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## An investigation of alcohol's role in self-harm in rural Sri Lanka: a protocol for a multi-method, qualitative study

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**TITLE PAGE****An investigation of alcohol's role in self-harm in rural Sri Lanka:  
a protocol for a multi-method, qualitative study**

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## ABSTRACT

### Introduction

Deliberate self-harm is a major social, economic and public health problem in rural Sri Lanka, where one of the highest suicide and self-harm rates in the world persists. Though alcohol has been found to be a major risk factor for self-harm in Sri Lanka, we know little about the connection between the two. This paper describes a protocol for a qualitative study investigating alcohol's role in self-harm in rural Sri Lanka. This will be investigated at three levels: the individual, community and policy level. The analysis will bring new understandings of the complex link between alcohol and self-harm in Sri Lanka, drawing on structural, cultural and social concepts. Further, it will equip researchers, health systems and policy makers with vital information for developing strategies to address alcohol-related problems as they relate to self-harm in the country.

### Methods and analysis

To capture the complexity of the link between alcohol and self-harm in rural Sri Lanka, a range of qualitative methods will be utilized: serial narrative life-story interviews with individuals who have non-fatally self-harmed and where alcohol directly or indirectly was involved in the incidence as well as with their significant others; observations in communities and families; focus group discussions with community members; and key-informant interviews with stakeholders who have a stake in alcohol distribution, marketing, policies, prevention and treatment as they relate to self-harm.

### Ethics and dissemination

The study has received ethical approval from the Ethical Review Committee of the Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka. Due to the nature of the

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4 research topics, a sensitive data collection technique will be used and ethical issues will be  
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6 considered throughout the study.  
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8 Results will be disseminated in scientific peer-reviewed articles in collaboration with Sri  
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10 Lankan and other international research partners.  
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## 12 13 14 15 **STRENGTHS AND LIMITATIONS OF THE STUDY** 16

- 17 • The study will provide new knowledge and an increased understanding of an area  
18 that has previously received limited research attention – the structural, cultural and  
19 social context behind the link between alcohol and self-harm in rural Sri Lanka;  
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- 22 • Quality of the information gathered and comprehensiveness are ensured by  
23 collecting data at several levels and through triangulation between data sources,  
24 informant groups and theories;  
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- 27 • One limitation of the study is the sensitivity of the issues of alcohol and self-harm,  
28 which may limit participation in the study;  
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- 31 • Due to the nature of the methodologies utilized, the results require further studies  
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## INTRODUCTION

Deliberate self-harm and suicide is a serious social, economic and public health issue, being one of the top 20 leading causes of death globally.(1) The issue is particularly pronounced in Asia, where 60% of suicides occur.(2) Though a decrease has been seen in recent years, Sri Lanka still has one of the highest suicide and self-harm rates globally.(3) It has been found that problematic alcohol use is often involved in cases of self-harm – either in the one who consumes the alcohol or in someone affected by it.(3–9) With a qualitative approach, this study will explore the structural, social and cultural behaviour surrounding alcohol's role in self-harm at the individual; community and policy level in the Anuradhapura district in the North Central Province in Sri Lanka.

The objectives of this study are to:

- (i) Investigate the explanatory models and coping strategies for alcohol use with a focus on its relation with self-harm in households in rural Sri Lanka;
- (ii) Investigate community perceptions and responses to alcohol use and its relation with self-harm in rural Sri Lankan communities;
- (iii) Investigate stakeholders' involvement, influence on and motivations in controlling harmful effects of alcohol in Sri Lanka with a special focus on preventing self-harm.

## Background

### *Alcohol, self-harm and suicide*

International research shows that both acute and chronic alcohol use are associated with suicidal behaviour,(10–14) and it is well-established that alcohol misuse is not merely an individual or psychological phenomena, but a sociological one that has a profound impact

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4 on deviations found in suicidal behaviour.(13,15) The relationship between alcohol and  
5 self-harm is complex and seems to vary between genders, cultures and countries.(14,16,17)  
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8 Problematic alcohol use affects both social and family life and poses risks not only for  
9 individual dysfunction, but also for relational conflict and family breakdown.(14) Alcohol  
10 often acts as a long term risk factor for self-harm, for example through social and financial  
11 problems, domestic violence, and effects on mood.(18) However, in the short-term, it may  
12 have an acute level effect on the mood and increase the risk for impulsive and destructive  
13 behaviour even when misused by individuals without a chronic alcohol problem.(16)  
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15 Suicide may thus be an end point for a long-term or short-term drinker, but a significant  
16 other of an alcohol misuser may also deliberately self-harm, in seeking to escape the  
17 negative influences of the alcohol.(17,19)  
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### 30 *Alcohol, self-harm and suicide in Sri Lanka*

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32 Even though extensive international literature on the relationship between alcohol and  
33 self-harm exists, there has been little emphasis on the cultural and behavioural aspects  
34 underlying the connection in Sri Lanka. A few researchers have touched on it,(5,20–22)  
35 but none of these have thoroughly investigated the dynamics and complex interlinkages  
36 between alcohol and self-harm. A Sri Lankan study of 159 acute self-poisoning cases found  
37 that 32% were under the influence of alcohol when admitted to hospital.(5) Another study  
38 conducted a psychological autopsy of 372 suicides in rural Sri Lanka to find that alcohol  
39 misuse was common among male suicides at 61% while alcohol misuse in another family  
40 member was believed to contribute to 14% of female suicides.(7)  
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### *Alcohol use in Sri Lanka*

Though difficult to document since much of it is unrecorded, alcohol consumption is on the increase in Sri Lanka.(20,23) It is almost exclusively a male practise(22) and the types of alcohol consumed are closely linked to class and status, ranging from expensive, international liquor and beer brands on one end of the spectrum to cheap, illicitly produced kasippu on the other end.(24) The international literature found motives for alcohol use to include social or ceremonial reasons,(25) means of enjoyment, accompaniment to food, and as an intoxicant.(14) In Sri Lanka alcohol intoxication is primarily used as a mean to reduce tension, in a moderate degree at ceremonies, and less so for personal enjoyment.(21,23,24,26) Alcohol consumption predominately happens for the sole purpose of intoxication.(26,27) A Sri Lankan study of individuals who self-harmed in rural areas found that they regarded drinking as a reasonable response to the stresses of being a farmer.(5) In addition, a self-administered questionnaire amongst young Sri Lankan men found that alcohol was used to dominate surroundings and to become more prominent among peers.(23) However, much remains to be understood about how these motives for alcohol use are linked to cases of self-harm.

### *Alcohol and its effects on family and social life*

In Sri Lanka, research shows that social harm from alcohol may contribute to violence(22) and domestic violence;(28) impact the family budget and duties; feelings of shame and guilt;(29–31) and instigate self-harm.(5) A UNICEF study among Sri Lankan adolescents found that 18.3% of their fathers drank alcohol and 26.6% of them would become violent afterwards.(32) It also seems that self-harm by women and children is often linked to a husband or father's drinking.(22) Such consequences of excessive alcohol use and how it

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4 affects family and social life will be investigated further, in order to be able to understand  
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6 the connection between alcohol and self-harm.  
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11 *Alcohol and self-harm at the community level*

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13 Community members' attitudes towards alcohol use may affect how alcohol users, families  
14 and communities interact.(33) Societal stigmatization and norms may have a negative  
15 influence on the individual and family members(21) but at the same time, the community  
16 can play a role in supporting members who have problems related to alcohol use and in  
17 cases of self-harm or suicide. This link between the individual and the perceptions of the  
18 close social surroundings will be investigated in terms of how group concepts of alcohol  
19 norms, shame and support are relevant for the rural, Sri Lankan setting.  
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31 *Stakeholders in alcohol and self-harm prevention and interventions*

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33 In Sri Lanka, a number of risk factors to self-harm have been addressed by limiting access  
34 to the means of self-harm or improving medical management of poisoning through  
35 regulations and ban of highly toxic pesticides used for self-poisoning.(34) All though some  
36 ad hoc initiatives have been implemented responding to the issue of alcohol, including  
37 through taxes and policies (i.e. ban of alcohol commercials at sports events);(35) treatment  
38 (a NGO treatment program for alcohol abusers in Colombo);(36) advocacy programmes on  
39 the prevention of alcohol misuse;(37) and NGO-led educational programmes,(38,39) there  
40 is no thorough evaluation of their effectiveness and alcohol continues to be a major risk  
41 factor for self-harm in Sri Lanka. An investigation of the environment in which initiatives  
42 are developed is therefore timely.  
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## METHODS AND ANALYSIS

### Conceptual framework

The following conceptual framework provides an overview of different concepts relevant for investigating alcohol's role in self-harm in Sri Lanka. This will be the starting point for analysis, guided by the data collected.

#### *Explanatory models*

The study draws on Kleinmann's 'explanatory models',<sup>(40)</sup> which explores how illnesses are understood and dealt with through ethno-cultural lenses,<sup>(41)</sup> i.e. how individuals make sense of their illness.<sup>(40)</sup> Explanatory models will be used to investigate how people explain the use of alcohol in relation to self-harm, by asking questions along the themes of why individuals consume alcohol; the perceived impact of alcohol; and the problems alcohol may cause (if any).

#### *Definitions of alcohol: use and harm*

A key aim in this study is to investigate how alcohol use is described in the rural, Sri Lankan context. There is not one single definition of 'normal' drinking, problem drinking, misuse or alcohol dependence that applies equally to all cultures and environments<sup>(42)</sup> and variations in drinking patterns and population groups for whom alcohol intake is accepted all play a role in how alcohol use is perceived and labelled.<sup>(43)</sup> An open and investigatory approach to the topic will be sought when interacting with individuals and communities ensuring that they explain their use of terms such as alcohol abuse and problem drinking.

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4 'Alcohol's harm to others' covers the notion that damage or social harm from the use of  
5 alcohol affects not only the drinker, but also others.(33,44,45) This can span from  
6 situations where an individual's drinking may annoy others to more substantial  
7 effects,(46) including violence, family dysfunction, and issues in the work place.(14) The  
8 definition and extent of this harm will be investigated in the rural Sri Lankan context.  
9 Since the harm can happen at several levels, alcohol's role in self-harm will be investigated  
10 at the individual, community and policy level, and not merely at one level.  
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### 21 *Coping*

22 'Coping' in this study pertains to the way individuals interact with stressors when trying to  
23 return to a 'normal' functioning level after a stressful situation(47) and how they manage it  
24 by minimizing, changing or accepting it.(48) 'Problem-focused' coping strategies include  
25 taking action to reduce demands of the stressor or increasing resources to manage it.  
26 'Emotion-focused' coping entails managing the emotions evoked by the stressful event.(47)  
27 The concept of coping is complex and many factors can play a role in how alcohol and/or  
28 self-harm are coped with. In terms of coping mechanisms related to alcohol misuse, they  
29 can span from using alcohol to get through a tough time(47) to having to cope with the  
30 consequences of being a heavy alcohol drinker or being a significant other of one. These  
31 theoretical concepts of coping will be utilized to shape data collection and when analysing  
32 how individuals cope with the alcohol use - specifically in cases of non-fatal self-harm.  
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### 50 **Study setting**

51 The study will mainly be carried out in the Anuradhapura district in the North Central  
52 Province, where one of the highest suicide rates in Sri Lanka persists.(49) It is connected to  
53 the 'Safe Storage' study, which is a large community-based, cluster randomized control  
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4 trial, evaluating the effectiveness in storing pesticides safely to reduce self-harm.(50) In  
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6 the Safe Storage study, 667 cases of self-harm were identified amongst the individuals  
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8 admitted to Anuradhapura Teaching Hospital or one of the 11 peripheral units included  
9  
10 into the safe storage study in 2013. Participants for this study will be sampled through  
11  
12 three peripheral units, embracing the diversity in the area in terms of socio-economic  
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14 characteristics, agricultural production and history of settlement.(51)  
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### 17 18 **Study design**

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20 Extensive quantitative research has been carried out on the topic of self-harm(51–53) and  
21  
22 alcohol(29,54) separately in Sri Lanka, however limited qualitative research has been  
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24 conducted.(21,55,56) This study responds to this gap by utilizing a qualitative research  
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26 approach, seeking an in-depth perspective of the individual's and communities'  
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28 interpretations and perceptions of these phenomena in its social, structural, and cultural  
29  
30 context. A range of qualitative methods will be applied: observations; narrative, life-story  
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32 interviews; focus group discussions (FGDs); and semi-structured, key- informant  
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34 interviews.  
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### 40 41 **Selection of participants**

42 To participate in the study, participants (all adults >18) will be:

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44 A. Individuals who non-fatally self-harmed and where alcohol played a role in the  
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46 incident (the individual was under the influence of alcohol or the incident was  
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48 sparked by another's alcohol consumption);  
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51 B. Significant others of individuals who non-fatally self-harmed and where alcohol was  
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53 directly or indirectly involved in the incidence;  
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4 C. Community-members, not necessarily from households where self-harm occurred  
5 or where alcohol is a profound issue;  
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8 D. Key informants with a stake in alcohol and self-harm prevention and interventions  
9 in Sri Lanka.  
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### 14 15 **Narrative life-story interviews**

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17 In-depth interviews are appropriate when seeking to obtain meaning(57) and get people's  
18 own perspective of a situation.(58) For the first objective, the interviews will have a  
19 narrative life-story component in order to obtain an understanding of the individual's life,  
20 along with the events and decisions that led up to the self-harm incidence. If deemed  
21 relevant a timeline will be made in collaboration with the participant to make a visual  
22 overview of important events. The combination of visual and verbal methods can be  
23 helpful in encouraging participants to talk while reversing the power-roles between the  
24 researcher and the participant. This will assist the participant to guide what topics will be  
25 covered and when.(59)  
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39 The narrative life-story interviews will be carried out in face-to-face meetings with A and B  
40 in a quiet place, i.e. in their homes or in another relevant setting, as determined by the  
41 participants. The researchers will engage with the participants through series of interviews  
42 (up to three times) to construct a comprehensive life-story narrative. Up to 30 individuals  
43 will be interviewed until theoretical saturation has been achieved.  
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52 For A, selection will be purposive from three peripheral hospitals in the study area. By  
53 choosing this selection strategy, we exclude those who by different reasons did not get  
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4 admitted to hospital as well as those who fatally self-harmed. This selection strategy will  
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6 evidently have implications on the findings. B is selected with acceptance from A.  
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10 Individuals with an apparent psychiatric illness will not be included in the study. The study  
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12 will be carried out in collaboration with local research assistants (a male and a female),  
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14 who are familiar with the local context, the specific study site and population, and carefully  
15  
16 trained in interviewing about the sensitive issues of self-harm and alcohol use.  
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20  
21 Themes to be explored include:  
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- 23 - Important events in the participants' life;
  - 24 - The specific case of self-harm and how alcohol was involved;
  - 25 - Perceptions and beliefs of alcohol use and misuse;
  - 26 - The perceived impact of alcohol use;
  - 27 - Coping strategies used by the alcohol consumer and significant others;
  - 28 - Explanatory models of self-harm, including perceived causes etc.
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### 39 **Participant observations**

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41 Observations will be key in gaining an in-depth understanding of the local alcohol culture,  
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43 social structures and interactions. It can help to showcase implicit features of social life,  
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45 provide context of behaviour,(58) and shed light on non-explicit knowledge.(60)  
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48 Observations will take place with a starting point in approximately ten of the participants  
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50 (A & B), their families and villages, observing social dynamics and the workings of the  
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52 community. It will also include investigating alcohol selling establishments and social  
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54 gatherings where alcohol is served.  
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Themes to be explored include;

- Who consumes alcohol;
- When, how much, and what is consumed;
- How is selling and consumption organized;
- In which settings alcohol is sold and consumed;
- How is it talked about;
- How do people react towards intoxicated individuals.

### **Focus Group Discussions**

In order to obtain a comprehensive understanding of communities' perceptions of alcohol use and how it relates to self-harm, focus group discussions (FGDs) will be conducted.

FGDs are effective when seeking a broad range of opinions on a topic and it provides the opportunity for participants to probe each other's reasons for holding a specific view.(58)

Knowing that this method will bring out group norms of 'what should be', (57) discussion themes will be verbalized as general, non-personal issues. In addition, small vignettes covering different scenarios of alcohol in connection with self-harm will be used to spur conversation. Vignettes are particularly useful when exploring sensitive topics, as they can help distance participants from the topic of discussion,(61) which has proven to be beneficial in other studies on self-harm carried out in Sri Lanka.(5)

Approximately six FGDs will be carried out. Since previous research in Sri Lanka has shown gender differences in alcohol intake and perceptions towards alcohol use(5) they will be held in age (young/middle-aged/elderly) and gender-segregated groups, with a maximum of six participants in each group to create a comfortable atmosphere.

Participants will be selected through snowballing and represent homogenous groups of

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4 adults from the selected communities. They will not necessarily be from households where  
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6 alcohol use or self-harm is an issue.  
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10 Themes to be explored include:

- 11 - General perceptions of alcohol use;
  - 12 - Reactions towards people who consume alcohol;
  - 13 - Common explanations for use of alcohol;
  - 14 - How alcohol is associated with self-harm;
  - 15 - How the community responds to alcohol use and self-harm.
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### 26 **Stakeholder interviews**

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28 To examine the environment in which alcohol and self-harm prevention and treatment  
29 initiatives, regulations and policies have and will be developed, a stakeholder-analysis will  
30 be carried out. It will follow three main steps as outlined by Varvasovszky and Brugha: 1.  
31 identifying and approaching stakeholders; 2. describing stakeholder's positions,  
32 responsibilities and collaborations; and 3. diagnosing and suggesting strategies for future  
33 interventions.(62) Semi-structured interviews will be conducted with 15-25 stakeholders  
34 who have a stake in the decision making and implementation process(63) related to  
35 alcohol and self-harm policies and interventions in Sri Lanka. Stakeholders will include  
36 representatives from different organizational layers:  
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- 47 - Producers and traders of alcohol;
  - 48 - Community representatives (leaders, priests, teachers);
  - 49 - NGOs (ADIC, Mel Medura, Sumithrayo, FISD and others);
  - 50 - Academia;
  - 51 - The health system (public, private and ayurvedic sectors at several levels);
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- Government (from ministries of Health; Education; Consumer Welfare; Child Development and Women's Affairs; the National Child Protection Authority and others).

Informants will be purposively selected from previous data collection and research, as well as through snowballing. New key informants will be added until no more relevant stakeholders can be identified and saturation is reached.

Themes to be explored include:

- Activities carried out on preventing alcohol misuse and/or self-harm;
- Interests in and agendas for prevention of self-harm and controlling of alcohol;
- Means of influencing the agenda, including interrelations with other stakeholders in this area;
- Past, present and future perspectives.

### **Data management**

All interview guides will be translated from English to Sinhala by trained translators and validated by representatives from the larger research group. The interview and FGD guides will be pilot tested in similar informant groups and revised accordingly. Interviews and FGDs will be conducted and facilitated by English/Sinhala speaking research assistants, supported by the first author. All interviews and FGDs will be audio recorded with the informed consent of all participants. Notes and field notes will be taken at all occasions. The research assistants will carry out verbatim transcriptions of all interviews and FGDs.



## Analysis

Analysis will be inductive and dynamic, starting immediately after the first interviews and FGDs continuing until the topics are well understood. It will be informed by the described conceptual frameworks and rely on a continuous triangulation of emerging analytical and theoretical concepts in conjunction with the diverse sources of empirical data. The analysis of data collected from interviews will follow the principles of systematic content analysis:(58) The transcripts of the interviews and FGDs will be coded to identify themes, ideas and patterns, and these codes will be grouped into broader themes. During the analysis, the English version will be controlled and compared with the Sinhala transcriptions, in order to ensure inclusion of all relevant context and local matters in the analysis.(64)

## ETHICS AND DISSEMINATION

### Informed consent

Verbal and written information about the aim of the study will be given in English or Sinhala, as appropriate to participants. In each case, the capacity of the participant to give consent will be assessed– e.g. a highly intoxicated person will not be able to make an informed decision. Participants will be informed that they can withdraw from the study at any time and that participation will not have negative consequences for them in terms of access to health care etc. For the serial, narrative life-story interviews, the continued participation will be verbally reconfirmed at each visit. Participants will be informed that all data collected will be stored safely and only be used by researchers, maintaining confidentiality.

## Validity

In order to validate the findings of this study, a long period of field work with ample time to collect data (minimum 10 months) has been allotted. This extensive time allows for a comprehensive collection of multiple sources of data and an in-depth understanding of the phenomenon under study.<sup>(64)</sup> A rigorous transcription process with several external cross-checks are planned to ensure highest data quality and consistency in definitions of codes and analytical themes.<sup>(64)</sup> The participants will serve as check throughout the analysis process in an on-going dialogue about their reality and it will be made sure to also present discrepant information running counter to the themes.<sup>(65)</sup> The use of triangulation at several levels (data sources, informant groups and theories), as well as detailed descriptions of the contextual setting of the study will also enhance the comprehensiveness of the findings.<sup>(66)</sup> Finally, co-researchers from different research disciplines will continuously be engaged to discuss the interpretations of the study to ensure that the conclusions resonate with the broader research community.<sup>(66)</sup>

## *Reflexivity*

When carrying out qualitative research, the researchers' background, culture and experiences influence the interpretation of the data.<sup>(64)</sup> According to Malterud et al, these pre-conceived ideas are a necessary pre-condition for understanding a topic and reflexivity starts by identifying such preconceptions brought into the project by the researchers.<sup>(67)</sup> This will carefully be considered throughout the study and the research team will maintain diaries to systematically document preconceptions and thus enhance trustworthiness and transparency.<sup>(65)</sup>

### *Power dynamics*

In carrying out qualitative research it is difficult to avoid power imbalances between the researcher and the participant, since the interviewer can maintain control and lead the participants in a certain direction. Especially the individuals in group A and B are presumably vulnerable and may be marginalized. The research team will comprise local and international researchers, whom in different ways will differ from the participants, i.e. in terms of sex, socio-economic status and age. According to Creswell, some of these imbalances can be decreased by building trust and avoiding leading questions.(64) Further, the narrative, life-story approach has been chosen because it empowers the participant to lead the conversation, thereby shifting control.

### **Ethical considerations**

Ethical approval has been obtained from the Ethical Review Committee of the Faculty of Medicine and Allied Sciences, Rajarata University of Sri Lanka and been reviewed by the Safe Storage research group.

The Helsinki Declaration of 'Good Clinical Practice' will guide the study design and ethical issues will be considered from the outset and throughout the study. Inquiring into other's personal life can be experienced as traumatic. This will be countered by utilizing a sensitive data collection technique. While interviews about previous self-harm impacts participants' feelings, research indicated that the majority felt better afterwards(68) and a study involving family members of individuals who died from suicide showed that sensibly conducted interviews can have a valuable therapeutic effect.(69) Thus it may prove helpful to talk to 'outsiders' about a difficult issue.(70) However, the interview situation may still be upsetting and protecting the individual is a priority; i.e. the interviews will be carried

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4 out alone, in a setting the participant prefers. In order to assess the participant's mood and  
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6 whether the interview has had a negative influence, a Visual Analogue Scale (VAS) will be  
7  
8 administered in which participants rate their mood on a scale before and after the  
9  
10 interview. This method has been used in similar settings(71) and will assist in identifying  
11  
12 individuals who may be at increased risk of repeated self-harm. Those participants who  
13  
14 score lowest on the VAS will be offered more comprehensive support after the interview.  
15  
16 Irrespective of the rating on the VAS the importance of seeking support when feeling  
17  
18 distressed will be highlighted and all participants will be given information about where to  
19  
20 seek help.  
21  
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25

### 26 **Dissemination**

27  
28 At the end of the study, findings will be communicated to the community and disseminated  
29  
30 in peer-reviewed, internationally recognized journals in collaboration with Sri Lankan and  
31  
32 other partners with maximum visibility for Sri Lankan researchers. Articles will also be  
33  
34 submitted to other types of media to increase awareness of the topic.  
35  
36  
37  
38

### 39 **AUTHORS' CONTRIBUTIONS**

40  
41 JBS drafted the initial manuscript and developed the protocol. TR and FK collaborated on  
42  
43 conceptualizing and designing the study and contributed to the draft of the manuscript.  
44  
45 BRS provided valuable input to methodology and background information on the study  
46  
47 site. MP contributed towards the study set-up, logistics, and methodology. TA contributed  
48  
49 to the context, cultural specificities, methodology and ethical considerations. SS furnished  
50  
51 information on the structure of health systems, in addition to assisting with ethical and  
52  
53 contextual considerations. All authors read and approved the final manuscript.  
54  
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## COMPETING INTERESTS

The authors declare that they have no competing interests.

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# BMJ Open

## An investigation of alcohol's role in self-harm in rural Sri Lanka: a protocol for a multi-method, qualitative study

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Manuscripts

**TITLE PAGE****An investigation of alcohol's role in self-harm in rural Sri Lanka:  
a protocol for a multi-method, qualitative study**

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## ABSTRACT

### Introduction

Sri Lanka has one of the highest suicide and self-harm rates in the world and though alcohol has been found to be a risk factor for self-harm in Sri Lanka, we know little about the connection between the two. This paper comprises a protocol for a qualitative study investigating alcohol's role in self-harm in rural Sri Lanka at three levels: the individual, community and policy level. The analysis will bring new understandings of the link between alcohol and self-harm in Sri Lanka, drawing on structural, cultural and social concepts. It will equip researchers, health systems and policy makers with vital information for developing strategies to address alcohol-related problems as they relate to self-harm.

### Methods and analysis

To capture the complexity of the link between alcohol and self-harm in the Anuradhapura district in the North Central Province in Sri Lanka, qualitative methods will be utilized. Specifically, the data will consist of serial narrative life-story interviews with up to 20 individuals who have non-fatally self-harmed and where alcohol directly or indirectly was involved in the incidence as well as with their significant others (>18). Participants will be sampled from hospitals, representing areal diversity in terms of socio-economic and agricultural characteristics and history of settlement; observations in communities and families; six focus group discussions with community members; and key-informant interviews with 15-25 stakeholders who have a stake in alcohol distribution, marketing, policies, prevention and treatment as they relate to self-harm.

### Ethics and dissemination

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3  
4 The study has received ethical approval from the Ethical Review Committee of the Faculty  
5 of Medicine and Allied Sciences, Rajarata University of Sri Lanka. A sensitive data  
6 collection technique will be used and ethical issues will be considered throughout the  
7 study.  
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12 Results will be disseminated in scientific peer-reviewed articles in collaboration with Sri  
13 Lankan and other international research partners.  
14  
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### 16 17 18 19 **STRENGTHS AND LIMITATIONS OF THE STUDY**

- 20  
21 • The study will provide new knowledge and an increased understanding of an area  
22 that has previously received limited research attention – the structural, cultural and  
23 social context behind the link between alcohol and self-harm in rural Sri Lanka;  
24  
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- 26 • Quality of the information gathered and comprehensiveness are ensured by  
27 collecting data at several levels and through triangulation between data sources,  
28 informant groups and theories;  
29  
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- 31 • One limitation of the study is the sensitivity of the issues of alcohol and self-harm,  
32 which may limit participation in the study;  
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- 35 • Due to the nature of the methodologies utilized, the results require further studies  
36 in order to be transferable to other settings.  
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## INTRODUCTION

Deliberate self-harm and suicide is a serious social, economic and public health issue, being one of the top 20 leading causes of death globally.(1) The issue is particularly pronounced in Asia, where 60% of suicides occur.(2) Though a decrease has been seen in recent years (from 47 to 23 per 100,000 population in 1995 and 2006), Sri Lanka still has one of the highest suicide and self-harm rates globally.(3) It has been found that problematic alcohol use is often involved in cases of self-harm – either in the one who consumes the alcohol or in someone affected by it.(3–9) With a qualitative approach, this study will explore the structural, social and cultural behaviour surrounding alcohol's role in self-harm at the individual, community and policy level in the Anuradhapura district in the North Central Province in Sri Lanka.

The objectives of this study are to:

- (i) Investigate the explanatory models and coping strategies for alcohol use with a focus on its relation with self-harm in households in rural Sri Lanka;
- (ii) Investigate community perceptions and responses to alcohol use and its relation with self-harm in rural Sri Lankan communities;
- (iii) Investigate stakeholders' involvement, influence on and motivations in controlling harmful effects of alcohol in Sri Lanka with a special focus on preventing self-harm.

## Background

### *Alcohol, self-harm and suicide*

International research shows that both acute and chronic alcohol use are associated with suicidal behaviour,(10–15) influenced by access to alcohol in a certain context(13) as well

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4 as the amounts consumed.(16) It is well-established that alcohol misuse is not merely an  
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6 individual or psychological phenomena, but a sociological one that has a profound impact  
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8 on deviations found in suicidal behaviour.(12,17) The relationship between alcohol and  
9  
10 self-harm is complex and seems to vary between genders, cultures and countries.(13,18,19)  
11  
12 Problematic alcohol use affects social and family life and poses risks not only for individual  
13  
14 dysfunction, but also for relational conflict and family breakdown.(13) Alcohol often acts as  
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16 a long term risk factor for self-harm, for example through social and financial problems,  
17  
18 domestic violence, and effects on mood.(20) However, in the short-term, it may have an  
19  
20 acute level effect on the mood and increase the risk for impulsive and destructive  
21  
22 behaviour even when misused by individuals without a chronic alcohol problem.(18) Self-  
23  
24 harm or suicide may thus be an end point for a long-term or short-term drinker, but a  
25  
26 significant other of an alcohol misuser may also deliberately self-harm, in seeking to  
27  
28 escape the negative influences of the alcohol.(19,21)  
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### 35 *Alcohol, self-harm and suicide in Sri Lanka*

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37 It should be noted that the term 'self-harm' is used throughout this paper to describe  
38  
39 deliberate injury to one self. This definition captures two important points; that most cases  
40  
41 of self-harm in the Sri Lankan context are non-fatal and with little or no intent to die, and  
42  
43 can thus not be classified as 'suicide attempts'.(22)  
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48  
49 Even though extensive international literature on the relationship between alcohol and  
50  
51 self-harm exists, there has been little emphasis on the cultural and behavioural aspects  
52  
53 underlying the connection in Sri Lanka. A few researchers have touched on it(5,23–25) and  
54  
55 a Sri Lankan study of 159 acute self-poisoning cases - the most common method of self-  
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57 harm in Sri Lanka being pesticide poisoning(26) - found that 32% were visibly affected by  
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4 alcohol when admitted to hospital, which was confirmed by family and bystanders.(5)  
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6 Another study conducted a psychological autopsy of 372 suicides in rural Sri Lanka to find  
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8 that problem drinking or alcohol dependence was common among male suicides in 61% of  
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10 cases while alcohol misuse in another family member contributed to 14% of female  
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12 suicides.(7) None of these studies thoroughly investigated the dynamics and complex  
13  
14 interlinkages between alcohol and self-harm.  
15  
16

### 17 18 19 *Alcohol use in Sri Lanka*

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21 Officially, alcohol consumption is relatively low in Sri Lanka with a per capita intake of 3.7  
22  
23 litres in 2010 (2.2 in 2005), which include the WHO estimate of unrecorded liquor.(15)  
24  
25 However, Sri Lankan alcohol consumption data is believed to be inaccurate.(27) Most  
26  
27 alcohol consumed is the easily accessible, cheap, unrecorded, and illicitly brewed 'kassipu',  
28  
29 mainly consumed in poor, rural areas,(23,28,29) – and difficult to document. Some  
30  
31 suggest that up to 50 – 90% of alcohol consumed is illicit (24,29,30) and the actual alcohol  
32  
33 consumption level potentially much higher. Further, with a lifetime abstinence rate at a  
34  
35 high 69%,(15) many drinkers consume alcohol above the average.  
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40  
41 Alcohol consumption in Sri Lanka is almost exclusively a male practise (25) (annual per  
42  
43 capita consumption in 2010 was 7.3 litres for males and 0.3 litres for females)(15) and the  
44  
45 types of alcohol consumed are closely linked to class and status.(30) Alcohol intoxication in  
46  
47 Sri Lanka has primarily been used as a mean to reduce tension, in a moderate degree at  
48  
49 ceremonies, and less so for personal enjoyment.(24,29–31) It predominately takes place for  
50  
51 the sole purpose of intoxication.(29,32) A Sri Lankan study of individuals who self-harmed  
52  
53 in rural areas found that they regarded drinking as a reasonable response to the stresses of  
54  
55 being a farmer.(5) In addition, a self-administered questionnaire amongst young Sri  
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4 Lankan men found that alcohol was used to dominate surroundings and to become more  
5  
6 prominent among peers.(31) However, much remains to be understood about how these  
7  
8 motives for alcohol use are linked to cases of self-harm.  
9

### 10 11 12 *Alcohol and its effects on family and social life*

13  
14 Sri Lankan research shows that social harm from alcohol contributes to violence(25) and  
15  
16 domestic violence;(33) impacts the family budget and duties; feelings of shame and  
17  
18 guilt;(34–36) and instigate self-harm.(5) A UNICEF study among Sri Lankan adolescents  
19  
20 found that 18.3% of their fathers drank alcohol and 26.6% of them became violent  
21  
22 afterwards.(37) It also seems that self-harm by women and children is often linked to a  
23  
24 husband or father's drinking.(25) Such consequences of excessive alcohol use and how it  
25  
26 affects family and social life will be investigated in this study to be able to understand the  
27  
28 connection between alcohol and self-harm.  
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### 35 36 *Alcohol and self-harm at the community level*

37  
38 Community members' attitudes towards alcohol use may affect how alcohol users, families  
39  
40 and communities interact.(38) Societal stigmatization and norms may have a negative  
41  
42 influence on the individual and family members(24) but at the same time, the community  
43  
44 can play a role in supporting members who have problems related to alcohol use and in  
45  
46 cases of self-harm or suicide. This link between the individual and the perceptions of the  
47  
48 close social surroundings will be investigated in terms of how group concepts of alcohol  
49  
50 norms, shame and support are relevant for the rural, Sri Lankan setting.  
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### 55 56 *Stakeholders in alcohol and self-harm prevention and interventions*

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4 In Sri Lanka, a number of risk factors to self-harm have been addressed by limiting access  
5 to the means of self-harm or improving medical management of poisoning through  
6 regulations and ban of highly toxic pesticides used for self-poisoning.(39) All though some  
7 ad hoc initiatives have been implemented responding to the issue of alcohol, including  
8 through taxes and policies (i.e. ban of alcohol commercials at sports events);(40) treatment  
9 (a NGO treatment program for alcohol abusers in Colombo);(41) advocacy programmes on  
10 the prevention of alcohol misuse;(42) and NGO-led educational programmes,(43,44) there  
11 is no thorough evaluation of their effectiveness and alcohol continues to be a major risk  
12 factor for self-harm in Sri Lanka. An investigation of the environment in which initiatives  
13 are developed is therefore timely.  
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## 30 **METHODS AND ANALYSIS**

### 31 **Conceptual framework**

32  
33 The conceptual framework outlined below will guide the analytical process of the study. It  
34 builds on the recommendations of Hunt and Barker(45) for carrying out socio-cultural,  
35 anthropological research on drugs and alcohol.  
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#### 44 *Local alcohol and self-harm terminologies*

45  
46 Hunt and Barker urge researchers to examine how societies categorize alcohol use(45)  
47 since there is no single definition of 'normal' drinking, problem drinking, misuse or alcohol  
48 dependence that applies equally to all cultures and environments.(46) An open and  
49 investigatory approach to the topic will therefore be sought in this study when interacting  
50 with individuals and communities, ensuring that they explain their understanding of terms  
51 such as alcohol abuse, problem drinking, alcohol-related self-harm and harm to others.  
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### *Relational aspects of alcohol and self-harm*

Hunt and Barker emphasize that alcohol is a social, relational, and active phenomenon and alcohol problems and solutions should be seen in this light.(45) It is therefore central to this study to investigate and understand more of how damage or social harm from the use of alcohol affects not only the drinker, but the close social relations and environment of the drinker.(38,47,48)

### *Power relations and culturally accepted behaviour*

Finally, the authors highlight that alcohol consumption is closely linked to power relationships in terms of accepted behaviours in certain social and cultural contexts, including how different social groups or classes fashion and control acceptability of alcohol use and how production and distribution are organized.(45) As part of this study, power relations and alcohol cultures at community levels and alcohol consumption patterns for different social classes will be explored. Additionally, national alcohol policies, production and prevention will also be investigated, thus adding more layers to the analysis of alcohol cultures and power dynamics.

### *Explanatory models*

The mentioned concepts will be investigated through the overall theory of Kleinmann's 'explanatory models',(49) examining how illnesses are understood and dealt with through ethno-cultural lenses,(50) i.e. how individuals and communities make sense of illness, health and suffering.(49) More specifically, explanatory models will be used to investigate how people explain the use of alcohol in relation to self-harm.

### *Coping with life, alcohol and self-harm*

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4 In addition to the concepts drawn from Hunt and Barker, 'coping' is central to this study.  
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6 According to Lazarus, coping is defined as the way individuals interact with stressors when  
7  
8 trying to return to a 'normal' functioning level after a stressful situation(51) and how they  
9  
10 manage by minimizing, changing or accepting it.(52) The process of coping is complex and  
11  
12 many factors play a role in how alcohol and/or self-harm are coped with or how the  
13  
14 behaviours act as actual coping strategies. In fact, alcohol use has been described as a  
15  
16 concrete coping mechanism to get through a tough time for farmers in Sri Lanka,(5) while  
17  
18 family members at the same time have to cope with the consequences of the alcohol use or  
19  
20 the possible subsequent self-harm. Self-harm has also been described as a form of coping,  
21  
22 which can be used to change an unwanted situation.(22) These processes and mechanisms  
23  
24 of coping will be investigated to understand the dynamics and strategies applied by  
25  
26 drinkers and their families in cases of alcohol-related self-harm.  
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### 32 **Study setting**

33  
34 The study will mainly be carried out in the Anuradhapura district in the North Central  
35  
36 Province, where one of the highest suicide rates in Sri Lanka persists.(53) It is connected to  
37  
38 the 'Safe Storage' study, which is a large community-based, cluster randomized control  
39  
40 trial, evaluating the effectiveness in storing pesticides safely to reduce self-harm.(54) In  
41  
42 the Safe Storage study, 795 cases of self-harm were identified amongst individuals  
43  
44 admitted to Anuradhapura Teaching Hospital or 11 peripheral hospitals in a year (2013-  
45  
46 2014).  
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### 51 **Study design**

52  
53 Extensive quantitative research has been carried out on the topic of self-harm(55-57) and  
54  
55 alcohol(34,58) separately in Sri Lanka, however limited qualitative research has been  
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4 conducted.(24,59,60) This study responds to this gap by utilizing a qualitative research  
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6 approach, seeking an in-depth perspective of the individual's and communities'  
7  
8 interpretations and perceptions of these phenomena. A range of qualitative methods will  
9  
10 be applied: observations; narrative, life-story interviews; focus group discussions (FGDs);  
11  
12 and semi-structured, stakeholder interviews.  
13

### 14 15 16 17 **Inclusion criteria and selection of participants** 18

19  
20 The first part of the study will include individuals who non-fatally self-harmed and where  
21  
22 alcohol played a role in the incident. Either A) the individual was under the influence of  
23  
24 alcohol when admitted to hospital (7-10 cases) or B) the incident was sparked by another's  
25  
26 alcohol consumption (7-10 cases). We are aware that by choosing this selection strategy,  
27  
28 we exclude those who for different reasons did not get admitted to hospital as well as those  
29  
30 who fatally self-harmed.  
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35 Participants will be sampled through three peripheral hospitals, representing different  
36  
37 socio-economic characteristics, agricultural production and history of settlement.(56) The  
38  
39 majority of serious self-harm cases from these three hospitals are transferred to  
40  
41 Anuradhapura Teaching Hospital and by permission from the Hospital Director, cases  
42  
43 being admitted from the three hospitals will be sampled from here. A) and B) will be  
44  
45 identified by trained Safe Storage colleagues who are already identifying all self-harm  
46  
47 cases within the study area. Possible participants will be asked for both oral and written  
48  
49 consent at the hospital, for the study team to contact them minimum one week after they  
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51 are discharged, at which point informed consent will be repeated and re-obtained.  
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4 After interviewing A) and B), they will be asked for consent for the team to talk with their  
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6 C) significant other(s). Written and oral consent will also be sought from this group.  
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9  
10 Approximately 15 cases of A), B), and C) will be interviewed several times (approximately  
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12 up to three times) and visited for observational sessions, depending on consent from the  
13  
14 whole household.  
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19 In order to obtain a comprehensive understanding of communities' perceptions of alcohol  
20  
21 use and how it relates to self-harm, focus group discussions (FGDs) will be conducted.  
22

23  
24 Participants D) for the FGDs will be selected through snowballing among community  
25  
26 members and represent homogenous groups of male and female adults from the selected  
27  
28 communities. Participants will not necessarily be from households where alcohol use or  
29  
30 self-harm is an issue.  
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35 Finally, to examine the environment in which alcohol and self-harm prevention and  
36  
37 treatment initiatives, regulations and policies have and will be developed, a stakeholder-  
38  
39 analysis will be carried out. The participants E) will be purposively selected from previous  
40  
41 data collection and research, as well as through snowballing. New key informants will be  
42  
43 added until no more relevant stakeholders can be identified and saturation is reached.  
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#### 46 47 48 **Narrative life-story interviews** 49

50 In-depth interviews are appropriate when seeking to obtain meaning(61) and get people's  
51  
52 own perspective of a situation.(62) For the first objective, the interviews will have a  
53  
54 narrative life-story component in order to obtain an understanding of the individual's life,  
55  
56 along with the events and decisions that led up to the self-harm incidence. Themes to be  
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4 explored include: Perceptions and beliefs of alcohol use and misuse; perceived impact of  
5  
6 alcohol use; coping strategies used by alcohol consumers and significant others; and  
7  
8 explanatory models of self-harm, including perceived causes. If deemed relevant a timeline  
9  
10 will be made in collaboration with the participant to make a visual overview of important  
11  
12 events, which can be helpful in encouraging participants to talk while reversing the power-  
13  
14 roles between the researcher and the participant.(63)  
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20 The narrative life-story interviews will be carried out in face-to-face meetings with A), B)  
21  
22 and C) in a quiet place, i.e. in their homes or in another relevant setting, as determined by  
23  
24 the participants. The researchers will engage with the participants through series of  
25  
26 interviews to construct a comprehensive life-story narrative.  
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### 30 **Participant observations**

31  
32 Observations will be key in gaining an in-depth understanding of the local alcohol culture,  
33  
34 social structures and interactions. It can help to showcase implicit features of social life,  
35  
36 provide context of behaviour,(62) and shed light on non-explicit knowledge.(64)  
37  
38

39 Observations will take place during daily life in selected families observing dynamics;  
40  
41 power relations; alcohol consumption in terms of who consumes, when, how much, and  
42  
43 what; and strategies employed by family members in regards to alcohol use and previous  
44  
45 self-harm. Observations in communities will include observing social organization of  
46  
47 communities and people; alcohol selling establishments and how selling and consumption  
48  
49 is organized; how alcohol is talked about; and how people react towards intoxicated  
50  
51 people. During community observations, the research team will make sure to openly  
52  
53 explain the purpose of the research to anyone enquiring and abstain from observing if  
54  
55 community members feel disturbed or uncomfortable about the presence of the team.  
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## Focus Group Discussions

FGDs are effective when seeking a broad range of opinions on a topic and it provides the opportunity for participants to probe each other's reasons for holding a specific view.(62)

Knowing that this method will bring out group norms of 'what should be',(61) discussion themes will be verbalized as general, non-personal issues. Topics will include general perceptions of alcohol use; reactions towards people who consume alcohol; explanations for use of alcohol; how alcohol is associated with self-harm; and how the community responds to alcohol use and self-harm. In addition, small vignettes covering different scenarios of alcohol in connection with self-harm will be used to spur conversation.

Vignettes are particularly useful when exploring sensitive topics, as they can help distance participants from the topic of discussion,(65) which has proven beneficial in other studies on self-harm carried out in Sri Lanka.(5)

Approximately six FGDs will be carried out. Since previous research in Sri Lanka has shown gender differences in alcohol intake and perceptions towards alcohol use(5) they will be held in age and gender-segregated groups, with a maximum of ten participants in each group.

## Stakeholder interviews

The stakeholder analysis will follow three main steps as outlined by Varvasovszky and Brugha: 1. identifying and approaching stakeholders; 2. describing stakeholder's positions, responsibilities and collaborations; and 3. diagnosing and suggesting strategies for future interventions.(66) Semi-structured interviews will be conducted with 15-25 stakeholders

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4 who have a stake in the decision making and implementation process(67) related to  
5  
6 alcohol and self-harm policies and interventions in Sri Lanka. Some of the themes to be  
7  
8 explored include activities carried out on preventing alcohol misuse and/or self-harm;  
9  
10 interests in and agendas for prevention of self-harm and controlling of alcohol; means of  
11  
12 influencing the agenda, including interrelations with other stakeholders in this area; and  
13  
14 past, present and future perspectives.  
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18  
19 Stakeholders will include representatives from different organizational layers:  
20

- 21 - Producers and traders of alcohol;
- 22 - Community representatives (leaders, priests, teachers);
- 23 - NGOs (ADIC, Mel Medura, Sumithrayo, FISS and others);
- 24 - Academia;
- 25 - The health system (public, private and ayurvedic sectors at several levels);
- 26 - Government (from ministries of Health; Education; Consumer Welfare; Child  
27  
28 Development and Women's Affairs; the National Child Protection Authority and  
29  
30 others).

### 40 41 **Data management**

42  
43 All interview guides will be translated from English to Sinhala by trained translators and  
44  
45 validated by representatives from the larger research group. The interview and FGD guides  
46  
47 will be pilot tested in similar informant groups and revised accordingly. Interviews and  
48  
49 FGDs will be conducted and facilitated by English/Sinhala speaking research assistants,  
50  
51 supported by the first author. All interviews and FGDs will be audio recorded with the  
52  
53 informed consent of all participants. The research assistants will carry out verbatim  
54  
55 transcriptions of all interviews and FGDs. Field notes will be taken at all occasions.  
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4 Observational data will be captured in extensive descriptive field notes and analytical  
5 memos, which will be transferred to a software programme on a daily basis and discussed  
6 within the research team. These discussions and reflections will be added to the  
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9  
10 observational notes and serve as important tentative steps of the analysis.  
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## 14 **Analysis**

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17 Analysis will be inductive and dynamic, starting immediately after the first interviews,  
18 FGDs and observations, continuing until the phenomena under study are well understood.  
19 It will be informed by the described conceptual framework and rely on a continuous  
20 triangulation between the emerging analytical and the pre-defined theoretical concepts in  
21 conjunction with the diverse sources of empirical data. The analysis will consequently not  
22 be entirely predefined, but reliant on the emerging explanatory models and  
23 understandings of alcohol's role in self-harm. The analysis of interview and FGD data will  
24 follow the principles of systematic content analysis:(62) The transcripts of the interviews  
25 and FGDs will be coded to identify themes, ideas and patterns, and these codes will be  
26 grouped into broader themes. During the analysis, the English version will be controlled  
27 and compared with the Sinhala transcriptions, in order to ensure inclusion of all relevant  
28 context and local matters in the analysis.(68)  
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## 48 **ETHICS AND DISSEMINATION**

### 49 **Informed consent**

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52 Verbal and written information about the aim of the study will be given in English or  
53 Sinhala, as appropriate. In each case, the capacity of the participant to give consent will be  
54 assessed– e.g. a highly intoxicated person will not be able to make an informed decision.  
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4 Participants will be informed that they can withdraw from the study at any time and that  
5  
6 participation – or lack of - will not have negative consequences for them. For the serial,  
7  
8 narrative life-story interviews and observations, the continued participation will be  
9  
10 verbally reconfirmed at each visit. Participants will be informed that all data collected will  
11  
12 be stored safely and only used by researchers, maintaining confidentiality.  
13  
14

### 15 16 17 **Validity**

18  
19 To validate the findings of this study, a long period of field work (minimum 10 months) has  
20  
21 been allotted. This extensive time allows for a comprehensive collection of multiple sources  
22  
23 of data and an in-depth understanding of the phenomenon under study.(68) A rigorous  
24  
25 transcription process with external cross-checks will ensure highest data quality and  
26  
27 consistency in definitions of codes and analytical themes.(68) Discrepant information  
28  
29 running counter to the themes will also be presented.(69) The use of triangulation at  
30  
31 several levels as well as detailed descriptions of the contextual setting of the study will  
32  
33 enhance the comprehensiveness of the findings.(70) Finally, co-researchers from different  
34  
35 research disciplines will be engaged to discuss the interpretations of the study to ensure  
36  
37 that the conclusions resonate with the broader research community.(70)  
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### 43 *Reflexivity*

44  
45 In qualitative research, the researchers' background, culture and experiences influence the  
46  
47 interpretation of the data.(68) According to Malterud et al, these pre-conceived ideas are a  
48  
49 necessary pre-condition for understanding a topic and reflexivity starts by identifying such  
50  
51 preconceptions brought into the project by the researchers.(71) This will carefully be  
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53 considered throughout the study by discussing such preconceptions within the research  
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4 team, by maintaining diaries to systematically document and thus enhance trustworthiness  
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6 and transparency.(69)  
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### 10 *Power dynamics*

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12 In carrying out qualitative research it is important to be aware of power imbalances  
13 between the researcher and the participant, since the former can maintain control and lead  
14 the participants in a certain direction. Especially the individuals in group A), B) and C) are  
15 at some level vulnerable and marginalized. The research team will comprise local and  
16 international researchers, whom in different ways differ from participants, i.e. in terms of  
17 sex, socio-economic status and age. Some of these imbalances can be decreased by building  
18 trust and avoiding leading questions.(68) Further, the narrative, life-story approach has  
19 been chosen to empower the participant to lead the conversation, thereby shifting control.  
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### 32 **Ethical considerations**

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34 Ethical approval has been obtained from the Ethical Review Committee of the Faculty of  
35 Medicine and Allied Sciences, Rajarata University of Sri Lanka and the study has been  
36 reviewed by the Safe Storage research group.  
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43 The Helsinki Declaration of 'Good Clinical Practice' will guide the study design and ethical  
44 issues will be considered from the outset and throughout the study. Inquiring into other's  
45 personal life can be experienced as traumatic, which will be countered by utilizing a  
46 sensitive data collection technique. While interviews about previous self-harm impacted  
47 participants' feelings, research indicated that the majority felt better afterwards(72) and a  
48 study involving family members of individuals who died from suicide showed that sensibly  
49 conducted interviews can have a valuable therapeutic effect.(73) However, the interview  
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4 situation may still be upsetting and protecting the individual is a priority; i.e. the  
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6 interviews will be carried out alone, in a setting the participant prefers. To assess the  
7  
8 participant's mood and whether the interview has influenced them, a Visual Analogue  
9  
10 Scale (VAS) will be administered in which participants rate their mood before and after the  
11  
12 interview. This method has been used in similar settings(74) and will assist in identifying  
13  
14 individuals who may be at increased risk of repeated self-harm. These participants will be  
15  
16 offered more comprehensive support after the interview. Irrespective of the rating on the  
17  
18 VAS the importance of seeking support when feeling distressed will be highlighted and all  
19  
20 participants will be given information about where to seek help.  
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### 26 **Dissemination**

27  
28 At the end of the study, findings will be communicated to the community and disseminated  
29  
30 in peer-reviewed, internationally recognized journals in collaboration with Sri Lankan and  
31  
32 other partners with maximum visibility for Sri Lankan researchers. Articles will also be  
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34 submitted to other types of media to increase awareness of the topic.  
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## **AUTHORS' CONTRIBUTIONS**

JBS drafted the initial manuscript and developed the protocol. TR and FK collaborated on conceptualizing and designing the study and contributed to the draft of the manuscript. BRS provided valuable input to methodology and background information on the study site. MP contributed towards the study set-up, logistics, and methodology. TA contributed to the context, cultural specificities, methodology and ethical considerations. SS furnished information on the structure of health systems, in addition to assisting with ethical and contextual considerations. All authors read and approved the final manuscript.

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## **COMPETING INTERESTS**

The authors declare that they have no competing interests.

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# BMJ Open

## An investigation of alcohol's role in self-harm in rural Sri Lanka: a protocol for a multi-method, qualitative study

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**TITLE PAGE****An investigation of alcohol's role in self-harm in rural Sri Lanka:  
a protocol for a multi-method, qualitative study**

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## ABSTRACT

### Introduction

Sri Lanka has one of the highest suicide and self-harm rates in the world and though alcohol has been found to be a risk factor for self-harm in Sri Lanka, we know little about the connection between the two. This paper comprises a protocol for a qualitative study investigating alcohol's role in self-harm in rural Sri Lanka at three levels: the individual, community and policy level. The analysis will bring new understandings of the link between alcohol and self-harm in Sri Lanka, drawing on structural, cultural and social concepts. It will equip researchers, health systems and policy makers with vital information for developing strategies to address alcohol-related problems as they relate to self-harm.

### Methods and analysis

To capture the complexity of the link between alcohol and self-harm in the Anuradhapura district in the North Central Province in Sri Lanka, qualitative methods will be utilized. Specifically, the data will consist of serial narrative life-story interviews with up to 20 individuals who have non-fatally self-harmed and where alcohol directly or indirectly was involved in the incidence as well as with their significant others (>18). Participants will be sampled from hospitals, representing areal diversity in terms of socio-economic and agricultural characteristics and history of settlement; observations in communities and families; six focus group discussions with community members; and key-informant interviews with 15-25 stakeholders who have a stake in alcohol distribution, marketing, policies, prevention and treatment as they relate to self-harm.

### Ethics and dissemination

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3  
4 The study has received ethical approval from the Ethical Review Committee of the Faculty  
5 of Medicine and Allied Sciences, Rajarata University of Sri Lanka. A sensitive data  
6 collection technique will be used and ethical issues will be considered throughout the  
7 study.  
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12 Results will be disseminated in scientific peer-reviewed articles in collaboration with Sri  
13 Lankan and other international research partners.  
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### 16 17 18 19 **STRENGTHS AND LIMITATIONS OF THE STUDY**

- 20  
21 • The study will provide new knowledge and an increased understanding of an area  
22 that has previously received limited research attention – the structural, cultural and  
23 social context behind the link between alcohol and self-harm in rural Sri Lanka;  
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- 26 • Quality of the information gathered and comprehensiveness are ensured by  
27 collecting data at several levels and through triangulation between data sources,  
28 informant groups and theories;  
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- 31 • One limitation of the study is the sensitivity of the issues of alcohol and self-harm,  
32 which may limit participation in the study;  
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- 35 • Due to the nature of the methodologies utilized, the results require further studies  
36 in order to be transferable to other settings.  
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## INTRODUCTION

Deliberate self-harm and suicide is a serious social, economic and public health issue, being one of the top 20 leading causes of death globally.(1) The issue is particularly pronounced in Asia, where 60% of suicides occur.(2) Though a decrease has been seen in recent years (from 47 per 100,000 population in 1995(3) to 28.8 per 100.000 in 2012 - the latter estimate is based on expert modeling methods),(4) Sri Lanka still has one of the highest suicide and self-harm rates globally.(5) It has been found that problematic alcohol use is often involved in cases of self-harm – either in the one who consumes the alcohol or in someone affected by it.(5–11) With a qualitative approach, this study will explore the structural, social and cultural behaviour surrounding alcohol's role in self-harm at the individual, community and policy level in the Anuradhapura district in the North Central Province in Sri Lanka.

The objectives of this study are to:

- (i) Investigate the explanatory models and coping strategies for alcohol use with a focus on its relation with self-harm in households in rural Sri Lanka;
- (ii) Investigate community perceptions and responses to alcohol use and its relation with self-harm in rural Sri Lankan communities;
- (iii) Investigate stakeholders' involvement, influence on and motivations in controlling harmful effects of alcohol in Sri Lanka with a special focus on preventing self-harm.

## Background

*Alcohol, self-harm and suicide*

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4 International research shows that both acute and chronic alcohol use are associated with  
5  
6 suicidal behaviour,(12–17) influenced by access to alcohol in a certain context(15) as well  
7  
8 as the amounts consumed.(18) It is well-established that alcohol misuse is not merely an  
9  
10 individual or psychological phenomena, but a sociological one that has a profound impact  
11  
12 on deviations found in suicidal behaviour.(14,19) The relationship between alcohol and  
13  
14 self-harm is complex and seems to vary between genders, cultures and countries.(15,20,21)  
15  
16 Problematic alcohol use affects social and family life and poses risks not only for individual  
17  
18 dysfunction, but also for relational conflict and family breakdown.(15) Alcohol often acts as  
19  
20 a long term risk factor for self-harm, for example through social and financial problems,  
21  
22 domestic violence, and effects on mood.(22) However, in the short-term, it may have an  
23  
24 acute level effect on the mood and increase the risk for impulsive and destructive  
25  
26 behaviour even when misused by individuals without a chronic alcohol problem.(20) Self-  
27  
28 harm or suicide may thus be an end point for a long-term or short-term drinker, but a  
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30 significant other of an alcohol misuser may also deliberately self-harm, in seeking to  
31  
32 escape the negative influences of the alcohol.(21,23)  
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### 39 *Alcohol, self-harm and suicide in Sri Lanka*

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41 It should be noted that the term ‘self-harm’ is used throughout this paper to describe  
42  
43 deliberate injury to one self. This definition captures two important points; that most cases  
44  
45 of self-harm in the Sri Lankan context are non-fatal and with little or no intent to die, and  
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47 can thus not be classified as ‘suicide attempts’.(24)  
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51  
52 Even though extensive international literature on the relationship between alcohol and  
53  
54 self-harm exists, there has been little emphasis on the cultural and behavioural aspects  
55  
56 underlying the connection in Sri Lanka. A few researchers have touched on it(7,25–27) and  
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4 a Sri Lankan study of 159 acute self-poisoning cases - the most common method of self-  
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6 harm in Sri Lanka being pesticide poisoning(3) - found that 32% were visibly affected by  
7  
8 alcohol when admitted to hospital, which was confirmed by family and bystanders.(7)

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10 Another study conducted a psychological autopsy of 372 suicides in rural Sri Lanka to find  
11  
12 that problem drinking or alcohol dependence was common among male suicides in 61% of  
13  
14 cases while alcohol misuse in another family member contributed to 14% of female  
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16 suicides.(9) None of these studies thoroughly investigated the dynamics and complex  
17  
18 interlinkages between alcohol and self-harm and researchers have called for further  
19  
20 investigation of the links between alcohol, impulsive behavior and self-harm in Sri  
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22 Lanka.(23)

### 23 24 25 26 27 28 *Alcohol use in Sri Lanka*

29  
30 Officially, alcohol consumption is relatively low in Sri Lanka with a per capita intake of 3.7  
31  
32 litres in 2010 (2.2 in 2005), which include the WHO estimate of unrecorded liquor.(17)

33  
34 However, Sri Lankan alcohol consumption data is believed to be inaccurate.(28) Most  
35  
36 alcohol consumed is the easily accessible, cheap, unrecorded, and illicitly brewed 'kassipu',  
37  
38 mainly consumed in poor, rural areas,(25,29,30) – and difficult to document. Some  
39  
40 suggest that up to 50 – 90% of alcohol consumed is illicit (26,30,31) and the actual alcohol  
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42 consumption level potentially much higher. Further, with a lifetime abstinence rate at a  
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44 high 69%,(17) many drinkers consume alcohol above the average.

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49 Alcohol consumption in Sri Lanka is almost exclusively a male practise (27) (annual per  
50  
51 capita consumption in 2010 was 7.3 litres for males and 0.3 litres for females)(17) and the  
52  
53 types of alcohol consumed are closely linked to class and status.(31) Alcohol intoxication in  
54  
55 Sri Lanka has primarily been used as a mean to reduce tension, in a moderate degree at  
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ceremonies, and less so for personal enjoyment.(26,30–32) It predominately takes place for the sole purpose of intoxication.(30,33) A Sri Lankan study of individuals who self-harmed in rural areas found that they regarded drinking as a reasonable response to the stresses of being a farmer.(7) In addition, a self-administered questionnaire amongst young Sri Lankan men found that alcohol was used to dominate surroundings and to become more prominent among peers.(32) However, much remains to be understood about how these motives for alcohol use are linked to cases of self-harm.

#### *Alcohol and its effects on family and social life*

Sri Lankan research shows that social harm from alcohol contributes to violence(27) and domestic violence;(34) impacts the family budget and duties; feelings of shame and guilt;(35–37) and instigate self-harm.(7) A UNICEF study among Sri Lankan adolescents found that 18.3% of their fathers drank alcohol and 26.6% of them became violent afterwards.(38) It also seems that self-harm by women and children is often linked to a husband or father's drinking.(27) Such consequences of excessive alcohol use and how it affects family and social life will be investigated in this study to be able to understand the connection between alcohol and self-harm.

#### *Alcohol and self-harm at the community level*

Community members' attitudes towards alcohol use may affect how alcohol users, families and communities interact.(39) Societal stigmatization and norms may have a negative influence on the individual and family members(26) but at the same time, the community can play a role in supporting members who have problems related to alcohol use and in cases of self-harm or suicide. This link between the individual and the perceptions of the

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4 close social surroundings will be investigated in terms of how group concepts of alcohol  
5 norms, shame and support are relevant for the rural, Sri Lankan setting.  
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### 9 10 *Stakeholders in alcohol and self-harm prevention and interventions*

11  
12 In Sri Lanka, a number of risk factors to self-harm have been addressed by limiting access  
13 to the means of self-harm or improving medical management of poisoning through  
14 regulations and ban of highly toxic pesticides used for self-poisoning.(40) All though some  
15 ad hoc initiatives have been implemented responding to the issue of alcohol, including  
16 through taxes and policies (i.e. ban of alcohol commercials at sports events);(41) treatment  
17 (a NGO treatment program for alcohol abusers in Colombo);(42) advocacy programmes on  
18 the prevention of alcohol misuse;(43) and NGO-led educational programmes,(44,45) there  
19 is no thorough evaluation of their effectiveness and alcohol continues to be a major risk  
20 factor for self-harm in Sri Lanka. An investigation of the environment in which initiatives  
21 are developed is therefore timely.  
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## 39 **METHODS AND ANALYSIS**

### 40 **Conceptual framework**

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42 The conceptual framework outlined below will guide the analytical process of the study. It  
43 builds on the recommendations of Hunt and Barker(46) for carrying out socio-cultural,  
44 anthropological research on drugs and alcohol.  
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### 52 *Local alcohol and self-harm terminologies*

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54 Hunt and Barker urge researchers to examine how societies categorize alcohol use(46)  
55 since there is no single definition of 'normal' drinking, problem drinking, misuse or alcohol  
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4 dependence that applies equally to all cultures and environments.(47) An open and  
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6 investigatory approach to the topic will therefore be sought in this study when interacting  
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8 with individuals and communities, ensuring that they explain their understanding of terms  
9  
10 such as alcohol abuse, problem drinking, alcohol-related self-harm and harm to others.

### 11 12 *Relational aspects of alcohol and self-harm*

13  
14 Hunt and Barker emphasize that alcohol is a social, relational, and active phenomenon and  
15  
16 alcohol problems and solutions should be seen in this light.(46) It is therefore central to  
17  
18 this study to investigate and understand more of how damage or social harm from the use  
19  
20 of alcohol affects not only the drinker, but the close social relations and environment of the  
21  
22 drinker.(39,48,49)  
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### 28 *Power relations and culturally accepted behaviour*

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30 Finally, the authors highlight that alcohol consumption is closely linked to power  
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32 relationships in terms of accepted behaviours in certain social and cultural contexts,  
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34 including how different social groups or classes fashion and control acceptability of alcohol  
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36 use and how production and distribution are organized.(46) As part of this study, power  
37  
38 relations and alcohol cultures at community levels and alcohol consumption patterns for  
39  
40 different social classes will be explored. Additionally, national alcohol policies, production  
41  
42 and prevention will also be investigated, thus adding more layers to the analysis of alcohol  
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44 cultures and power dynamics.  
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### 50 *Explanatory models*

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52 The mentioned concepts will be investigated through the overall theory of Kleinmann's  
53  
54 'explanatory models',(50) examining how illnesses are understood and dealt with through  
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56 ethno-cultural lenses,(51) i.e. how individuals and communities make sense of illness,  
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4 health and suffering.(50) More specifically, explanatory models will be used to investigate  
5  
6 how people explain the use of alcohol in relation to self-harm.  
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### 10 *Coping with life, alcohol and self-harm*

11 In addition to the concepts drawn from Hunt and Barker, ‘coping’ is central to this study.  
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13 According to Lazarus, coping is defined as the way individuals interact with stressors when  
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15 trying to return to a ‘normal’ functioning level after a stressful situation(52) and how they  
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17 manage by minimizing, changing or accepting it.(53) The process of coping is complex and  
18  
19 many factors play a role in how alcohol and/or self-harm are coped with or how the  
20  
21 behaviours act as actual coping strategies. In fact, alcohol use has been described as a  
22  
23 concrete coping mechanism to get through a tough time for farmers in Sri Lanka,(7) while  
24  
25 family members at the same time have to cope with the consequences of the alcohol use or  
26  
27 the possible subsequent self-harm. Self-harm has also been described as a form of coping,  
28  
29 which can be used to change an unwanted situation.(24) These processes and mechanisms  
30  
31 of coping will be investigated to understand the dynamics and strategies applied by  
32  
33 drinkers and their families in cases of alcohol-related self-harm.  
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### 41 **Study setting**

42  
43 The study will mainly be carried out in the Anuradhapura district in the North Central  
44  
45 Province, where one of the highest suicide rates in Sri Lanka persists.(54) It is connected to  
46  
47 the ‘Safe Storage’ study, which is a large community-based, cluster randomized control  
48  
49 trial, evaluating the effectiveness in storing pesticides safely to reduce self-harm.(55) In  
50  
51 the Safe Storage study, 795 cases of self-harm were identified amongst individuals  
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53 admitted to Anuradhapura Teaching Hospital or 11 peripheral hospitals in a year (2013-  
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2014).

### **Study design**

Extensive quantitative research has been carried out on the topic of self-harm(56–58) and alcohol(35,59) separately in Sri Lanka, however limited qualitative research has been conducted.(26,60,61) This study responds to this gap by utilizing a qualitative research approach, seeking an in-depth perspective of the individual's and communities' interpretations and perceptions of these phenomena. A range of qualitative methods will be applied: observations; narrative, life-story interviews; focus group discussions (FGDs); and semi-structured, stakeholder interviews.

### **Inclusion criteria and selection of participants**

The first part of the study will include individuals who non-fatally self-harmed and where alcohol played a role in the incident. Either A) the individual was under the influence of alcohol when admitted to hospital (7-10 cases) or B) the incident was sparked by another's alcohol consumption (7-10 cases). We are aware that by choosing this selection strategy, we exclude those who for different reasons did not get admitted to hospital as well as those who fatally self-harmed.

Participants will be sampled through three peripheral hospitals, representing different socio-economic characteristics, agricultural production and history of settlement.(57) The majority of serious self-harm cases from these three hospitals are transferred to Anuradhapura Teaching Hospital and by permission from the Hospital Director, cases being admitted from the three hospitals will be sampled from here. A) and B) will be identified by trained Safe Storage research officers, who are already on a daily basis



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4 identifying all self-harm cases within the study area. Mechanisms for standard reporting  
5 and measures of quality insurance have been put into place and their presence are  
6 supported at the Province and District levels.  
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12 Possible participants will be asked for both oral and written consent at the hospital, for the  
13 study team to contact them minimum one week after they are discharged, at which point  
14 informed consent will be repeated and re-obtained.  
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20 After interviewing A) and B), they will be asked for consent for the team to talk with their  
21 C) significant other(s). Written and oral consent will also be sought from this group.  
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27 Approximately 15 cases of A), B), and C) will be interviewed several times (approximately  
28 up to three times) and visited for observational sessions, depending on consent from the  
29 whole household.  
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35 In order to obtain a comprehensive understanding of communities' perceptions of alcohol  
36 use and how it relates to self-harm, focus group discussions (FGDs) will be conducted.  
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40 Participants D) for the FGDs will be selected through snowballing among community  
41 members and represent homogenous groups of male and female adults from the selected  
42 communities. Participants will not necessarily be from households where alcohol use or  
43 self-harm is an issue.  
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51 Finally, to examine the environment in which alcohol and self-harm prevention and  
52 treatment initiatives, regulations and policies have and will be developed, a stakeholder-  
53 analysis will be carried out. The participants E) will be purposively selected from previous  
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4 data collection and research, as well as through snowballing. New key informants will be  
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6 added until no more relevant stakeholders can be identified and saturation is reached.  
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### 10 **Narrative life-story interviews**

11  
12 In-depth interviews are appropriate when seeking to obtain meaning(62) and get people's  
13  
14 own perspective of a situation.(63) For the first objective, the interviews will have a  
15  
16 narrative life-story component in order to obtain an understanding of the individual's life,  
17  
18 along with the events and decisions that led up to the self-harm incidence. Themes to be  
19  
20 explored include: Perceptions and beliefs of alcohol use and misuse; alcohol preferences;  
21  
22 availability and access to alcohol; perceived impact of alcohol use; coping strategies used  
23  
24 by alcohol consumers and significant others; and explanatory models of self-harm,  
25  
26 including perceived causes. If deemed relevant a timeline will be made in collaboration  
27  
28 with the participant to make a visual overview of important events, which can be helpful in  
29  
30 encouraging participants to talk while reversing the power-roles between the researcher  
31  
32 and the participant.(64)  
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39 The narrative life-story interviews will be carried out in face-to-face meetings with A), B)  
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41 and C) in a quiet place, i.e. in their homes or in another relevant setting, as determined by  
42  
43 the participants. The researchers will engage with the participants through series of  
44  
45 interviews to construct a comprehensive life-story narrative.  
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### 50 **Participant observations**

51  
52 Observations will be key in gaining an in-depth understanding of the local alcohol culture,  
53  
54 social structures and interactions. It can help to showcase implicit features of social life,  
55  
56 provide context of behaviour,(63) and shed light on non-explicit knowledge.(65)  
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4 Observations will take place during daily life in selected families observing dynamics;  
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6 power relations; alcohol consumption in terms of who consumes, when, how much, and  
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8 what; and strategies employed by family members in regards to alcohol use and previous  
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10 self-harm. Observations in communities will include observing social organization of  
11  
12 communities and people; alcohol selling establishments and how selling and consumption  
13  
14 is organized; how alcohol is talked about; and how people react towards intoxicated  
15  
16 people. During community observations, the research team will make sure to openly  
17  
18 explain the purpose of the research to anyone enquiring and abstain from observing if  
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20 community members feel disturbed or uncomfortable about the presence of the team.  
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### 26 **Focus Group Discussions**

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28 FGDs are effective when seeking a broad range of opinions on a topic and it provides the  
29  
30 opportunity for participants to probe each other's reasons for holding a specific view.(63)  
31  
32 Knowing that this method will bring out group norms of 'what should be',(62) discussion  
33  
34 themes will be verbalized as general, non-personal issues. Topics will include general  
35  
36 perceptions of alcohol use; reactions towards people who consume alcohol; explanations  
37  
38 for use of alcohol; how alcohol is associated with self-harm; and how the community  
39  
40 responds to alcohol use and self-harm. In addition, small vignettes covering different  
41  
42 scenarios of alcohol in connection with self-harm will be used to spur conversation.  
43  
44 Vignettes are particularly useful when exploring sensitive topics, as they can help distance  
45  
46 participants from the topic of discussion,(66) which has proven beneficial in other studies  
47  
48 on self-harm carried out in Sri Lanka.(7)  
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55 Approximately six FGDs will be carried out. Since previous research in Sri Lanka has  
56  
57 shown gender differences in alcohol intake and perceptions towards alcohol use(7) they  
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4 will be held in age and gender-segregated groups, with a maximum of ten participants in  
5  
6 each group.  
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### 10 **Stakeholder interviews**

11  
12 The stakeholder analysis will follow three main steps as outlined by Varvasovszky and  
13 Brugha: 1. identifying and approaching stakeholders; 2. describing stakeholder's positions,  
14 responsibilities and collaborations; and 3. diagnosing and suggesting strategies for future  
15 interventions.(67) Semi-structured interviews will be conducted with 15-25 stakeholders  
16 who have a stake in the decision making and implementation process(68) related to  
17 alcohol and self-harm policies and interventions in Sri Lanka. Some of the themes to be  
18 explored include activities carried out on preventing alcohol misuse and/or self-harm;  
19 interests in and agendas for prevention of self-harm and controlling of alcohol; means of  
20 influencing the agenda, including interrelations with other stakeholders in this area; and  
21 past, present and future perspectives.  
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37 Stakeholders will include representatives from different organizational layers:

- 38 - Producers and traders of alcohol;
  - 39 - Community representatives (leaders, priests, teachers);
  - 40 - NGOs (ADIC, Mel Medura, Sumithrayo, FISS and others);
  - 41 - Academia;
  - 42 - The health system (public, private and ayurvedic sectors at several levels);
  - 43 - Government (from ministries of Health; Education; Consumer Welfare; Child  
44 Development and Women's Affairs; the National Child Protection Authority and  
45 others).
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## Data management

All interview guides will be translated from English to Sinhala by trained translators and validated by representatives from the larger research group. The interview and FGD guides will be pilot tested in similar informant groups and revised accordingly. Interviews and FGDs will be conducted and facilitated by English/Sinhala speaking research assistants, supported by the first author. All interviews and FGDs will be audio recorded with the informed consent of all participants. The research assistants will carry out verbatim Sinhala transcriptions of all interviews and FGDs, which will then be translated into English. Field notes will be taken at all occasions. Observational data will be captured in extensive descriptive field notes and analytical memos, which will be transferred to a software programme on a daily basis and discussed within the research team. These discussions and reflections will be added to the observational notes and serve as important tentative steps of the analysis.

## Analysis

Analysis will be inductive and dynamic, starting immediately after the first interviews, FGDs and observations, continuing until the phenomena under study are well understood. It will be informed by the described conceptual framework and rely on a continuous triangulation between the emerging analytical and the pre-defined theoretical concepts in conjunction with the diverse sources of empirical data. The analysis will consequently not be entirely predefined, but reliant on the emerging explanatory models and understandings of alcohol's role in self-harm. The analysis of interview and FGD data will follow the principles of systematic content analysis:(63) The transcripts of the interviews and FGDs will be coded to identify themes, ideas and patterns, and these codes will be grouped into broader themes. During the analysis, the English version will be controlled

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4 and compared with the Sinhala transcriptions, in order to ensure inclusion of all relevant  
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6 context and local matters in the analysis.(69)  
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## 10 11 12 13 **ETHICS AND DISSEMINATION**

### 14 15 **Informed consent**

16  
17 Verbal and written information about the aim of the study will be given in English or  
18  
19 Sinhala, as appropriate. In each case, the capacity of the participant to give consent will be  
20  
21 assessed– e.g. a highly intoxicated person will not be able to make an informed decision.  
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23 Participants will be informed that they can withdraw from the study at any time and that  
24  
25 participation – or lack of - will not have negative consequences for them. For the serial,  
26  
27 narrative life-story interviews and observations, the continued participation will be  
28  
29 verbally reconfirmed at each visit. Participants will be informed that all data collected will  
30  
31 be stored safely and only used by researchers, maintaining confidentiality.  
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### 37 38 **Validity**

39  
40 To validate the findings of this study, a long period of field work (minimum 10 months) has  
41  
42 been allotted. This extensive time allows for a comprehensive collection of multiple sources  
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44 of data and an in-depth understanding of the phenomenon under study.(69) A rigorous  
45  
46 transcription process with external cross-checks will ensure highest data quality and  
47  
48 consistency in definitions of codes and analytical themes.(69) Discrepant information  
49  
50 running counter to the themes will also be presented.(70) The use of triangulation at  
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52 several levels as well as detailed descriptions of the contextual setting of the study will  
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54 enhance the comprehensiveness of the findings.(71) Finally, co-researchers from different  
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4 research disciplines will be engaged to discuss the interpretations of the study to ensure  
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6 that the conclusions resonate with the broader research community.(71)  
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### 10 *Reflexivity*

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12 In qualitative research, the researchers' background, culture and experiences influence the  
13 interpretation of the data.(69) According to Malterud et al, these pre-conceived ideas are a  
14 necessary pre-condition for understanding a topic and reflexivity starts by identifying such  
15 preconceptions brought into the project by the researchers.(72) This will carefully be  
16 considered throughout the study by discussing such preconceptions within the research  
17 team, by maintaining diaries to systematically document and thus enhance trustworthiness  
18 and transparency.(70)  
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### 30 *Power dynamics*

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32 In carrying out qualitative research it is important to be aware of power imbalances  
33 between the researcher and the participant, since the former can maintain control and lead  
34 the participants in a certain direction. Especially the individuals in group A), B) and C) are  
35 at some level vulnerable and marginalized. The research team will comprise local and  
36 international researchers, whom in different ways differ from participants, i.e. in terms of  
37 sex, socio-economic status and age. Some of these imbalances can be decreased by building  
38 trust and avoiding leading questions.(69) Further, the narrative, life-story approach has  
39 been chosen to empower the participant to lead the conversation, thereby shifting control.  
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### 51 **Ethical considerations**

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4 Ethical approval has been obtained from the Ethical Review Committee of the Faculty of  
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6 Medicine and Allied Sciences, Rajarata University of Sri Lanka and the study has been  
7  
8 reviewed by the Safe Storage research group.  
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12 The Helsinki Declaration of 'Good Clinical Practice' will guide the study design and ethical  
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14 issues will be considered from the outset and throughout the study. Inquiring into other's  
15  
16 personal life can be experienced as traumatic, which will be countered by utilizing a  
17  
18 sensitive data collection technique. While interviews about previous self-harm impacted  
19  
20 participants' feelings, research indicated that the majority felt better afterwards(73) and a  
21  
22 study involving family members of individuals who died from suicide showed that sensibly  
23  
24 conducted interviews can have a valuable therapeutic effect.(74) However, the interview  
25  
26 situation may still be upsetting and protecting the individual is a priority; i.e. the  
27  
28 interviews will be carried out alone, in a setting the participant prefers. To assess the  
29  
30 participant's mood and whether the interview has influenced them, a Visual Analogue  
31  
32 Scale (VAS) will be administered in which participants rate their mood before and after the  
33  
34 interview. This method has been used in similar settings(75) and will assist in identifying  
35  
36 individuals who may be at increased risk of repeated self-harm. These participants will be  
37  
38 offered more comprehensive support after the interview. Irrespective of the rating on the  
39  
40 VAS the importance of seeking support when feeling distressed will be highlighted and all  
41  
42 participants will be given information about where to seek help.  
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### 50 **Dissemination**

51  
52 At the end of the study, findings will be communicated to the community and disseminated  
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54 in peer-reviewed, internationally recognized journals in collaboration with Sri Lankan and  
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4 other partners with maximum visibility for Sri Lankan researchers. Articles will also be  
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6 submitted to other types of media to increase awareness of the topic.  
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### 10 **AUTHORS' CONTRIBUTIONS**

11  
12 JBS drafted the initial manuscript and developed the protocol. TR and FK collaborated on  
13  
14 conceptualizing and designing the study and contributed to the draft of the manuscript.  
15

16  
17 BRS provided valuable input to methodology and background information on the study  
18  
19 site. MP contributed towards the study set-up, logistics, and methodology. TA contributed  
20  
21 to the context, cultural specificities, methodology and ethical considerations. SS furnished  
22  
23 information on the structure of health systems, in addition to assisting with ethical and  
24  
25 contextual considerations. All authors read and approved the final manuscript.  
26  
27  
28  
29

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31  
32 This research initiative did not receive specific grants from any funding agency in the  
33  
34 public, commercial or not-for-profit sectors.  
35  
36  
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38

### 39 **COMPETING INTERESTS**

40  
41 The authors declare that they have no competing interests.  
42  
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44

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46  
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48  
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50  
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52  
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54  
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**TITLE PAGE****An investigation of alcohol's role in self-harm in rural Sri Lanka:  
a protocol for a multi-method, qualitative study**

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## ABSTRACT

### Introduction

Sri Lanka has one of the highest suicide and self-harm rates in the world and though alcohol has been found to be a risk factor for self-harm in Sri Lanka, we know little about the connection between the two. This paper comprises a protocol for a qualitative study investigating alcohol's role in self-harm in rural Sri Lanka at three levels: the individual, community and policy level. The analysis will bring new understandings of the link between alcohol and self-harm in Sri Lanka, drawing on structural, cultural and social concepts. It will equip researchers, health systems and policy makers with vital information for developing strategies to address alcohol-related problems as they relate to self-harm.

### Methods and analysis

To capture the complexity of the link between alcohol and self-harm in the Anuradhapura district in the North Central Province in Sri Lanka, qualitative methods will be utilized. Specifically, the data will consist of serial narrative life-story interviews with up to 20 individuals who have non-fatally self-harmed and where alcohol directly or indirectly was involved in the incidence as well as with their significant others (>18). Participants will be sampled from hospitals, representing areal diversity in terms of socio-economic and agricultural characteristics and history of settlement; observations in communities and families; six focus group discussions with community members; and key-informant interviews with 15-25 stakeholders who have a stake in alcohol distribution, marketing, policies, prevention and treatment as they relate to self-harm.

### Ethics and dissemination



1  
2  
3  
4 The study has received ethical approval from the Ethical Review Committee of the Faculty  
5 of Medicine and Allied Sciences, Rajarata University of Sri Lanka. A sensitive data  
6 collection technique will be used and ethical issues will be considered throughout the  
7 study.  
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12 Results will be disseminated in scientific peer-reviewed articles in collaboration with Sri  
13 Lankan and other international research partners.  
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### 17 18 19 **STRENGTHS AND LIMITATIONS OF THE STUDY**

- 20  
21 • The study will provide new knowledge and an increased understanding of an area  
22 that has previously received limited research attention – the structural, cultural and  
23 social context behind the link between alcohol and self-harm in rural Sri Lanka;  
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- 26 • Quality of the information gathered and comprehensiveness are ensured by  
27 collecting data at several levels and through triangulation between data sources,  
28 informant groups and theories;  
29  
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- 31 • One limitation of the study is the sensitivity of the issues of alcohol and self-harm,  
32 which may limit participation in the study;  
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- 35 • Due to the nature of the methodologies utilized, the results require further studies  
36 in order to be transferable to other settings.  
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## INTRODUCTION

Deliberate self-harm and suicide is a serious social, economic and public health issue, being one of the top 20 leading causes of death globally.<sup>(1)</sup> The issue is particularly pronounced in Asia, where 60% of suicides occur.<sup>(2)</sup> Though a decrease has been seen in recent years (from 47 per 100,000 population in 1995<sup>(3)</sup> to 28.8 per 100.000 in 2012 - the latter estimate is based on expert modeling methods),<sup>(4)</sup> Sri Lanka still has one of the highest suicide and self-harm rates globally.<sup>(5)</sup> It has been found that problematic alcohol use is often involved in cases of self-harm – either in the one who consumes the alcohol or in someone affected by it.<sup>(5–11)</sup> With a qualitative approach, this study will explore the structural, social and cultural behaviour surrounding alcohol's role in self-harm at the individual, community and policy level in the Anuradhapura district in the North Central Province in Sri Lanka.

The objectives of this study are to:

- (i) Investigate the explanatory models and coping strategies for alcohol use with a focus on its relation with self-harm in households in rural Sri Lanka;
- (ii) Investigate community perceptions and responses to alcohol use and its relation with self-harm in rural Sri Lankan communities;
- (iii) Investigate stakeholders' involvement, influence on and motivations in controlling harmful effects of alcohol in Sri Lanka with a special focus on preventing self-harm.

## Background

*Alcohol, self-harm and suicide*

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4 International research shows that both acute and chronic alcohol use are associated with  
5  
6 suicidal behaviour,<sup>(12–17)</sup> influenced by access to alcohol in a certain context<sup>(15)</sup> as well  
7  
8 as the amounts consumed.<sup>(18)</sup> It is well-established that alcohol misuse is not merely an  
9  
10 individual or psychological phenomena, but a sociological one that has a profound impact  
11  
12 on deviations found in suicidal behaviour.<sup>(14,19)</sup> The relationship between alcohol and  
13  
14 self-harm is complex and seems to vary between genders, cultures and countries.<sup>(15,20,21)</sup>  
15  
16 Problematic alcohol use affects social and family life and poses risks not only for individual  
17  
18 dysfunction, but also for relational conflict and family breakdown.<sup>(15)</sup> Alcohol often acts as  
19  
20 a long term risk factor for self-harm, for example through social and financial problems,  
21  
22 domestic violence, and effects on mood.<sup>(22)</sup> However, in the short-term, it may have an  
23  
24 acute level effect on the mood and increase the risk for impulsive and destructive  
25  
26 behaviour even when misused by individuals without a chronic alcohol problem.<sup>(20)</sup> Self-  
27  
28 harm or suicide may thus be an end point for a long-term or short-term drinker, but a  
29  
30 significant other of an alcohol misuser may also deliberately self-harm, in seeking to  
31  
32 escape the negative influences of the alcohol.<sup>(21,23)</sup>  
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### 39 *Alcohol, self-harm and suicide in Sri Lanka*

40  
41 It should be noted that the term ‘self-harm’ is used throughout this paper to describe  
42  
43 deliberate injury to one self. This definition captures two important points; that most cases  
44  
45 of self-harm in the Sri Lankan context are non-fatal and with little or no intent to die, and  
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47 can thus not be classified as ‘suicide attempts’.<sup>(24)</sup>  
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52 Even though extensive international literature on the relationship between alcohol and  
53  
54 self-harm exists, there has been little emphasis on the cultural and behavioural aspects  
55  
56 underlying the connection in Sri Lanka. A few researchers have touched on it<sup>(7,25–27)</sup> and  
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4 a Sri Lankan study of 159 acute self-poisoning cases - the most common method of self-  
5  
6 harm in Sri Lanka being pesticide poisoning(3) - found that 32% were visibly affected by  
7  
8 alcohol when admitted to hospital, which was confirmed by family and bystanders.(7)

9  
10 Another study conducted a psychological autopsy of 372 suicides in rural Sri Lanka to find  
11  
12 that problem drinking or alcohol dependence was common among male suicides in 61% of  
13  
14 cases while alcohol misuse in another family member contributed to 14% of female  
15  
16 suicides.(9) None of these studies thoroughly investigated the dynamics and complex  
17  
18 interlinkages between alcohol and self-harm and researchers have called for further  
19  
20 investigation of the links between alcohol, impulsive behavior and self-harm in Sri  
21  
22 Lanka.(23)

### 23 24 25 26 27 28 *Alcohol use in Sri Lanka*

29  
30 Officially, alcohol consumption is relatively low in Sri Lanka with a per capita intake of 3.7  
31  
32 litres in 2010 (2.2 in 2005), which include the WHO estimate of unrecorded liquor.(17)  
33  
34 However, Sri Lankan alcohol consumption data is believed to be inaccurate.(28) Most  
35  
36 alcohol consumed is the easily accessible, cheap, unrecorded, and illicitly brewed 'kassipu',  
37  
38 mainly consumed in poor, rural areas,(25,29,30) – and difficult to document. Some  
39  
40 suggest that up to 50 – 90% of alcohol consumed is illicit (26,30,31) and the actual alcohol  
41  
42 consumption level potentially much higher. Further, with a lifetime abstinence rate at a  
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44 high 69%,(17) many drinkers consume alcohol above the average.

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49 Alcohol consumption in Sri Lanka is almost exclusively a male practise (27) (annual per  
50  
51 capita consumption in 2010 was 7.3 litres for males and 0.3 litres for females)(17) and the  
52  
53 types of alcohol consumed are closely linked to class and status.(31) Alcohol intoxication in  
54  
55 Sri Lanka has primarily been used as a mean to reduce tension, in a moderate degree at  
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ceremonies, and less so for personal enjoyment.<sup>(26,30-32)</sup> It predominately takes place for the sole purpose of intoxication.<sup>(30,33)</sup> A Sri Lankan study of individuals who self-harmed in rural areas found that they regarded drinking as a reasonable response to the stresses of being a farmer.<sup>(7)</sup> In addition, a self-administered questionnaire amongst young Sri Lankan men found that alcohol was used to dominate surroundings and to become more prominent among peers.<sup>(32)</sup> However, much remains to be understood about how these motives for alcohol use are linked to cases of self-harm.

#### *Alcohol and its effects on family and social life*

Sri Lankan research shows that social harm from alcohol contributes to violence<sup>(27)</sup> and domestic violence;<sup>(34)</sup> impacts the family budget and duties; feelings of shame and guilt;<sup>(35-37)</sup> and instigate self-harm.<sup>(7)</sup> A UNICEF study among Sri Lankan adolescents found that 18.3% of their fathers drank alcohol and 26.6% of them became violent afterwards.<sup>(38)</sup> It also seems that self-harm by women and children is often linked to a husband or father's drinking.<sup>(27)</sup> Such consequences of excessive alcohol use and how it affects family and social life will be investigated in this study to be able to understand the connection between alcohol and self-harm.

#### *Alcohol and self-harm at the community level*

Community members' attitudes towards alcohol use may affect how alcohol users, families and communities interact.<sup>(39)</sup> Societal stigmatization and norms may have a negative influence on the individual and family members<sup>(26)</sup> but at the same time, the community can play a role in supporting members who have problems related to alcohol use and in cases of self-harm or suicide. This link between the individual and the perceptions of the

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4 close social surroundings will be investigated in terms of how group concepts of alcohol  
5  
6 norms, shame and support are relevant for the rural, Sri Lankan setting.  
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### 10 *Stakeholders in alcohol and self-harm prevention and interventions*

11  
12 In Sri Lanka, a number of risk factors to self-harm have been addressed by limiting access  
13 to the means of self-harm or improving medical management of poisoning through  
14 regulations and ban of highly toxic pesticides used for self-poisoning.<sup>(40)</sup> All though some  
15 ad hoc initiatives have been implemented responding to the issue of alcohol, including  
16 through taxes and policies (i.e. ban of alcohol commercials at sports events);<sup>(41)</sup> treatment  
17 (a NGO treatment program for alcohol abusers in Colombo);<sup>(42)</sup> advocacy programmes on  
18 the prevention of alcohol misuse;<sup>(43)</sup> and NGO-led educational programmes,<sup>(44,45)</sup> there  
19 is no thorough evaluation of their effectiveness and alcohol continues to be a major risk  
20 factor for self-harm in Sri Lanka. An investigation of the environment in which initiatives  
21 are developed is therefore timely.  
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## 40 **METHODS AND ANALYSIS**

### 41 **Conceptual framework**

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43 The conceptual framework outlined below will guide the analytical process of the study. It  
44 builds on the recommendations of Hunt and Barker<sup>(46)</sup> for carrying out socio-cultural,  
45 anthropological research on drugs and alcohol.  
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### 52 *Local alcohol and self-harm terminologies*

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54 Hunt and Barker urge researchers to examine how societies categorize alcohol use<sup>(46)</sup>  
55 since there is no single definition of 'normal' drinking, problem drinking, misuse or alcohol  
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4 dependence that applies equally to all cultures and environments.(47) An open and  
5  
6 investigatory approach to the topic will therefore be sought in this study when interacting  
7  
8 with individuals and communities, ensuring that they explain their understanding of terms  
9  
10 such as alcohol abuse, problem drinking, alcohol-related self-harm and harm to others.

### 11 12 *Relational aspects of alcohol and self-harm*

13  
14 Hunt and Barker emphasize that alcohol is a social, relational, and active phenomenon and  
15  
16 alcohol problems and solutions should be seen in this light.(46) It is therefore central to  
17  
18 this study to investigate and understand more of how damage or social harm from the use  
19  
20 of alcohol affects not only the drinker, but the close social relations and environment of the  
21  
22 drinker.(39,48,49)  
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### 25 26 27 28 *Power relations and culturally accepted behaviour*

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30 Finally, the authors highlight that alcohol consumption is closely linked to power  
31  
32 relationships in terms of accepted behaviours in certain social and cultural contexts,  
33  
34 including how different social groups or classes fashion and control acceptability of alcohol  
35  
36 use and how production and distribution are organized.(46) As part of this study, power  
37  
38 relations and alcohol cultures at community levels and alcohol consumption patterns for  
39  
40 different social classes will be explored. Additionally, national alcohol policies, production  
41  
42 and prevention will also be investigated, thus adding more layers to the analysis of alcohol  
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44 cultures and power dynamics.  
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### 50 51 *Explanatory models*

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53 The mentioned concepts will be investigated through the overall theory of Kleinmann's  
54  
55 'explanatory models',(50) examining how illnesses are understood and dealt with through  
56  
57 ethno-cultural lenses,(51) i.e. how individuals and communities make sense of illness,  
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4 health and suffering.(50) More specifically, explanatory models will be used to investigate  
5  
6 how people explain the use of alcohol in relation to self-harm.  
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### 10 *Coping with life, alcohol and self-harm*

11 In addition to the concepts drawn from Hunt and Barker, ‘coping’ is central to this study.  
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13 According to Lazarus, coping is defined as the way individuals interact with stressors when  
14  
15 trying to return to a ‘normal’ functioning level after a stressful situation(52) and how they  
16  
17 manage by minimizing, changing or accepting it.(53) The process of coping is complex and  
18  
19 many factors play a role in how alcohol and/or self-harm are coped with or how the  
20  
21 behaviours act as actual coping strategies. In fact, alcohol use has been described as a  
22  
23 concrete coping mechanism to get through a tough time for farmers in Sri Lanka,(7) while  
24  
25 family members at the same time have to cope with the consequences of the alcohol use or  
26  
27 the possible subsequent self-harm. Self-harm has also been described as a form of coping,  
28  
29 which can be used to change an unwanted situation.(24) These processes and mechanisms  
30  
31 of coping will be investigated to understand the dynamics and strategies applied by  
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33 drinkers and their families in cases of alcohol-related self-harm.  
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### 41 **Study setting**

42 The study will mainly be carried out in the Anuradhapura district in the North Central  
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44 Province, where one of the highest suicide rates in Sri Lanka persists.(54) It is connected to  
45  
46 the ‘Safe Storage’ study, which is a large community-based, cluster randomized control  
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48 trial, evaluating the effectiveness in storing pesticides safely to reduce self-harm.(55) In  
49  
50 the Safe Storage study, 795 cases of self-harm were identified amongst individuals  
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52 admitted to Anuradhapura Teaching Hospital or 11 peripheral hospitals in a year (2013-  
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2014).

## Study design

Extensive quantitative research has been carried out on the topic of self-harm(56–58) and alcohol(35,59) separately in Sri Lanka, however limited qualitative research has been conducted.(26,60,61) This study responds to this gap by utilizing a qualitative research approach, seeking an in-depth perspective of the individual's and communities' interpretations and perceptions of these phenomena. A range of qualitative methods will be applied: observations; narrative, life-story interviews; focus group discussions (FGDs); and semi-structured, stakeholder interviews.

## Inclusion criteria and selection of participants

The first part of the study will include individuals who non-fatally self-harmed and where alcohol played a role in the incident. Either A) the individual was under the influence of alcohol when admitted to hospital (7-10 cases) or B) the incident was sparked by another's alcohol consumption (7-10 cases). We are aware that by choosing this selection strategy, we exclude those who for different reasons did not get admitted to hospital as well as those who fatally self-harmed.

Participants will be sampled through three peripheral hospitals, representing different socio-economic characteristics, agricultural production and history of settlement.(57) The majority of serious self-harm cases from these three hospitals are transferred to Anuradhapura Teaching Hospital and by permission from the Hospital Director, cases being admitted from the three hospitals will be sampled from here. A) and B) will be identified by trained Safe Storage research officers, who are already on a daily basis

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4 identifying all self-harm cases within the study area. Mechanisms for standard reporting  
5 and measures of quality insurance have been put into place and their presence are  
6 supported at the Province and District levels.  
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12 Possible participants will be asked for both oral and written consent at the hospital, for the  
13 study team to contact them minimum one week after they are discharged, at which point  
14 informed consent will be repeated and re-obtained.  
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21 After interviewing A) and B), they will be asked for consent for the team to talk with their  
22 C) significant other(s). Written and oral consent will also be sought from this group.  
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28 Approximately 15 cases of A), B), and C) will be interviewed several times (approximately  
29 up to three times) and visited for observational sessions, depending on consent from the  
30 whole household.  
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37 In order to obtain a comprehensive understanding of communities' perceptions of alcohol  
38 use and how it relates to self-harm, focus group discussions (FGDs) will be conducted.  
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41 Participants D) for the FGDs will be selected through snowballing among community  
42 members and represent homogenous groups of male and female adults from the selected  
43 communities. Participants will not necessarily be from households where alcohol use or  
44 self-harm is an issue.  
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52 Finally, to examine the environment in which alcohol and self-harm prevention and  
53 treatment initiatives, regulations and policies have and will be developed, a stakeholder-  
54 analysis will be carried out. The participants E) will be purposively selected from previous  
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4 data collection and research, as well as through snowballing. New key informants will be  
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6 added until no more relevant stakeholders can be identified and saturation is reached.  
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### 9 10 **Narrative life-story interviews**

11  
12 In-depth interviews are appropriate when seeking to obtain meaning<sup>(62)</sup> and get people's  
13  
14 own perspective of a situation.<sup>(63)</sup> For the first objective, the interviews will have a  
15  
16 narrative life-story component in order to obtain an understanding of the individual's life,  
17  
18 along with the events and decisions that led up to the self-harm incidence. Themes to be  
19  
20 explored include: Perceptions and beliefs of alcohol use and misuse; alcohol preferences;  
21  
22 availability and access to alcohol; perceived impact of alcohol use; coping strategies used  
23  
24 by alcohol consumers and significant others; and explanatory models of self-harm,  
25  
26 including perceived causes. If deemed relevant a timeline will be made in collaboration  
27  
28 with the participant to make a visual overview of important events, which can be helpful in  
29  
30 encouraging participants to talk while reversing the power-roles between the researcher  
31  
32 and the participant.<sup>(64)</sup>  
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40 The narrative life-story interviews will be carried out in face-to-face meetings with A), B)  
41  
42 and C) in a quiet place, i.e. in their homes or in another relevant setting, as determined by  
43  
44 the participants. The researchers will engage with the participants through series of  
45  
46 interviews to construct a comprehensive life-story narrative.  
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### 49 50 **Participant observations**

51  
52 Observations will be key in gaining an in-depth understanding of the local alcohol culture,  
53  
54 social structures and interactions. It can help to showcase implicit features of social life,  
55  
56 provide context of behaviour,<sup>(63)</sup> and shed light on non-explicit knowledge.<sup>(65)</sup>  
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4 Observations will take place during daily life in selected families observing dynamics;  
5  
6 power relations; alcohol consumption in terms of who consumes, when, how much, and  
7  
8 what; and strategies employed by family members in regards to alcohol use and previous  
9  
10 self-harm. Observations in communities will include observing social organization of  
11  
12 communities and people; alcohol selling establishments and how selling and consumption  
13  
14 is organized; how alcohol is talked about; and how people react towards intoxicated  
15  
16 people. During community observations, the research team will make sure to openly  
17  
18 explain the purpose of the research to anyone enquiring and abstain from observing if  
19  
20 community members feel disturbed or uncomfortable about the presence of the team.  
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### 26 **Focus Group Discussions**

27  
28 FGDs are effective when seeking a broad range of opinions on a topic and it provides the  
29  
30 opportunity for participants to probe each other's reasons for holding a specific view.<sup>(63)</sup>

31  
32 Knowing that this method will bring out group norms of 'what should be',<sup>(62)</sup> discussion  
33  
34 themes will be verbalized as general, non-personal issues. Topics will include general  
35  
36 perceptions of alcohol use; reactions towards people who consume alcohol; explanations  
37  
38 for use of alcohol; how alcohol is associated with self-harm; and how the community  
39  
40 responds to alcohol use and self-harm. In addition, small vignettes covering different  
41  
42 scenarios of alcohol in connection with self-harm will be used to spur conversation.  
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45  
46 Vignettes are particularly useful when exploring sensitive topics, as they can help distance  
47  
48 participants from the topic of discussion,<sup>(66)</sup> which has proven beneficial in other studies  
49  
50 on self-harm carried out in Sri Lanka.<sup>(7)</sup>  
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55 Approximately six FGDs will be carried out. Since previous research in Sri Lanka has  
56  
57 shown gender differences in alcohol intake and perceptions towards alcohol use<sup>(7)</sup> they  
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4 will be held in age and gender-segregated groups, with a maximum of ten participants in  
5  
6 each group.  
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### 10 **Stakeholder interviews**

11  
12 The stakeholder analysis will follow three main steps as outlined by Varvasovszky and  
13 Brugha: 1. identifying and approaching stakeholders; 2. describing stakeholder's positions,  
14 responsibilities and collaborations; and 3. diagnosing and suggesting strategies for future  
15 interventions.<sup>(67)</sup> Semi-structured interviews will be conducted with 15-25 stakeholders  
16 who have a stake in the decision making and implementation process<sup>(68)</sup> related to  
17 alcohol and self-harm policies and interventions in Sri Lanka. Some of the themes to be  
18 explored include activities carried out on preventing alcohol misuse and/or self-harm;  
19 interests in and agendas for prevention of self-harm and controlling of alcohol; means of  
20 influencing the agenda, including interrelations with other stakeholders in this area; and  
21 past, present and future perspectives.  
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37 Stakeholders will include representatives from different organizational layers:

- 38 - Producers and traders of alcohol;
  - 39 - Community representatives (leaders, priests, teachers);
  - 40 - NGOs (ADIC, Mel Medura, Sumithrayo, FISS and others);
  - 41 - Academia;
  - 42 - The health system (public, private and ayurvedic sectors at several levels);
  - 43 - Government (from ministries of Health; Education; Consumer Welfare; Child  
44 Development and Women's Affairs; the National Child Protection Authority and  
45 others).
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## Data management

All interview guides will be translated from English to Sinhala by trained translators and validated by representatives from the larger research group. The interview and FGD guides will be pilot tested in similar informant groups and revised accordingly. Interviews and FGDs will be conducted and facilitated by English/Sinhala speaking research assistants, supported by the first author. All interviews and FGDs will be audio recorded with the informed consent of all participants. The research assistants will carry out verbatim Sinhala transcriptions of all interviews and FGDs, which will then be translated into English. Field notes will be taken at all occasions. Observational data will be captured in extensive descriptive field notes and analytical memos, which will be transferred to a software programme on a daily basis and discussed within the research team. These discussions and reflections will be added to the observational notes and serve as important tentative steps of the analysis.

## Analysis

Analysis will be inductive and dynamic, starting immediately after the first interviews, FGDs and observations, continuing until the phenomena under study are well understood. It will be informed by the described conceptual framework and rely on a continuous triangulation between the emerging analytical and the pre-defined theoretical concepts in conjunction with the diverse sources of empirical data. The analysis will consequently not be entirely predefined, but reliant on the emerging explanatory models and understandings of alcohol's role in self-harm. The analysis of interview and FGD data will follow the principles of systematic content analysis:<sup>(63)</sup> The transcripts of the interviews and FGDs will be coded to identify themes, ideas and patterns, and these codes will be grouped into broader themes. During the analysis, the English version will be controlled

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3  
4 and compared with the Sinhala transcriptions, in order to ensure inclusion of all relevant  
5  
6 context and local matters in the analysis.<sup>(69)</sup>  
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## 12 13 **ETHICS AND DISSEMINATION**

### 14 15 **Informed consent**

16  
17 Verbal and written information about the aim of the study will be given in English or  
18  
19 Sinhala, as appropriate. In each case, the capacity of the participant to give consent will be  
20  
21 assessed– e.g. a highly intoxicated person will not be able to make an informed decision.  
22  
23 Participants will be informed that they can withdraw from the study at any time and that  
24  
25 participation – or lack of - will not have negative consequences for them. For the serial,  
26  
27 narrative life-story interviews and observations, the continued participation will be  
28  
29 verbally reconfirmed at each visit. Participants will be informed that all data collected will  
30  
31 be stored safely and only used by researchers, maintaining confidentiality.  
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### 37 38 **Validity**

39  
40 To validate the findings of this study, a long period of field work (minimum 10 months) has  
41  
42 been allotted. This extensive time allows for a comprehensive collection of multiple sources  
43  
44 of data and an in-depth understanding of the phenomenon under study.<sup>(69)</sup> A rigorous  
45  
46 transcription process with external cross-checks will ensure highest data quality and  
47  
48 consistency in definitions of codes and analytical themes.<sup>(69)</sup> Discrepant information  
49  
50 running counter to the themes will also be presented.<sup>(70)</sup> The use of triangulation at  
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52 several levels as well as detailed descriptions of the contextual setting of the study will  
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54 enhance the comprehensiveness of the findings.<sup>(71)</sup> Finally, co-researchers from different  
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4 research disciplines will be engaged to discuss the interpretations of the study to ensure  
5  
6 that the conclusions resonate with the broader research community.<sup>(71)</sup>  
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### 9 10 *Reflexivity*

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12 In qualitative research, the researchers' background, culture and experiences influence the  
13 interpretation of the data.<sup>(69)</sup> According to Malterud et al, these pre-conceived ideas are a  
14 necessary pre-condition for understanding a topic and reflexivity starts by identifying such  
15 preconceptions brought into the project by the researchers.<sup>(72)</sup> This will carefully be  
16 considered throughout the study by discussing such preconceptions within the research  
17 team, by maintaining diaries to systematically document and thus enhance trustworthiness  
18 and transparency.<sup>(70)</sup>  
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### 29 30 *Power dynamics*

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32 In carrying out qualitative research it is important to be aware of power imbalances  
33 between the researcher and the participant, since the former can maintain control and lead  
34 the participants in a certain direction. Especially the individuals in group A), B) and C) are  
35 at some level vulnerable and marginalized. The research team will comprise local and  
36 international researchers, whom in different ways differ from participants, i.e. in terms of  
37 sex, socio-economic status and age. Some of these imbalances can be decreased by building  
38 trust and avoiding leading questions.<sup>(69)</sup> Further, the narrative, life-story approach has  
39 been chosen to empower the participant to lead the conversation, thereby shifting control.  
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### 51 52 **Ethical considerations**

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4 Ethical approval has been obtained from the Ethical Review Committee of the Faculty of  
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6 Medicine and Allied Sciences, Rajarata University of Sri Lanka and the study has been  
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8 reviewed by the Safe Storage research group.  
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12 The Helsinki Declaration of 'Good Clinical Practice' will guide the study design and ethical  
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14 issues will be considered from the outset and throughout the study. Inquiring into other's  
15  
16 personal life can be experienced as traumatic, which will be countered by utilizing a  
17  
18 sensitive data collection technique. While interviews about previous self-harm impacted  
19  
20 participants' feelings, research indicated that the majority felt better afterwards<sup>(73)</sup> and a  
21  
22 study involving family members of individuals who died from suicide showed that sensibly  
23  
24 conducted interviews can have a valuable therapeutic effect.<sup>(74)</sup> However, the interview  
25  
26 situation may still be upsetting and protecting the individual is a priority; i.e. the  
27  
28 interviews will be carried out alone, in a setting the participant prefers. To assess the  
29  
30 participant's mood and whether the interview has influenced them, a Visual Analogue  
31  
32 Scale (VAS) will be administered in which participants rate their mood before and after the  
33  
34 interview. This method has been used in similar settings<sup>(75)</sup> and will assist in identifying  
35  
36 individuals who may be at increased risk of repeated self-harm. These participants will be  
37  
38 offered more comprehensive support after the interview. Irrespective of the rating on the  
39  
40 VAS the importance of seeking support when feeling distressed will be highlighted and all  
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42 participants will be given information about where to seek help.  
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### 50 **Dissemination**

51  
52 At the end of the study, findings will be communicated to the community and disseminated  
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54 in peer-reviewed, internationally recognized journals in collaboration with Sri Lankan and  
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4 other partners with maximum visibility for Sri Lankan researchers. Articles will also be  
5  
6 submitted to other types of media to increase awareness of the topic.  
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### 10 **AUTHORS' CONTRIBUTIONS**

11  
12 JBS drafted the initial manuscript and developed the protocol. TR and FK collaborated on  
13  
14 conceptualizing and designing the study and contributed to the draft of the manuscript.  
15  
16 BRS provided valuable input to methodology and background information on the study  
17  
18 site. MP contributed towards the study set-up, logistics, and methodology. TA contributed  
19  
20 to the context, cultural specificities, methodology and ethical considerations. SS furnished  
21  
22 information on the structure of health systems, in addition to assisting with ethical and  
23  
24 contextual considerations. All authors read and approved the final manuscript.  
25  
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29

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33  
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35  
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38

### 39 **COMPETING INTERESTS**

40  
41 The authors declare that they have no competing interests.  
42  
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44

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