Top 10 research priorities for alcohol use disorder and alcohol-related liver disease results of a multistakeholder research priority setting partnership

Mohsan Subhani^{1,2}, Ashwin Dhanda³, Adina Olaru¹, Louise Dunford^{4,5}, Nahid Ahmad⁴, Andrew Wragg², Kate Frost², Julie Adams⁶, Justin Green⁷, Melinda King⁷, Katy A Jones⁸, William Rosenberg⁹, Julia Sinclair¹⁰, Stefan Rennick-Egglestone⁸, Joanne R Morling¹¹, Stephen D Ryder^{1,2}

Affiliations

¹Nottingham Digestive Diseases Centre (NDDC), School of Medicine, University of Nottingham

²NIHR Nottingham Biomedical Research Centre, Nottingham University Hospitals NHS Trust, and the University of Nottingham

³University of Plymouth, British Association for the Study of the Liver Alcohol SIG lead

⁴James Lind Alliance, University of Southampton

⁵ Warwick Medical School, University of Warwick

⁶British Liver Trust

⁷Patient and Public Involvement and Engagement (member of the public)

⁸School of Medicine, Institute of Mental Health, University of Nottingham

⁹Institute for Liver and Digestive Diseases University College London

¹⁰Addiction psychiatry, University of Southampton

1,2,11 Nottingham Centre for Public Health and Epidemiology, University of Nottingham, Nottingham

Corresponding Author

Dr Mohsan Subhani: Address: NDDC BRU, E Floor, West Block, QMC, Nottingham, NG7 2UH, UK Telephone: 0044-115 924 9924 Ext.84090. Email:<u>mohsan.subhani@nottingham.ac.uk</u>

Word Count

Words 1053/1200, Table 1, Supplementary material 1, references 10

Alcohol is a preventable leading cause of liver disease and over 200 acute or chronic medical conditions (1). In the United Kingdom (UK) 25% of the population drinks above recommended levels and 10% are harmful drinkers (2). The UK has observed a 400% rise in mortality due to liver disease over the last three decades, it is now the third commonest cause of premature death and the second commonest cause of working life years lost in men and fifth in women (1). In 2020 Public Health England reported that alcohol-specific deaths reached their highest since 2001 (2). In the same year Dame Carol Black's independent review of alcohol prevention, treatment, and recovery, specifically highlighted the unmet needs, emphasising the greater focus required on prevention (3). Alcohol-related disorders (ARD) are among the most common reasons for hospitalisation, in 2019, 7.4% of all hospital admissions in England were alcohol-related (4). The estimated cost to the National Health Service (NHS) to treat alcohol-related problems is over £3.5 billion annually and costs an estimated £21 billion per year to society (5).

There are socioeconomic and ethnic disparities in health-related outcomes due to alcoholrelated disorders. This is known as the "alcohol harm paradox", an observation that shows, that though people from both the least deprived and most deprived neighbourhoods of a community drink alcohol harmfully, the poorest alcohol-related outcomes are disproportionately higher in those from most deprived areas and often involve a younger male population (6). Due to language and cultural barriers ethnic minorities are less likely to engage in alcohol treatment services in the UK. People with alcohol use disorder (AUD) often suffer from social stigma and stereotyping, This biased attitude of healthcare professionals toward people who have problems with alcohol and other substances impacts the level of care these patients receive and is related to poorer outcomes (7).

In spite of the substantial socioeconomic impact of alcohol-related harm, there exists a notable deficiency in scientific evidence and a chronic underinvestment in research in this domain (8). Moreover, despite the implementation of evidence-based interventions for alcohol-related issues in clinical settings for more than two decades, the rates of mortality and morbidity attributed to alcohol continue to escalate in the UK (2). There is a pressing need to improve existing treatment methods and explore innovative approaches with the goal of enhancing long-term outcomes, raising awareness, improving knowledge and engagement, mitigating social stigma, and ultimately reducing the harm associated with alcohol.

Historically, perspectives from individuals with lived experience of AUD and alcohol-related liver disease (ARLD) have been inadequately represented in research (9). To improve inclusivity, active engagement of multiple stakeholders, including individuals with lived experience of AUD and ARLD, caregivers, healthcare professionals, and alcohol care workers should be conducted. This engagement process elicits and prioritises potential research preferences pertinent to all parties, thereby fostering a more inclusive and comprehensive approach to future research initiatives. The National Institute for Health Research (NIHR) funded a partnership titled "A multidisciplinary national research partnership for early diagnosis of Liver Disease in alcohol treatment programmes and the role of liver disease biomarker-based behavioural Interventions in reducing alcohol-related harm". The objectives of the partnership were, (a) to establish research priorities for alcohol treatment services, (b) to identify diverse populations historically underserved by research activities, and (c) to share methodological expertise and thereby enhance research capacity. The partnership consists of researchers from diverse backgrounds (public health, behavioural sciences, psychology, primary care, psychiatry, alcohol services, and hepatology) as well as public representatives (https://klifad.org.uk/). The KLIFAD (Knowledge of Liver Fibrosis Affect Drinking) partnership in collaboration with, British Association for the Study of the Liver (BASL) alcohol special interest group, Nottingham Digestive Disease (NDDC), Nottingham Biomedical Research Centre (BRC), Framework and Change Grow Live (CGL) community alcohol services organized a priority setting partnership. This priority setting partnership aimed to delineate research priorities in diagnosing, managing, and caring for people with AUD and ARLD.

Our priority setting work employed an adapted nominal group method, incorporating individuals affected by Alcohol Use Disorder (AUD) and/or Alcohol-Related Liver Disease (ARLD), their caregivers, participants from patient support groups, and healthcare professionals. The KLIFAD partnership served as the steering group, collaboratively determining all facets of the priority-setting partnership.

This project was inspired by the James Lind Alliance (JLA) Priority Setting Partnership method and a modified version was implemented based upon JLA principles and methodology (10). The first survey (S1 Survey) was distributed to a purposive sample of 60 individuals. Twentythree people responded and 127 potential research questions were submitted. Thematic analysis was applied to the survey responses, leading to the exclusion of duplicate, redundant, and out of scope questions. The resulting themes were organized into summary questions. The refined set comprised 31 unique questions. A literature search was conducted and KLIFAD steering group including members of public with lived experience of AUD were consulted to confirm the novelty of these questions, and questions considered to be already answered were removed. Subsequently, the 22 remaining unanswered questions were taken to a final workshop held on 13th of December 2023, involving ten patient and public involvement and engagement (PPIE) members and eight healthcare professionals, the latter including representatives of the British Association for the Study of the Liver (BASL), British Liver Trust (BLT), and the Centre for Ethnic Health Research (CEHR). During the workshop, the 22 unique questions underwent rigorous critical appraisal and were subjected to three rounds of ranking to ascertain the top 10 research priorities (Table 1).

Priorities were identified in the form of critically important unanswered questions, on topics including the involvement of ethnic minorities and underrepresented groups in addiction research, addressing the substantial burden of mental health comorbidity within this cohort, enhancing awareness of alcohol-related harm, including early education initiatives commencing at the secondary school level, early diagnosis of liver disease in at-risk populations, and the development of effective strategies to mitigate the social stigma associated with AUD. All 25 unique questions are provided in supplemental materials (**S1 Table**). These research priorities will be openly accessible and broadly disseminated via the Patient and Public Involvement and Engagement groups, BLT, the BASL, the KLIFAD partnership, and various social media platforms. This dissemination aims to provide researchers with the necessary information to formulate grant proposals, thereby addressing areas of unmet need and advancing care for individuals living with Alcohol Use Disorder and Alcohol-Related Liver Disease.

Funder

National Institute for Health Research (NIHR). Funding reference number NIHR155469. SRE is supported by the NIHR Nottingham Biomedical Research Centre (NIHR203310).

Acknowledgement

KLIFAD multidisciplinary research partnership in alcohol use disorder and alcohol-related liver disease (<u>https://klifad.org.uk/)</u>.

Conflict of Interest

None of the authors declare any conflict of interests.

References

1. World Health O. (2018). Global status report on alcohol and health 2018. World Health Organization. <u>https://apps.who.int/iris/handle/10665/274603</u>. License: CC BY-NC-SA 3.0 IGO. 2018.

2. Williams R, Aspinall R, Bellis M, Camps-Walsh G, Cramp M, Dhawan A, et al. Addressing liver disease in the UK: a blueprint for attaining excellence in health care and reducing premature mortality from lifestyle issues of excess consumption of alcohol, obesity, and viral hepatitis. Lancet (London, England). 2014;384(9958):1953-97.

3. Black DC. Independent review of drugs: prevention, treatment and recovery. In: Office H, editor. London: The National Archives, Kew, London TW94DU; 2020. p. 25.

4. NHS-Digital. Statistics on Alcohol, England 2020 United Kingdom: Public Health England; 2020 [Available from: <u>https://digital.nhs.uk/data-and-information/publications/statistical/statistics-on-alcohol/2020</u>.

5. NHS-Digital. NHS Long Term Plan will help problem drinkers and smokers. In: England N, editor. London2019.

6. Sadler S, Angus C, Gavens L, Gillespie D, Holmes J, Hamilton J, et al. Understanding the alcohol harm paradox: an analysis of sex- and condition-specific hospital admissions by socio-economic group for alcohol-associated conditions in England. Addiction. 2017;112(5):808-17.

7. van Boekel LC, Brouwers EPM, van Weeghel J, Garretsen HFL. Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: Systematic review. Drug and Alcohol Dependence. 2013;131(1):23-35.

8. Willenbring ML. Gaps in clinical prevention and treatment for alcohol use disorders: costs, consequences, and strategies. Alcohol research : current reviews. 2013;35(2):238-43.

9. Chartier K, Caetano R. Ethnicity and health disparities in alcohol research. Alcohol research & health : the journal of the National Institute on Alcohol Abuse and Alcoholism. 2010;33(1-2):152-60.

10. James-Lind-Alliance. The James Lind Alliance Guidebook NIHR; 2021 [V10:[Available from: <u>https://www.jla.nihr.ac.uk/jla-guidebook/</u>.