Whole-of-community interventions that address alcohol-related harms: protocol for a scoping review

Ida Okeyo 1, Ulla Walmisley, 1 Michelle De Jong 1, Carmen Späth 1, Tanya Doherty 1, Nandi Siegfried 3,5 Nadine Harker 4,6 Mark Tomlinson 7,8 Asha S George 1

ABSTRACT

Introduction Alcohol-related harm is a rising global concern particularly in low-income and middle-income countries where alcohol use fuels the high rates of violence, road traffic accidents and is a risk factor for communicable diseases such as HIV/AIDS and tuberculosis. Existing evidence to address alcohol-related harm recommends the use of intersectoral approaches, however, previous efforts have largely focused on addressing individual behaviour with limited attention to whole-of-community approaches. Whole-of-community approaches are defined as intersectoral interventions that are systematically coordinated and implemented across the whole community. The objective of this scoping review is to synthesise the existing literature on multisectoral, whole-of-community interventions which have been used to modify or prevent alcohol-related harms.

Methods and analysis This scoping review will follow the six-step approach that involves; (1) identifying the research question, (2) identifying relevant studies, (3) selecting studies, (4) charting the data, (5) collating, summarising and reporting the results and (6) expert consultation. Published literature from 2010 to 2021 will be accessed through PubMed, Web of Science, CINAHL Plus and Scopus databases. Search terms will focus on the concepts of ‘interventions’, ‘community-based’, ‘harm reduction’ and ‘alcohol’. There will be no restrictions on the type of study methodology or country of origin. Title and abstract followed by full-text screening will be conducted by two reviewers to identify relevant articles based on the inclusion and exclusion criteria. Data from selected articles will be extracted and charted in Excel software. Findings will be analysed qualitatively and presented using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses: Extension for Scoping Review.

Ethics and dissemination This review makes use of published and publicly available data and no ethics approval is required. The results from this study will be disseminated via publication in peer-reviewed journals and presentations at relevant academic research fora and conferences.

STRENGTHS AND LIMITATIONS OF THIS STUDY

⇒ We use the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews tool, the most current guidance on conducting scoping reviews, in order to ensure a systematic approach to searching, screening and reporting.
⇒ The search strategy has no restrictions on study methodology, study population or country to capture interventions in as many settings as possible.
⇒ Study designs and data collection specifics of the included studies will be recorded.
⇒ A limitation is that only articles in English will be reviewed.

INTRODUCTION

Alcohol is an underappreciated risk factor for more than 200 diseases and injury conditions including a range of mental and behavioural disorders and communicable and non-communicable diseases. As a result, the harmful use of alcohol resulted in 3 million deaths and 5.1% of all disability adjusted life years (DALYs) in 2016.1 The harmful use of alcohol is defined by the WHO as ‘drinking that causes detrimental health and social consequences for the drinker, the people around the drinker and society at large, as well as patterns of drinking that are associated with increased risk of adverse health outcomes’.2 This definition recognises that beyond health consequences, harmful drinking has a social and economic impact to both individuals and society at large.1 Attention to alcohol-related harm gained momentum through the adoption of the WHO Global Strategy to Reduce the Harmful Use of Alcohol in 2010, and is part of the WHO Global Action Plan for the Prevention and Control of Non-Communicable Diseases 2013–2020, as well as the Sustainable Development Goals.3–4

Globally, higher alcohol consumption and prevalence rates are associated with countries that have higher economic wealth.3 However, because the risks of alcohol harm are dependent on the total volume of alcohol consumed, patterns of drinking and the quality of the alcohol consumed, disadvantaged and
vulnerable populations are disproportionately affected by alcohol-related harm.\textsuperscript{1} This is particularly evident in low-income and middle-income countries (LMICs) where the proportion of drinkers who participate in heavy episodic drinking is higher than in high-income countries. Thus, although the highest levels of alcohol consumption occur in Europe, the African region bears the heaviest burden of disease and injuries linked to alcohol.\textsuperscript{6} For example, in WHO’s Global Status Report on Alcohol and Health 2018, European per-capita alcohol consumption was estimated to be more than 1·5 times higher than Africa’s but more lives and DALYs were lost per capita in Africa.\textsuperscript{7} The higher rates of illness and mortality among lower-income countries due to alcohol is also compounded by health inequalities and poor access to healthcare.\textsuperscript{7}

A forecast of global alcohol exposure based on trends from 1999 to 2017 predicts a decrease in consumption in America and European regions between 2017 and 2030 in contrast to an increase in consumption in LMICs.\textsuperscript{8} Moreover, recent evidence has shown how the alcohol industry is spreading its commercial reach to LMICs by targeting young people and women.\textsuperscript{6, 9} This is partly due to the increasing regulation and policing of alcohol industries in high-income countries resulting in decreasing consumption in those regions.\textsuperscript{7} This shift in consumption could increase harm in LMICs which already demonstrate considerable consequences related to alcohol. In South Africa, for example, heavy episodic drinking contributes to the increased risk of sexually transmitted infections and HIV transmission, violence, road traffic accidents and fetal alcohol spectrum disorders (FASD).\textsuperscript{10-12} Alcohol-related traffic accidents, self-harm and domestic violence also feature prominently in many parts of rural Asia and other LMIC contexts.\textsuperscript{13, 14}

Similarly, alcohol environments in LMICs have been described as more variable than those in high-income countries due to the availability of unregulated or informal traders who operate outside the laws and regulations.\textsuperscript{7} In countries such as Russia, attempts at controlling the harmful use of alcohol are hindered by the consumption of surrogate alcohol products like perfumes or medicines which are often cheaper and stronger than legal beverages. In South Africa and the Northern Territory of Australia, alcohol consumption was ingrained in the social and cultural fabric of communities due to historical payment for work in alcohol, rather than cash which continues to shape alcohol consumption in these countries even after such practices were outlawed.\textsuperscript{7, 10, 15}

Considering the impact of alcohol-related harm globally, crucial policy shifts are required to reduce alcohol-related harm. Existing evidence from the 2010 Global Strategy to Reduce the Harmful Use of Alcohol recommends a mixture of approaches to eliminate the burden of alcohol harm to individuals and the society.\textsuperscript{2} These include the involvement of health services, community action and policies that regulate the availability, advertising and marketing, and pricing of alcohol products. The strategy also highlights the value of intersectoral action in efforts to address the harmful use of alcohol.\textsuperscript{2} Previous studies have examined efforts to address alcohol-related harms at the macro-level by analysing national-level policy development processes such as the regulation of advertising, taxation and retail sales highlighting the challenges and opportunities that remain.\textsuperscript{16, 17}

The COVID-19 pandemic and accompanying measures to reduce viral transmission such as lockdowns have had a significant impact on patterns of alcohol consumption and the resulting alcohol-related harms. In countries such as South Africa, the COVID-19 response and lockdowns demonstrated a decrease in unnatural deaths and trauma cases particularly during the first 6 months of the pandemic as the alcohol restrictions curbed the high episodic drinking culture in the country.\textsuperscript{18-20} The repeated restrictions of the sale of alcohol in South Africa showed a forceful measure by the government that was different to the previously documented resistance to policy changes to address alcohol harms.\textsuperscript{19, 20}

However, in addressing alcohol-related harm, several authors have warned that restrictions are not a sustainable long-term solution and that addressing alcohol-related harms requires a basket of approaches beyond prohibition.\textsuperscript{18-20} Whole-of-community interventions which are defined as intersectoral interventions that are systematically coordinated and implemented across the whole community, have been documented as having an aggregate benefit due to the large numbers of individuals involved.\textsuperscript{21-23} These studies also highlight that alcohol consumption occurs in community settings and therefore communities are most likely to have a greater awareness of their realities and what needs to change.\textsuperscript{23, 24} Consequently, the involvement of communities in decision-making processes regarding alcohol-harms reduction can ensure prolonged sustainable changes to drinking behaviour and norms.\textsuperscript{24}

Despite the realisation of the value of whole-of-community interventions, existing efforts to address the harmful consumption of alcohol have predominantly focused on interventions that target individuals who are at risk of alcohol-related harms such as screening, brief interventions and referral to treatment or motivational or counselling interventions.\textsuperscript{25, 26} In an umbrella review assessing published alcohol control policy interventions which were implemented at community or population level, authors noted that there was generally a lack of well-reported synthesis in the field.\textsuperscript{27} In addition, the same review identified a paucity of research that explores interventions that target populations or communities rooted in intersectoral action in LMICs.\textsuperscript{27} Therefore, the objective of this scoping review is to contribute to the limited evidence on intersectoral responses to alcohol-harms reduction by mapping the existing literature on whole-of-community interventions which have been applied to modify or prevent alcohol-related harms.
METHODS AND ANALYSIS

This review will adopt the scoping review methodological framework put forward by Arksey and O’Malley and refined by Levac and colleagues. A scoping review differs from a systematic review and uses a six-stage iterative process which allows for covering of broad topics of research areas. Unlike systematic reviews which are strictly defined and address specific questions, a scoping review can be used to map key concepts underpinning a research area and clarify working definitions and conceptual definitions. The scoping review methodology was thus considered suitable for this study due to our broad research focus on community interventions for alcohol-harms reduction, a topic area that has not been comprehensively reviewed before especially in relation to children and family health and safety. The methodological framework that will guide this review involves six stages: (1) identifying the research question, (2) identifying relevant studies, (3) selecting studies, (4) charting the data, (5) collating, summarising and reporting the results and (6) expert consultation.

Step 1: identify the research question

This review intends to address the following two questions: (1) What intersectoral, whole of society or community approaches (interventions) have been used to modify alcohol-related harms; (2) What are the settings, delivery methods, theoretical bases and reported effectiveness of these interventions, including the impact on adults, children and family units?

Our questions and scope remain broad in nature given the lack of current research. We have therefore left the scope broad in order to include interventions which may not be specific to alcohol use, but which include whole-of-community approaches that have an impact on alcohol-related harms. In addition, although the intention of the research is to build a local South African policy agenda, our scoping review will examine studies from both high-income and low-income contexts. For this review, intersectoral action refers to a deliberate and purposeful relationship where there is negotiation and distribution of power, resources and capabilities between various stakeholders such as non-governmental organisations, government sectors, communities, policymakers, academia, clinicians among others. Intersectorality also implies that relationships formed can be both horizontal between sectors or vertical between different governmental levels such as provinces and local municipalities; and involve different degrees of collaborative action ranging from integration to co-operation. As such, we use the terms ‘whole of society’ interchangeably with ‘whole-of-community’ to refer to intersectoral interventions that are systematically coordinated and implemented across the whole community. We also consider synonyms for intersectoral action such as multisectoral action and alternative terms for whole-of-community interventions such as universal prevention programmes for substance use. The term community on the other hand has been widely used across the literature. Similar to Midford and Shakeshaft, we consider community as a group of people living in close geographical proximity such as in a town or neighbourhood. Community can also refer to persons who are brought together by shared experiences or heritage such as Indigenous communities or by a shared purpose in workplaces or schools. In terms of the prevention of alcohol harms, we refer to community in reference to people with common health risks being targeted for health interventions.

Step 2: identification of relevant literature

In order to identify the published literature that is relevant for our research question, an initial preliminary search of PubMed, Web of Science and CINAHL Plus will be conducted to get an overview of existing articles paying attention to keywords from previous articles, and examining past scoping reviews that have a similar focus to our study. This will be an iterative process that will be done to familiarise the team with the existing evidence and sources. After analysing initial results, the following databases will be searched: PubMed, Web of Science, CINAHL Plus and Scopus. The reference lists of the primary research articles and relevant reviews will also be hand searched for additional articles that may have been initially missed. The search will include English articles and studies conducted between 2010 and 2021. The year 2010 was chosen to capture articles that have been released since the 2010 Global Strategy to Reduce the Harmful Use of Alcohol.

The search terms that will be used during this stage will centre on the four concepts of ‘interventions’, ‘community-based’, ‘harm reduction’ and ‘alcohol’. The ‘interventions’ concept will be included along with its synonyms of ‘programme’, ‘strategy’ or ‘plan’. The ‘community-based’ concept is quite broad and will be used with similar terminology that captures intersectoral action at local levels such as outreach, capacity building, partnership-based, participatory, collaborative, intersectoral or multisectoral. The ‘harm reduction’ concept will include ‘harm minimization’, ‘harm reduction’ and ‘alcohol-related harm’ while the last concept of ‘alcohol’ will be searched for using the terms ‘alcohol’, ‘alcohol consumption’, ‘binge drinking’, ‘alcohol intake’ or ‘drinking alcohol’. The terms will be used to search databases using a title or abstract search and thereafter all search hits will be uploaded to Covidence systematic review software for study selection.

Step 3: selecting studies

Study selection will occur via title and abstract screening followed by full-text review using Covidence. Study selection during the title and abstract screening phase will be guided by a set of inclusion and exclusion criteria that will be refined during the course of the abstract screening process. Studies will be included if they address:
Interventions, plans or policies that address alcohol-related harms or aim to reduce the risk of alcohol use.

An intervention that is population-based and focuses on collective group interactions among individuals or a collaborative intervention among the persons or stakeholders involved. This will include digital interventions that involve group-based activities such as interactive forums among a number of individuals. Studies will be excluded if they address:

- Exclusively, individual-based interventions including one-on-one counselling sessions or motivational interviews designed for individuals or families. However, if these types of interventions form part of a multi-component intervention which meets the inclusion criteria, it will not be excluded on this basis.
- If the study does not provide sufficient detail regarding the intervention that addresses alcohol-related harms.
- Biological or medical interventions. This will include pharacotherapy interventions for diseases related to excessive alcohol use or the treatment and management of FASD.
- An intervention that occurs in a facility-based or clinical setting.

The study eligibility process will be decided collaboratively by the research team and refined through an initial screening of 50 abstracts done by all reviewers to ensure the efficacy of the inclusion and exclusion criteria. The reviewers will meet weekly to discuss the screening process and any conflicts which arise until agreement is reached. Slight adjustments to the inclusion and exclusion criteria will be made if necessary, and all changes will be noted in the final manuscript.

Following agreements on the eligibility criteria, seven reviewers (ASG, CS, IO, MDJ, MT, TD, UW) will independently screen the titles and abstracts so that each article will be screened by two reviewers. Any conflicts that emerge during this stage will be resolved by a third reviewer and through discussions with the team. Thereafter all included articles will be moved forward to full-text screening following a consensus among the team members. During full-text screening, all reviewers will independently evaluate each full-text following the inclusion and exclusion criteria detailed below. The reviewers will have regular meetings during the course of the full-text review to ensure all conflicts are resolved. In the scenario of a disagreement, a third independent reviewer will be involved, and a discussion will take place until a consensus is reached. In cases where the full text is not available online, the authors will attempt to retrieve the article through the journal’s database. If such attempts fail, the article will be excluded from the study.

Articles in a language other than English will be excluded from the review; however, there will be no restrictions on the type of study methodology used or the country of origin. Ongoing studies and study protocols will be included in the study if they fit the criteria above. Similarly, review papers which include an analysis of interventions related to alcohol-harm reduction will also be included unless the review paper does not provide enough detail on the alcohol-related intervention assessed in the review. Ongoing studies, protocols and reviews will be used as references for the overall mapping of the research context in the write up of the review but will not be included in the analyses described below.

Papers that describe interventions in LMICs (based on the World Bank classification) will be tagged at this stage for further analysis at later stages of writing up the scoping review. Other articles that do not fit the eligibility criteria but present information that can help shape the background material will also be tagged. This systematic process will be reported using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow chart.37

Step 4: charting the data

In the framework by Levac and colleagues,29 the process of data extraction in a scoping review is called ‘data charting’. After all the studies have been selected, reviewers will extract relevant data from each study into Microsoft Excel. Data extraction forms will be created and used to chart the relevant data from included studies. The review team will meet to develop the data extraction forms and to determine the specific categories that will answer the research questions. Similar to the article screening process, data extraction forms will be continually updated during the process to allow reviewers to capture all the emergent information that is of interest to the study. To allow for consistency in the data charting process, two reviewers will initially chart a set of 10 articles independently. Thereafter, meetings with the broader team will be conducted to compare the charting process and check for consistency. This process will also allow for a revision of extraction categories where needed.

Following the revision of the data collection forms, data will be extracted by one researcher and a second researcher will review the extraction and make any necessary additions or edits. Data extraction at this stage will include but not be limited to title of publication, year of publication, description of the intervention, location of the intervention, stakeholders involved in the intervention, the reported effectiveness of the intervention and contextual influences on the intervention effect.

In terms of intervention effectiveness since we are including both qualitative and quantitative studies, we will not pre-specify outcome measures but will extract all outcomes reported in the included studies. In order to capture all relevant information, additional fields will be added as necessary during the data extraction process. Any discrepancies in extracted data between the reviewers will be resolved through discussion and mediation with a third independent reviewer.

Step 5: collating, summarising and reporting the results

The results of the data extraction process and the final manuscript will adhere to the guidelines of the recently developed PRISMA Extension for Scoping Reviews.
checklist.\textsuperscript{37} The final Excel sheet derived from the data extraction process will also be included as a online supplementary file 1 in the final publication. Data emerging from this review will be presented as a descriptive summary that outlines the characteristics of the included studies and accompanying interventions, as well as a narrative of the impact of the community-based interventions on the alcohol environment. Beyond the general characteristics of the studies included, a further thematic analysis\textsuperscript{38} will be conducted to analyse the data. During this process, the research team will meet to discuss the emerging narrative and specific themes. The goal at this stage of the analysis will be to describe the range of community-based interventions addressing alcohol harms that have been applied to different population groups including adults, youth, children and family units.

**Step 6: expert consultation**

As the intention of this research is to develop a multisectoral research agenda for addressing alcohol and child health and safety, local experts in alcohol research and policymakers will be contacted for input and interpretation of the results and the final manuscript. The guidance received from these experts will be used to shape consultation sessions with key stakeholders prior to engaging with local communities in the next stages of the research process.

**ETHICS AND DISSEMINATION**

The review only makes use of published and publicly available data and thus, no ethics approval is required at this stage of the process. The results from this study will be disseminated via publication in peer-reviewed journals and presentations at relevant academic research fora and conferences.

**PATIENT AND PUBLIC INVOLVEMENT**

Given that this is a scoping review, patients and the public were not involved in the design or research of the study.

**DISCUSSION**

The analysis is expected to provide valuable insights into possible whole-of-community interventions that will inform future work with communities to address alcohol-related harms. The review will also enable the researchers to identify potential gaps in the research which could be used to direct future research. The search strategy has no restrictions on study methodology, study population or country to capture interventions in as many settings as possible. Risk of bias and quality appraisal will not be conducted since the scoping review does not aim to produce a critically appraised and synthesised result or answer to a particular question. It aims to provide an overview of the existing evidence on the topic. The search strategy was also limited in terms of the date range selected (only studies published after 2010 were included) and so this review will not constitute an exhaustive historical account of all the relevant interventions undertaken.

**Author affiliations**

- Community and Health Sciences, University of the Western Cape School of Public Health, Bellville, Western Cape, South Africa
- Division of Social and Behavioural Sciences, University of Cape Town, School of Public Health and Family Medicine, Cape Town, Western Cape, South Africa
- Health Systems Research Unit, South African Medical Research Council, Tygerberg, Western Cape, South Africa
- Alcohol, Tobacco and Other Drug Research Unit, South African Medical Research Council, Tygerberg, Western Cape, South Africa
- Department of Mental Health and Psychiatry, University of Cape Town, Observatory, Western Cape, South Africa
- School of Public Health and Family Medicine, University of Cape Town, Observatory, Western Cape, South Africa
- Institute for Life Course Health Research, University of Stellenbosch, Cape Town, Western Cape, South Africa
- School of Nursing and Midwifery, Queen’s University, Belfast, UK

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**Contributors**

ASG, TD and MT conceptualised the initial study. UW led the search strategy and development of key concepts supported by ASG, TD, MT, IO, MDJ and CS. NS and NH provided methodological guidance. IO prepared the manuscript. All authors reviewed draft versions of the manuscript and approved the final version including the revised version after reviewer comments.

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**Competing interests**

None declared.

**Patient and public involvement**

Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

**Patient consent for publication**

Not applicable.

**Ethics approval**

Not applicable.

**Provenance and peer review**

Not commissioned; externally peer reviewed.

**Supplemental material**

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**ORCID iDs**

Ida Okeyo http://orcid.org/0000-0003-1131-9378
Michelle De Jong http://orcid.org/0000-0001-5170-8285
Tanya Doherty http://orcid.org/0000-0003-1592-0080
Mark Tomlinson http://orcid.org/0000-0001-5846-3444

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