated inadequate performance on items 5, 6, and 9 of the AUDIT. Subsequent exploratory factor analysis corroborated these findings, additionally identifying other items (1 and 10) that had a marginal impact on the AUDIT's effectiveness among nurses (Nguyen et al., 2025).

Validation in African Contexts

Seekles et al., (2023) observed that measurements are affected by local consumption habits, patterns, and perceptions regarding alcohol-related harm. This is one of the primary reasons for the review: to investigate the tools utilized for measuring alcohol consumption, as well as for screening or assessing harmful among adolescents in Africa, efforts for validation have concentrated on assessing the extent to which these tools incorporate local cultural and contextual elements. Validation research in sub-Saharan Africa has been carried out in countries such as Nigeria, Tanzania, Zambia, Rwanda, and Mozambique (Rosenberg et al., 2025). In a study performed in Tanzania, the AUDIT revealed a Cronbach's alpha of less than .70, whereas the composite reliability surpassed .70 (Vissoci et al., 2023). In Rwanda, The Kinyarwanda AUDIT questionnaire was found

to have strong internal consistency. The reliability scores, including Cronbach's Alpha, Omega, and Composite Reliability for each dimensional model, were all above 0.70 (Rosenberg et al., 2025).

Validation in Kenya

Alcohol misuse contributes highest to the burden of substance use disorder in Kenya. This necessitates public health interventions to screen and offer timely interventions and referral to treatment for alcohol users (Mwangi, Onsongo & Mwenda., 2022). There are few studies which have used AUDIT and examined full psychometric validation. For example a study in Mombasa: Inconsistent condom use: 2.5 times higher odds ($95\%\ CI = 1.3–4.6 1.3 – 4.6 1.3–4.6$) compared to abstainers. Penile or anal discharge: 1.9 times higher odds ($95\%\ CI =1.0–3.8 1.0 – 3.8 1.0–3.8$) compared to abstainers. Sexual violence: Two-fold higher odds ($95\%\ CI = 0.9–4.9 0.9 – 4.9 0.9–4.9$) compared to abstainers. Drinking patterns and behaviours. Frequent drinking: Associated with inconsistent condom use (AOR = 1.8, $95\%\ CI = 1.1–3.0 1.1 – 3.0 1.1–3.0$) and partner number. Binge drinking: Linked only to inconsistent condom use (AOR = 1.6, $95\%\ CI =1.0–2.5 1.0 – 2.5 1.0–2.5$). In western Kenya, the result**:** Hazardous drinking was significantly higher in men (OR 0.3, $p < 0.001$ for women), people living in larger households (OR 1.8, $p = 0.021$), people who were single (OR 1.7, $p = 0.093$), and in those who are self-employed (OR 1.8, $p = 0.036$), after adjustment for factors significant at the bivariate level (Jenkins et al., 2015).

Critique of Application in the Kenyan Context

Cultural appropriateness: Measuring alcohol consumption among adolescents in Africa is notably challenging in situations where traditional homemade drinks (homebrew) account for most of the alcohol intake. These beverages are frequently served from a large communal container, and their potency can differ with each preparation. Unlike commercial beverages, local brews are not always classified as alcohol (Seekles et al., 2023). Moreover, residents might measure their alcohol intake by the amount of money spent instead of the total number of drinks consumed, particularly when tools that analyse consumption through inquiries about the quantity of drinks do not clarify what defines a standard drink. World Health Organization, (2007) recommended that monitoring tools tailored to local contexts are necessary to accurately represent local alcohol consumption habits, trends, and views on alcohol-related harm.

The cultural adaptation of global instruments involves more than just accurately translating words. In many African contexts, the translation and interpretation of numerical concepts pose challenges for the accurate use of psychometric tools such as the AUDIT (Seekles et al., 2023). Several local languages do not provide direct linguistic equivalents for the quantities and frequency scales used in Western-developed instruments, which can impair respondents' comprehension and recall accuracy (Weir., 2023). Furthermore, alcohol is often consumed in non-standard units such as plastic sachets, jerry cans, shared gourds, or homemade brews like chang'aa and busaa making it difficult for individuals to quantify consumption in terms of "standard drinks" (Mkuu et al., 2018). Low numeracy levels and reliance on approximate rather than exact number use among some populations may further introduce misclassification bias in self-report data (Nadkarni et al., 2019).

Age and developmental stages. When designing assessment instruments, it is crucial to account for the age and developmental maturity of individuals, influencing both how questions are framed and the cut-off scores applied. This consideration is especially vital for instruments evaluating HED, given the ongoing disagreement regarding its standard definition and the point at which it is considered attained. The World Health Organization (WHO) posits that HED is achieved by an adult (aged 15 years or older) who consumes 60 grams or more of pure alcohol in a single instance (Harker et al., 2020). In the USA, the National Institute on Alcohol Abuse and Alcoholism recommends that the definition of HED is based on drinking behaviours that elevate an individual's blood alcohol concentration above the level of 0.08% (MacKillop et al., 2022).

Practical concerns. Administering AUDIT requires knowledge of interpretation which must aligned with client's cultural contextual background, thus, followed up by proper referral pathways for interventions which risk incomplete process if not done.

Recommendations for Psychometrics in Kenya

When making international guidelines fit a new culture, it is not just about getting the words right. There is need to look at the bigger picture of how people in that culture view drinking alcohol. This not only helps us compare how people consume things across different countries, but it could also make the checks for drinkers who might be in danger more accurate.

To guarantee that interventions are rooted in cultural paradigms rather than adopted in their original form, it is imperative to construct indigenous metrics (or contextually modified counterparts) that are informed by the Kenyan cultural milieu, beverage consumption practices, regional vernacular, and linguistic nuances.

By delineating all psychometric attributes, including internal consistency, factor structure, criterion validity in contrast to diagnostic interviews, test-retest reliability, normative data, localized cut-off points, and subgroup analyses (gender, urban versus rural, age demographics), the local validation studies of imported assessment instruments such as the Alcohol Use Disorders Identification Test (AUDIT) can be substantially reinforced.

While adherence to established translation guidelines for instruments, is important that local adaptation procedures are occasionally necessary to confirm that the test accurately assesses its intended concept. Using a thorough approach that includes forward and reverse translation, cognitive interviews, pilot testing, cultural adaption of drinking examples (containers, local beers), and local norms, translate and modify tools into Kiswahili and other widely spoken local languages (and maybe into significant dialects).

There is a need to establish processes and protocols to ensure culturally safe practices that are culturally responsive for diverse community contexts. Incorporate training in psychometrics and assessment tools into counselling psychology programs to ensure that future professionals are knowledgeable about how to administer, interpret, modify, and use screening tools in an ethical manner

To guarantee that screening tools are used correctly, cultural adaptation is necessary, training requirements are must be fulfilled, and screening data results in clear intervention/referral pathways, regulatory frameworks, guidelines, and professional standards should be established through appropriate bodies (such as the Kenya Counselling and Psychological Association (KCPA), professional boards, and the Ministry of Health).

CONCLUSION

The Alcohol Use Disorders Identification Test (AUDIT), as discussed in this paper, illustrates both the potential and the difficulties of utilizing standardized tools in varied contexts like Kenya. argued that although AUDIT has demonstrated robust global psychometric properties, its efficacy in local communities and environments relies on thorough cultural adaptation, linguistic translation, and contextual validation to guarantee both conceptual and metric equivalence. There are evidences suggesting that locally produced alcoholic beverages, differing alcohol units, and language variations hinder precise self-reporting, highlighting the necessity for localized assessment frameworks. Strengthening national norms for ethical and culturally competent assessment, encouraging the development of indigenous scales, and incorporating psychometric training into professional education are all essential to the advancement of counselling psychology in Kenya. In addition to improving therapeutic results and diagnostic accuracy, these initiatives will promote inclusivity and equity in psychological practice. The future of psychometrics in Kenyan counselling psychology basically depends on striking a balance between cultural sensitivity and scientific rigor, making sure that the assessment instruments accurately represent the lived reality of the populations they are intended to assist.

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