ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF MEDICINE

ALCOHOL USE DISORDER, HELP-SEEKING BEHAVIOR AND THE IMPACT OF A BRIEF ALCOHOL INTERVENTION IN SODO DISTRICT, GURAGE ZONE, SOUTH-CENTRAL ETHIOPIA

SELAMAWIT ZEWDU SALILIH

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Selamawit Zewdu Salilih

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PUBLICATIONS

Papers published

1. Zewdu S, Hanlon C, Fekadu A, Medhin G, Teferra S. Treatment gap, help-seeking, stigma and magnitude of alcohol use disorder in rural Ethiopia. Substance Abuse Treatment, Prevention, and Policy. 2019;14(1):4.
2. Zewdu S, Hanlon C, Fekadu A, Medhin G, Teferra S. "We improved our life because I cut my drinking": Qualitative analysis of a brief intervention for people with alcohol use disorder in Ethiopian primary health care. Journal of Substance Abuse Treatment. 2021 Sep 28:108636.

Papers under review

3. Zewdu S, Hanlon C, Fekadu A, Medhin G, Teferra S. Impact of brief intervention for alcohol use disorder delivered by primary health care workers in Ethiopia: a pilot before-after study. Alcohol Journal

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ABBREVIATIONS

aPR	Adjusted Prevalence Rate
APST	Alcohol Related Problem Screening Test
ASSIST	Alcohol and Substance Involvement Screening Test
ASI	Alcohol Severity Index
AUDIT	Alcohol Use Disorder Identification Test
AUDs	Alcohol Use Disorders
BACE	Barriers to Accessing Care Evaluation
BI	Brief Intervention
BMI	Brief Motivational Intervention
CAGE	Cut Down, Annoyed, Guilty Feeling and Eye Opener
CESD	Center for Epidemiological Studies Depression scale
CIDI	Composite International Diagnostic Interview
CIS-R	Clinical Interview Schedule-Revised
CMD	Common Mental Disorder
CPOL	Community Popular Opinion Leader
DALY	Disability Adjusted Life Year
DISC	Discrimination and stigma scale
DSM IV	Diagnostic and Statistical Manual of Mental Disorders Version Four
DSM V	Diagnostic and Statistical Manual of Mental Disorders Version Five
FAST	Fast Alcohol Screening Test
FGD	Focus Group Discussion
GGT	Gamma-Glutamyl Transferase adx
GOCBI	Goal Oriented Community Brief Intervention
HED	Heavy Episodic Drinking
HIV	Human Immunoeficiency Virus
IDI	In-depth Interview
ISMI	Internalized stigma of mental illness inventory
LTE	List of Threatening Events
LMICs	Low and Middle Income Countries

mEUC	Minimally Enhanced Usual Care
MINI	Mini-International Neuropsychiatric Interview
MDR-TB	Multi Drug Resistant Tuberculosis
OR	Odds Ratio
OSS	Oslo Social Support scale
PCUs	Primary Care Units
PHC	Primary Health Care
PHQ	Patient Health Questionnaire
PRIME	Program for Improving Mental Healthcare
QOL	Quality of Life
RCQ	Readiness to Change Questionnaire
TB	Tuberculosis
SAE	Severe Adverse Event
SADD	Short Alcohol Dependence Data
SCID	Structured Clinical Interview for DSM-IV
SIP	Short Inventory of Problems
SRQ	Self -Reporting Questionnaire
WHODASS	World Health Organization Disability Assessment Schedule
WHOQOL	World Health Organization Quality of Life
YLD	Years Lived with Disability
YLL	Years of Life Lost

ABSTRACT

Background: Alcohol use disorder (AUD) is disabling yet neglected and frequently left untreated in low- and middle-income countries (LMICs). To increase the treatment rate, AUD services need to be integrated into primary health care (PHC) units as people with the disorder often make contact with PHC due to physical health consequences of AUD.

Objectives: 1) To determine the magnitude of AUD and associated disability, co-morbid depression, suicide, internalized stigma and help seeking behavior in Sodo district, Gurage Zone, South-Central Ethiopia. 2) To assess the impact of a brief intervention delivered at PHC on alcohol use after 12 months. 3) To explore the perspectives and experiences of people with AUD, caregivers and service providers about the brief intervention delivered at PHC in Sodo district.

Methods: The study was nested within the PRogrammme for Improving Mental health carE (PRIME). Mixed quantitative and qualitative methods were used: 1) Using a cross-sectional house-to-house community survey of 1500 adults (aged 18 years and above) living in Sodo district. The prevalence of AUD help seeking behavior, barriers to care, disability, co-morbid depression, internalized stigma and suicidality were determined. AUD was assessed using a culturally adapted version of the Alcohol Use Disorders Identification Test (AUDIT), A Poisson working model with robust variance was used to determine prevalence ratios. 2) A pilot before-and-after study was carried out among 49 people attending PHC facilities who had probable alcohol use disorder. Participants received an evidence-based single session brief intervention for AUD which was delivered by trained PHC workers. Follow-up assessment was conducted at 3 and 12 months. This included evaluation of AUD severity, functioning using World health organization disability assessment schedule (WHODAS 2) Score), consequences of drinking using Short Inventory of Problems revised version 2 (SIP-2R) and depression using the patient health questionnaire (PHQ-9). A mixed-effect linear model was used to assess the impact of the intervention at 3 and 12 months. 3) A nested qualitative study was conducted to explore perceptions and experience of service users, caregivers and service providers on the acceptability, impact and implementation of the intervention. Twenty-six in-depth interviews

were conducted with 14 people with alcohol use disorder, four caregivers and eight health professionals who were providing the intervention. Framework analysis was used for analysis.

Results: The prevalence of alcohol use disorder was 13.9% (25.8% in men and 2.4% in women). Alcohol used disorder was more prevalent among men (adjusted prevalence ratio (aPR) 7.7, 95% confidence interval (CI): 4.4, 13.1; farmers aPR 3.9, 95% CI: 1.0, 14.8), traders (aPR 6.0, 95% CI: 1.5, 23.9) and daily laborers (aPR 6.3, 95% CI: 1.5, 26.1) compared to housewives. A one-year increase in age was associated with a 1% increase in the prevalence of AUD (aPR 1.01, 95% CI: 1.00, 1.02). As the number of stressful events, depressive symptom score and disability score increase by one, the prevalence of AUD increased by 27% (aPR 1.2, 95% CI: (1.1, 1.3), 3.0 % (aPR 1.03, CI: 1.01, 1.03) and 2.0% (aPR 1.02, 95% CI: 1.01, 1.04), respectively. Having suicidal thoughts was also associated with AUD (aPR = 1.5; 95%CI: 1.1, 2.1). Of participants with an AUDIT score ≥16 (indicating harmful drinking), only 13% (n=6) sought help for alcohol problems, and 70.0% reported high internalized stigma. Major barriers to seeking help were: wanting to handle the problem on their own, believing that it would get better by itself, being unsure about where to go, not bothered by the problem, financial barriers, including being concerned about the cost of professional help, concerned about what people might think, and access. Forty-nine people with AUD received the brief intervention, and 92 % completed the assessments. Following the brief intervention, there was a statistically significant reduction in AUD severity, consequences of drinking and depressive symptoms. The adjusted mean difference (AMD) in AUDIT score at 3-months was -2.66 (95% CI -5.21, -0.11) and at 12 months was -4.15 (95% CI -6.76, -1.54). For SIP-2R score, AMD for AUDIT score was -2.52 (95% CI -4.86, -0.18) at 3-months and -3.00 (95% CI -5.87, -0.14) at 12-months. For PHQ-9 score AMD was -2.06 (95% CI -3.35, -0.77) at 3-months and -2.03 (95% CI -3.35, -0.72) at 12-months. Although positive effects of the intervention on functioning were not seen in the quantitative analysis, the qualitative study strongly supported the impact of the intervention on improving functioning. People with AUD and caregivers reported improved work capacity, increasing earnings, less money wasted and, consequently, being able to better provide for their family. The brief alcohol intervention was accepted by most service users. Service providers reported low acceptability of their advice by participants, participants' lack of openness to talk about alcohol, and shortage of space as barriers for implementation. Primary health care workers recommended further training, raising awareness of the community about alcohol use disorder,

and working with the community and health extension workers. They also requested a stronger administrative support system for improving management of alcohol use disorder.

Conclusions: Although alcohol use disorder was a common problem in the study setting, the unmet need for treatment was substantial. A pilot integration of a single session brief intervention in PHC had a positive impact on the severity of AUD, consequences of drinking, and depressive symptoms over a period of 12 months. The intervention was also feasible, acceptable and perceived to bring benefits. However, there is a need to address such issues as low community awareness about AUD, stigma, inadequate skills of PHC workers and engagement of the community in order to increase help-seeking behavior, and enhance acceptability and the impact of intervention in PHC settings. With more frequent supervision, non-specialized workers at the PHC level have the potential to contribute to the reduction of the burden of AUD through early screening, brief intervention, and referring people with severe AUD for specialist treatment.

1. INTRODUCTION

1.1. Background

Alcohol is not an ordinary substance of abuse (1). Despite being widely used and integrated into the culture of many societies, it is a substance with toxic effects, dependence potential and causes significant medical, psychological and social harm on a global scale (1, 2). This harm is mostly based on how much alcohol consumed, patterns of drinking and the quality of alcohol used. Worldwide per capita alcohol consumption among people aged 15 years or older increased from 5.5 liters of pure alcohol in 2005 to 6.4 liters of pure alcohol in 2016. This is equivalent to a change from 13.5 grams of pure alcohol per day per person (2010) to 32.8gm of pure alcohol per day in 2016 (3). An estimated 25.5% of alcohol consumption is unrecorded, because it is homemade, illegally produced or sold, or given for medicinal purposes (2).

Globally, alcohol consumption was the first risk factor for disease burden among people age 25 to 49 years, associated with about 6.3% of all disability adjusted life years (DALYs) followed by high blood pressure (6.0%) and high body mass index (5.9%) in 2019 (4). Among all age groups, alcohol use was the ninth risk factor for the global burden of disease, associated with 3.7 % DALYs. The effect of problematic alcohol use on the body is associated with more than 200 avoidable health conditions. More than 30 of these occur solely because of alcohol consumption. Within these alcohol-specific conditions, alcohol use disorders (AUDs) are the most significant (2, 5).

In 2019, alcohol consumption was the eighth cause of death among men (2.07 million deaths)(4). One in 20 deaths globally (5.3% of all deaths and injuries) was attributed to alcohol drinking in 2016 (3). In 2016, of all deaths attributable to alcohol consumption worldwide, 28.7% were due to injuries, 21.3% due to digestive diseases, 19% due to cardiovascular diseases, 12.9% due to infectious diseases and 12.6% due to cancers. About 49% of alcohol-attributable DALYs are due to non-communicable and mental health conditions, and about 40% are due to injuries.

Problematic alcohol use is not only a contributor of acute and long-term medical problems but may interfere with the treatment of these conditions due to poor help seeking behavior and

adherence. The loss of health due to excessive alcohol intake is estimated to be responsible for 20% of deaths due to motor vehicle accidents, work-related accidents, suicides and homicides. Alcohol is also interlinked with other substance use disorders and mental disorders (2, 5).

Social and economic consequences of alcohol use include intentional and unintentional injuries, domestic violence, child abuse and neglect, unemployment, loss of earnings and decreased work productivity. In terms of cost, alcohol use accounts for large costs to societies. The costs are not limited to healthcare costs, but also include opportunities that are lost because of alcohol and costs related to social harm (1, 2, 5-7)

Due to its young and fast-expanding population, higher abstinence rate, emerging economies, less regulated but more affluent marketing, LMICs attract the global alcohol industries (1, 2, 6, 8, 9). As a consequence, alcohol marketing is increasing. The burden of alcohol consumption in LMICs is higher per liter of pure alcohol consumed. The age-standardized alcohol-attributable burden of disease and death was highest in the world health organization (WHO) African Region (3).

1.2. Statement of problem

Alcohol use disorders are among the most disabling health conditions, but are neglected and usually untreated (9, 10). An estimated 283 million adults worldwide (237 million men and 46 million women, representing 5.1% of all adults) had alcohol use disorders in 2016 (11). In 2010, mental and substance use disorders were estimated to have been responsible for 22.9% of all years with disability (YLDs), 7.4% of all disability adjusted life years (DALYs) and 0.5% of all years of life lost (YLLs) worldwide. Among these disorders, AUD is ranked first, associated with 44.4% of YLLs. In terms of DALYs and YLDs, alcohol use disorder ranks fourth, after depression, anxiety and illicit drug use by causing 9.6% DALYs and 7.9% of YLDs (12).

In LMICs, even though there are high levels of abstinence relative to those seen in high income countries, those who drink are more likely to drink in a risky way (9). Up to 60 % of current drinkers in some sub-Saharan African countries and eastern Europe were heavy episodic drinkers in 2016 (3). Consumption of unrecorded alcohol, i.e. homemade traditional alcohol drinks, which are much cheaper than commercially produced alcohol, is higher in LMICs (2, 9). Alcohol use disorder was ranked as the 4th leading cause of disease burden among men in LMICs and is associated with a higher disease burden per liter of alcohol consumed when compared to high income countries (9, 13).

Even though Africa does not have the highest levels of alcohol consumption per capita in global comparisons, the continent experiences the heaviest burden of alcohol-related disease and injury (3, 11). This is due, in part, to the large burden of disease caused by tuberculosis, cardiovascular diseases, digestive diseases and injuries, to which alcohol is a contributing factor. According to WHO estimates in 2012, 3.3% of people in Africa suffered from AUDs (2). In South Africa, alcohol-related harm accounted for an estimated 7.1% of all deaths and 7.0% of total DALYs in 2000 and alcohol use disorders ranked first (44.6%) in terms of alcohol-attributable disability (14). In Ethiopia, a community based survey carried out parallel to this study, reported that one in five people in a rural district engaged in hazardous alcohol drinking (15).

Despite the fact that alcohol use disorders are among the most disabling conditions, very few people receive treatments for AUDs (16-18). AUDs are given a low priority and most patients remain untreated, even in high income countries with better availability of services (10, 17, 19-

22). Robert Kohn et al. in their review of 37 studies carried out in both high-income countries (HICs) and LMICs reported that the treatment gap for alcohol use disorders was about 78.1% (17). Treatment gap refers to the percentage of individuals affected by a disorder who need care but who do not receive treatment (10, 22). The treatment gap for AUDs is extremely high in LMICs. A recent community survey in four LMIC districts found that treatment contact coverage for probable alcohol use disorders over the past 12 months ranged from 2.8% in India to 5.1% in Nepal (16).

There are many reasons for the wide treatment gap in LMICs. First**,** AUDs have not been given required priority in settings where the focus is on infectious disease control, improving maternal and child health, and addressing under-nutrition (10). This causes inadequate allocation and inequitable distribution of financial and human resources (23).

Second, alcohol treatment services are not widely available in LMICs. When available, they are located at the tertiary level and cater to people with the more severe form of AUDs (dependent drinking); however, most of the population burden of AUDs occurs at lower levels of severity (10). Such services are mostly located in big cities, meaning that they are not accessible for the majority of people. Third, services, if they are available, are often not evidence-based, and may be costly for patients (24). Relative to the demonstrated economic benefits from alcohol taxes, which reduce alcohol use (1), upgrading services for AUD may be less of a priority for governments.

Fourth, people frequently present to primary health care (PHC) with alcohol-related problems. However, AUDs are rarely identified (25) in PHC and are not managed well because of inadequate training among providers (26), high workload and lack of resources (27). A study from Uganda in PHC setting found that only 7% of drinkers were asked about their alcohol use by PHC workers (28). A study in the United Kingdom (UK) found that general practitioners (PHC physicians) routinely identify less than 2% of hazardous or harmful drinkers and less than 5% of alcohol-dependent drinkers who present to primary care (29). Failure to detect alcohol use disorders means that many people do not receive interventions until the problems are more chronic and difficult to treat (10, 29).

Fifth, at the individual and community level, there are low levels of awareness of AUDs and their treatability and high levels of stigma and discrimination attached to people with alcohol problems (18, 30), which are barriers for people to seek care (17, 19-21).

To narrow the treatment gap, WHO has recommended that mental, neurological and substance use disorder services be integrated into routine PHC (31, 32). This has potential to help to detect and manage the problem in the early stages. However, there is a substantial shortfall in the mental health workforce in most LMICs (33), hence, there are inadequate numbers of specialists to deliver these services. Task-shared care for people with AUDs, whereby PHC workers are trained to deliver interventions while supported by mental health professionals, is used routinely in high-income countries (34) and may be even more beneficial in more severely resource-constrained settings (35).

Brief Interventions (BI) for alcohol use disorders are designed to promote awareness of the negative effects of drinking and to motivate positive behavior change among people with risky drinking (26). Screening and BI delivered by a non-specialist health staff in the primary healthcare setting is an evidence-based, effective and cost-effective (36-39) approach to decrease consumption among people with hazardous and harmful drinking. Much of the evidence of effectiveness comes from studies from HICs, and there is a scarcity of evidence of effectiveness and feasibility in low-income countries (40-43). This is likely to be an important contributing factor to the low implementation of BI in routine PHC settings in LMICs.

1.3. Significance of the study

Even though there is evidence that problematic alcohol use is a growing problem in Ethiopia (15, 44) and that it is a main contributor to the occurrence of infectious illnesses like TB and HIV (Ethiopian government top priority diseases), AUD is not among the top national health priorities. The Ethiopian government banned alcohol ads from broadcast media in 2019, and yet the country still has no alcohol control policy (45, 46) and no effective regulation (46) on the market, especially the trade of local alcoholic drinks.

Within Ethiopia, there have been a few studies about the magnitude of alcohol use disorder and associated factors in the general population. However, most of the studies were carried out among high school, college or university students (47) and there is no published research about how rural people seek help for problematic alcohol use, the barriers to care and stigma among rural community members with alcohol use disorders. Studying AUD in Ethiopia will help to address this evidence gap and to inform stakeholders, thereby helping to increase the attention given to the problem.

The level of mental health literacy in Ethiopia is low (48). There are very few services (49), and alcohol care is under-developed, inaccessible, and focused in centralized alcohol treatment services. This situation is fueled by the low number of mental health specialists (33). To make treatment services available and accessible for all, they need to be integrated into PHC and other general healthcare services. Ample evidence exists from high income countries of the effectiveness of this task sharing approach to scale up treatment for mental, neurological and substance use disorders (MNSUD) in primary care. However, evidence from low income countries is limited, and there is no published evidence from Ethiopia. Although efforts are underway in Ethiopia to integrate mental health services in primary care, it is yet to be supported by research evidence. This study is expected to contribute to the evidence base about the impact of integrated care on people with AUDs for the country and other LMICs.

Developing an in-depth understanding of the views of both service users and healthcare providers will help to modify the implemented intervention. This will help to make intervention more appropriate to local resources and health service structures, increase acceptability and

feasibility for recipients and those delivering the intervention, ensure the cross-cultural applicability of the intervention and increase buy-in from national and local stakeholders.

This study will contribute to the knowledge on the burden of alcohol use disorder and the impact and implementation of a brief intervention in both local and other low-income settings. The finding of this study will also serve as preliminary evidence for future randomized, controlled trials (RCTs).

2. LITERATURE REVIEW

2.1.1. Introduction

In this section, literature on the definition of AUD, brief interventions, existing evidence on the epidemiology of alcohol use disorders and risk factors are presented. The evidence on the impact of brief interventions on alcohol use, in PHC and community settings in Africa and other LMICs, is also presented.

2.1.2. Definition of alcohol use disorder

The WHO International Classification of Disease version 10 (ICD-10) defines alcohol use disorders as conditions that range from hazardous and harmful alcohol use to alcohol dependence (10, 50).

Hazardous use: is a pattern of alcohol drinking that increases the risk of harmful consequences for the user or others and is recognized as a disorder distinct from other alcohol use disorders. This pattern of alcohol use is often operationalized as an average consumption of 21+ drinks per week for men and 14+ drinks per week for women (50, 51). Hazardous alcohol use has public health significance despite the absence of any current disorder in the individual user (52). Even though alcohol related harm occurs mainly during this stage and in the harmful stage of drinking, in LMICs, alcohol dependence (the most severe form of AUD) gets more attention (2, 9, 10). This happens because it is believed that the conventional central theme of alcohol misuse is dependence. This results in decreased attention to the problem and stigmatizes affected individuals (10, 52).

Harmful use: refers to alcohol consumption already causing damage to health and resulting in adverse social consequences (50, 52).

Alcohol dependence: is defined as "a cluster of behavioral, cognitive, and physiological phenomena that may develop after repeated alcohol use" (50, 52). These include a strong desire to consume alcohol, impaired control over its use, persistent drinking despite harmful consequences, a higher priority given to drinking than to other activities and obligations,

increased alcohol tolerance, and a physical withdrawal reaction when alcohol use is discontinued.

In the Diagnostic and Statistical Manual of Mental Disorders version five (DSM-5) of the American Psychiatric Association (53), Alcohol Use Disorder is defined as "a cluster of behavioral and physical symptoms, which can include withdrawal, tolerance, and craving". The criteria for a DSM diagnosis of AUD are presented in Table 1.

Table 1 DSM 5 criteria to diagnose AUD

<table>
<tr><td colspan="5">A problematic pattern of alcohol use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:</td></tr>
<tr><td>1</td><td>Alcohol is often taken in larger amounts or over a longer period than was intended.</td><td rowspan="11">The presence of at least 2 of these symptoms indicates an alcohol use disorder (AUD)

The severity of the AUD is defined as:

Mild: the presence of 2-3 symptoms

Moderate: the presence of 4-5 symptoms

Severe: the presence of 6 or more symptoms.</td><td>7</td><td>Important social, occupational, or recreational activities are given up or reduced be-
cause of alcohol use.</td></tr>
<tr><td>2</td><td>There is a persistent desire or unsuccessful efforts to cut down or control alcohol use.</td><td>8</td><td>Recurrent alcohol use in situations in which it is physically hazardous.</td></tr>
<tr><td>3</td><td>A great deal of time is spent in activities necessary to obtain alcohol, use alcohol,
or recovôr from its effects.</td><td>9</td><td>Alcohol use is continued despite knowledge of having a persistent or recurrent
physical or psychological problem that is likely to have been caused or exacerbated
by alcohol.</td></tr>
<tr><td>4</td><td>Craving, or a strong desire or urge to use alcohol.</td><td>10</td><td>Tolerance, as defined by either of the following:
a. A need for markedly increased amounts of alcohol to achieve intoxication or de-
sired effect.
b. A markedly diminished effect with continued use of the same amount of alcohol.</td></tr>
<tr><td>5</td><td>Recurrent alcohol use resulting in a failure to fulfill major role obligations at work,
school, or home.</td><td rowspan="2">11</td><td rowspan="2">Withdrawal, as manifested by either of the following:
a. The characteristic withdrawal syndrome for alcohol
b. Alcohol (or a closely related substance, such as a benzodiazepine) is taken to
relieve or avoid withdrawal symptoms.</td></tr>
<tr><td>6</td><td>Continued alcohol use despite having persistent or recurrent social or interpersonal
problems caused or exacerbated by the effects of alcohol.</td></tr>
</table>

2.1.3. Epidemiology of alcohol use disorders in Africa

Methods of Review

Search Strategy and Search Terms

Two separate searches were conducted. The first search was intended to provide a review of the epidemiology of alcohol use disorders in Africa and the second search was on brief interventions given for alcohol use disorder in LMICs. A systematic computer-assisted search using PubMed was conducted with the following search strategy to find articles on the epidemiology of alcohol use disorders in Africa: -

(((((("alcohol use disorder") OR ("problem drinking")) OR ("hazardous drinking")) OR ("harmful drinking")) OR ("alcohol abuse")) OR ("alcohol dependence")) AND (((epidemiology) OR (magnitude)) OR (prevalence))) AND (("Africa"[mesh] OR africa[tiab] OR Algeria*[tiab] OR Angola*[tiab] OR Benin[tiab] OR Botswana*[tiab] OR Burkina Faso[tiab] OR Burundi*[tiab] OR Cabo Verd*[tiab] OR Cape Verd*[tiab] OR Cameroon*[tiab] OR Central African*[tiab] OR Chad*[tiab] OR Comoros[tiab] OR Congo[tiab] OR Cote d'Ivoire[tiab] OR Ivory OR Djibouti[tiab] OR Dominica* [tiab] OR Ecuador[tiab] OR Egypt[tiab] OR El Salvador*[tiab] OR Eritrea*[tiab] OR Ethiopia*[tiab] OR Gabon*[tiab] OR Gambia*[tiab] OR Ghana*[tiab] OR Guinea*[tiab] OR Kenya*[tiab] OR Lesotho[tiab] OR Liberia*[tiab] OR Libya*[tiab] OR Madagascar*[tiab] OR Malawi*[tiab] OR Mali[tiab] OR Mozambique[tiab] OR Namibia*[tiab] OR Niger*[tiab] OR Rwanda*[tiab] OR Senegal*[tiab] OR Sierra Leone*[tiab] OR Somalia* [tiab] OR South Africa*[tiab] OR Sudan*[tiab] OR Swaziland*[tiab] OR Tanzania*[tiab] OR Togo*[tiab] OR Tunisia*[tiab] OR Uganda*[tiab] OR Yemen*[tiab] OR Zambia*[tiab] OR Zimbabw*[tiab]) AND (humans[Filter])

Study selection

Studies identified by the searches were screened by considering the inclusion criteria listed in Table 2 and exported to Endnote. The process is summarized in Figure 1.

Table 2 Inclusion and exclusion criteria for the studies

	Epidemiological studies on AUD		Brief intervention studies	
Criteria	**Inclusion**	**Exclusion**	**Inclusion**	**Exclusion**
Language	English	Non English	English	Non English
Date	No limit	-	No limit	-
Publication status	Published research	-	Published research	-
Types of data	Quantitative and qualitative	-	Quantitative and qualitative	-
Study design	All designs which report primary research	-	All designs which report primary research	-
Subjects	Adult (aged 18 years and above), both genders	-	Adult (aged 18 years and above), both genders	-
Population	General population and primary health care attendees	Study conducted in special populations, e.g. schools, college, prisons, emergency rooms, hospitals, Others	General population and primary health care attendees	Study conducted in special populations, e.g. schools, college, prisons, emergency rooms, hospitals, Others
Intervention	-	-	Brief interventions effectiveness or their implementation	Other interventions including brief therapy
Comparison	-	-	Any	Pharmacological interventions
Outcome	AUD	Alcohol use	Alcohol use	
Setting	African countries	African immigrants in other continents.	Low-and-middle income countries	Immigrants in HICs

Data Extraction and Synthesis:

Data extraction was carried out using a pre-specified data extraction form. The form included the name of authors, date of publication, setting, study design, sample, instruments used, outcomes, and findings of the study. The data found in the review process were grouped into two themes, i.e. the prevalence of alcohol use disorders and risk factors. Then the report was synthesized. Finally, it was described through a narrative synthesis and tables.

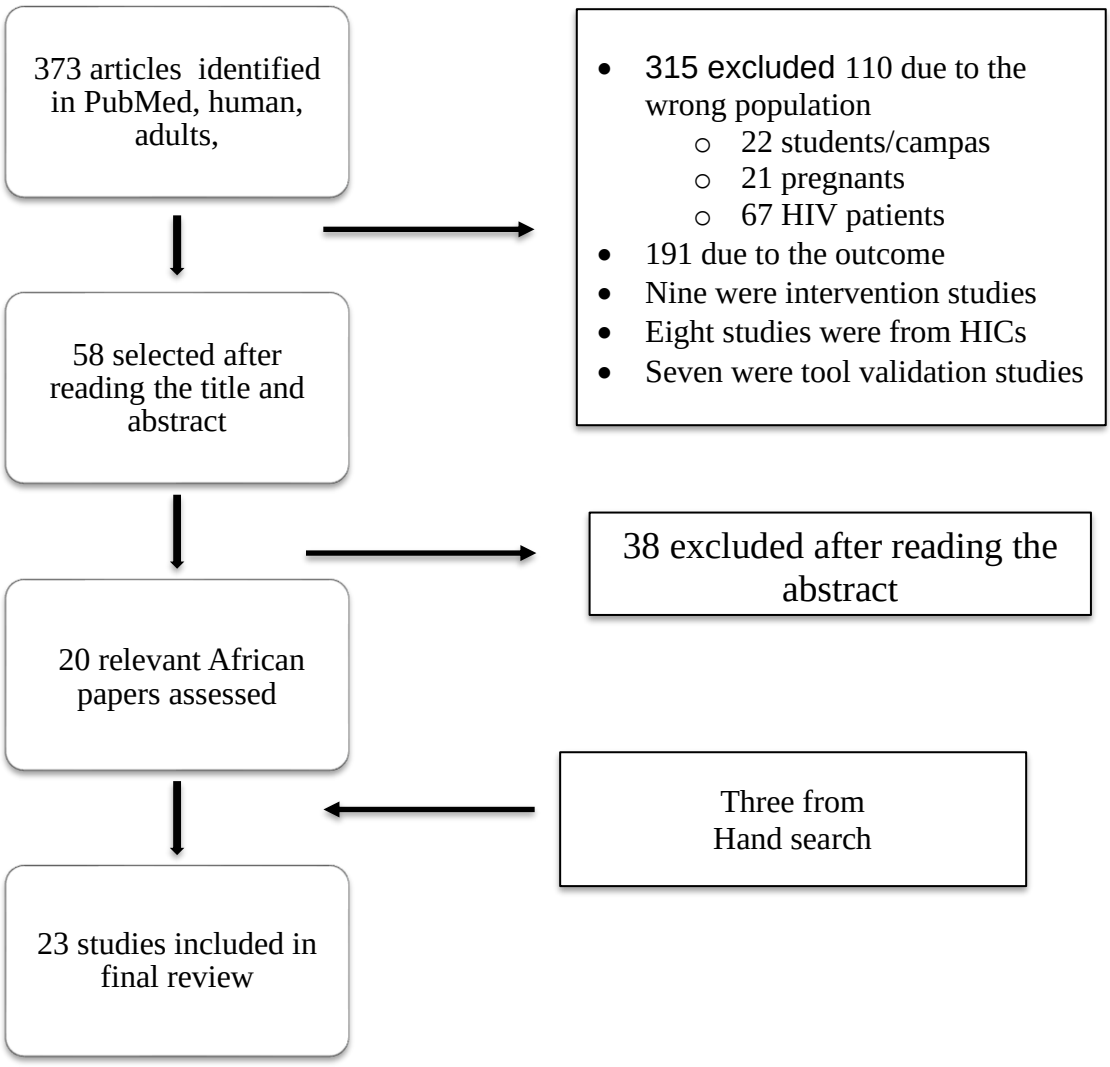

Figure 1 Flow diagram for review of papers on epidemiology and factors associated with Alcohol Use Disorders

Characteristics of Studies

In this section of the literature 23 studies were included. All the papers included in the final review were published in the years 1999 to 2020. Based on the recent world bank classification, six were from upper-middle-income African countries (including South Africa, n=5 and Namibia, n=1), eight were from lower-middle-income African countries (Kenya (n=4), Nigeria (n=1), Tanzania (n=3)) and nine were from low-income countries including Ethiopia (n=5), Uganda (n=2), Mozambique (n=1) and South Sudan (n=1).

Most of the studies were cross-sectional studies (n=21) and two were qualitative. The sample size for the cross-sectional studies ranged from 215 to 15,828 and qualitative studies had 50 and 31 participants. Twenty-one studies were conducted in general population samples and two were carried out in primary health care.

Summary of the Findings

Epidemiology of alcohol use disorders in Africa

The studies used the term problem drinking (n=5), alcohol abuse (n=3), hazardous or harmful use or dependence (n=10), alcohol problem (n=1), alcohol disorder (n=1), problematic alcohol use (n=1), high risk drinking and risky drinking (n=2), heavy episodic drinking (n=1), and alcohol use disorder (n=2).

Of the 23 studies, 12 used AUDIT to determine alcohol use disorders, four used Cut Down, Annoyed, Guilty Feeling and Eye Opener (CAGE) and one used the Mini-International Neuropsychiatric Interview (MINI). Other studies used the Composite International Diagnostic Interview (CIDI) (n=1), Fast Alcohol Screening Test (FAST) (n=1), rapid alcohol problems screen (RAPS) (n=1), the WHO STEPS instrument (n=1) or reported actual alcohol consumption. A study from Uganda used >14 units/week for women and > 21/week units for men to assess high risk drinking. Two studies reported heavy drinking and assessed actual consumption of alcohol in standard drinks. A study from South Africa used at least 120 ml (eight standard drinks of 15 ml (12 g) of absolute alcohol) for men and 90 ml (6 standard drinks of 15 ml (12 g) of absolute alcohol) for women on one occasion at any location at least monthly in the last 6 months to assess heavy drinking. The other was a recent study from Kenya that operationalized heavy drinking as more than 3 drinks per day.

The prevalence of alcohol use disorders ranged from 2.7 % for problem drinking, using CAGE in Addis Ababa, Ethiopia, in 1999 (54) to 50 % (55) for alcohol problems based on a rapid alcohol problem screen in South Africa in 2019. Among studies which used the Alcohol Use Disorder Identification Test, the prevalence of alcohol use disorders was 5.7% in urban Tanzania (56) and 33% in rural South-South Nigeria (57). Finding from the studies which used diagnostic tools found a prevalence of 4.9% for current abuse and 11% for lifetime abuse (58) in South African

study which used national probability sample and 9% of current abuse in 2018 in Eastern Capetown, South Africa (59). In PHC, the prevalence of alcohol use disorders was 17.2% (28) in Uganda and 24.5% in South Africa (60).

Some studies reported alcohol dependence separately. Those studies used DSM-IV (n=1), CIDI (n=2), MINI (n=1) and Alcohol Use Disorder Identification Test (n=2). The prevalence of alcohol dependence ranged from 1.0% to 26.5% (54, 59) in studies that used diagnostic instruments and 4.5 % (60) to 12.7% (57) among studies which used AUDIT.

Except for two studies, both genders were included in study samples. Studies that used only women in a general population sample reported a prevalence of 8% for AUD in Mozambique (61) and 15% in Tanzania using CAGE (62).

Table 3 Epidemiology and factors associated with alcohol use disorder in low-income African countries

Author	Country	Design	Sample	Outcome/tool	Result
Alem et.al, g1999 (44)	Ethiopia Butajjira Rural	Cross sectional	10468 ≥15yrs	Problem drinking, CAGE	3.7 %, in both sexes (Christian, male, non-Gurage, and smoking), Marital status, mental distress and income in men.
Kebede et.al, 1999(54)	Ethiopia, Addis Ababa city, Urban	Cross sectional	10203 ≥15yrs individuals	CAGE and CIDI, problem drinking & dependence	2.7% problem drinking 1% Life time and 0.8% one-month dependence Increased with increasing age, decrease with education, increase among employed, male
Teferra et.al 2016(15)	Ethiopia, Rural	Community based Cross sectional	1500 >18 adults	hazardous alcohol use using FAST	21 % *(31 % in males and 10.4 % in Females)* male, increasing age, having experienced stressful life events, and severe psychological distress were positive factors, High social support was protective.
Gutema et al 2020 (63)	Arba Minch health and demographic surveillance site Ethiopia	Community based Cross sectional	3368 25–64 years excluding perinatal mothers	heavy episodic drinking WHO STEPS instruments	13.7% (95% CI: 12.6–14.9). Lower prevalence among daily laborer and housewives compared with farmers), 2nd quintiles and 3rd quintiles wealth index. High in climatic zone midland and highland compared with lowland, tobacco use and khat use.
Abdu et al 2020 (64)	Ethiopia, Ilu Aba Bor zone between 1 July and 30 August 2018.	Community based cross-sectional	690 adults people18 years and above	AUD AUDIT self-reporting questionnaire SRQ	14.1% AUD and 27.2% for common mental disorders. positive relationship between AUD and CMD. Single, orthodox religion followers, urban resdence associated with AUD

Table 3| Continued

Author	Country	Design	Sample	Outcome/tool	Result
Lien et al 2016 (65)	South sudan	Cross sectional	500	high risk problem drinking AUDIT and the general health questionnaire (GHQ-28) for mental distress and five questions to assess traumatic events.	14 % of the participants were identified as harmful/hazardous drinkers based on the AUDIT >7. Being male, lack of regular income and psychological distress were the main risk factors.
Kullgren G. et al. 2009 (28)	Kampala Uganda, Urban	Cross sectional	768 people ≥ 18,	1.CAGE, 2. High risk drinking >14 units/week for women and > 21/week units for men 3.DSM-IV dependence 4.Being asked about alcohol by PHC worker	One PHC result N=569 o 17.4 % were positive based on CAGE (M= 25.3%, F=10.7%) being male, 35-44 years old, Catholics, married, and diagnosis gastroenteritis were associated positively with CAGE positive. o Prevalence of high risk drinking was 28.5% (M= 35.6 %, F=22.4%) o Prevalence of dependence was 9.5% (N=54) (M=14.9 %, F=4.9%--) and associated positively with men, 35-44 years old, Catholics, married, diagnosis gastroenteritis o 7.4% of patients being asked about alcohol by PHC workers: -- being asked was associated with being male and high risk drinker, Current drinker (N=366); 58.7% men, 68.6 below age 35, 36.1% CAGE +ve, 24.6% dependence, 64.5 HRD
Wainberg M et.al, 2018 (61)	Mozambique	Cross sectional 2014	3892 female heads of household	Hazardous alcohol use AUDIT>4	8%, depression, death of a child, and being currently pregnant was risk factor Being single and food insecure showed a protective factor
Ssebunnya J et.al 2020 (66)	Kamuli Uganda	Qualitative	50 (Leaders, drinkers, health workers, non-drinkers, religious fathers)	16 Key Informant Interview, 4 focus group discussion with eight participants	local drinks are affordable, socially acceptable, HD is social, underage drinking is common, no control policy or legal restriction, rare help seeking (only during emergency). Alcohol was readily available in the community and its consumption widely acceptable, with less social sanctions despite the legal restrictions to the minors. The social acceptance results in low recognition of alcohol use related health problems, consequently resulting in poor help-seeking behavior.

Table 4 Epidemiology and factors associated with alcohol use disorder in lower middle-income African countries

Author	Country	Design	Sample	Outcome/tool	Result
Jenkins et al. 2015(67)	Kenya Rural	Cross sectional	1148 adults	Hazardous drinking / AUDIT, (CIS-R) / (CMD)	6.4% (Male 9.5% & Female 2.9%). Men (OR 0.3), people living in larger households (OR 1.8), people who were single (OR 1.7), self-employed (OR 1.8)
Takahashi, R.et al, 2017 (68)	Western, Kenya rural	cross-sectional	478 aged 18–65	hazardous/high-risk AUDIT	28.7% (51% in men and 6.4 in women), the number of drinkers in the family, the number of friends who are drinkers, and attitude towards alcohol intake
Gitatui, M.et al, 2019(69)	Kenya urban Slum	cross-sectional April to July 2016	215 adults (over 18 years) who reported to be regular alcohol drinkers	>3 drinks per day	Male 28.6%, female 18.6 and no statistically significant difference between both gender Older, married, separated/divorced/widowed, of high educational level and earnings consumed more alcohol per session and more frequently; Low income earners consumed unrecorded drinks while high earners drank recorded alcohol (beer and wines); Families with a drinking father and drinking siblings were likely to consume more; - Single, attained low educational, low earners and from broken families attributed their drinking to stress; The younger, unmarried, and casual laborers were likely to have been introduced to drinking by friends Alcohol-related negative effects were reported by individuals with low educational attainment, earnings and the self-employed. The separated, divorced and widowed were likely to have attempted to stop alcohol use; Individuals with family responsibilities were likely to drink less; and the support offered by religious institutions were perceived to be useful among individuals with low educational attainment, unmarried and those who consumed less alcohol.
Patel, P. et.al 2020 (70)	Kenya	Qualitative	31 (11 men with AUDIT score 9-19, 11 women, and 9 children)	Interviews about the experiences of problem-drinking fathers in Kenya regarding previous treatment-seeking	Desired to quit, but drinking as a necessary tool to cope with mental and physical stress. Children reported having very limited contact with the father, they feared him when he was drunk. Stigma from peers and community members due to the father's alcohol use. People not visiting their home and neighborhood children not being allowed to go to their home. Informal help from family (nuclear and ex-tended), community members or neighbors, church members, and friends. Self-help-reducing contact with friends who drink, keeping themselves busy, and praying as beneficial methods. None reported awareness of formal treatment. Barriers of help seeking were negative perceptions of help, negative social influence, occupation (causal work). Facilitators of help-seeking were financial motivation to stop drinking, perceived social support, positive perceptions of help, external stigma.

Table 4 | Continued

Author	Country	Design	Sample	Tool	Result and limitation
Seiyefa Brisibe and Best Ordinioha, 2011(57)	South - South Nigeria Rural	Cross sectional	322 (166 men and 156 women) between 16-65 yrs. age	Harmful drinking Dependence **AUDIT**	33.2 % harmful drinking (33.5 women and 64.9% men) & 12.73 % dependence Males, in polygamous marriage, had lower educational status, traditional religion, and palm wine tapping.
Gebremichael M, Paintsil E and Larsen U, 2009(71)	North Tanzania Urban	Cross sectional	977 women aged 20–44	Alcohol Abuse, CAGE	15% physical violence, sexual violence difficulties in conceiving was a factor associated with alcohol abuse
Mbatia J et. al 2009(56)	Tanzania Urban	Cross sectional	899 adults aged 15-59	Hazardous alcohol use using **AUDIT**, CIS-R	5.7% (8.7% men and 3.4 women) male gender, CMD and unemployment was risk -economically inactive and being Ilala was protector.
Tisha Mitsunaga & Ulla Larsen, 2008 (62)	Moshi, Northern Tanzania	Cross sectional	1814 women (1200 women with partners and 614 women without partners). A total of 788 husbands and partners of these women were interviewed.	CAGE score 2-4	- 7·0% (95% CI: 5·6–8·4) among women with partners, - 9·3% (95% CI: 7·0–11·6) among women without partners, a22·8% (95% CI: 19·9–25·8) among men Among women without partners, first sexual experience, number of partners and current STD symptoms were significantly different between those who abused alcoholand those who did not Among men, ethnic group, religion, number of partners and OK to hit were statistically different between those who reported alcohol abuse and those who did not .

Table 5 Epidemiology and factors associated with alcohol use disorder in upper- middle income African countries

Author	Country	Design	Sample	Tool	Result and limitation
Peltzer K. 2006(60)	South Africa Rural PHC	Cross sectional	600 pt.	AUDIT hazardous & dependence	37.4% of the men and 10.7% of the women were classified as hazardous drinkers, and 9.2% of men and 0.3% of women met criteria for probable alcohol dependence. Men, single/divorced/widowed were predictors of HD
Suliman S. et. al, 2010 (58)	South Africa	Cross sectional	4,315 adult	Transitions Across Stages of Alcohol Use and AUD CIDI	11.4% life time abuse, 2.6% life time dependence, 4.9% current abuse, 1.2% current dependence. Early onset of age of alcohol use risk for abuse Being male associated with transition from use to alcohol abuse younger age and late age at onset of alcohol abuse to be associated with remission from abuse.
K Peltzer, A Davids and P Njuho, 2011(72)	South Africa	National house hold survey	15, 828 persons aged 15 or older	Hazardous, harmful or dependence AUDIT ≥8	9%: (17% men and 2.9% women). Men: - the 20-54-year age group; the Colored population group; lower economic status; and lower education. Women: - urban residence, Colored population group, lower education and higher income.
Anderson et.al, 2018(59)	South Africa East Cape town	Cross sectional	1000 18-40 Yrs.	Alcohol dependence and abuse MINI 6	26.5% dependence→Men –dependence 39.0%, 19% women . Dependence in men :-older, grant sources of income. Dependence in women: - single/divorced /widowed, income. 9 % abuse→ 19% men & 6% women. Abuse in men: lacking social support 1.73, with secondary education 0.48. Abuse in women: - social support.
Seth P et al., 2015(73)	Namibia Katutura	Cross sectional	639 people aged 18 + yrs.	AUDIT,	-26%, 5% & 10.1% respectively Harmful/hazardous/ dependence
Petersen et.al 2019(55)	South Africa Tshwane around capital, Pretoria	Cross sectional	2000 Age 18-65	1) Heavy drinking 52%. at least 120 mL (8, standard drinks of 15 mL (12 g) of absolute alcohol) for men and 90 mL (6 standard drinks of 15 mL (12 g) of absolute alcohol) for women on one occasion at any location at least monthly in the last 6 months. Men, never married, colored race, noticing brands being advertised through an SMS, free alcohol offers when purchasing, walking to buy associated. 2) 50 % symptoms of Alcohol problem with the Rapid Alcohol Problems Screen 4 (RAPS4), score 1± = yes case. Men, never married, noticing brands being advertised through magazine and newspaper, - walking to buy associated	

1.1.1. **Factors associated with alcohol use disorder in Africa**

Factors positively associated with alcohol use disorder include male gender (15, 28, 47, 55, 56, 60, 65, 67, 68, 72, 74, 75), and mixed status of age (15, 28, 55, 59, 69, 72), marital status (28, 55, 59-61, 67, 69), educational status (59, 67, 69, 72), economic status, Christian religion (44, 62, 64), comorbid mental distress (15, 44, 65) and, employment status, positive attitude to alcohol drinking , having family members or friends who drink (68) (69), occupation (casual work and farmers)(63, 70), and smoking (44, 63). Lower level of social support was associated with AUD and help-seeking for alcohol problems (15, 59, 70).

Among women, violence, difficulty in conceiving (71), urban residence, , lower education, higher income (72),being a single, divorced or widowed and lack of social support (59) were also associated with alcohol use disorder. One study from Mozambique (61) reported that depression, being pregnant, death of a child, and caring for a child with disability were positively associated with alcohol use disorder among women who were a head of household. Having low socio-economic, food insecurity and being single were protective factors for women in this study. See Table 3 to Table 7 for the details.

2.1.4. Brief interventions for alcohol use disorder

Brief interventions are evidence-based, time-limited, patient-centered and problem-specific interventions for people with substance use. Brief interventions can last from a few minutes to an hour and can be delivered as a single session or as a few sessions. Brief interventions can be delivered at both opportunistic settings like emergency care, PHC, colleges, police stations or in specialized treatment settings by a variety of professionals. The goal of brief intervention is to help people with less severe substance abuse to reduce or stop using psychoactive substances by motivating them to change. For people with more severe AUD, brief interventions cannot replace specialized care. However, at the level of alcohol dependence brief interventions may focus on encouraging users to consider treatment, to consider abstinence, or to return to treatment after a relapse and used to link the individual to a referral (26, 36, 76).

Brief interventions will have a better outcome when it is tailored to the individual's stage of change. The transtheoretical approach or the stage-of-change model (77), which includes five stages of change, helps professionals to provide brief interventions based on the specific needs of patients. If the provider does not tailor the intervention to the person's stage, the person might resist and/or nonadherence could occur (26, 36, 76).

Brief interventions consist of six critical elements regardless of the number of sessions or the length of the intervention. The term 'FRAMES' (78) was coined to summarize these elements, which involves the provider: giving Feedback on the person's intake, emphasizing personal Responsibility, offering Advice, listing a Menu of options for behavioral change, having an Empathic approach and building Self-efficacy in the person receiving the brief intervention.

A systematic review of reviews by O'Donnel et al. in 2013 (79), included reviews of 56 randomized controlled trials and reported the effectiveness of brief interventions for less severe AUDs. The evidence gap reported by this systematic review was the effectiveness of brief interventions among drinkers who are women, eldery and among young, minority, dependent/co-morbid, and those living in LMICs.

In a recent (2018) Cochrane review (38) by Kaner et al., that included 69 RCTs carried out in primary and emergency care, brief interventions were found to reduce alcohol consumption among people with hazardous or harmful drinking when compared to no or minimal intervention. The review also found that interventions with extended sessions (more than five sessions or more than 60 minutes) were no more effective than brief intervention or no intervention. According to this systematic review, after 12 months, participants receiving a brief intervention consumed a mean 20 g alcohol a week less than those with minimal or no intervention.

In recent years, there have been several reviews of studies conducted in LMICs (41-43, 80, 81) examining the evidence for effectiveness of psychosocial interventions for hazardous alcohol use and other substance use disorders. The reviews reported a positive impact of psychosocial intervention on alcohol misuse. The reviews showed that there were few RCTs and that most of the interventions were based on motivational interviewing, tailored to people with other conditions, including HIV, violence and TB. None of the intervention studies were conducted in low-income countries.

2.1.5. Impact of brief interventions for alcohol use disorder in PHC and community settings in LMICs.

In this section of the literature review, evidence on the impact of brief interventions on alcohol use disorder will be synthesised.

Methods of Review

To find primary studies, an electronic search was conducted in PubMed using the following terms:

Search strategy

The following key terms and their synonyms and Mesh terms were used.

1. (((((((("alcohol abuse") OR ("alcohol use disorder")) OR ("harmful drinking")) OR ("problem drinking")) OR ("alcohol dependence")) OR ("hazardous drinking")) AND
2. (((((((("brief intervention")) OR ("psychosocial intervention")) OR ("community-based intervention")) OR (intervention)) OR (psychological intervention)) OR (Advice))) AND
3. ("Developing Countries"[mesh] OR developing countr*[tiab] OR developing nation*[tiab] OR less developed countr*[tiab] OR less developed nation*[tiab] OR third world nation*[tiab] OR third world countr*[tiab] OR under developed nation*[tiab] OR underdeveloped nation*[tiab] OR under developed countr*[tiab] OR underdeveloped nation*[tiab] OR middle income countr*[tiab] OR middle income nation*[tiab] OR low income countr*[tiab] OR low income nation*[tiab] OR poor countr*[tiab] OR poor nation*[tiab] OR lmic[tiab] OR lmics[tiab] OR "Africa"[mesh] OR "Asia"[mesh] OR "South America"[mesh] OR "Latin America"[mesh] OR "Central America"[mesh] OR africa[tiab] OR asia[tiab] OR south america[tiab] OR latin america[tiab] OR central america[tiab] OR Afghanistan*[tiab] OR Albania*[tiab] OR Algeria*[tiab] OR Samoa*[tiab] OR Angola*[tiab] OR Armenia*[tiab] OR Azerbaijan*[tiab] OR Bangladesh*[tiab] OR Bengali[tiab] OR Belarus*[tiab] OR Belize[tiab] OR Benin[tiab] OR Bhutan*[tiab] OR Bolivia*[tiab] OR Bosnia*[tiab] OR Herzegovina*[tiab] OR Botswana*[tiab] OR Brazil*[tiab] OR Bulgaria*[tiab] OR Burkina Faso[tiab] OR Burundi*[tiab] OR Cabo Verd*[tiab] OR Cape Verd*[tiab] OR Cambodia*[tiab] OR Cameroon*[tiab] OR Central

African*[tiab] OR Chad*[tiab] OR China[tiab] OR Chinese[tiab] OR Colombia*[tiab] OR Comoros[tiab] OR Congo[tiab] OR Costa Rica*[tiab] OR Cote d'Ivoire[tiab] OR Ivory Coast[tiab] OR Cuba[tiab] OR Cuban[tiab] OR Djibouti[tiab] OR Dominica* [tiab] OR Ecuador[tiab] OR Egypt[tiab] OR El Salvador*[tiab] OR Eritrea*[tiab] OR Ethiopia*[tiab] OR Fiji*[tiab] OR Gabon*[tiab] OR Gambia*[tiab] OR Georgia*[tiab] OR Ghana*[tiab] OR Grenada*[tiab] OR Guatemala*[tiab] OR Guinea*[tiab] OR Guyan*[tiab] OR Haiti*[tiab] OR Hondura*[tiab] OR India[tiab] OR Indian*[tiab] OR Indonesia*[tiab] OR Iran*[tiab] OR Iraq*[tiab] OR Jamaica*[tiab] OR Jordan*[tiab] OR Kazakh*[tiab] OR Kenya*[tiab] OR Kiribati[tiab] OR People's Republic of Korea[tiab] OR North Korea[tiab] OR Kosovo[tiab] OR Kosovar* [tiab] OR Kyrgyz*[tiab] OR Lao[tiab] OR Laos[tiab] OR Laotian*[tiab] OR Lebanon[tiab] OR Lebanes*[tiab] OR Lesotho[tiab] OR Liberia*[tiab] OR Libya*[tiab] OR Macedonia*[tiab] OR Madagascar*[tiab] OR Malawi*[tiab] OR Malaysia*[tiab] OR Maldives[tiab] OR Mali[tiab] OR Marshall Island*[tiab] OR Mauritania*[tiab] OR Mauriti*[tiab] OR Mexico[tiab] OR Mexican*[tiab] OR Micronesia*[tiab] OR Moldova*[tiab] OR Mongolia*[tiab] OR Montenegr*[tiab] OR Morocc*[tiab] OR Mozambique[tiab] OR Myanmar[tiab] OR Burmese*[tiab] OR Burma[tiab] OR Namibia*[tiab] OR Nepal*[tiab] OR Nicaragua*[tiab] OR Niger*[tiab] OR Pakistan*[tiab] OR Palau[tiab] OR Panama*[tiab] OR Paraguay*[tiab] OR Peru*[tiab] OR Philippin*[tiab] OR Romania*[tiab] OR Rwanda*[tiab] OR Samoa*[tiab] OR Sao Tome[tiab] OR Principe[tiab] OR Senegal*[tiab] OR Serbia*[tiab] OR Sierra Leone*[tiab] OR Solomon Island*[tiab] OR Somalia* [tiab] OR South Africa*[tiab] OR Sri Lanka[tiab] OR St Lucia[tiab] OR Saint Lucia[tiab] OR St Vincent[tiab] OR Saint Vincent[tiab] OR Grenadines[tiab] OR Sudan*[tiab] OR Suriname*[tiab] OR Swaziland*[tiab] OR Syria*[tiab] OR Tajik*[tiab] OR Tanzania*[tiab] OR Thai*[tiab] OR Timor*[tiab] OR Togo*[tiab] OR Tonga*[tiab] OR Tunisia*[tiab] OR Turkey[tiab] OR Turkish[tiab] OR Turkmen*[tiab] OR Tuvalu*[tiab] OR Uganda*[tiab] OR Ukrain*[tiab] OR Uzbeki*[tiab] OR Vanuatu*[tiab] OR Vietnam*[tiab] OR Viet nam*[tiab] OR West Bank[tiab] OR Gaza*[tiab] OR Palestin*[tiab] OR Yemen*[tiab] OR Zambia*[tiab] OR Zimbabw*[tiab]) AND (humans[Filter])

Study selection

Studies identified by the searches were screened with the inclusion and exclusion criteria listed in Table 2 and exported to Endnote. The process is summarized in Figure 2.

Data Extraction and Synthesis:

Data extraction was carried out using a pre-specified data extraction form. The form included the name of authors, date of publication, setting, study design, duration of follow-up (months), sample, the interventions, the number of sessions, the interventionist, outcomes, instruments used, the results of the study and authors' conclusions. The study findings are summarized in a narrative synthesis.

Characteristics of studies and summary of the findings

In this section of the literature review, 21 studies were included. All the papers found on this topic and included in the final review were published between the years 1996 to 2020. Based on the current World Bank classification, 15 studies were from upper-middle-income countries (India n=7, South Africa n=4, Brazil n=2, and Thailand n=2) and five were from lower-middle-income countries (Nepal n=3, Kenya n=1 and Sri Lanka n=1). The remaining study was a 1996 WHO multi-country study including samples from eight countries including the following LMICs: Mexico, Zimbabwe and Kenya. None of the other studies were carried out in low-income countries.

Most studies were quantitative, including 10 RCTs, three cohort studies, one quasi-experimental and one pre-post study. Three studies used mixed methods and the other three studies were qualitative. The follow up period ranged from three (n=3) months to 24 months (n=1). See Table 6

The sample size for the quantitative intervention studies ranged from nine in the Kenyan study (82) to 377 in an Indian RCT (83). Of the 18 studies, which were quantitative or mixed, four had no control group. The most frequently used control intervention was minimally enhanced usual care (n=6), 5-minute simple advice (n=2), standard care (n=1), no intervention (n=1), assessment only (n=1) and provision of a health education leaflet (n=1).

Interventions tested included Counseling for Alcohol Problems (CAP) (n=9), brief interventions (n=2), brief counselling (n=1), motivation enhancement therapy (n=1), tailored goal oriented community brief intervention model (TGCBI) (n=1), brief motivational interviewing (n=1), behavioral activation with motivational interviewing (n=1), a brief community-based positively framed alcohol education intervention which included street dramas in conjunction with poster campaigns, leaflets and group discussions and a single session brief intervention (n=1), and training about screening and brief intervention (SBI) for providers (n=4). Most (n=15) of the interventions were delivered in PHC.

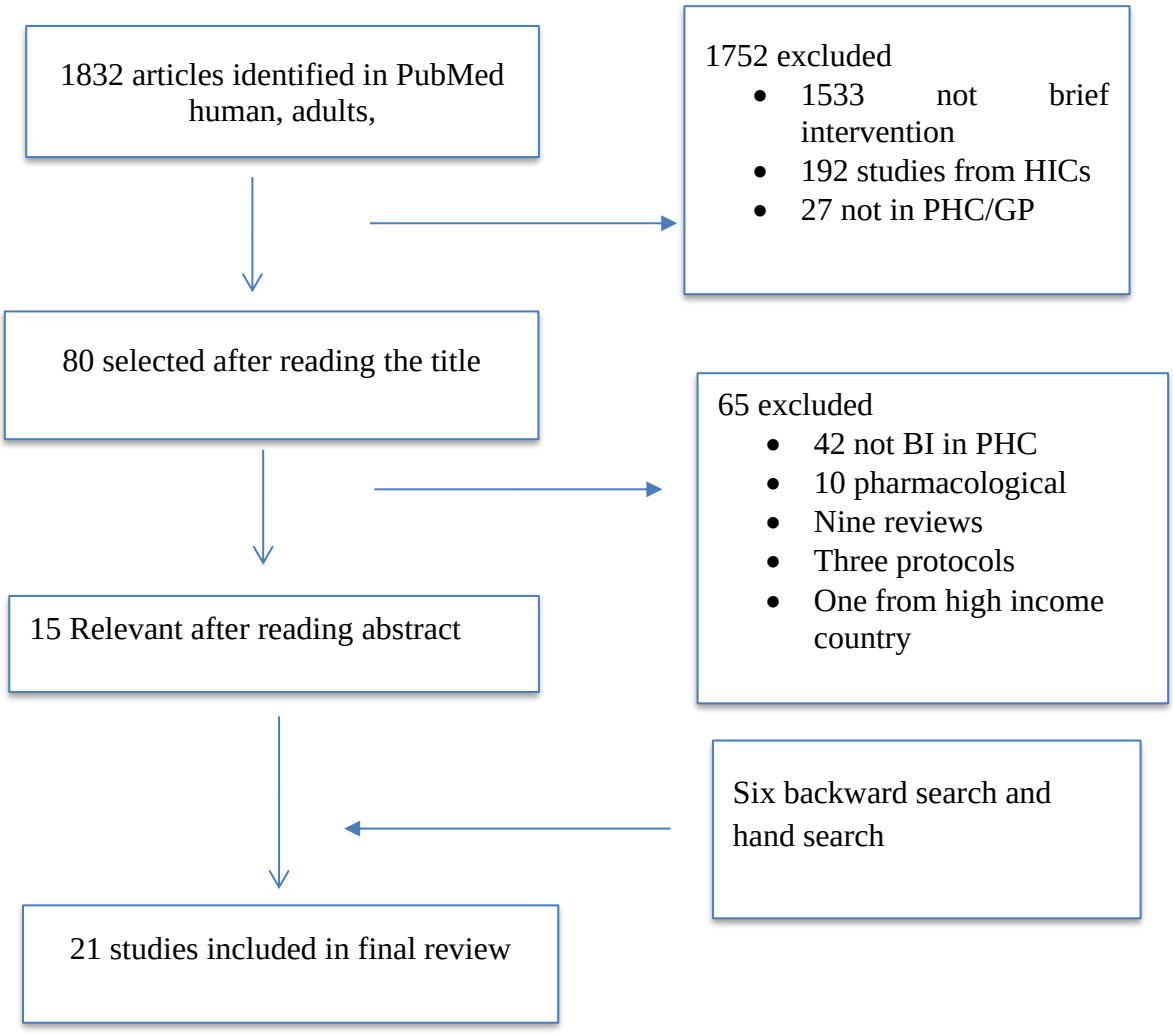

Figure 2 Flow diagram for review of papers on brief interventions for alcohol use disorder.

Interventions in the majority of studies used motivational interviewing as a core element. The length of sessions in the intervention groups ranged from 10 to 90 minutes, and the number of sessions ranged from one to five sessions. Three studies (84-87) implemented a single session intervention which lasted for 10-15 minutes.

Six studies included intervention providers as subjects, which included nurses, case managers, community advisory board members, and PRIME-India project team members. Only one study from Nepal assessed service user's perception about the intervention qualitatively.

Most of the interventions were delivered by trained lay people (n=8), mental health-trained professionals in PHC (n=6) including nurses, midwifes and medical officers, a doctor (n=1), community counselor (n=3) and in one study (WHO cross national study) various different types of professionals (nurse, doctor, psychologist and others) provided the intervention.

Change in AUDIT score or remission, based on AUDIT score (AUDIT <8), was the most frequently used outcome reported. Except one study which used both self-report and a biomarker (the Gamma-Glutamyl Transferase adx(GGT) test), all assessed alcohol using self-report mechanisms.

Eight of the studies (83, 86-92) reported that the intervention arm had a better outcome than the control. Two studies found no significant difference between trial arms (93, 94). One study reported better outcome in the control group (95) and another study reported better outcome for both intervention and control group (84). Four studies were implementation evaluation studies (96-100) and included outcomes such as feasibility, perceived usefulness, accessibility, acceptability and barriers and facilitators of implementing SBI. These studies reported that the interventions were acceptable, feasible, accessible and effective. The barriers to implementing SBI were related to providers' knowledge, attitude and practice (KAP), compatibility of beliefs, organizational culture about alcohol use, other priorities, time, workload, support systems, difficulty of referral and unstable political environments.

Facilitators for the implementation of SBI included positive expectations about the project; simplicity of the SBI technique; the collaborative way in which the project was planned, data

confidentiality and participation of managers. After training was delivered to providers/nurses the uptake of SBI increased and their KAP increased. See Table 6.

Table 6 Characteristics, interventions and findings of the included studies on Brief intervention LMICs.

Author	Country / site	Design and follow-up	Sample and date sampled	Intervention, session and interventionist	Outcome & tool	Result	Author Conclusion
Babor et al. 1996); WHO BriefIntervention StudyGroup (84)	Eight countries with African countries Kenya& Zimbabwe	Randomized clinical trial 9 months follow-up	(174 men and 26 women (119 men and 10 women)	A 5 min simple advice group (importance of sensible drinking and abstinence) Vs.20 min brief counselling (benefits of moderate drinking or abstinence, ways of coping with high-risk drinking situations and constructive alternatives to drinking) By health advisors (Most nurses, doctors, psychologist, others)	Drinking behavior	Men: 17% lower average daily alcohol consumption, 10%reductions in intensity of drinking (compared to control). Women: significant reductions in both experimental and Control groups. Five minutes of simple advice were as effective as 20 minutes of brief counselling	"Brief interventions are consistency robust across health care settings and sociocultural groups and can make a significant contribution of alcohol related problems if they are widely used in PC."
Pal et al. 2007(88)	North India	RCT At community 3 months follow up	90 male subjects, 20-45 years old, with an AUDIT score between 8 and 24	Comparison *of brief intervention with simple advice* for alcohol PROBLEM 2 sessions separated by a 3- to 5-day gap. Each session lasting 45 Minutes and for controls a 5-minute session by Trained interviewer (Medical Social Service Officer)	AUDIT, Addiction Severity Index (ASI), WHO Quality of Life (WHOQOL Brief) and readiness to change (RCQ)	a) significant improvement on drinking and QOL in both groups, b) Significant differences across interventions, with a decrease in severity of dependence on ASI scores c) improvement in physical and psychological QOL, in those who received BI	"BI had a slight advantage over SA in excessive users of alcohol in this community setting in India. It is probable that booster sessions would be needed to achieve sustained effect."

Table 6 | Continude

Author	Country / site	Design and follow up	Sample and date sampled	intervention No of session and interventionist	Outcome & tool	Result	Author Conclusion
Noknoy et al. 2010 (89)	Thailand Rural PHC	RCT 6 months	117 people. from eight PCUs, 59 recruited in motivational enhancement therapy and 58 assessment only as control group July 2003 and April 2004	Effectiveness of *Motivational Enhancement Therapy Delivered by Nurses* for Hazardous Drinkers in Primary Care Units in Three scheduled sessions: on Day 1, at 2 weeks and at 6 weeks. Each session comprised ~15 min. - by nurse	AUDIT for first screening & gamma-glutamyltransferase test	-Self-reported drinks per drinking day, frequency of hazardous drinking, and of binge drinking sessions were reduced in the intervention group more than in the control group ($P < 0.05$) after both 3 and 6 months BUT serum GGT increased in both.	"MET delivered by nurses in PCUs in Thailand appears to be an effective intervention for male hazardous drinkers. Uncertainties about the validity of self-reported data jeopardize the safety of this conclusion."
Mertens et al. 2014 (86)	South Africa Urban PHC	RCT 18 March -and 28 Novembe r 2008	2047 adults 18–24 yrs. visited the public clinic screened and 190 for BMI (intervention) and 173 for mEUC controls)	Effectiveness of *Nurse-Practitioner-Delivered Brief Motivational Intervention* for Young Adult Alcohol and Drug Use against minimally enhanced usual care: a one session intervention Averagely for 10 minute.	ASSIST score	-Patients assigned to the Brief Motivational Intervention had significantly reduced ASSIST score for alcohol.	"Brief Motivational Intervention may be effective at reducing at-risk alcohol use in the short term among low-income young adult primary care patients; additional research is needed to examine long-term outcomes."

Table 6 | Continude

Author	Country / site	Design	Sample and date	Intervention, session and interventionist	Outcome & tool	Result	Author Conclusion
Peltzer et al. 2013	South Africa PHC	Cluster RCT 6 month follow up.	7 PHC (20 clinics) randomized as intervention group and the other 7 (20 clinics) as control clinics in three districts in South Africa. April to October 2011	Effectiveness of ***brief interventions in*** reducing alcohol intake in versus a health education leaflet on responsible drinking two scheduled sessions: on Day 1 and within one month after the baseline evaluation. -lay HIV counselor	- AUDIT	24.6% AUDIT positive. Intervention effect was not significant for any stage of drinking (AUDIT: 7–40). Intervention effect was significant for dependent drinkers and heavy episodic drinking in control group (AUDIT: 7–19) (P = 0.035).	" alcohol screening and the provision of a health education leaflet on sensible drinking performed at the beginning of anti-tuberculosis treatment in public primary care settings may be effective in reducing alcohol consumption."
Areesantichai et al. 2013	Thailand	Quasi experimental study 6 month follow up	=1019 people for screening from two provinces =after screening 50-person control in one provenance & 47 in intervention group in other based on AUDIT scores 8–19 in 2007.	Impact of ***Tailored Goal Oriented Community Brief Intervention Model (TGCBI)*** to decrease alcohol Four session over 2 month Each takes 15-60 minute - counselor and key informants from community for individual level intervention.	number of abstinent drinkers and number of alcohol-free months AUDIT and the timeline follow-back instrument (TLFB).	Number of participants who stopped drinking 6 months later and the number of alcohol-free months during follow up were significantly greater for intervention group ($p < 0.05$)	"TGCBI results in sustainable drinking cessation."

Table 6 | Continude

Author	Country	Design	Sample and date	Intervention, session & interventionist	Outcome & tool	Result	AUTHOR Conclusion
Siriwardhana et al. 2013	Sri Lanka two rural	Pilot Cohort study 24 months follow up)	99 Adults One village as control and 103 the other as intervention 2011	effectiveness and acceptability of *a brief community-based positively framed alcohol education* which includes street drama, leaflets, *brief intervention*, poster, Continuous 3-month intervention By a doctor	AUDIT score	Significant reduction in the AUDIT scores in the intervention village compared with the control at 6 and 24 months ($P < 0.0001$). Program had high community acceptance.	"A community-based education program had high acceptance and produces a reduction in alcohol use that was sustained for 2 years."
Giusto et al 2020	Kenya Eldoret	A non-concurrentmultiple baseline design	nine men 30 to 48 yrs. fathers and screened positive AUDIT the median AUDIT 17 Participants were randomized to staggered start dates.	behavioral activation (BA), motivational interviewing (MI), and gender norm-transformative strategies (GTS) five sessions delivered weekly lasting 60-90 minutes each. By lay counselor Men, partners, and children (ages 8-17) reported on family outcomes	Primary outcome of (a) weekly alcohol consumption four weeks before treatment, during treatment, and four-week post treatment. Timeline Follow back measure. Secondary outcomes (a) depression symptoms, (b) drinking and family-related problem, involvement with child, time with family, family functioning, relationship quality (child and partner), and harsh treatment of child and partner..	Eight completed treatment. alcohol use, both number of days drinking and amount consumed, significantly decreased during and after treatment. Odds of not drinking were 5.1 times higher post-treatment (95% CI: 3.3-7.9). When men did drink post-treatment, they drank 50% less (95% CI: 0.39-0.65). pre-post improvements in depression symptoms and family-related outcomes.	"preliminary evidence found about a BA-MI intervention developed for lay providers may reduce alcohol use and improve family outcomes among men in Kenya."

Table 6 | Continued

Author	Country / site	Design	Sample and date	Intervention, session and interventionist	Outcome & tool	Result	Author Conclusion
Nadkarni et.al2015	India PHC	CAP brief intervention development Pilot Multiple (systematic review, Qualitative, survey, pilot RCT)	53 men Twenty seven were assigned to CAP and 26 to EUC.	Enhanced usual care (EUC) alone or EUC combined with CAP. EUC: comprised giving the mhGAP treatment guidelines and AUDIT scores of the screened patients to the PHC doctor CAP - a 3-phase treatment delivered over 1 to 4 sessions based on a motivational inter-viewing (MI) stance and involves the following strategies: assessment and personalized feedback, family engagement, drink refusal skills, skills to address drinking urges, problem-solving skills and handling difficult emotions, and relapse prevention and management.	Primary outcomes a) Remission (AUDIT <8) b) mean daily alcohol consumed in the past 14 days, at 3 months. Secondary outcomes a) Effect of drinking, b) Disability score, c) days unable to work, d) Suicide attempts, e) Intimate partner violence, f) Resource use and costs of illness. g)Serious adverse events in the per-protocol population	13 Peoplecomplete treatment PT has promising preliminary evidence of impact, though not statistically significant due to the fact that the trial was not powered to detect a significant effect.	"CAP is an acceptable brief PT for harmful drinking delivered by lay counselors in primary care whose effectiveness is currently being tested in a randomized controlled trial based in primary care in Goa, India."

Table 6 | Continued

Author	Country	Design	Sample and date	Intervention, session & interventionist	Outcome & tool	Result	AUTHOR Conclusion
Nadkarni et.al 2017	India PHC	RCT Three months	18–65 yrs. men with AUDIT score 12–19 from ten PHC. 377 participants (188 [50%] to the EUC plus CAP group and 190 [50%] to the EUC alone 336 (89%) completed the 3-month assessment (164 [87%] in the EUC plus CAP group and 172 [91%] in the EUC alone group). Oct 28, 2013, and July 29, 2015.	EUC alone or EUC combined with CAP. EUC: comprised giving the mhGAP treatment guidelines and AUDIT scores of the screened patients to the PHC doctor CAP - a 3-phase treatment delivered over 1 to 4 sessions based on a motivational inter-viewing (MI) stance and involves the following strategies: assessment and personalized feedback, family engagement, drink refusal skills, skills to address drinking urges, problem-solving skills and handling difficult emotions, and relapse prevention and management. Physicians providing EUC and those assessing outcomes were masked	Primary outcomes a) Remission (AUDIT <8) b) mean daily alcohol consumed in the past 14 days, at 3 months. Secondary outcomes a) Effect of drinking, b) Disability score, c) days unable to work, d) Suicide attempts, e) Intimate partner violence, f) Resource use and costs of illness. g)Serious adverse events in the per-protocol population.	a) remission was higher for EUC plus CAP (36%) compared to 26% EUC alone group; b) the proportion abstinent in the past 14 days was also higer for intervention group (42%) vs 18% c) but no effect on mean daily alcohol consumed in the past 14 days among those who reported drinking in this period d) an effect noted on the percentage of days abstinent in the past 14 days e) no effect on the percentage of days of heavy drinking the effect of drinking (SIP), WHODAS score, days unable to work (no days unable to work, suicide attempts and intimate partner violence. f) The incremental cost per additional remission was $217 (95% CI 50–1073), with an 85% chance of being cost-effective in the study setting. g) no significant difference in the number of serious adverse events between the two groups.	"CAP delivered by lay counsellors plus EUC was better than EUC alone in routine primary health-care settings, and might be cost-effective."

Table 6 | Continued

Author	Country / site	Design Follow-up period	Sample and date	Intervention, session and interventionist	Outcome & tool	Result	Author conclusion
Nadkarni et.al 2017	Goa, India	RCT 12 months	Same as above 84% completed the treatment	CAP +EUC Vs EUC Same as above	Primary outcomes (a) Remission AUDIT score <8: and (b) mean standard ethanol consumed in the past 14 days, and the proposed mediating variable was readiness to change at 3 months.	Remission and abstinence was significantly higher in the CAP plus EUC arm than control. (a) Remission AUDIT score <8 was 54.3% was higher in intervention group compared to the control. 31.9%; (b) abstinence in the past 14 days was also higher among intervention group (45.1%) vs. 26.4% in control group (c) CAP participants also had better on secondary outcomes (AUDIT score <8 at 3 and 12 months: 27.4% versus 15.1%; aPR 1.90 [95% CI 1.21, 3.00]; p=0.006) and (d) percent of days was higher among intervention group (71.0% [38.2] versus 55.0% [39.8]; AMD 16.1 [95% CI 7.1, 25.0]; p=0.001). (e) The intervention effect for remission was higher at 12 months than at 3 months (aPR 1.50 [95% CI 1.09, 2.07]). (f) no effect on PHQ 9 score, suicidal behavior, percentage of days of heavy drinking, SIP score, WHODAS score, days unable to work, or perpetration of intimate partner violence. (g) Economic analyses indicated that CAP plus EUC was dominant over EUC alone, with lower costs and better outcomes; uncertainty analysis showed a 99% chance of CAP being cost-effective per remission achieved from a health system perspective, using a willingness to pay threshold equivalent to 1 month'swages for an unskilled manual worker in Goa. (h) Readiness to change level at 3 months mediated the effect of CAP on mean standard ethanol consumption at 12 months (i)Serious adverse events were infrequent, and prevalence was similar by arm.	CAP's superiority over EUC at the end of treatment was largely stable over time and was mediated by readiness to change.

Table 6 | Continued

Author	Country / site	Design Follow-up period	Sample and date	Intervention, session and interventionist	Outcome & tool	Result	Author conclusion
Nadkarni et.al 2019	India Goa	exploratory RCT Three and 12months	Men (n = 135) scoring ≥ 20 on the AUDIT. 66 to EUC and 69 to CAP + EUC.	CAP: - with referral to de-addiction center for medically assisted detoxification. EUC: - comprised consultation with physician, providing screening results and referral to a de-addiction center. a lay counsellor-	remission, mean daily alcohol consumed, percentage of days abstinent (PDA), percentage of days of heavy drinking (PDHD), recovery, uptake of detoxification services, impacts of alcohol dependence, resource use and costs. Baseline socio-demographic data, readiness to change and perceived usefulness of counselling. Acceptability and feasibility process indicators such as data on screening and therapy.	Participants in the CAP + EUC had not statistically significantly favorable outcomes compared with those in the EUC arm for (a) remission at 3 months and 12 months (b) proportion of non-drinkers at 3 months and 12 months (c) ethanol consumption among drinkers at 3 months and 12 months (d) no statistically significant evidence of a difference in the occurrenceof serious adverse events (e) From a societal perspective, there was a 53% chance of CAP + EUC beingcost-effective in achieving remission at 12 months at the willingness-to-pay threshold of $415.	Lay counsellor-delivered psychological treatment for men with alcohol dependence (AD) in primary care may be effective in managing AD in low- and middle-income countries.

Table 6 | Continued

Author	Country / site	Design and follow up	Sample and date	Intervention, number of session and interventionist	Outcome & tool	Result	Author conclusion
Shidhayet.al 2019	India Sehore district, Madhya Pradesh	Multiple a) Repeat community surveys b) facility based detection Surveys, c) prospective cohort studies to assess RX effect d) a multilevel case study to evaluate the process of implementation. 3 months & 12 months follow up	a) Survey 1305 18 years or old selected from voter lists in 188 villages served by three CHCs in Sehore district, b) facility detection 33 people c) 217 people for cohort d)147 people who werescreened and positive but not diagnosed were comparison groups.	PRIME MHCP CAP Vs. usual care 93.6% (n=203) received the first session and 5.5% (n=12) completed all sessions of CAP. Enabling packages (a) program management, (b) capacity building (c) community mobilizing Service delivery packages (a) awareness creation, (b) identification, (c) treatment and (d) recovery for AUD, depression and psychosisFor cohort study Cases mangers screen with tools and medical officer make a diagnosis, prescribe and give counselling (CAP or alcohol) Multi-vitamins were prescribed to 143 (65.9%) comparison participants.Psychiatrist monthly for consultation	primary outcome a) changes in contact coverage 26-months after the PRIME implementation defined as the difference in the proportion of individuals with depression or AUD who sought treatment for their symptoms after the baseline survey. b) change in symptom severity, the AUDIT score secondary outcome c) Late remission () defined as AUDIT <8 at 12 months. d) functioning (WHODAS V.2.0)	a) No evidence of change in contact coverage for AUD. b) Change in symptom severityin intervention groupsdecreased by 6.0 points in CAP group, compared with a reduction of 3.3 points in the comparison group c) The improvement in functioning was not different between the two groupsat both assessment times. d) The proportion of participants showing late remission, (AUDIT <8 at 12 months) was also not significantly. e) AUDIT scores reduction was greatest among those reporting no education and more than primary education and at 12 months marginally greater among younger participants.	"While dedicated human resources and dedicated space for mental health clinics strengthen the 'formal' healthcare platform, without substantial additional investments in staff, such as Community Health workers/Accredited Social Health Activists to improve community level processes and provision of community-based continuing care to patients, we are unlikely to see major changes in coverage or clinical outcomes."

Table 6 | Continued

Author	Country / site	Design and follow up	Sample and date	Intervention, number of session and interventionist	Outcome & tool	Result	Author conclusion
Shidhaye et al 2019	India Sehore district, Madhya Pradesh	A convergent parallel mixed-methods design was used	Two IDI with PRIME team and service providers Two FGD with PRIME team, community advisory board and service providers	PRIME MHCP Same as above	Quantitative Process data on mental health Indicators Qualitative in-depth interviews and focus group discussions with key stakeholders involved in PRIME implementation.	Feasible to establish structures and operationalize processes to integrate mental health services in a 'real-world' low-resource primary care setting. <u>Lessons</u> (a) clear 'process maps' of clinical interventions and the steps are helpful in monitoring/tracking the progress; (b) implementation support from an external team, in addition to training of service providers, is essential to provide clinical supervision and address the implementation barriers; (c) the enabling packages of the MHCP play a crucial role in strengthening the health system and improving the context/settings for implementation; and (d) engagement with key community stakeholders and incentives for community health workers are necessary to deliver services at the community-platform level	"The PRIME implementation model could be used to scale-up mental health services across India and similar low-resource settings."

Table 6 | Continued

Author	Country / site	Design	Sample and date	Intervention, session and interventionist	Outcome & tool	Result	Author conclusion
Jordans et al 2019	Nepal to evaluate the impact of a district mental health-care plan for depression, psychosis, alcohol use disorder (AUD), and epilepsy	a) community study b) facility study c)facility study for service utilization d) cohort studies	a) N = 3,482 for all community surveys b) N = 3,627 combined for all waves of facility surveys); c) (N = 727); d) total N = 449 depression, N = 137; AUD, N = 175; psychosis, N = 95; epilepsy, N = 42). 15 January 2013 and 15 February 2017.	PRIME MHCP -No control group Assess, Dx, treat, by PHC staff with authority to prescribe medications. brief psychological support by The staff nurse and auxiliary nurse mid-wifea new cadre of psychosocial workers trained by non-governmental organizations give CAP at community	(a) contact coverage of PHC evaluated through CS and through b) service utilization data (c) detection of mental illness in primary care facilities, (d) initiation of minimally adequate treatment after diagnosis, and (e) treatment outcomes of patients receiving PHC based mental health services,	a) Contact coverage increased From 0% to 7.5% for AUD, from 0% to 12.2% for depression, from 1.3% to 11.7% for epilepsy and from 3.2% to 50.2% for psychosis. b) service utilization over 12months did not reveal significant changes over time. c)Healthworker detection of AUD increased by 58.9% (from 1.1% to 60.0%) at 6 months and 11.0% (from 1.1% to 12.1%) at 24 months. d) Provision of minimally adequate treatmentfor AUD 95.1% and 75.0%, at 6 months and 24 monthsrespectively e) Changes in treatment outcomes: -small to moderate effect sizes (9.7point reduction [d = 0.34] in AUD symptomsat12 months post-treatment	a promising resultof feasibility and impact of community- and primary-care-based services delivered through an integrated district mental healthcare plan in reducing the treatment gap and increasing effective coverage for MNS disorders.

Table 6 | Continued

Author	Country / site	Design follow up	Sample and date	Intervention	Outcome & tool	Result	Author conclusion
Luitel et al, 2020	Nepal	Qualitative	IDI 43 service users and 38 caregivers	PRIME MHCP Same as above	Perception of service users and their caregivers on primary care-based mental health services	service users and caregivers were satisfied. They also perceived health workers to be competent and skillful. Both psychological and pharmacological services were made available free of cost, however, they considered psychological services more effective than pharmacological treatment. Challenges • frequent transfer of trained health workers, • non-availability of the same health care provider at follow-ups, • frequent stock-out of medicines or non-availability of required medicines, • lack of a confidential space for consultation in health facilities, and • Stigmatizing and negative behavior of some health workers.	service users and caregivers perceived primary care-based mental health services to be accessible, acceptable and effective.

Table 6 | Continued

Author	Country / site	Design & follow up	Sample and date	Intervention,	Outcome & tool	Result	Author conclusion
Jordans et al 2018	Nepal	RCT 12 months	162	Control: Standard care (psychoeducation and psychotropic medicines when indicated), n=80 Intervention: standard careplus andCounselling for Alcohol Problems.N=82 mental healthcare delivered by mhGAP-trained primary care workers and community counselor	Primary outcomes a) symptom severity, AUDIT score b) functional impairment WHODAS score, at 12-months	Reduction in AUDIT scores from baseline to the 12-month between the groups did not differ significantly. Change in WHODAS scores from baseline to the 12-month follow-up also did not differ between the two arms (β= −3.55, 95% CI −11.16 to 4.06, P= 0.360). Similarly, no significant difference in the rate of reduction to low-risk drinking levels reported on the AUDIT (risk ratio 1.47, 95% CI 0.87–2.48, P= 0.150).	significant effect was not found when comparing control (n= 80) and intervention participants (n= 82).

Table 6 | Continued

Author	Country	Design	Sample	Intervention	Outcome & tool	Result	Author conclusion
Peltzer et al. (2006)	Limpopo Province, South Africa	Pre-post With nine months follow up	121 nurses,	Knowledge on alcohol use and problems; Confidence, self-efficacy in screening and brief intervention (SBI), with alcohol problems; Uptake of SBI	One-day training of primary care nurses to conduct alcohol screening and brief interventions	Increase in knowledge, confidence, self-efficacy. in SBI and Increased uptake of SBI	When delivered in the context of a comprehensive SBI implementation program, this training is effective in changing providers' knowledge, attitudes, and practice of SBI for at-risk drinking.
Amaral, M. B. onzani, T. M. Souza-Formigoni, M. L.	Brazil	Action research	Case 1 public PHC services and case 2 the PHC service of the Military Police.	Participants were trained on SBI strategies and supervised during 6 months.	The qualitative method Thematic analysis	Case 1: 70 participants; a) facilitator: good expectations about the project; simplicity of SBI technique; collaborative way the project was planned. b) Barriers: lack of time; discomfort in dealing with alcohol issues; focus on alcohol-dependence; unstable political environment; other priorities; difficulties in patients' referral. Case 2: nine participants. a) Facilitator: simplicity of SBI technique; collaborative way the project was planned; importance of alcohol issues; data confidentiality and the voluntary work to do SBI. b) Barriers: only one health professional in the group; the variability of the institutional support; organizational culture about alcohol use.	Barriers and facilitators were related to Organizational culture and personal attitudes

Table 6 | Continued

Author	Country	Design	Sample and date	Intervention	Outcome & tool	Result	Author conclusion
Peltzer et al. (2008)	Vhembe district, South Africa	Implementation evaluation 6 months follow-up	18 clinic managers were interviewed On SBI implementation.	Same us above AUDIT,	perceived benefits, beliefs, values, past history, current needs, competing priorities, complexity of innovation, trial ability and observability, and feedback on SBI performance.	In the 6-month period nurses screened 2670 patients and found that 648 (23.4%) patients (39.1% men and 13.8% women) were hazardous or harmful drinkers. Nine clinics had good and 9 poor SBI implementation. Factors for good or poor SBI implementation included the percentage of nurses trained in SBI, support visits, clinical workload, competing priorities, team work, curve of adoption of innovation, perceived complexity of innovation, compatibility beliefs, trial ability and observability of SBI.	"To improve SBI implementation as a routine practice, more attention should be paid to training modalities, clinic organization, and changes in the attitudes of nurses."
Telmo Mota Ronzani[I] Daniela Cristina Belchior Mota[II] Isabel Cristina Weiss de Souza[I] 2009	Zona da Mata of Minas Gerais Southeastern Brazil	Mixed design Six month	113 primary healthcare professionals and managers in three municipalities in the, in 2007.	a training to perform screening associated with brief interventions for alcohol use prevention	(a) Qualitative: - participant observation, IDI with managers before the training and during the follow-up, and FGD with professionals (b) quantitative:- Objective Knowledge Questionnaire, Moralization Scale for Alcohol Use, Perception Model for Alcohol Use Questionnaire and Preventive Practices for Alcohol Use Questionnaire	Participation of the managers and integration among the health professionals associated with greater effectiveness. In one of the municipalities, in which there was a significant decrease in the degree to which alcohol use was moralized by the healthcare professionals, in comparison with the other municipalities. In the other municipalities, the effects of the implementation process for the project indicated that the frequency of performing preventive practices against alcohol use increased, along with the health professionals' knowledge, although not enough to indicate effective implementation.	Effectiveness in in primary healthcare services is associated with managers' engagement in the implementation process for these strategies.

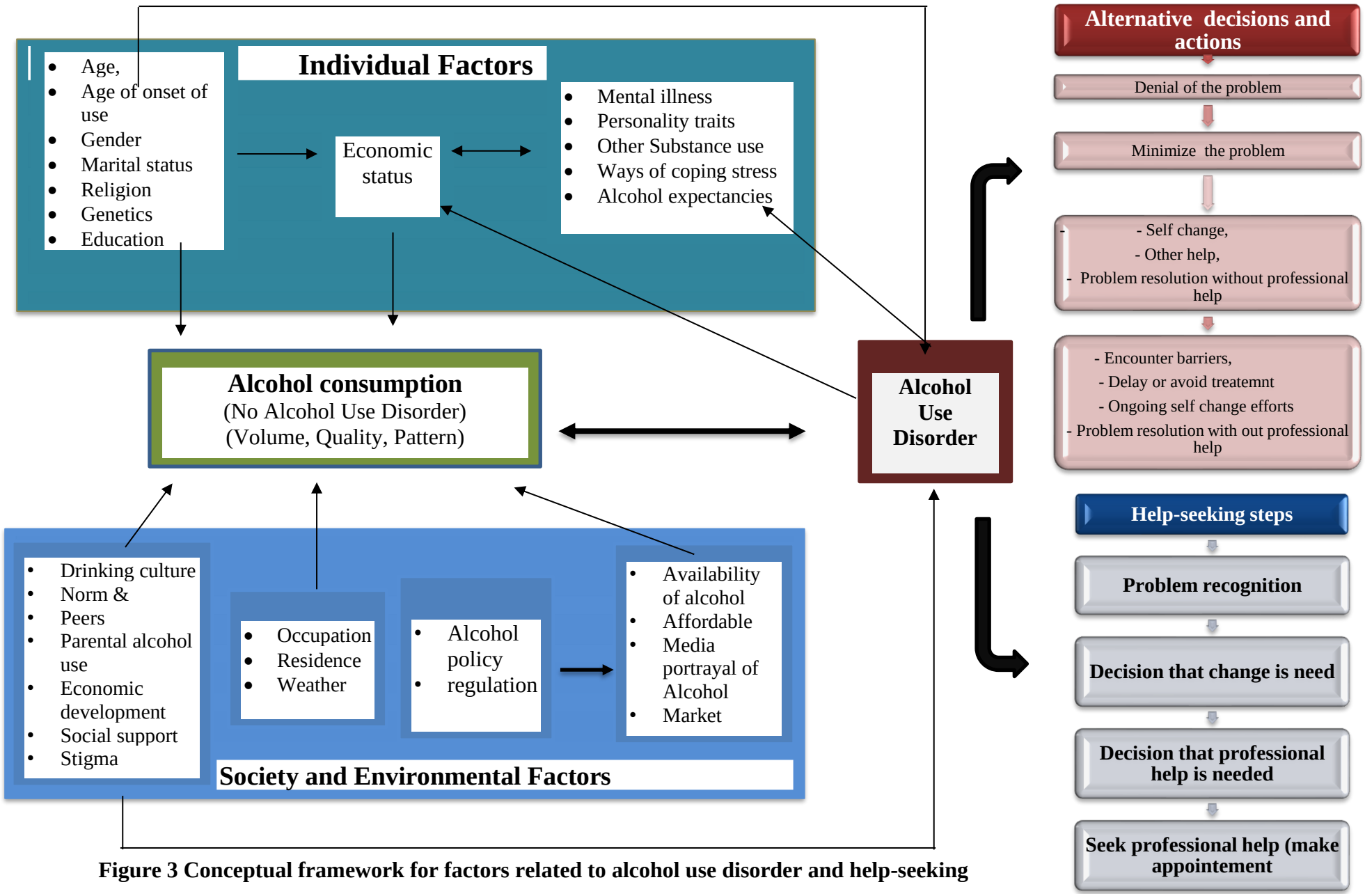

Figure 3 Conceptual framework for factors related to alcohol use disorder and help-seeking

3. RESEARCH QUESTIONS

3.1. What is the magnitude of alcohol use disorder, help-seeking behavior, barriers to care and associated factors in Sodo district, Gurage Zone, south-central Ethiopia?

3.2. What is the impact of a pilot brief intervention in PHC on outcomes of people with alcohol use disorder over a period of 12 months?

3.3. What are the perspectives and experiences of people with alcohol use disorder, their caregivers and care providers about the pilot PHC-based brief intervention?

4. OBJECTIVES

4.1. General Objective

- To investigate the burden and help-seeking behaviors of people with alcohol use disorders, evaluate a pilot brief intervention for AUD in primary care and explore perspectives of care recipients and providers about the intervention in a rural district of Ethiopia.

4.2. Specific Objectives

1. To determine the magnitude of AUD and associated factors, help-seeking and barriers to care among adults in Sodo district, Gurage Zone, South Ethiopia.
2. To evaluate the impact of brief intervention provided by non-specialist PHC workers on the alcohol use of people with AUD over 12 months
3. To explore the perspectives and experiences of people with AUD, their caregivers and service providers about the brief intervention delivered at PHC in Sodo district.

5. METHODS

5.1. Introduction

In this part of the thesis, the context, the setting where the study was conducted, research designs for each objective and ethical considerations are discussed. The chapter also includes a description of the sampling procedures, the data collection process, measures and instruments used, and the analysis methods for the three studies.

Data for the first two studies (community survey and before-after study) reported in this PhD study were collected as part of the PRIME study and made available to me. My role was to define the research question, clean the data, plan and conduct analyses and lead the interpretation of findings. For the qualitative study, I conducted the interviews myself.

5.2. Context

This research was carried out as part of PRIME. PRIME was a consortium of research institutions and Ministries of Health in five countries in Asia and Africa (Ethiopia, India, Nepal, South Africa and Uganda), with partners in the UK and the World Health Organization (WHO). PRIME was supported by the UK government's Department for International Development (DFID) and was an eight year program from 2011-2018 (101).

The aim of PRIME in Ethiopia was to develop best evidence for the provision of mental health services at primary health care sites in Sodo district, the Gurage Zone. The PRIME approach was informed by the National Mental Health Strategy of Ethiopia (102)in which mental health care is to be provided through integration within the existing healthcare system. The essential model for integrated care was through task sharing of mental health care. The existing primary health care professionals would provide the integrated mental health care in this task-sharing model following training (103). PRIME Ethiopia worked with community stakeholders to develop a mental health care plan for the district. This plan focused on the service for priority mental health problems i.e. schizophrenia, bipolar disorder, depression, alcohol use disorder and epilepsy (104).

5.3. Study Setting

All of the three studies were carried out in Sodo district (*woreda*), Gurage Zone, Southern Nations, Nationalities and People's Region (SNNPR). Sodo is 100 km south of Addis Ababa and is predominantly rural. The total population was 161 952 people (79 356 men and 82 596 women) in the 2007 census, making it the second most populous district in the SNNPR. The district has 58 sub-districts (*kebeles*) which are distributed over 803.6 square kilometers. The largest ethnic group in the district is Sodo Gurage (85.3%) followed by Oromo (11.6%) and Amhara (1.5%). Amharic is the official language of the district, as well as for the region. The majority of the population is Orthodox Christian (97%) by religion, with Muslims making up 2.3%. This district has different climatic zones, covering highland and lowland areas. Farming is the main means of living (66).

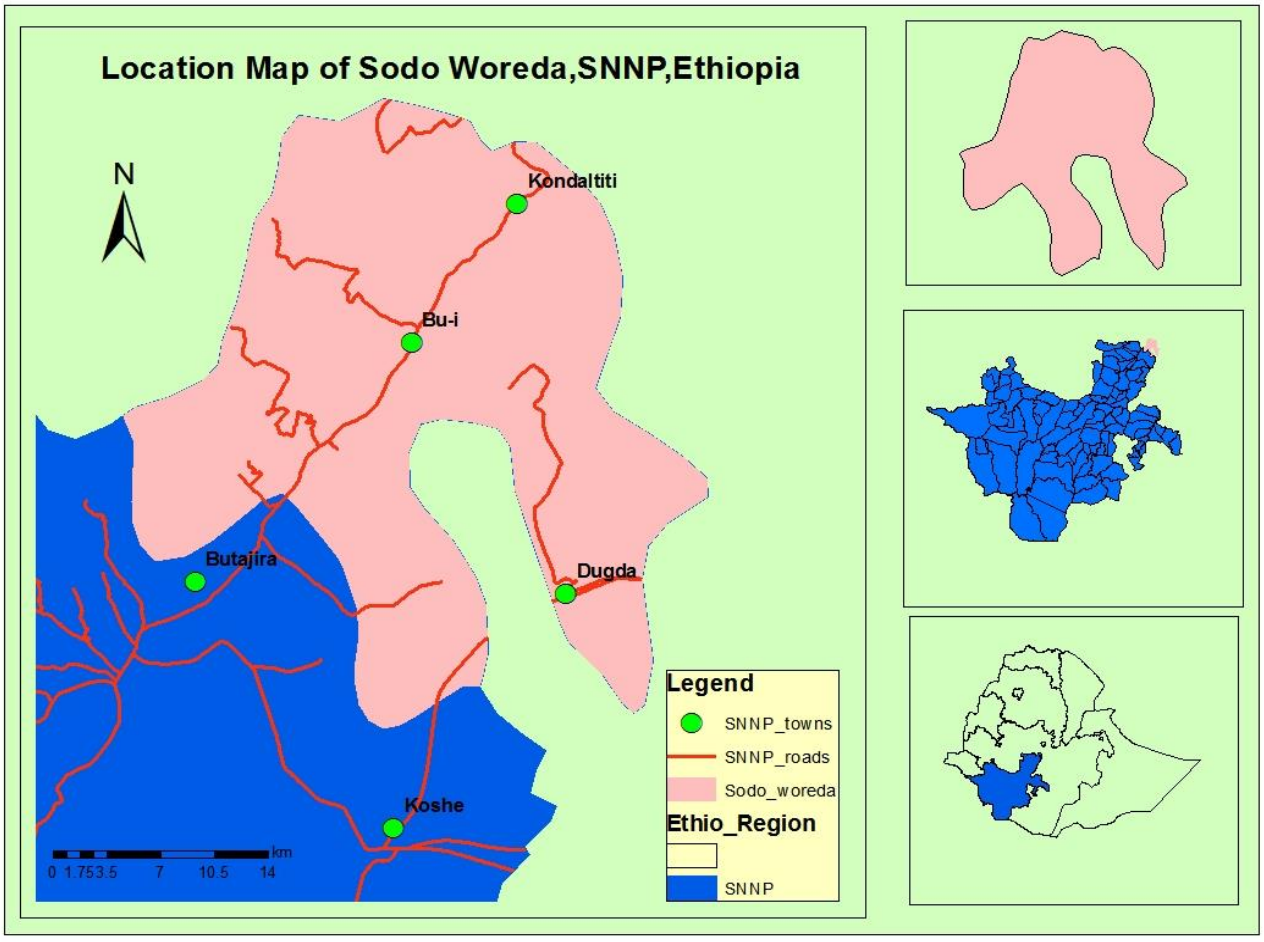

Figure 4 . Map of Sodo Woreda, SNNPR, Ethiopia

There are 62 primary healthcare facilities in the district: eight health centers (seven public and one run in a public-private partnership arrangement) and 54 health posts. The health posts are run by two female health extension workers who have completed high school education plus one year of training in prevention, promotion and very basic curative services. In each health center there are eight to 24 health professionals. The average number of people served by each health center in the district is around 20,000 and the average number of people served by each health post is 3000-5000 (66). One of the health centers (Buei) recently upgraded to a primary hospital.

At the initiation of the PRIME project, there was no mental health service in the district. People need to travel to the nearest town in a neighboring district to access Butajjira Hospital for psychiatric outpatient care or emergency alcohol detoxification provided by psychiatric nurses. In-patient psychiatric services and specialist addiction services were only available in Addis Ababa. However, an integrated mental healthcare program started with the support of the PRIME project.

5.4. Community survey (Study one)

5.4.1. Research question

What is the magnitude of alcohol use disorders and associated factors, help-seeking behavior and barriers to care of people with alcohol use disorders in Sodo district, Gurage Zone, south-central, Ethiopia?

5.4.2. Objective of the study

To determine the magnitude of AUD and associated factors, help-seeking and barriers to care among adults in Sodo district, Gurage Zone, South Ethiopia.

5.4.3. Design

A community-based house to house survey was conducted in 2014. With this study design, we can measure the prevalence/magnitude of alcohol use disorders and associated factors and presence of co-morbid mental health conditions and disability. The existing data from the PRIME project was analyzed.

5.4.4. Source population

The source population was all adults aged 18 and above in Sodo district.

5.4.5. Eligibility criteria

Adults aged 18 years and above, able to give consent and living in the district for at least six months .

5.4.6. Sample size determination

It was assumed that, after PRIME interventions had been implemented, there would be an estimated 5-25 % change in treatment coverage for common mental disorders (CMD). The sample size was determined by assuming CMD prevalence of 10% (105), with a design effect of 1.5, power of 0.8 and expected non-response rate of 15%. This yielded a final sample size of 1500.

5.4.7. Sampling technique

The health extension workers in each sub-district performed a complete census by visiting each household in the district. The list of each household and household members was used as the sampling frame. Multi-stage random sampling was used to select participants. The number of households selected from each sub-district (*kebeles*) was proportionate to the total number of households in that sub-district. After the households were determined, one participant was selected per household. When there was more than one eligible adult in a household, simple random sampling was used.

5.4.8. Data Collection and quality assurance

Data were collected in 2014 over a six-month period. The data collectors were lay people of both genders who had finished high school and/or obtained a college degree. They were trained for two weeks, including one week of theoretical, classroom-based training and one week of practical sessions. Study participants were given a brief introduction about the study and then screened and checked for eligibility. Those who were eligible were asked to give written

informed consent. After consent was obtained, data collectors interviewed the study participants around their home. The questionnaires were checked for completeness in the field.

The data collection process was supervised in the field by trained degree-level supervisors. The instruments were piloted and pre-tested in selected sub-districts. Assessment instruments were administered in Amharic.

5.4.9. Measures

Socio-demographic characteristics: Structured questionnaire was used to collect data on self-reported age, sex, residence, duration of residency, marital status, educational status, income, relative wealth, ethnicity, religion, and occupation.

Alcohol use disorder (outcome variable): Alcohol consumption was assessed using the Alcohol Use Disorder Identification Test (AUDIT) (51). The AUDIT is a 10-item screening tool developed by WHO to assess alcohol consumption, drinking behaviors, and alcohol-related problems in the past 12 months. It has a clinician-administered version and a self-report version. AUDIT measures consumption in terms of standard drinks. The first three items assess for recent hazardous alcohol use, the middle three items assess for alcohol dependency syndrome and the last four items screen for alcohol related problems or harmful alcohol use. Each item is rated on a four-point scale and the total score range from zero to 40. Scores from 8-15 are considered to be hazardous alcohol use, 16-19 harmful use and 20-40 probable alcohol dependence. A score eight or more is used to indicate the cut off for alcohol use disorder, but it may be varying depends on the country's drinking patterns, the alcohol content of the standard drinks, and the nature of the screening program.

The AUDIT has been validated across genders and in a wide range of racial/ethnic groups and is well suited for use in primary care settings (51). Even though not in Ethiopian setting, it has been validated in other African countries (106, 107). PRIME made country-specific adaptations for AUDIT as recommended by the World Health Organization. The traditional beverages in Ethiopia were converted to standard equivalent alcohol units previously (107). Homemade alcoholic drinks in the setting include 'tella' (alcohol content 2–4%), a local beer made from various grains (sorghum, barley, wheat, or maize) and dried shiny-leaf buckthorn leaves (*Gesho*

in Amharic) are used for fermentation. The second local wine is tejj (alcohol content 7–11%), which is prepared from honey, water and shiny-leaf buckthorn leaves (*Gesho*). The third type of local alcohol drink is a distilled liquor 'areqi' (alcohol content 45%) (108).

These beverages are consumed at home during social and religious ceremonies and holidays, and in small traditional outlets called '*mesheta* bet' or '*tella* bet' or '*areqi* bet' especially during market days and/or while farming. A chart illustrating the approximate number of standard drinks in different alcohol beverages, adapted for the Ethiopian context, was included for reference and used during data collection. The AUDIT was found to have high internal consistency in our studies: Cronbach's $\alpha = 0.84$ in the community survey study (study one) and 0.80 in the before and after study (study two).

Depression*:* Participants were screened using the patient health questionnaire (PHQ-9) for depression (109). The PHQ-9 is a 9-item questionnaire designed to elicit the DSM-IV symptoms that allow a diagnosis of major depressive disorder. Each item on the PHQ-9 can be scored 0 (not at all), 1 (several days), 2 (more than half the days) and 4 (nearly every day), with the total score ranging from 0-27. The PHQ-9 allows a calculation of a symptom severity score so that change over time can be monitored. PHQ cut-offs can also be used to categories symptoms in to mild, moderate, moderately severe and severe depression with cut off points 5, 10, 15 and 20, respectively, in Western studies. The addition of a PHQ item asking about impairment allows an algorithm to be applied to generate a possible DSM-IV diagnosis of major depressive disorder, although this has low sensitivity in the study area. Following the PHQ-9 there was also a question about the experience of symptoms consistent with depression in the past 12-months.The PHQ-9 can be administered by a trained interviewer or it can be self-administered and it has been as a dimensional scale in Ethiopian PHC settings (110, 111).

Disability: Disability was assessed using the 12 items version WHODAS-2.0 (112). The instrument assesses functioning in the previous 30 days. The WHODAS covers the functional domains of understanding and communicating, getting around, self-care, getting along with people, life activities, and participation in society. Each item is scored from 1 (none) to 5 (extreme or cannot do), with the total WHODAS score ranging from 12 to 60, with higher scores indicating greater severity of the disability.

Social support*:* Social support was assessed using the three-item Oslo Social Support (OSS) questionnaire (113). The OSS questionnaire classified the source of social support into three categories (number of people that they can count on, people's concern and how easily they can get help from people in the neighborhood). The OSS questionnaire has been used in rural Ethiopian settings to measure individual's perceived social support and showed good utility (15, 105, 114).

Adverse Life events: The List of Threatening Events (LTE) questionnaire was used to measure fourteen commonly encountered stressful or major life events (115). The time period for consideration was the last six months. This instrument has been previously used in the Ethiopian setting (15, 105).

Internalized stigma: Patients' perceived stigma was assessed using the internalized stigma of mental illness Inventory (ISMI) (116) which was adapted for the PRIME community survey to be applicable to people with AUD. The ISMI has response categories ranging from 1 (strongly disagree) to 4 (strongly agree) for 11 items from the original 29 item scale. This instrument has been used and found to be reliable and valid in the Ethiopian context (117).

Suicidality: Suicidal behavior (ideation, plan and attempt) was measured using the WHO Composite International Diagnostic Interview (CIDI) (118). This instrument was adapted for assessing the 12-month prevalence of suicidal behavior. To assess suicidal ideation, the question asks "Have you thought of taking your life in the past 12 months?". If the participant had suicidal ideation, she/he was then asked about any suicide plan: "Did you ever make a plan for taking your own life at any time in the past 12 months?" "Those who answered "yes" for ideation or a plan were asked about any suicide attempt using the following question "Have you attempted to take your own life in the past 12 months?" The CIDI has been used in previous studies in Ethiopia and it was found to be reliable and acceptable (119, 120).

Help seeking behavior: For participants with an Alcohol Use Disorder Identification Test score ≥16, a single question asked "Did you seek any help for these problems?". If the patient said "yes", it was assumed that she/he sought help. Follow-up questions were then asked about the time, type, source and usefulness of the help sought.

Barriers to care:

For people with an Alcohol Use Disorder Identification Test score ≥16, barriers to care were assessed using the Barriers to Accessing Care Evaluation (BACE) scale [38]. The original BACE has response categories from 0 (not at all) to 3 (a lot) for 31 possible barriers to care. PRIME adapted and modified BACE into "Yes" and "No" questions for 21 potential barriers to seeking professional care in the setting.

The BACE covers a range of issues that have a potential role to stop, delay or discourage an individual from getting, or continuing with professional care for a mental health problem. Potential barriers include individual perception and knowledge and attitudes about the care, stigma, infrastructure, social support and previous experiences. This instrument was used previously in the Ethiopian setting (114).

Operational definitions

Alcohol Use Disorder (AUD): Score 8 and above on the Alcohol Use Disorder Identification Test is considered to be a case of alcohol use disorder.

Depression: A PHQ score greater than or equal to 5 was considered to be possible depression, based on a previous validation study from Ethiopia (110, 111).

Disability: Using the polytomous scoring method, the sum of all items was divided by 48 and multiplied by 100 to yield the total WHODAS score. A higher score indicates greater severity of disability.

Suicide: the "Yes" response for each suicidal behavior (ideation, plan and attempt) based on questions from CIDI were considered to be indicators of suicidality.

Internalized stigma: Yes, or No answer for items adapted from the original ISMI scale which assess perceived stigma was used. The total score of the abridged ISMI was divided by 11 to obtain the mean. Scores above the mean value were considered as "*very high internalized stigma*" and lower than mean was considered as "*not very high internalized stigma*".

Adverse Life events: The yes/no response for listed threatening events in the last six months on LTE instrument was used.

Social Support: Total score range 3–14 and was categorized in to strong (12-14 score the OSS), average (9-11 score on OSS) and poor (3 – 8 score on OSS).

Lifetime help-seeking: - For participants with an Alcohol Use Disorder Identification Test score ≥16, a single question asked, "Did you seek any help for these problems?" Follow-up questions then asked about the time, type, source and usefulness of the help sought.

Treatment gap: The difference between true prevalence and treated prevalence is the treatment gap. In this study, treatment gap was operationalized as the percentage of people with alcohol use disorder who did not get treatment or any help from any source.

5.4.10. Data analysis

Data were coded and double entered using EpiData 3.1 by experienced data entry clerks. A soft copy of the data was kept in password protected computers and the hard copies of the data were stored in a locked cabinet. The dataset was checked for consistency and completeness and was exported to Stata version 13 for further cleaning and analysis.

Using descriptive statistics, socio-demographic characteristics were summarized. Odds ratios (OR) from a cross-sectional study might overestimate the effect when the outcome is common (> 5% prevalence), and so prevalence ratios were calculated, as recommended (121-123). To obtain prevalence ratios (121, 124-127), a Poisson working model was used with robust standard errors. Multivariable regression was used to adjust for possible confounding. After establishing the base model, the adjusted effects of suicide, depressive symptom score on PHQ-9 and total disability score on WHODAS were obtained by including each in the model separately. Crude and adjusted prevalence ratios with corresponding 95% confidence intervals and p-values were reported.

Help-seeking behavior, barriers to seeking professional help and internalized stigma were examined in people with Alcohol Use Disorder Identification Test score ≥16. The association between help seeking among this participants and socio-demographics characteristics,

depression, suicide, disability and internalized stigma was analyzed using separate bivariate regression. Multivariable analysis was not carried out in this sub-sample because of the small number of people with the Alcohol Use Disorder Identification Test score ≥16. Analyses were performed using STATA version 13 (STATA for Windows) (128). Sampling weights were used to calculate the prevalence of AUD and while fitting regression models.

5.5. Uncontrolled, before – after study (Study two)

5.5.1. Research question

What is the impact of a pilot brief intervention in PHC on outcomes of people with alcohol use disorder over a period of 12 months?

5.5.2. Objective

To evaluate the impact of brief intervention provided by non-specialist PHC workers on the outcomes of people with AUD over 12 months.

5.5.3. Design

A pilot uncontrolled before-after study was conducted among people who had probable AUD. The existing data from the PRIME project was analyzed.

5.5.4. Source population

The source population for the current study was all adults with probable AUD who could potentially visit the selected four health centers in Sodo district if they faced any health problems.

5.5.5. Study population with eligibility criteria

Eligibility criteria were: attending the four selected health centers for any purpose during the data collection period, having an AUDIT score eight and above, age 18 years or above, and living in the district for at least the past six months.

5.5.6. Sample size determination and recruitment

Originally, the PRIME project planned to recruit 300 people who scored positive for alcohol use disorders in order to detect a minimum of 20% change in the primary outcome of symptom severity at the 12-month follow-up, and adjusting for 10% loss to follow-up, with 90% power and 95% confidence (129). However, the uptake of screening and the intervention was much lower than anticipated. Hence, only a smaller sample size was achievable in the time available.

Primary care attendees who were eligible for the study and who attended the health centers from August to November in 2015 were screened using a National Institute on Alcohol Abuse and Alcoholism (NIAAA's) (130) single question that asked whether they had drunk alcohol recently (in the past 12 months) or not. All who were positive on the initial screening question were then screened for alcohol use disorder by trained PHC staff using the AUDIT. Those who gave consent and scored eight or above on the Alcohol Use Disorder Identification Test were recruited into the study. See Figure 5.

5.5.7. The Intervention

At the health care facility level, the mental health care plan developed by PRIME (104) included training all PHC workers in the district (n =128) using the WHO mental health Gap Action Program intervention guide (mhGAP-IG). Primary care workers received mhGAP training for two weeks, including one week of theoretical, classroom-based training and one week of practical sessions. This mental health training was supported by monthly supervision by a psychiatric nurse. The evidence-based mhGAP clinical guidelines (131) recommend a stepped care approach, involving screening people with a history of recent alcohol drinking for AUD; provision of a brief intervention for people with alcohol use disorders and referral of severe cases to a general hospital in the neighboring district (SBIRT). The brief intervention was structured according to the FRAMES approach which involves the provider: giving Feedback on the person's intake, emphasizing personal Responsibility, offering Advice, listing a Menu of options for behavioral change, having an Empathic approach and building Self-efficacy in the person receiving the brief intervention (78).

In addition to mhGAP, professionals from four selected health centers were trained by an addiction psychiatrist for an additional five days on the SBIRT model. Eligible participants received a single session of the brief intervention individually in the PHC setting, delivered by trained non-specialist health workers.

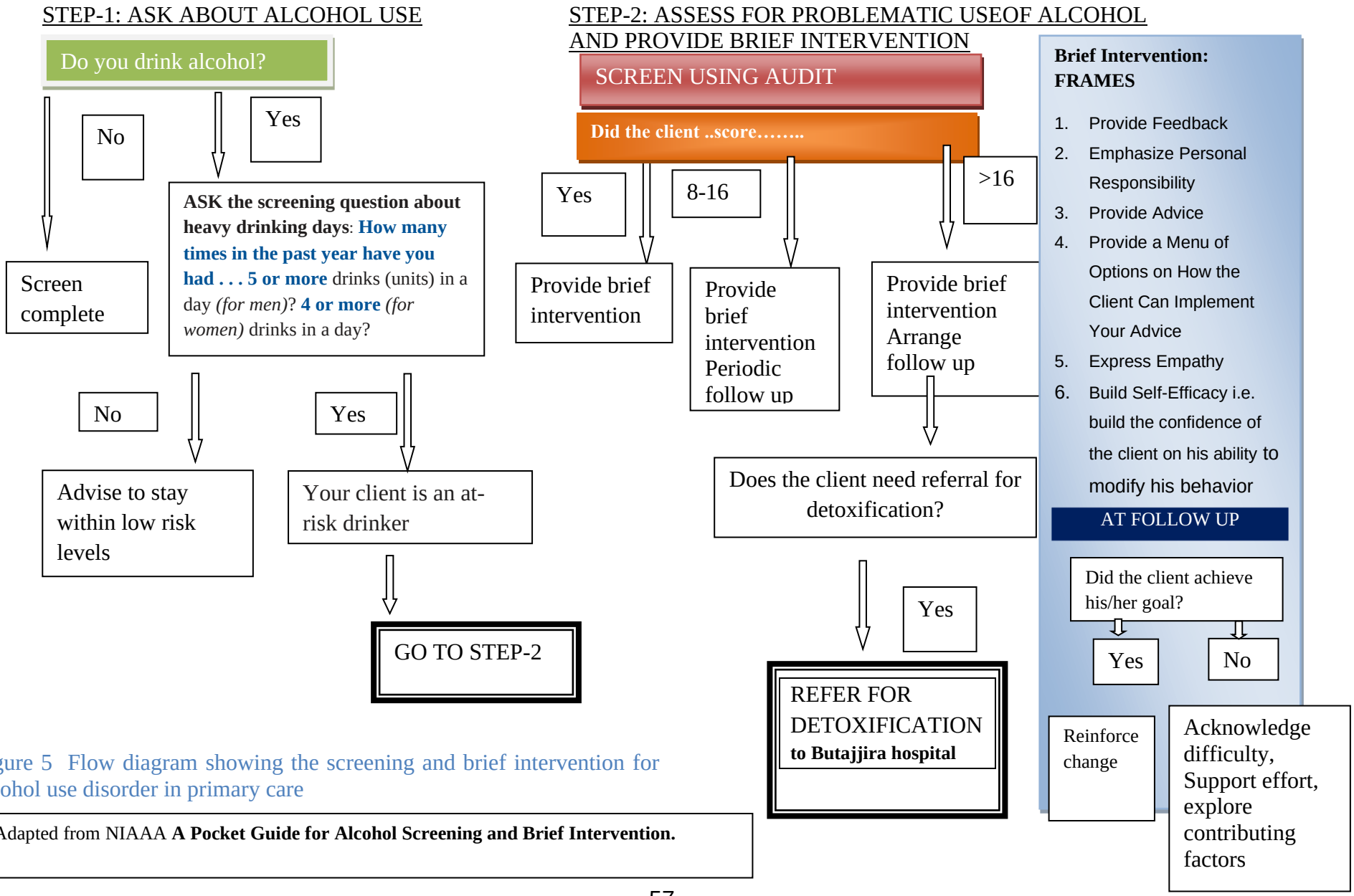

Figure 5 Flow diagram showing the screening and brief intervention for alcohol use disorder in primary care

Adapted from NIAAA **A Pocket Guide for Alcohol Screening and Brief Intervention.**

5.5.8. Assessment and follow up

At baseline, participants were assessed for demographics, alcohol use disorder, depression, disability, suicidal behavior, problems related to drinking, disability, and perceived social support.

At the 6 and 12 month, participants were assessed for all the above variables. See Table 7.

5.5.9. Measurements and Operational Definitions

Primary outcome variable

Alcohol Use Disorder severity: Alcohol use disorder was determined by change in AUDIT score at 3 and 12 months. Alcohol use disorder was assessed using the self- report version of WHO Alcohol Use Disorder Identification Test (AUDIT) with three months' recall. For detail about the instrument see measurements for study one, page 50 to 54 .

5.5.10. Secondary outcome variables

Disability: This was assessed using WHODAS 2.0, 12-item versions. See measurements and instruments in study one. The higher the score, the more severe the disability (112).

Suicidality: Suicidal behavior (ideation, plan and attempt) was measured using the WHO Composite International Diagnostic Interview (CIDI) (118).

Table 7 Measures used in the pilot before - after study.

Variables and category	**Instruments**	**Baseline**	**Midline**	**End line**
Socio-demographic variables		√		
Change in Alcohol use	AUDIT	√	√	√
Disability	WHODAS - 12	√	√	√
Depression	PHQ 9+1	√	√	√
Suicide	CIDI	√	√	√
Short inventory of problems	SIP-2R	√	√	√
Social support	OSLO-3	√	√	√

Consequence of drinking: Alcohol related problems were assessed with the Short Inventory of Problems (132-134) (SIP-2R). This tool measures problems that occurred in the last three months due to alcohol consumption. Each item has a response category 0 = Never, 1 = once or a few times, 2= once or twice a week, 3= daily or almost daily. If an item does not apply for the participant, zero is scored.

5.5.11. Data analysis

Data were double-entered using Epi-data version 3.1 (135) and analyzed using Stata version 13 software (128). Descriptive statistics were used to summarize sociodemographic characteristics of participants, and the distribution of each outcome variable and independent variables. The

proportion of people with particular patterns of drinking (harmful, dependent and hazardous) based on Alcohol Use Disorder Identification Test cut offs at each time of assessment and items of the AUDIT were summarized descriptively. To investigate the potential impact of the brief intervention on each outcome of interest over the course of one year, the best fitting unconditional change model were determined (i.e. the random intercept and mixed effects models compared). Then the best fitting change models to interpret the impact of intervention on the outcome of interest was used. A mixed-effects linear model was used to assess the change in AUDIT symptom severity over time (baseline, three months and 12 months). For functioning, mixed-effects negative binomial regression was performed due to the negatively skewed distribution of WHODAS scores. The level of analysis was assessment time-points and individual patients. The statistical significance of the association was set at $p< 0.05$ and 95% confidence intervals were reported for each effect estimate.

5.6. Qualitative study (Study three)

5.6.1. Research questions

What are the perspectives and experiences of people with alcohol use disorder, their caregivers and care providers about the pilot PHC-based brief intervention?

5.6.2. Objective

To explore the perspectives and experiences of people with AUD, their caregivers and service providers about the brief intervention delivered at PHC in Sodo district.

5.6.3. Design

Nested qualitative study with phenomenological design was carried out to evaluate a pilot brief intervention delivered by non-specialist health workers in PHC in a rural Ethiopian district.

5.6.4. Study population

The study population comprised adults with AUD in Sodo district who were receiving a brief intervention (BI) for AUD, their caregivers (spouse /family members who lived with the participants), PHC workers who were delivering the brief intervention and a mental health nurse.

5.6.5. Sampling, sample size and inclusion criteria

Participants with AUD were selected purposively, based on differing level of service engagement, demographic characteristics and pattern of drinking (baseline Alcohol Use Disorder Identification Tool (AUDIT) score). The final sample size was decided by the point at which theoretical saturation was obtained.

5.6.6. The intervention

See details about the intervention on page 57..

5.6.7. Definition of terms

Engaged in care: This includes people who were using the service for their alcohol problem after receiving the first brief intervention

Drop out from care: Those who were engaged with care as part of the PRIME cohort and not able to access continuous care, especially those who dropped out after just one visit as determined at the three-month cohort follow-up assessment.

Caregiver: spouse or, if unavailable, another family member who live together with the person with an AUD was considered as the caregiver.

Non-specialist primary care workers: Health workers who work in PHC and who were providing alcohol interventions, include nurses, health officers and doctors.

5.6.8. Data collection

Interviews were conducted by SZ (a woman PhD fellow) using a semi-structured topic guide developed by PRIME (CH). The interview topic guide for service users explored their

perceptions about AUD and its causes; experience of the brief intervention; help seeking; change in alcohol use; perceived impact on their economic status, relationships, functioning; unmet needs and expectations after receiving intervention; reasons why they did not engage with the service (barriers); acceptability, usefulness, affordability, feasibility and sustainability of care.

The topic guide for intervention providers explored their perceptions on the training and the process of implementing BI; challenges they faced while delivering BI; their opinion about providing a screening and brief intervention for alcohol in PHC, potential sustainability and views on how the service could be improved.

The interview was conducted in Amharic, the official language of the country and the region, in a location which was comfortable for respondents. Most of the respondents with AUD and their caregivers were interviewed at their home or farm and four people with AUD were interviewed at a nearby health center. The none-specialist PHC workers were interviewed at their work place. The interviewer probed responses and sought clarifications and directly experienced examples. All interviews were audio recorded after informed consent had been obtained.

5.6.9. Data processing, management and analysis

The audio files were transcribed in Amharic and translated verbatim into English. Framework analysis was used. Initially SZ familiarized herself with the data by reading through the transcripts. A pre-existing coding framework was derived from the focus areas of the study, including implementation outcomes of perceived usefulness, acceptability and feasibility, and implementation processes. Using OpenCode version 4.02 software, SZ coded three transcripts and CH reviewed the list of codes and checked consistency of codes against the data and the framework. SZ and CH discussed, adapted the framework and agreed on the final codebook for analysis. Then SZ coded all transcripts using the coding framework and existing codes, adding in new codes where relevant. SZ summarized the data using charting. Finally, the summarized data was interpreted. Periodic team meetings were conducted to facilitate critical exploration of participant responses, discussion of deviant cases and agreement on themes.

5.7. Ethical considerations

Ethical approval was obtained from the Institutional Review Board of Addis Ababa University College of Health Sciences (084/11/PSY) through the PRIME project. Existing data from the PRIME project was analyzed for the community survey and the before-after study. Data were collected for the third study. Ethical approval for this PhD project was also obtained from Addis Ababa University, department of psychiatry. In obtaining ethical approval through PRIME, the following ethical aspects were considered.

Prior to giving their consent, all participants were given adequate information about the purpose of the study, how the interview would be conducted, and the duration of the interview and details of the person to contact regarding the study. Potential risks and benefits of participating in the study were explained to the individual participant. See annex 1-4 for the information sheet and consent form.

Informed consent: Study participants were asked to give written informed consent after being provided with an explanation about the study and potential risks and benefits. A copy of the informed consent form and information sheet was given to each participant. For non-literate participants, verbal consent was sought and recorded in the presence of a witness who confirmed that the study had been explained correctly. For the qualitative study, participants' responses were audio recorded after informed consent had been obtained.

Potential risks or benefits

Burden or discomfort on participants

By participating in this research project, participants might feel some discomfort especially due to the time burden. The time required was explained clearly in the information sheet and reiterated to participants before they gave their consent. Fifty Birr (2 US $) was paid to compensate for time lost by participating in the interview. Potential participants were also informed that the questions could be sensitive and may cause distress. Clear explanation was provided that the person could stop the interview or not respond to specific questions if they felt distress. Talking to her/his caregiver also might create a discomfort for the person with alcohol

use disorder, but interview with caregivers was conducted after verbal consent was obtained from both.

Potential benefits

People living with alcohol use disorders would benefit through receiving and participation in mental health interventions. Any study participant with need for mental health care in addition to the alcohol use disorder was referred to PHC staff who had been trained in mhGAP. There was no direct benefit to participants taking part in the study. However, the information collected would help to improve mental health services in this setting and other similar countries.

Voluntary participation

Participants were informed about their right not to participate in the study. Each study participant was told that they could withdraw from the study at any time and that they could ask any questions in relation to the study if they needed clarification.

Confidentiality

Confidentiality was maintained thorough the research process. Anonymity of the study participant was maintained by allocating an identification number to all the questionnaires. All data or files which included personal identifiers were kept separately from the questionnaire data. Hard copies of the documents were kept in a locked cabinet and the soft copy documents were kept in password protected computers.

Table 8. Brief summary of the dissertation

	Study one	Study two	Study three
Objective	To determine magnitude , factors associated, help-seeking behavior, barriers to care	To assess impact of brief intervention	To explore the perspectives and experiences of people with AUD, their caregivers and service providers about the brief intervention delivered at PHC
Design	Cross sectional	Before - after	Qualitative
Population	All adults in Sodo Woreda	People who are receiving intervention for alcohol use disorder	People who are receiving intervention for alcohol use disorder, caregivers & health workers
Sample size	1500	49	26
Sampling method	Multi stage sampling with simple random sampling of households at community level	Systematic random sampling of facility attendees at 4 health centers. Screening with AUDIT in the facilities and recruited all who scored eight and above on AUDIT	Purposive sampling
Data collection instruments	AUDIT, PHQ-9, CIDI, WHODASS 2, OSS Support, LTE, ISMI, BACE,	AUDIT, PHQ-9, CIDI, SIP-2R, WHODASS 2, OSS,	topic guide with semi structured questions
Data analysis	Poisson regression with robust variance	Mixed effect linear regression	framework analysis

6. RESULTS

6.1. Community Survey (Study one)

6.1.1. Socio-demographic characteristics and psychosocial factors

Of 1500 individuals approached for interview, 1485 (99.0%) completed the interview. The mean age of study participants was 39.3 years (standard deviation (SD) 15.3). Just over half (54.3%) of the participants were female, 74.3% were currently married, 89.6% resided rurally, 93.3% were Gurage by ethnicity, 70.5% did not attend formal education and 92.3% were followers of Ethiopian Orthodox Christianity (Table 9). From those who had AUD, 20.7% (n=48), 50.8% (n=100) & 28.4% (n=55) had poor, average and strong social support respectively. The most frequently reported stressful events during the previous six months were financial crisis, being upset, death of relative and serious illness.

6.1.2. Prevalence of alcohol use disorder and comorbid conditions

The total AUDIT score ranged from zero to 35, with a median AUDIT score of one [interquartile range (IQR) 0-4]. The weighted prevalence of AUD in the last 12 months (score of ≥ 8 on the AUDIT) was 13.9% (n=203) (95% CI 10.9% to 17.3%), with a significant gender difference (25.8%, n=182 among males and 2.4% n=21 among females; p-value <0.001).

Based on level of drinking, 9.9% (n=146) had probable hazardous alcohol use (AUDIT score 8-15), 2.2% (n=30) had probable harmful alcohol use (AUDIT 16-19) and 1.8% (n=27) had probable dependence (AUDIT ≥20). In the previous 12 months, 23.3% (n=355) of the study participants had binge drinking (drinking at least six alcoholic drinks on a single occasion). Almost all of those who scored 16 or above on AUDIT were men (96.5%) (55 of 57) (Table 9). Total WHODAS score ranged from zero to 83.3 and median score was 6.2 (IQR=0- 18.7). Over a quarter (38%, n= 80) of people with AUD scored at least 5 on PHQ-9 and the 12-month prevalence of suicidal ideation was 10.5% (n=23) in those with AUD (≥8 on AUDIT). In the 23 study participants who had AUD and suicidal ideation, sixteen (75.0%) had attempted suicide.

Table 9 Socio- demographics characteristics of participants in Sodo, Gurage Zone, South Ethiopia

			Alcohol use disorders	
	Characteristics	**Total N (%)**	**AUDIT ≥ 8** Yes N(%)	**AUDIT ≥16** Yes N(%)
		n=1485	n=203	n=57
Age (in years)	<25	207 (13.9)	22 (10.6)	2 (3.5)
	25-34	427 (28.6)	34 (8.02)	8 (14.0)
	35-44	369 (24.8)	55 (27.1)	16 (28.1)
	45-54	205 (13.8)	33 (16.3)	10 (17.5)
	≥55	280 (18.9)	59 (29.1)	21 (36.8)
Sex	Female	806 (54.3)	21 (10.3)	2 (3.5)
	Male	679 (45.7)	182 (89.7)	55 (96.5)
Marital status	Married and living together	1104 (74.3)	168 (82.8)	48 (84.2)
	Never Married	178 (12.0)	23 (11.3)	6 (10.5)
	Widowed	136 (9.2)	5 (2.5)	2 (3.5)
	Divorced	37 (2.5)	4 (2.0)	0
	Married & not living together	30 (2.0)	3 (1.5)	1 (1.8)
Residence	Rural	1331 (89.6)	188 (92.6)	50 (87.7)
	Urban	154 (10.4)	15 (7.4)	7 (12.3)
Education level	Not literate	719 (48.4)	54 (26.6)	14 (24.6)
	Able to read and write	325 (21.9)	73 (36.0)	19 (33.3)
	Primary	321 (21.6)	60 (29.6)	21 (36.8)
	Secondary	92 (6.2)	15 (73.9)	3 (5.3)
	College/university	24 (1.6)	1 (0.4)	0
Occupation type	Housewife	337 (22.8)	4 (2.0)	2 (3.5)
	Farmer	734 (49.7)	154 (76.2)	44 (77.2)
	Merchant	145 (10.4)	14 (6.9)	2 (3.5)
	Day laborer	130 (8.8)	23 (11.4)	2 (3.5)
	Students	46 (3.1)	0	5 (8.8)
	Civil servant	35 (2.4)	3 (1.5)	0
	Others [a]	41 (2.8)	4 (2)	2 (3.5)
Religion	Orthodox	1371 (92.3)	201 (99.0)	57 (100.0)
	Protestant	71 (4.8)	1 (0.5)	0
	Muslim	41 (2.8)	1 (0.5)	0
	Others [b]	2 (0.1)	0	0
Ethnicity	Gurage	1384 (93.3)	189 (93.1)	51 (89.4)
	Oromo	66 (4.4)	12 (5.9)	5 (8.8)
	Amhara	23 (1.5)	2 (1.0)	1 (1.8)
	Others[c]	11 (0.7)	0	0
Perceived relative wealth	Lower	658 (44.7)	84 (41.4)	25 (43.9)
	Average/the same	714 (48.5)	104 (51.2)	30 (52.6)
	Better off	99 (6.7)	15 (7.4)	2 (3.5)

Percentages un-weighted

a- includes priest and other unspecified occupations; b- includes Wolayta, Tigrayan; c -includes catholic, no religion

6.1.3. Self-stigma, help-seeking behaviour and barriers to seeking care

Among 57 study participants who scored at least 16 on AUDIT, 70.3% reported high internalized stigma due to their drinking; 77.1% (n=37) agreed that they were disappointed in themselves, 56.3% (n=27) felt embarrassment and 45.8% (n=22) agreed that they were thinking that they could not achieve much in life because of these problems (Table 10).

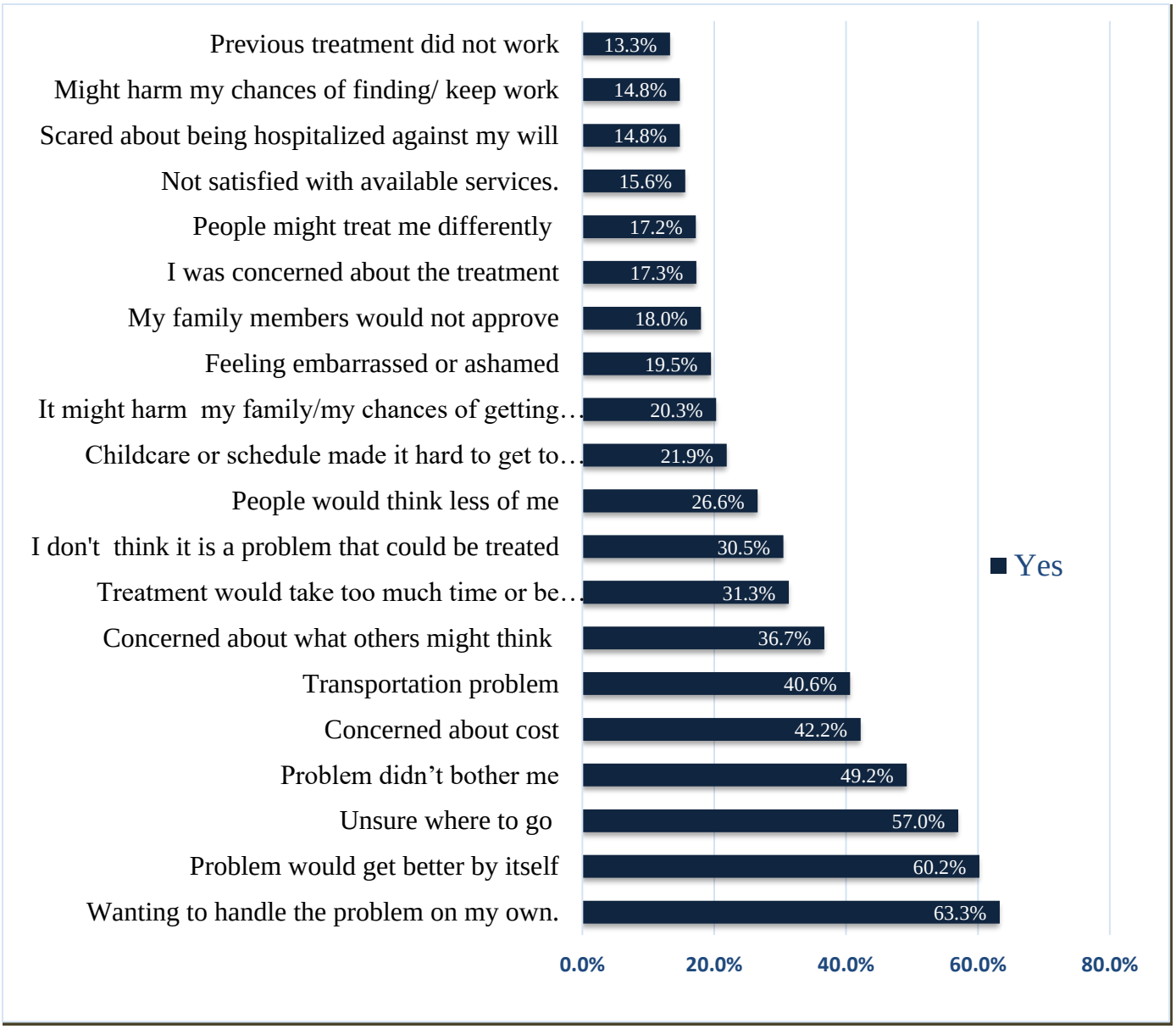

Figure 6 Barriers for seeking professional help among adults with AUDIT score ≥ 16

Only 13.0% (6/57) had sought help for their alcohol problem at least once in their lifetime from a health center (n=2), from a hospital (n=2) or in a religious setting (n=2).

About 47 (81%) out of 57 participants reported at least one barrier to seek professional help. The mean number of barriers was 5 (SD= 4.5) and the median was 4 [IQR= 3-6]. The main barriers to seeking professional help for alcohol problem were wanting to handle the problem by themselves (63.3%), thinking that the problem would get better by itself (60.2%), not being bothered by the problem (57.0%), feeling unsure where to go (49.2%) and being concerned about cost of professional help (42.2%) (Figure 2).

Table 10 Internal stigma beliefs among adults with AUDIT score ≥16

Internalized stigma beliefs, n=48	Agree or strongly agree N (%)
I am disappointed in myself due to these problems	37 (77.1)
I am embarrassed or ashamed of these problems	27 (56.3)
Others think that I cannot achieve much in life because of these problems	22 (45.8)
People ignore me or take me less seriously just because of these problems	21 (43.8)
I feel out of place in the world because of these problems	19 (39.6)
These problems have spoiled my life	18 (37.5)
People often patronize me, or treat me like a child, just because of these problems	17 (35.4)
I cannot contribute anything to society because of these problems	15 (31.3)
Nobody would be interested in getting close to me because of these problems	13 (27.1)
Because of these problems, I need others to make most decisions for me	13 (27.1)
People discriminate against me because of these problems	11 (22.9)

6.1.4. Factors associated with alcohol use disorder

In the final multivariable analysis, older age, male gender and occupation (being a farmer, trader or daily laborer) were associated independently with AUDIT score ≥ 8 (Table 11). Alcohol use disorders were more prevalent in men (aPR = 7.7), farmers (aPR = 3.9), traders (aPR = 6.0) and

daily laborers (aPR = 6.3) when compared to housewives. One-year increase in age is associated with 1% increase in the prevalence of alcohol use disorders (aPR = 1.01; 95% CI: 1.00, 1.02).

Alcohol use disorder was also positively and significantly associated with higher number of stressful life events, higher total depression symptom score, higher disability and suicidality. As the number of stressful events increase by one, the prevalence of AUD increased by 27% (aPR = 1.27; 95%CI: 1.1, 1.3). Every one increase in depressive symptom score (PHQ-9) and in a total disability score on WHODAS are associated with 3.0% and 2.0% increase in prevalence of AUD respectively. Table 11. Having suicidal thought also associated with AUD (aPR = 1.5; 95%CI: 1.1, 2.1).

Table 11 Factors associated with alcohol use disorder (AUDIT ≥8)

		Having AUD %	Crude PR (95% CI)	Adjusted PR (95% CI)
Socio-demographic characteristics				
Age (in years)	Mean = 39.4 Yrs. (SD 15.3)		**1.02 (1.01, 1.02)***	**1.01 (1.00, 1.02)***
Sex	Male	25.8	**10.9 (6.7, 17.7)***	**7.7 (4.4, 13.1)***
	Female	2.4	**Reference**	**Reference**
Educational status	Formal education	16.6	Reference	Reference
	No formal education	12.7	0.7 (0.5, 1.0)	1.0 (0.7, 1.4)
Occupation type	Housewives	0.90	Reference	Reference
	Farmer	21.1	**24.6 (7.7, 78.6)***	**3.9 (1.0, 14.8)***
	Trader	9.10	**11.2 (3.1, 39.9)***	**6.0 (1.5, 23.9)***
	Daily laborer	17.7	**21.0 (6.2, 71.0)***	**6.39 (1.5, 26.1)***
	Others [a]	5.7	**5.6 (1.4, 22.2)***	1.9 (0.4, 9.0)
Perceived relative wealth	Lower	12.3	1.3 (0.9, 2.0)	0.6 (0.3, 1.0)
	Average/the same	15.0	1.2 (0.9, 1.7)	0.8 (0.5, 1.3)
	Better-off	17.7	Reference	Reference
Residence	Rural	14.2	1.3 (0.7, 2.3)	1.4 (0.7, 2.5)
	Urban	10.4	Reference	Reference
Marital status	Currently married	15.4	Reference	Reference
	Others [b]	9.3	0.6 (0.4, 0.8)	0.8 (0.5, 1.3)
Social support	poor	16.1	1.3 (0.9, 2.0)	1.3 (0.9, 1.9)
	Average	14.7	1.2 (0.9,1.7)	1.2 (0.9, 1.6)
	strong	11.6	Reference	Reference
Stressful life events	Mean = 3.8 (SD 1.4)		**1.3 (1.2, 1.3)***	**1.2 (1.1, 1.3)***
Factors adjusted for socio demographic variables				
Suicidal ideation	Yes	13.3	**1.7 (1.1, 2.6)***	**1.5 (1.1, 2.1)***
	No	23.5	Reference	Reference
Total depression symptom score (PHQ-9), median = 2.0, IQR 0 to 5			**1.06 (1.03, 1.09)***	**1.06 (1.02, 1.09)***
Total disability score (WHODAS), median = 6.5, IQR 0 to 18.6			**1.02 (1.00,1.02)***	**1.02 (1.00, 1.04)***

AUD-Alcohol use disorder (AUDIT≥8): PHQ-9 - Patient Health Questionnaire version 9 ; WHODAS _ World Health Organization Disability Assessment Schedule; SD-Standard Deviation; PR – Prevalence Ratio, IQR – interquartile range a-includes single, widowed, divorced; b- includes students, civil servants and others; * significant at p value <0.05; P value 0,027 for age , < 0.001 for total depression symptom score and 0.010 for disability score; Sampling weight used during analysis

6.2. Uncontrolled pilot before-and after study (Study two)

6.2.1. Characteristics of study participants

A total of 214 PHC attendees reported drinking alcohol, of whom 49 (22.8%), one woman and 48 men, scored 8 or more on the AUDIT and were eligible for brief intervention. The mean age of the study participants was 42.8 years (standard deviation (SD) 15.9). The majority were farmers (71.4%), had no formal education (59.2%), were married (81.1%) and resided rurally (70.8%). Table 12.

Table 12 Characteristic of participants at baseline and 3 month and 12 month follow-up

Variables		Baseline n=49	3 months n=48	12 months n=45
		N (%)	N (%)	N (%)
Age (years)	≤25	6 (12.2)	6 (12.5)	4 (8.9)
	26-35	14 (28.6)	13 (27.1)	13 (28.9)
	36-50	14 (28.6)	14 (29.2)	14 (31.1)
	≥51	15 (30.6)	15 (31.2)	14 (31.1)
Sex	Male	48 (98.0)	47 (98.0)	44 (97.8)
	Female	1 (2.0)	1 (2.0)	1 (2.2)
Residence	Urban	14 (29.2)	13 (27.7)	11 (25.0)
	Rural	34 (70.8)	34 (72.3)	33 (75.0)
Education	No formal education	29 (59.2)	29 (60.4)	27 (60.0)
	Formal education	20 (34.7)	18 (35.4)	16 (35.6)
Occupation	Farming	35 (71.4)	35 (72.9)	33 (73.3)
	Others	14 (28.6)	13 (27.1)	12 (26.8)
Perceived relative income	Lower	27 (55.1)	26 (54.2)	23 (51.1)
	Better	22 (44.9)	22 (45.8)	22 (48.9)
Marital status	No partner	9 (18.4)	8 (16.7)	7 (15.6)
	Has a partner	40 (81.6)	40 (83.3)	38 (84.4)
Social support	Poor/average	33 (67.3)	28 (58.3)	31 (68.9)
	Higher	16 (32.7)	20 (41.7)	14 (31.1)

'Others occupation' include self-employed, housewife, unemployed, pensioner, government employee, daily laborer Perceived relative income 'Lower' includes very low and lower 'better' includes middle and high; N = number of study participants

Of those who were recruited for the brief intervention, 98% (n=48) were assessed at the 3-month time point and 92% (n=45) were assessed at 12 months. Three were lost to follow-up (one at three month, and two at 12 month) and one person died before the 12-month time point (Figure 7). The participants who were lost to follow up were men aged between 20 and 29 years with Alcohol Use Disorder Identification Test scores of 14, 19, and 22 at baseline. The participant who died during the follow-up period was a man in late 60s with probable dependence at both baseline (AUDIT score 31) and midline (AUDIT score 24).

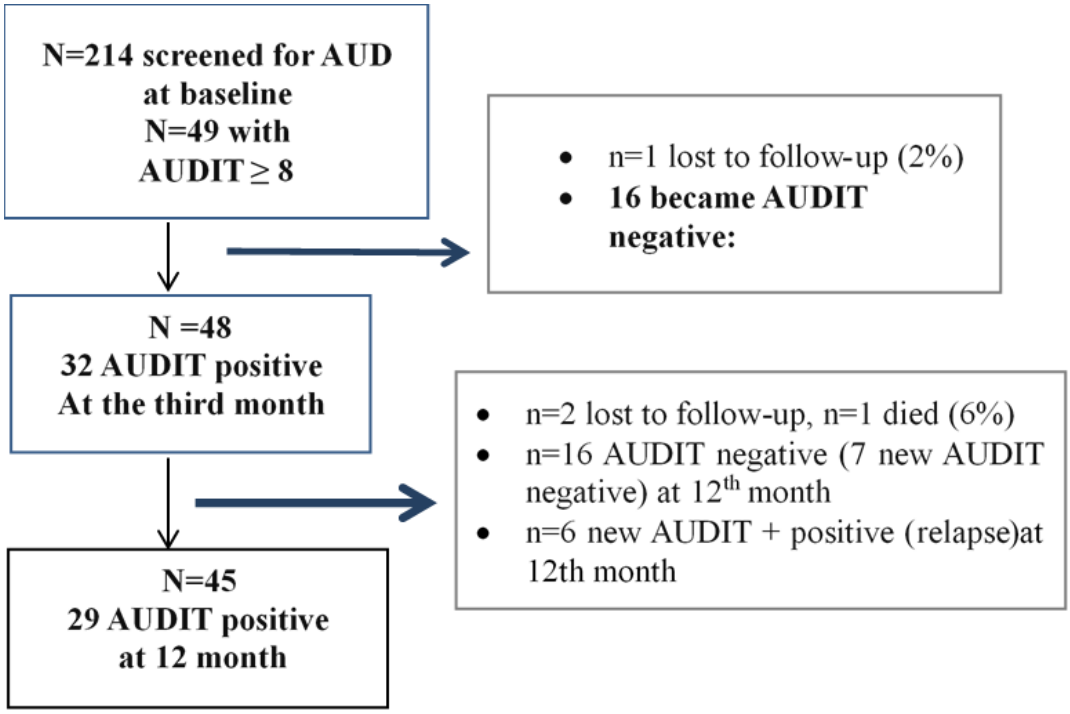

Figure 7 Flow diagram showing the recruitment process and follow-u

6.2.2. Impact of alcohol brief intervention

6.2.3. Change in severity of alcohol use disorder (primary outcome)

At baseline, 28 of the 48 participants (57.1%) drank hazardously (AUDIT score 8 -15), 16.3 % (n=8) harmfully (AUDIT score 16-19) and 26.5 % (n=13) had probable alcohol dependence (AUDIT score >19) (Table 13). By the 3-month time point, 33.3% (16/48) were in the low-risk drinking category (AUDIT<8), which remained similar at the 12-month time point (16/45; 35.6%). Most of the reduction in AUD occurred in the 'hazardous drinking' category (reduced

from 57.1% to 26.7%), with levels of probable dependence staying relatively stable between baseline (26.3%), 3 months (29.2%) and 12-month follow-up (20.0%). However, the individuals who were classified as probable dependent varied over time. Out of the baseline probable dependent group (n=13), six remained the same at 3 months and four remained in dependence at 12 months. At 3 months and 12 months, eight people moved into the probable dependence category. At the three-month assessment, 14 people had probable dependence. Of these, eight had deteriorated (6 hazardous drinking and 2 harmful drinking at baseline). Between 3 and 12 months' follow-up, seven out of 14 shifted to harmful drinking, four remained in probable dependence, one shifted to low risk drinking and two were lost to follow up.

Table 13. Alcohol drinking pattern and mental health at baseline and 3 month and 12 month follow-up

		Baseline N=49 n (%)	3 months N=48 n (%)	12 months N=45 n (%)
Drinking pattern (AUDIT score)	Low risk (0-7)	0 (0.0)	16 (33.3)	16 (35.5)
	Hazardous(8-15)	28 (57.1)	14 (29.2)	12 (26.7)
	Harmful(16-19)	8 (16.3)	4 (8.3)	8 (17.8)
	Dependent (>19)	13 (26.5)	14 (29.2)	9 (20.0)
Alcohol use disorder	Yes (AUDIT≥8)	49 (100.0)	32 (66.7)	29 (64.4)
Depression symptom severity (PHQ-9 score)	None	15 (30.6)	20 (41.6)	22 (48.9)
	Mild	17 (34.7)	24 (50.0)	13 (28.9)
	Moderate	13 (26.5)	2 (4.2)	9 (20.0)
	Moderately severe	4 (8.2)	2 (4.2)	1(2.2)
	Severe	0 (0)	0 (0)	0 (0)
Suicidal ideation	Yes	6 (12.2)	4 (8.3)	4 (8.9)

AUDIT, Alcohol Use Disorder Identification Test; IQR, interquartile range, PHQ Patient Health Questionnaire

The baseline mean AUDIT score was 16.8 (SD 7.3). There was a statistically significant reduction in mean AUDIT score over the 12 month follow up period: mean difference (MD) -2.66 (95% CI: -5.21, - 0.11) at 3 months and -4.15 (95%CI: -6.76, -1.54) at 12 months (Table 16).

6.2.4. Consequences of drinking and depressive symptoms (secondary outcomes)

The mean SIP-2R score (consequences of drinking) at baseline was 13.2 (SD 7.9). There was a significant reduction in mean SIP-2R score both at the 3 month (MD = -2.52; 95% CI (-4.86, -0.18) and 12-month time points (MD = -3.00; 95% CI -5.87, -0.14). In terms of depressive symptoms, at baseline, the mean PHQ-9 score was 7.5 (SD 4.5). There was a statistically significant reduction in PHQ-9 score at both follow-up assessment time points: mean difference -2.06 (95% CI -3.35, -0.77) at 3 month and mean difference = -2.03 (95% CI -3.35, -0.72) at 12 month time points (Table 14).

Table 14: The effect of the brief intervention on clinical and functional outcomes

Outcome	**Crude mean change (95% confidence interval)**		
	Baseline (n=48)	**3 month (n=47)**	**12 month (n=45)**
Alcohol use severity (AUDIT score)	Mean 16.8 (SD 7.3) Median 15 (IQR 11 to 21)	-2.66 (-5.21, - 0.11)	-4.15 (-6.76, -1.54)
Consequences of alcohol (SIP-2R score)	Mean 13.2 (SD 7.9) Median 15 (IQR 7.5 to 17)	-2.52 (-4.86, - 0.18)	-3.00 (-5.87, - 0.14)*
Depressive symptoms (PHQ-9 score)	Mean 7.5 (SD 4.5) Median 8 (IQR 4 to 11)	-2.06 (- 3.35, - 0.77)	-2.03 (-3.35, - 0.72)
		Crude IRR (95%CI)	
		3 month (n=47)	**12 month (n=44)**
Functional impairment (WHODAS score)	Mean 14.3 (SD 14.5) Median 10.4 (IQR 4.1 to 18).	1.01 (0.66, 1.53) P value 0.947	1.13 (0.74, 1.73) P value 0.554

*n=44, *AUD, alcohol use disorder; AUDIT, Alcohol Use Disorders Identification Test; IQR, interquartile range; PHQ-9, Patient Health Questionnaire–9 item; RR, Relative Risk; SD, Standard Deviation; SIP-2R, Short Inventory of Problems–Revised; WHODAS, WHO Disability Assessment Schedule.*

6.2.5. Functioning and suicidal ideation (secondary outcomes)

At baseline, mean WHODAS score was 14.3 (SD 14.5) and median was 10.4 (IQR 4.1 to 18). There was no statistically significant change in WHODAS score over the 12 month follow-up period (Table 14). Suicidal ideation decreased non-significantly from 12.2 % at baseline to 8.3 % at 3 month and to 8.9% at 12 month time points (Table 13).

6.3. Qualitative study (Study three)

6.3.1. Characteristics of the participants

A total of 33 individuals were approached for an interview. Of these, one refused to be interviewed, two lost from their kebele and four were not available at their home during repeated visits. In-depth interviews were conducted with fourteen participants with AUD who were receiving BI, four caregivers and eight health workers who were providing BI.

The interviews lasted from 14 to 60 minutes for participants with AUD, 7 to 22 minutes for caregivers and 9 to 28 minutes for PHC worker. The age of participants with probable AUD ranged between 27 to 67 years. The majority of participants were male, farmers, married and had no formal education (Table 15). Only four participants had contacted providers for follow up after the first brief intervention.

The work experience of service providers ranged from three to 39 years. Most of the providers were clinical nurses, with one psychiatric nurse (Table 15).

Table 15 Characteristics of participants

		People with AUD	Caregivers
Age	<26	0	1
	26-35	5	3
	36-45	3	0
	46-55	2	0
	>55	4	0
Sex	Female	1	4
	Male	13	0
Education	Non-literate	4	2
	Able to read and write	5	1
	1-8 years of formal education	4	1
	12 years education	1	0
Marital status	Married	11	3
	Single	2	1
	Widowed	1	0
Residence	Urban	5	0
	Rural	9	4
Occupation	Farmer	9	0
	Self-employed	2	0
	Pensioner	1	0
	Housewife	1	3
	Government-employed	1	0
	Student	0	1
		Number of service providers	
Sex	Male	6	
	Female	2	
Qualification	Nurses	5	
	Health officer	2	
	Psychiatry nurse	1	
Work experience (years)	<5	3	
	5-10	3	
	>10	2	

AUD- alcohol use disorder

6.3.2. Acceptability

Most of the participants with probable AUD reported that the BI had been useful. As one participant said:

"It was very competent care, and I believed in them…I know that they can solve my problems. If I asked them, they can give me an answer. In addition, because they told me to come back if I needed [more] advice, I came here when I became anxious."

(AUD-pt-2, male)

Participants who accepted the intervention tended not to be convinced at first, but after some time of reflection, they developed faith in the intervention and started to follow the advice of providers, as illustrated by the following quote:

"First, I did not accept it. I did not believe [in it]. However, after some time, I analysed [thought about] it, I realized that it [alcohol] is harmful. Then after, I accepted it [the advice], and started to reduce [the amount I was drinking] and finally I quit drinking. Now I live a good life."

(AUD-pt-1, male)

A few participants, including one caregiver (a wife), reported that professional help was not needed or that alcohol problems could not be treated or cured at the health center and that self-help/self-decision might be the only way to overcome alcohol addiction.

"Can it [addiction] be removed by advice? I will not accept if somebody told me to stop… No, it [addiction] cannot [be cured with medicine]. If we want to cut it, we can quit, it's by ourselves, if we want to drink, and we will drink by ourselves."

(AUD-pt-8, male)

The majority of the participants were not bothered by the screening questions, the assessment process, and how they were informed that they had an alcohol problem or the screening for suicidality. As described by one participant*, "I accepted every question they asked me… All was true." (AUD-pt-6, male)*

None of the people with AUD had sought professional help before. Two participants had previously sought help from religious places, and reported that the advice they obtained was similar. Their main reason for seeking help at the health facility was not to quit alcohol, but for anxiety symptoms secondary to drinking. None of the respondents reported minding whether they saw the same PHC worker during follow up. They also not doubt about professionals' competence and they did not report experiencing stigma or discrimination in the health center.

The providers reported being very happy with the training. They underlined the seriousness of AUD in the community and the appropriateness of the intervention. However, they believed that participants did not accept the intervention; rather they perceived that the person with AUD just appeared to accept their advice to please them.

6.3.3. Ongoing engagement in care

Except participants who had a comorbid physical or mental health condition, others who agreed on the appropriateness of the intervention did not come for follow-up. The most commonly expressed reason was that they did not consider that they had a serious problem and preferred to handle it themselves. As one man explained:

"I am not in trouble that much. I can quit. I have nothing to worry. If it occurs I will go, but going there is wasting time now without any reason." *(AUD-pt-7, male)*

They also expressed the view that alcohol problems were not treatable in a health institution; rather the only way to quit was through self-discipline. "*I, myself, by myself can stop."* (AUD-pt-12, male).

For others, shortage of money and the experience of stigmatizing attitudes from their fellow *edir* members [an indigenous community welfare system for supporting surviving family members when a member of the community is deceased] were the driving reasons for absence. When they were asked about the idea of getting treatment for AUD at the health center in future, almost all responded that they would be happy to get treatment, but at the same time, most of them did not believe that alcohol problems or addiction were treatable in the health center.

Explanatory models and social norms as barriers for engagement in care

Most participants named problematic alcohol use as an 'addiction' ('*Sus*' in Amharic). Almost none of the service users considered addiction to be a disease, but instead a simple habit or a character flaw, which a person could stop without any help *"…it is a habit but it is not associated to health... It is possible to stop…It didn't catch you without touching it".*

Most of the participants were farmers, and they considered alcohol (especially the local spirit *'areqi*) as a way of getting energy or strength during farming and to take their mind off the toil, as illustrated by one of the participant*, "We can say Areqi is benzene. A car cannot move without benzene, and Areqi is benzene…and I drink to cope with the hard work, because of frustration and the harm of the burn due to over sweatiness*" (AUD-pt-10, male)

For some, alcohol was a means for facilitating trade, as illustrated by the following quote:
"Indeed alcohol is becoming a means to network nowadays... if you want somebody for business; the only place you get him is in a drink house…. I can quit but if I did not buy to my guests [traders], they will not trust me or accept me."

(AUD-pt-7, male)

For others, poverty, peer pressure and social life (the culture of the community) were reported to be the causes for drinking alcohol, as illustrated by the following quotes:

"It [addiction to alcohol] is not health problem; I think it is poverty! When you are deprived of what you want, you will go to that [drinking alcohol]. For example, I failed in my education, and I also lost many things... I do it [drink alcohol] for hiding [from my problems] […. If I did not drink, if I searched for another solution for my problems, I would have been a successful person. But I entered to it [drinking alcohol] thinking as solution and I am swimming in it now."

(AUD-pt-2, male)

"If I could stop drinking completely it is good for me. However, everybody looks like his neighbor. There is a proverb what we call it, "unless you are able to socialize, leave the place." What is made in our area is areqi and tella. Because our work is just farming, it seems difficult to stop Areqi"

(AUD-pt-10, male)

"I want to stop drinking but at same time I am worried that people may isolate me because somebody who drinks and who didn't might not have the same mood and not be equal. From this point I can't stop drinking"

(AUD-pt-14, male)

One of the participants reported that he changed his religion to Protestant Christianity for two years to stop alcohol, and he returned to drinking alcohol because of his friends. As described by his wife *"when he stopped for two years, he started to take care of his family in better way. Now because of some friends he started it [drinking again]. They told him that I controlled him. Now, his mind does not work properly."*

(CG-2, wife of AUD-pt-10).

Relatives (wives) explained alcohol problems as a moral failure. One of them forced her husband to change his religion and attend church for more than a year and threatened to file for divorce if he did not stop drinking.

All participants agreed that the harm of alcohol drinking outweighed its benefits. Intervention providers also mentioned that culture and bad role models were reasons for wide occurrence of the problem, illustrated by the following quote:

"The great invitation in the community is drinking alcohol. To give respect for a guest the great invitation is giving alcohol. This culture may lead some to addiction." (PHC-worker-5)

The PHC workers noted that, to tackle other mental and physical health problems, first work must be done on alcohol. This is because alcohol is perceived to be a major risk factor for all physical and mental health problems treated in their institution.

Implementation of the service

Feasibility, experiences and challenges during implementation

Most of the health workers who participated in the intervention reported that delivering BI in the PHC clinic did not significantly affect the rest of their work. However, there was a shortage of

space because patient flow in the outpatient clinics was increasing due to the recent introduction of community-based health insurance.

A few of the PHC workers reported that other patients had to wait outside for a long time while they delivered the BI. No healthcare workers mentioned referring cases for specialist treatment.

Most of the PHC workers did not report difficulties with estimating the alcohol content in a drink, but one provider reported that he found it difficult to work out the number of alcohol units in local drinks because it was different from place-to-place.

One of the intervention providers reported that some patients thought that he was persuading them to convert to Protestantism (which, in this setting, is associated with strongly held beliefs against drinking alcohol), while they were giving BI. Another PHC worker reported a similar experience: -

"When we tell them as it is possible to be cured from it, they associate with other religious cases…they [patients] insist to debate why the bible allows it if it causes a disease." *PHC-worker-6*

All PHC workers mentioned that patients lacked openness to talk about their drinking, and they suspected that patients hid the true amount that they were drinking. One of the providers even reported that she had never identified a person with AUD because all clients hid the amount and frequency of their drinking. Most of the providers believed that patients do not considered AUD to be a disease and, therefore, drop out of care.

"Their reaction somewhat worried us. It is not as such serious. They accept when you clearly discus with them. However, initially they try to insist you by saying, "I am the responsible one for my life. I am drinking with my own income. You did not invite me or pay for me. I do not disturb anyone." Even if you are going to tell [them] the physical impact, they hear you inattentively or half-mind …they forget what they told you. They are not similar to other cases… whatever advice you give them they turned back to their previous behavior." PHC-worker-6

Most of the respondents with probable AUD did not mention the competence of professionals and none of the service users mentioned concerns about the quality of care. In contrast, a mental

health worker was concerned about the quality of screening and intervention. This participant reported that workers without adequate training and skills were incorrectly referring non-cases for confirmatory evaluation. According to this mental health worker*, "If quality work is needed, it must be done only by trained persons."* However, no safety concerns were raised.

All the PHC providers reported that the training had changed their awareness about alcohol; giving them detailed knowledge about how to assess a person, including how to calculate alcohol units in a drink; make a diagnosis and manage AUD. They also noted that it gave them a confidence to talk about alcohol with people attending the PHC facility. They agreed on the appropriateness of the intervention.

One participant, who was taking medication for sleep problems secondary to alcohol withdrawal, was worried about the sustainability of the service because he saw people from the new integrated mental health service who had stopped their medication due to erratic supply.

6.3.4. Perceived impact of brief intervention

The perceived impact of the intervention provided in PHC was categorized into two sub-themes: 1) perceived impact on alcohol use and associated health problems; 2) perceived impact on functioning, economic status, caregiver burden and relationships.

1. Perceived impact on alcohol use and associated health problems

Some of the participants with AUD and all caregivers reported that, after receiving the intervention, participants had decreased the amount of alcohol they were drinking.

"I thank the doctor because he made me free from addiction. Now, I fully accepted doctors' advice and the service improved my life."

(AUD-pt-1, male)

"After the advice, I started to say enough and I only drink two "melekiya" [glasses used for drinking spirits]. When they invite me to add more I stated to say no!"

(AUD-pt-14, male)

Some participants reported that they had stopped drinking altogether. Some respondents who said they did not think they had received an intervention, were noted by their caregivers to have decreased their drinking amount or frequency after the BI. Some respondents reported that some health problems and symptoms had improved after they reduced alcohol consumption, including mental distress, forgetfulness, sleep problems, seizures, fatigue, poor appetite and attention problems.

2. Perceived impact of the intervention on function

Functioning was reported to have improved for some of the participants who had comorbid conditions (TB, epilepsy, mental distress, anxiety), and they reported positive changes in work performance after they received the intervention. Two caregivers (wives) also reported a change in work performance of their partners.

"When I was addicted to alcohol, there were a time I was hesitating in my work, but now after I quit drinking the work itself became an addiction for me." (AUD-pt-1, male)

"Now I am doing better at work and I also handle people in a good way during work. Now I can complete a task which used to take 3 days in a half day. No work is left for tomorrow." (AUD-pt-2, male).

Many participants with AUD reported there was some change in their income status after they received the intervention. One of the participants noted that he stopped asking for money from people and started helping some of his friends when they were in need. He linked his change with better performance, and he started participating in "*ekub*", a local money saving group.

"I have profited, what I am doing at home is also nice. Previously, I was distressed, I could not even work, my work had no profit and I was distressed. But now, thanks to God, I get profit from work and I can feed my children."

(AUD-pt-4, female)

"Previously my salary was wasted to alcohol, but now, thanks to God, I cover my household expenditure. I also send benefits from my work place to home. Previously I was wasting it for alcohol. Now it is corrected. We increased kilos of wheat and 'teff' from 25 to 40-50 kg per

month because money that was wasted by my alcohol use is saved. This is a big change. We improved our life because I cut my drinking. Previously my children may skip their dinner if they eat their lunch." (AUD-pt-1, male)

"I quitted drinking; now I am ok. Thanks to God, I am profiting from the work. We sold our home for farmers before, but now we build another house on the land that the kebele [sub-district] offered to us, thanks to God." (AUD-pt-4, female)

Most of the participants attended their treatment by themselves. However, caregivers of people with AUD were troubled by the wastage of money, quarrels, fighting and they worried a lot about the health of their relatives.

'Areqi is the only gift of this community. He did not save money, because, he pays today and tomorrow for 'areqi. I do not feel bad if there is a treatment." (CG-2, wife of AUD-pt-10)

"Being a family member of an addicted person hurts you economically and your quality of life. I benefited nothing because of his drinking habit and presence of drinking house in our settings." (CG-4, wife of AUD-pt-14)

Some participants with AUD reported that the BI they received helped them to be aware of health risks of alcohol drinking and one participant noted that the advice made him live more carefully than before.

6.3.5. Unmet needs, expectations and views on how the service needed to be improved

One participant was expecting more change or benefit, including financial help, and he was not happy with the intervention provided. He linked his ongoing drinking behavior with his poverty, he said *'advice can reduce some bad behavior, but as long as my economic status is low… it is difficult to stop drinking alcohol completely.'*

Two PHC workers reported that the intervention helped them to create awareness among their clients. However, most service providers were not satisfied by what was done for people with AUDs. They felt that, unlike other mental health conditions, the scope and impact of brief intervention on AUD was limited:

"The impact is not as such, I always think why more intervention is not done with alcohol. The intervention is wide in other cases; I do not think there was a good intervention for alcoholics"

(PHC-worker-4)

However, a mental health worker did not agree with this. As he said, the intervention had an impact on awareness: "*This is not questionable. Even awareness creation is a big thing."*

The PHC workers had a number of ideas for improving the intervention. They mentioned the need for continuous training for professionals, HEWs and community members about alcohol for greater impact, but this was not available to them. Providers (PHC workers) observed that giving transport fees for people with AUD could prevent absenteeism from appointments. Some of them recommended that community assessment would be a better approach, as there was low acceptance from people with AUD so they would be unlikely to go to the clinic. This, however, would need additional budget for the payment of health workers to travel to the community.

"It is better to do it in collaboration with the community. Like psychosis and depression, it will give good result with community involvement. If they had a strong relationship with community, I think it will be successful" (PHC worker-2)

They also suggested that the health extension workers (HEWs) should bring cases [to health facilities] and that community-awareness creation mechanisms had to be implemented. They also requested stronger administrative systems to implement this.

"The service needs huge economy. You just go to the community by losing your time and search for them. It needs close monitoring at community level" (PHC worker- 6)

7. DISCUSSION

7.1. Key findings of the studies

1. In the population-based survey, there was evidence of a high prevalence of alcohol use disorders, as well as high levels of co-morbid depressive symptoms and internalized stigma in people with AUD. There was a large treatment gap, with only 13% of people with AUD having sought help. The main reported barriers to seeking care included: wanting to handle

the problem by themselves, thinking that the problem would get better by itself, not being bothered by the problem, feeling unsure where to go, financial barriers including being concerned about the cost of professional help, concerned about what people might think and access.

2. After implementation of a single session brief intervention by non-specialist health workers in PHC, there were significant reductions in severity of alcohol use disorder, problems resulting from AUD and depressive symptoms. There was no change in level of functional impairment.
3. The alcohol brief intervention delivered by non-specialist PHC workers was acceptable to most service users, caregivers and intervention providers. The qualitative evaluation supports that the intervention had a positive impact on the reduction of alcohol consumption, co-morbid physical and psychological conditions. Even though the quantitative study failed to produce evidence of significant improvements in functioning over the follow-up period, participants in the qualitative study reported change in work performance, increased earnings, improved savings, and better household food security.

   On the other hand, service providers felt that the impact of the intervention for treating AUD was limited due to the low acceptability by clients, lack of openness to talk about alcohol and shortage of space. PHC workers recommended additional training for PHC staff and raising awareness of the community about alcohol use disorders, work with the community and health extension workers and, if possible, providing transport for people with AUD to prevent absenteeism from appointments. They also requested a stronger administrative support system for improving management of AUD.

7.2. Magnitude of Alcohol use disorder

An increase in the prevalence of alcohol use disorders was observed from the previously conducted community studies in Ethiopia in 1999, which reported 3.7% (44) and 2.7% prevalence of problem drinking (54). The prevalence of probable dependence (1.8%) (AUDIT ≥20) was also slightly increased from a previous large study from rural Butajjira (1.0%). The difference may be due to the population difference and methods the studies used. For example, in the previous studies, the sample included younger people (15 or more years) and more than half of the sample in Butajjira was Muslim, compared to the current study sample which was

predominantly (92.3%) Orthodox Christian that does not strictly forbid drinking alcohol when compared to Islam. The previous studies also used CAGE screening instrument for problem drinking and CIDI for dependence. Another explanation for the variation in the prevalence might be increase over time, which might be the result of economic development, urbanization, and changes in the drinking culture. The difference might also be the result of the expansion of alcohol brewery industries in Ethiopia (136) and alcohol advertisements during the data collection period (45). Currently the Ethiopian government has banned alcohol advertisements from the media.

The prevalence of AUD was, however, lower than the findings of a study carried out in the same setting just prior to this study (15). The reason might be the difference in the instrument used to screen for alcohol use disorder. This study used a culturally adapted standardized instrument, the AUDIT, which has been shown to have high sensitivity and specificity in a range of LMICs, but in the previous study the Fast Alcohol Screening Test (FAST) was used which has high sensitivity but lower specificity than AUDIT (137). The recent study from Ethiopia, Ilu Aba Bor (64) used AUDIT and from Arba Minch, Ethiopia found similar findings with this study.

Compared to other LMICs that were part of the PRIME project consortium and using similar methodology, the prevalence of AUD in this study was higher than that reported from Nepal, India, and Uganda (16). Although the methods were similar, however, there was a difference in population characteristics. In Uganda, the sample comprised more women (housewives), in Nepal more Buddhist and Hindu, in India more Buddhist and Islam. In Nepal, nearly half of the sample had completed high school education. In the Ethiopian sample, half were women, more Christian (97%), nearly half had less than primary education.

In the previous 12 months, one in seven people drank at least six alcoholic drink on a single occasion monthly, weekly or every day. This fits with the criteria of binge-drinking/heavy episodic drinking, which is drinking five or more alcoholic drinks by male or four or more alcoholic drinks by females on the same occasion at least one day a month. Binge drinking is a serious issue that leads to unintentional injuries, violence, risky sexually behaviors, unintended pregnancy and fetal alcohol syndrome (3, 11). The finding is higher than the studies from Arba Minich, South Ethiopia (13.7% with heavy episodic drinking (HED)) in 2020 (63) and South

Africa in 2013 (75) which reports 3.7% of binge drinking. One reason for the difference is that the studies used different criteria. The Ethiopian study used WHO STEPS instruments and the South Africa study used different criteria that was three or more alcohol drinks per occasion per week.

7.3. Factors associated with alcohol use disorder

In keeping with previous evidence (47, 55, 59, 60, 67, 69, 72, 74), AUD was significantly more prevalent among men. This might be because of the acceptance of men's drinking as a norm in the society when compared to women (138). Women are traditionally not allowed to drink freely and they may be more prone to stigma and discrimination than men (139). Alcohol use disorder among women was 2.4 %, which is higher than previous studies in Ethiopia that reported 0.2 % problem drinking in women in urban Addis Ababa and 0.9% in rural Butajjira in 1999. However, the prevalence among women was lower than a recent study conducted in the same setting which reported 10.4% (15), but used the FAST rather than the AUDIT. The prevalence of AUD in women was also lower than studies from Mozambique (8%)(61) which used above four as cut off AUDIT, rural Kenya (6.4%) (68) and South Africa (6%) (59). The findings of this study mirrored studies from Kenya (67) in 2015 that reported 2.9% of women had alcohol use disorders.

Like previous African studies (15, 28, 59, 69, 72), in this study the prevalence of AUD increased with increasing age. This might be due to the increasing capability of a person to afford alcohol drinks when age increases. Alcohol plays a huge role in social events, ceremonies and religious gatherings in Ethiopia; when a person becomes an adult, the chance of attending to these events will increase which may subject them to pressure to drink alcohol. Previous studies from Ethiopia have also shown that common mental disorders increase with age (105), which could also be a driver of increasing alcohol use disorder, or vice versa.

Occupation (being a farmer, trader or daily laborer) was associated independently with AUD compared to housewives. This finding was compatible with findings of a study from Arba Minch, a town in southern Ethiopia (63) that found a higher prevalence of HED among farmers and a study from Kenya (70) that found casual work to be related to both drinking and help-seeking.

Having stressful life events was associated with alcohol use disorders. Participants with stressful life events may use alcohol as a coping mechanism to reduce their stress (66). However, given that AUD was defined over a 12-month period and stressful life events were recalled over the past six months, it is more likely that people with alcohol use disorders were more exposed to some form of stressful life events due to their problematic drinking. In this study, the most frequently reported stressful events were financial crisis, seriously upset, death of family member, serious illness, violence, broken relationships and lost things or being stolen. Many of these stressful events, particularly relating to financial problems and relationship difficulties, were mentioned in the qualitative study as being a consequence, rather than a cause, of alcohol use disorder.

7.4. Comorbid problems and internalized stigma

Mirroring studies from South Sudan (65), a study from Arba Minch, southern Ethiopia (63) and Ilu Aba Bor (64), having psychological distress was also associated with presence of alcohol use disorders. Since the study was cross-sectional, we were not able to tell which came first. Being psychologically distressed may lead a person to drink alcohol in an attempt to reduce the distress. Alternatively, drinking excessive alcohol may cause psychological distress due to its consequences (140).

Nonetheless, the importance of considering mental health in people with alcohol use disorders was underlined by the high levels of suicidality. One in ten people with an alcohol use disorder had suicidal ideation in the past 12 months and three of the four people who had suicidal ideation (75.0%) had attempted suicide during the same period. The risk of suicide among people with comorbid alcohol use disorders and mood disorder is very high (141, 142). In this study, more than one in five people (22.7%) who had both AUD and depressive symptom (PHQ-9≥5) had suicidal ideation in the past year. This highlights the need for interventions for AUD to be integrated with interventions for co-morbid mental health conditions, as is the case in the mhGAP (131).

Stigma due to alcohol use disorders and its relation with help-seeking has not been studied well in LIMCs (143). In this study, high internalized stigma was reported by most (75%) participants with harmful drinking. The stigma attached to being called or labeled as an ‘alcoholic’ may

prevent people from seeking help by affecting the perceived need for treatment and contribute to low utilization of treatment services, since it confirms their membership to the stigmatized group. In line with the PRIME studies from India and Uganda (144, 145), the main stigmatizing beliefs endorsed by participants were being disappointed by oneself, feelings of embarrassment or shame, others thinking that they cannot achieve much in life because of alcohol problems, ignored by people or taken less seriously just because of these problems and feeling out of place in the world because of these problems.

7.5. Help-seeking behavior and barriers to seek care

Very few people with AUD (13%) had sought any help for their alcohol problem even once in their lifetime. The main barriers to seeking professional help reported by people with AUD were related to lack of awareness about the disorder and the treatment, perceived control over the condition, cost, access and perceived stigma. In the qualitative part of the study, the barriers to staying engaged to the service were similar to the barriers to initial engagement that were found in the survey. The barriers mentioned by participants were linked to their causal beliefs for their alcohol problem, and not believing that health centers could manage AUD, stigma from peers, and lack of money for transportation. Most of the participants had a wish to stop or decrease their drinking, even though most did not think that they needed a formal intervention to achieve this. Help seeking in this setting was very lower than study by Belete et.al in 2019 (146), reported higher magnitude of help seeking by people who had AUD in Bahir Dar town. The reason for the difference may be the difference in the setting that Sodo is predominantly rural and Bahir Dar is Urban place. People in Bahir Dar may had better awareness about availability of treatment options and may have better access for mental health services than Sodo district.

This result is supported by a recent study from a low income country, Uganda which reported that help seeking was rare and people didn't believe that health centers could manage AUD (66). However, a recent study from Kenya (70) reported that external stigma (being excluded from family and community gatherings, as well as from family decisions) motivated men to accept informal help. None of the participants perceived AUD to be a brain disease; rather, they considered it as a character problem. Relatives (wives) explained alcohol problems as a moral failure.

7.6. Impact of a pilot brief intervention for alcohol usedisorder

After the brief intervention was implemented, about one in three people who had probable AUD (AUDIT≥8) before the intervention became low-risk drinkers (AUD<8) at both follow-up time points. This finding is comparable to the findings of a randomized controlled trial (RCT) from India, where 36% of participants who received enhanced usual care plus brief counselling (CAP) attained remission at three months (147).

A significant reduction was seen in severity of alcohol use disorder (AUDIT score) and problems resulting from AUD. This quantitative result is also supported by the qualitative part of this study. People with AUD and their relatives reported reduction in consumption and a few people with AUD stopped drinking after intervention. This is consistent with the findings of the PRIME study in Nepal (where primary care workers provided psychosocial support and a community counsellor was providing brief psychological support and Counselling for Alcohol Problem (CAP) based on motivational interviewing (148). The result is also supported by study from South Africa (86) and India (88). These findings indicate that, in low-resource countries like Ethiopia, a single session brief intervention provided by non-specialist health workers at the PHC might contribute to the reduction of risky alcohol consumption and related problems.

However, similar to the Indian PRIME study (91) and one other RCT (147) functional improvement was not seen in this study, but it was achieved in the Nepal study. This might be because of small sample size in this study or the added effect of community interventions for people with alcohol use disorders in the Nepal study. Alternatively, the findings of this study might be indicating that more intensive therapy or therapy delivered over a longer period of time may be needed to bring functional improvement in the Ethiopian setting. However, during the qualitative interviews participants reported positive changes in work performance, increased earnings, and less money wasted althogh the number was small and there could be selection bias due to purposive sampling and social desirability in their report.

7.7. Acceptability and implementation of the intervention

The intervention was reported to be acceptable by both service users and providers. Providers noted that the training increased their knowledge about AUD, its diagnosis and management.

However, they felt that the impact of the intervention for treating AUD was limited. In their view, this was because of perceived low acceptability by clients, lack of openness to talk about alcohol, difficulty to establish rapport, and shortage of space to conduct private discussions in the health facility. Primary health care workers recommended additional training for health facility staff and for the community about alcohol use disorders. They recommended working closely with community and health extension workers and to give transport fees for people with AUD to prevent absenteeism from appointments. They also requested a stronger administrative system for management of AUD.

Implementation climate is an aspect of the inner setting, in this case the PHC facility, that affects implementation of an intervention (149). In contrast with previous evidence (27), time or workload were not reported as barriers in this study. However, there was a shortage of space because of the recent introduction of community health insurance, which resulted in high patient flow in the health center.

Characteristics of individuals (providers) may also affect the implementation (149). Most of the PHC staff expressed motivation to provide the intervention because of the perception that alcohol use disorders were a serious problem in the community. However, like previous evidence, inadequate training (26, 27), lack of openness of people with AUD (150) and difficulty establishing rapport were mentioned as barriers for implementation.

The process of implementation can also affect the success of implementation. For example, fidelity of implementation was not assessed in this study. There was also a limited evaluation of the progress of implementation. The proportion of people with probable dependence in this study (13%) was higher than expected. It seems likely that PHC workers were inclined to screen PHC attendees who they already suspected had alcohol problems (indicated screening) rather than universal screening of all attendees. Furthermore, as part of the stepped care model, people with more severe AUD should had been referred to the psychiatric nurse-led unit in the neighboring district, however, none of the cases were referred. This indicates that closer supervision was needed and that the referral chain required strengthening.

7.8. Limitations of the studies

These studies must be interpreted with consideration of the following limitations. First, although there was an attempt to standardize the alcohol content of local drinks (151), the alcohol content of locally made drinks may vary. Second, self-report questionnaires administered in an interview-format may be prone to social desirability and recall bias which could potentially influence prevalence estimates (152); biological measures of alcohol consumption would have resulted in more reliable information in this study. Third, the reverse causality between alcohol use disorders and depressive symptoms, disability and some of the stressful life events cannot be ruled out in the survey study, due to the cross-sectional study design. Fourth, help seeking behavior was determined among a very small number of people with high levels of AUD; this may affect the generalizability of the results.

Fifth, in the pilot before – after study, the uptake of screening and the intervention was much lower than anticipated. This caused. a small sample size and is likely to have been underpowered the study. Six, in the absence of a comparison group, we cannot confidently attribute the improved clinical outcomes to the intervention. Regression to the mean, spontaneous remission (153), assessment reactivity and the effect of assessment frequency could all have contributed to the observed improvement (154). Seven, the provider side fidelity of the intervention was not measured. Eight, the qualitative study was not informed by theory during the design stage and the data collection stage; this might limit the richness of the information about the implementation and acceptability of the intervention.

7.9. Conclusions

In conclusion, although alcohol use disorder is a common problem in this rural Ethiopian setting, it is often left untreated. The unmet need for treatment is substantial. Integrating alcohol treatment services into PHC settings is important to address this need, since people with alcohol problem do not come for treatment of the AUD but tend to have frequent contact with PHC settings for physical health complaints. Stigma and low awareness are major barriers to help-seeking.

A pilot implementation of a single session brief intervention in PHC by non-specialist health workers had a positive impact on the severity of AUD, consequences of drinking, and depressive

symptoms over a period of 12 months. This positive impact of the intervention was also supported by the qualitative study.

In the before-after study, there was no evidence for an effect of the intervention on the functioning of individuals with alcohol use disorders. However, during the qualitative part of the study the opposite was found. Single session brief intervention changed the lives of people with alcohol use disorders by increasing work capacity, increase earnings, less money wasted and provide better for family.

The brief intervention delivered at PHC by non-specialist health workers was also feasible, acceptable and perceived to bring benefits. The findings of this study indicate that there is a need to address low community awareness about AUD, increase skill of PHC workers and deliver interventions in the community in order to enhance acceptability and impact.

With intensive training and more frequent supervision, non-specialized workers at the PHC level might contribute to the reduction of the burden of AUD, by early screening, brief intervention, and referral of people with severe AUD for specialist treatment.

7.10. Recommendations

For policy and practice

- There is a need for interventions targeted at changing public awareness about alcohol use disorders, the availability of effective treatment and stigma reduction to promote the uptake of alcohol treatment services.
- Community sensitization and promotion activities need to be implemented to stimulate demand for services.
- Training and supervision of PHC health care professionals is warranted.
- Referral pathways for people with AUD should be strengthened and implemented.
- In this study, the mostly widely used alcohol was a local drink “Areqi (distilled alcohol)”, hence, regulation of locally produced alcoholic beverages is needed.

Future studies

- Prospective studies are recommended to assess the association between depression, suicidality and disability in people with alcohol use disorders.
- Studies focusing on the effectiveness and cost-effectiveness of brief intervention against other interventions and implementation strategies are required in the setting.
- Future research must test the intervention on a larger scale including larger numbers of sample with alcohol use disorders involving both genders and
- Factors that affect the treatment effectiveness should be studied.
- Qualitative studies, which help to explore the real-life experience of the intervention, its implementation, acceptability to service users and providers, and feasibility, are crucial and need to be done in other parts of the country.
- Further qualitative studies in diverse settings in Ethiopia are also important to explore barriers to care, the effect of stigma on alcohol use disorders and help seeking.

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ANNEXES

1. Information Sheet and consent form for community survey and cohort studies - English version

Study number: **084/11/PSY**

We would like to invite you to participate in this research project. You should only participate if you want to; choosing not to take part will not disadvantage you in any way. Before you decide whether you want to take part, it is important for you to understand why the research is being done and what your participation will involve. Please take time and read or listen carefully the information given below. You can ask us if there is anything that is not clear or if you would like more information. This research is conducted by a project PRIME, which is under Addis Ababa University

What are the study's aims?

This study is a population based study looking at how patients with mental illness, alcohol use disorder and epilepsy can get mental health care in primary health care. It also assesses how these people perceived their illness and what are the barriers to get mental health care for their problems.

Who are we recruiting for the study?

Any member of population who can give us information on the above topics will be included.

What will happen if you agree to take part?

You will be invited to take part in an interview. The interview will last 60 minute. Data collectors will ask you questions.

Are there any risks or disadvantages associated with taking part in the study?

We do not think that the interview will cause you any problems. However, on rare occasions, somebody might be upset by the questions that they are being asked. If you are upset by the questions, then you do not have to answer the question; the interview can also be stopped at any time.

Are there any benefits of taking part in the study?

There is no direct benefit to you or your family or caregiver by taking part in the study. However, we hope that the information we collect will help to improve mental health services in Ethiopia and other similar countries.

What will we do with your information?

The questions will not include your name or any information from which you can be identified. Nobody except the project co-ordinators Dr. Abebaw and Dr. Girmay and project data managers will know that the information belongs to you.

We will keep the questionnaires in a locked cupboard. After the end of this study, the information you give us may be stored and used by other researchers, but they will not be able to identify you in any way.

Who is carrying out the study?

Dr. Abebaw Fekadu and Dr. Girmay Medhin are principal investigators. The study in Ethiopia is being carried out by PRIME project under Addis Ababa University.

If you have any questions or require more information about this study, please contact the research team using the following contact details: Contactable through the Butajira project office on telephone number 046 151595, from Monday to Friday during working hours.

If this study has harmed you in any way, you can contact the Institutional Review Board, Addis Ababa University, using the details below for further advice and information: Institutional Review Board, School of Medicine, Addis Ababa University

Telephone number: 0115-5538734

Note: You can withdrawal yourself from the study until the data is analyzed and reported. If you agree to participate, this information sheet will be given to you and you will sign for your agreement.

CONSENT FORM

Please complete this form after you have read the Information Sheet and/or listened to an explanation about the research.

YOU WILL BE GIVEN A COPY OF THIS INFORMATION SHEET.

I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data until its published. ☐

I consent to the processing of my personal information for the purposes explained to me. ☐

I understand that such information will be handled in accordance with the local data protection rules and the rules. ☐

If I am choose for in-depth interview, I agree for the interview to be audio-recorded. ☐

I understand that the information I have submitted will be published as a report. ☐

I note that confidentiality and anonymity will be maintained and it will not be possible to identify me from any publications.

I agree that the research team may use my data for future research and understand that any such use of identifiable data would be reviewed and approved by a research ethics committee. (In such cases, as with this project, data would not be identifiable in any report). ☐

I agree that my data will be archived in anonyms form, so that other researchers may use my data for future research. ☐

I understand that any such use of identifiable data would be reviewed and approved by a research ethics committee. (In such cases, as with this project, data would not be identifiable in any report). ☐

Additionally I agreed to be interview by data collectors for a study done by investigators of PRIME and EMRALED about the effect of mental illness on family planning. ☐

Participant's Statement:

I _____ agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

Sign ---------- **Date ----------**

Witness Statement (in event that participant is not literate):

I_____ Agree that the research project named above has been explained to _____ (participant) to his/her satisfaction and that s/he agrees to take part in the study. Both the notes written above and the Information Sheet about the project have been read to him/her, and s/he understands what the research study involves.

Sign ---------- **Date ----------**

Investigator's Statement:

I _____ confirm that I have carefully explained the nature, demands and any foreseeable risks (where applicable) of the proposed research to the participant.

Sign ---------- **Date ----------**

2. **Information Sheet and Consent Form for Community study and cohort study - Amharic Version**

<u>የአዕምሮሕመምየሚያደርሰዉንአሉታዊተጽዕኖለመገምገምየሚካሄድጥናት</u>

በዚህጥናትእንዲሳተፉተጋብዘዋል።ተሳትፎዎትምበእርሰዎፍላጎትላይብቻየተመሰረትይሆናል።
በጥናቱላለመሳተፍከመረጡ / ከወሰኑአለመሳተፈዎትበእርሰዎላይምንምየሚያስከትለውችግርየለም።
በጥናቱለመሳተፍከመወሰንዎበፊትጥናቱለምንእንደሚሰራናየእርስዎተሳትፎምንእንደሚያካትትመረዳቱአ
ስፈላጊነው።እባክዎከዚህበታችየተሰጡመረጃዎችንበጥንቃቄያዳምጡ/ያንብቡ።
ግልጽያልሆነነገርካለናየበለጠመረጃከፈለጉሊጠይቁንይችላሉ።

ይህጥናትበአ.አዩኒቨርሲቲስርበሚገኘውበPRIME ፕሮጀክትየሚካሄድነው።

<u>የምርምሩአላማ</u>

ይህጥናትበአእምሮህመምየሚሰቃዩ፣
ከአልኮልሱስጋራየተያያዙችግሮችወይምየሚጥልበሽታያለባቸውሰዎችንበጤናጣቢያደረጃእንዴትየህክምናእ
ርዳታሊያገኙእንደሚችሉ፣
ህመማቸውንእንዴትእንደሚያዩትእናየሚያስፈልጋቸውንህክምናእንዳያገኙየሚያደርጋቸውንምክንያቶችንየ
ሚለይእናየአዕምሮሕመምበቤተሰብምጣኔሀብትላይየሚያደርሰዉንአሉታዊተጽዕኖለመገምገምየሚካሄድ
የማህበረሰብየዳሰሳጥናትነው።

<u>በጥናቱእንዲሳተፉየሚመረጡትእነማንናቸው?</u>

ከላይበተጠቀሰውርእስላይመረጃሊሰጡንእንደሚችሉየምናስባቸውማናቸውምየማህበረሰብአባላትሁሉይካ
ተታሉ።

<u>በጥናቱለመሳተፍቢስማሙምንይደረጋል?</u>

ከመረጃሰብሳቢዎቻችንአንዱጥያቄዎችንያቀርብሎታል።ቃለመጠይቁወደስልሳደቂቃገደማይወስዳል።

<u>በጥናቱመሳተፍምንጉዳትይኖረዋል</u>?

በቃለመጠይቁመሳተፍየሚያስከትለውችግርየለም።
ቢሆንምአንዳንድሰዎችበሚነሱጥያቄዎችሊረበሹይችሉይሆናል።
እርስዎበጥያቄዎቹደስተኛካልሆኑመልስይሰጡዘንድአይገደዱም።ቃለመጠይቁምእዚሁላይመቆምይችላል።

የሚገኘውመረጃበኢትዮጵያምሆነበሌሎችሀገሮችያለውንየአእምሮጤናአገልግሎትእንደሚያሻሽለውተስፋእ
ናደረጋለን።ጥናቱሲጠናቀቅግኝታችንንለማወቅይችሉዘንድበወረዳውውስጥለህዝብእንዲገለጽእናደርጋለን።

<u>በሰጡንመረጃምንእናደርግበታለን?</u>

ጥያቄዎቹየእርስዎንስምእንዲሁምማንነትአያካትቱም።
ስለዚህከፕሮጀክቱአስተባባሪዎችዶ/ርአባባውፈቃዱእናዶ/ርግርማይመድህንእናየፕሮጀክቱየመረጃሰራተኞች ውጪማንምሌላሰውመረጃውየእርስዎስለመሆኑየሚያውቀውአይኖርም።

የመረጃሰነዶቹንበሚቆለፉመሳቢያ / መደርደርያ / እናስቀምጣለን።
ከጥናቱማለቅበኋላየሰጡንመረጃሌሎችተመራማሪዎችይጠቀሙበትይሆናል።
ግንበማንኛውምመንገድመረጃየሰጠውንሰውመለየትእንዳይችሉይደረጋል።

<u>ዋናአጥኚዎች</u>

ዶ/ርአበባውፈቃዱ፣እናዶ/ርግርማይመድህንናቸዉ።ሊያገኙንከፈለጉየቡታጅራፕሮጀክትቢሮስልክቁጥር 046 115 15 95 በመጠቀምበስራቀኖችበሥራሰአትሊደውሉልንይችላሉ።

በጥናቱመሳተፍየእርስዎውሳኔጉዳይይሆናል።
በጥናቱለመሳተፍከወሰኑበማንኛውምሰአትምክንያትመስጠትሳይጠበቅብዎትበነጻነትተሳትፎውንማቋረጥ ይችላሉ።

ይህጥናትበማንኛውምመንገድጉዳትካደረሰብዎትየአዲስአበባዩኒቨርሲቲየህክምናፋኩልቲየስነምግባር (ኢቲክስ) ተቋማዊየክለሳቦርድንከዚህበታችበተጠቀሰውአድራሻማነጋገርይችላሉ።

- ስልክቁጥር 0115-553 87 34

<u>ማስታወሻ፡</u>

ወደመጨረሻሪፖርትነትእስኪቀየርድረስበፈለጉትሰአትመረጃዎንከፕሮጀክቱሊያወጡይችላሉ።

በጥናቱለመሳተፍከወሰኑይህንየመረጃቅጽይሰጥዎትናስምምነትግንበፊርማእንዲያረጋግጡይጠየቃሉ።

የፈቃደኝነትመጠየቅያቅጽ

የመረጃወረቀቱንካነበቡእናወይምስለምርምሩየተሰጠውንመግለጫካዳመጡ/ካነበቡበኋላእባክዎንይህን**የፈቃደኝነትመጠ**
እባክዎከመረጃውውረቀትወይምከተደረገልዎትገለጻየመነጨጥያቄካለዎትበምርምሩለመሳተፍከመወሰንዎበፊትመጠይቁንየ
በእጅዎይኖርዘንድእናበፈለጉጊዜእንዲያመሳክሩበትየዚህየስምምነትቅጽግልባጭይሰጥዎታል።

በማንኛውምጊዜበምርምሩላለመሳተፍከወሰንኩኝ፤
ለምርምሩለሚያካሂዱትወይምወኪሎቻቸውማሳወቅእንደምችልናምንምምክንያትሳላቀርብከምርምሩእራሴንላገልእንደም
ከዚህምባሻገርጥናቱእስኪታተምድረስየሰጠሁትንቅጽመረጃዎችማውጣትእንደምችልተረድቻለሁ።

የሰጠሁትየግልመረጃለተገለፀልኝአላማጥቅምላይይውልዘንድተስማምቻለሁ።

በጥልቀትቃለመጠይቁንለመስጠትከተመረጥኩቃለመጠይቁበመቅረጸድምጽይቀዳዘንድእስማማለሁ።

የሰጡንመረጃእንደሪፖርትይታተማል።የሚሰጡንመረጃሚስጥራዊነትእንደሚጠበቅናከሚወጡትምሪፖርቶችማንነቶንለማ

የምርመራቡድኑቅድመመረጃውንለወደፊትምርምርሊጠቀምእንደሚችልእስማማለሁ።

በተጨማሪየፕራየምእናኢምራልድተመራማሪዎችለሌላተመሰሳይጥናትማለትምየአዕምሮሕመምበቤተሰብምጣኔሀብትላይ
መረጃሰብሳቢዎች፤በመኖሪያቤታችንተገኝተዉከቤተሰቡሃላፊጋር፡ቃለመጠይቅእንዲያደርጉፈቅጃለሁ።

<u>ለመረጃሰብሳቢዉ</u>፡የፈቃደኝነትማረጋገጫከተገኘ (ከተሰጠ) በመኖሪያቤትመረጃየሚሰጥሰዉሙሉስም፡
እናየቀጠሮቀንከዚህጋርተያይዞበሚገኘዉቅጽላይበጥንቃቄ፡ሙላ(ሙይ)።

<u>የተሳታፊውመግለጫ</u>

እኔ
_____ከላይየተጠቀሰውየምርምርፕሮጀክትበበቂሁኔታተብራር
ቶልኝበጥናቱለመሳተፍተስማምቻለሁ።
ከላይየተጻፉትንማሳሰቢያዎችእናስለፕሮጀክቱየሚገልጽየመረጃወረቀትአንብቤጥናቱየሚያካትተውንተረድ
ቻለሁ።

ፊርማ_____ ቀን _____

<u>የምስክርቃል (ተሳታፊውያልተማረከሆነ)</u>

እኔ
_____ከላይየተጠቀሰውየምርምርፕሮጀክትበበቂሁኔታለ_____
_____ ተብራርቶላቸውበምርምሩለመሳተፍተስማምተዋል።
ከላይየተጻፉማሳሰቢያዎችእናስለፕሮጀክቱየሚገልጽየመረጃወረቀትየተነበበላቸውሲሆንጥናቱየሚያካትታቸ
ውንምጉዳዮችተረድተዋል።

ፊርማ_____ ቀን _____

<u>የቃለመጠይቅአቅራቢቃል፡-</u>

እኔ_____የጥናቱንምንነት፣
የሚፈልጋቸውንነገሮችናበጥናቱመሳተፍሊያከትልየሚችለውንችግር (አግባብካለው)የሚችለውንጉዳዮች(
አስፈላጊሲሆን) ለተሳታፊውበጥንቃቄአብራርቻለሁ።

ፊርማ _____ ቀን _____

የመኖሪያቤትንለመጎብኘትእንደምቻልየተሰጠማረጋገጫ: **(FULL NAME)**	
የማረጋገጫሰጪው/ዋስም	
የአባትስም	
HOUSEHOLD CONTACT DETAILS	
በመኖሪያቤትመረጃየሚሰጥሰዉሙሉስም	
ቀበሌ	
ጎጥ	
የመኖሪያአካባቢልዩስም	
ስልክቁጥር	□□□□□□□□□□
ለቃለመጠይቅየተያዘየቀጠሮቀን	
መለያ**IDENTIFIER**	
IF ENROLLED/ELIGIBLE FOR PRIME COHORT STUDY: ለፕራየምጥናትብቁየሆኑናየተካተቱ	PRIME COHORT STUDY PARTICIPANT ID NUMBER: የፕራየምጥናትተሰታፊመለያቁጥር □□□□□□
IF NOT ENROLLED/ELIGIBLE FOR PRIME COHORT STUDY: ለፕራየምጥናትብቁያልሆኑና ያልተካተቱ	AGE OF CONSENTING INDIVIDUAL: ዕድሜ □□□ GENDER OF CONSENTING INDIVIDUAL: ጸታወንድ/ሴት

Contact Informationስም፣አድራሻ፣ስልክ፣ቁጥር

For Internal Use ONLY – PRIME Recruiters, Please Complete and Return to the EMERALD Fieldwor

3. Information Sheet and Consent Form for Qualitative Study - English version

Information Sheet

This information sheet and consent form is prepared to explain the study you will be asked to join.

Title of the research project:

Alcohol Use Disorders, Help-Seeking Behavior and Impact of Brief Intervention on Alcohol Use Pattern among People with Alcohol Use Disorders in Sodo District, South-Central Ethiopia

Name of the organization and the PhD student

This study is conducted by the PRIME project, under Addis Ababa University. The investigator is a PhD. Student, Selamawit Zewdu with supervisors from Addis Ababa University College of Health Science.

What is Purpose of the study?

The purpose of this study is to explore perspectives and experience of people who received brief intervention for alcohol use, their caregivers and service providers.

Who will be involved in the study?

People with alcohol use disorder who received brief intervention in the health center, their caregivers and service providers.

What will happen if you agree to take part?

You are invited to participate on this project. If you are willing to participate on this project, you need to understand and sign the agreement form. Then after, you will be interviewed, interviews may be tape-recorded, if you agree to this. If you take part in a tape-recorded interview, we will make sure that the tapes do not include your name or any information from which you can be identified. If notes are taken instead of tape-recordings, these notes will also not include your name or information from which you can be identified. The tapes and notes will be kept in a

locked cupboard. Once the interview tapes have been written down, and the data has been analyzed, the tapes will be cleared.

Nobody except the investigator will know that the information belongs to you. We will keep the questionnaires in a locked cupboard. After the end of this study, the information you give us may be stored and used by other researchers, but they will not be able to identify you in any way.

Are there any risks or disadvantages associated with taking part in the study?

We do not think that the interview will cause you any problems. However, on rare occasions, somebody might be upset by the questions that they are being asked. If you are upset by the questions, then you do not have to answer the question; the interview can also be stopped at any time.

Are there any benefits of taking part in the study?

There will be a 50 Birrs for transport and to compensate time you will lose.

What will we do with your information?

The information you give will help to improve alcohol intervention tried in health services in the district and over all Ethiopia and other similar countries.

What will we do with the results of the study?

Once the overall study is completed, we will let you know what we have found out, either by inviting you to a meeting, by giving you a leaflet, or publishing our findings in the district. We plan to publish the findings in scholarly journals and at conferences. We will also tell our findings to policy makers within the Ministry of Health in Ethiopia and other similar countries.

Do I have to take part in the study?

It is up to you to decide whether to take part or not. If you decide to take part, you are still free to withdraw from the study at any time and without giving a reason. You may also withdraw any information you have already provided up until the data is analyzed and published. A decision to withdraw at any time, or a decision to take part, will not affect the standard of care you receive, or disadvantage you in any way.

Persons to contact

If you want to know more information you can contact by the address below and you may ask any time you want through the address below

Selamawit Zewdu Salilih

Phone: +251913139474

E-mail: eaglezewdu@gmail.com , selaminana@gmail.com

If you do decide to take part, you will be given this information sheet to keep and be asked to sign a consent form.

I understand that if I decide at any time during the research that I no longer wish to participate in this project, I can notify the researchers involved and withdraw from it immediately without giving any reason. Furthermore, I understand that I will be able to withdraw my data until its published. ☐

I consent to the processing of my personal information for the purposes explained to me. ☐

I understand that such information will be handled in accordance with the local data protection rules and the rules. ☐

I agree for the interview to be audio-recorded. ☐

I understand that the information I have submitted will be published as a report. ☐

I note that confidentiality and anonymity will be maintained and it will not be possible to identify me from any publications.

I agree that the research team may use my data for future research and understand that any such use of identifiable data would be reviewed and approved by a research ethics committee. (In such cases, as with this project, data would not be identifiable in any report). ☐

I agree that my data will be archived in anonyms form, so that other researchers may use my data for future research. ☐

Participant's Statement:

I _____ agree that the research project named above has been explained to me to my satisfaction and I agree to take part in the study. I have read both the notes written above and the Information Sheet about the project, and understand what the research study involves.

☛ go to the questions.

If no; you will be thanked and interrupt responding to the questionnaire

Witness Statement (in event that participant is not literate):

I_____ Agree that the research project named above has been explained to _____ (participant) to his/her satisfaction and that s/he agrees to take part in the study. Both the notes written above and the Information Sheet about the project have been read to him/her, and s/he understands what the research study involves.

Sign ---------- Date ----------

Investigator's Statement:

I _____ confirm that I have carefully explained the nature, demands and any foreseeable risks (where applicable) of the proposed research to the participant.

Sign ---------- Date ----------

4. Information Sheet and Consent Form for qualitative study - Amharic Version

ስለጥናቱመግለጫ

የጥናቱርዕስ፡የአልኮልሱስየሚያደርሰዉንአሉታዊተጽዕኖ፣

ችግሩያለባቸዉሰዎችእርዳታእንዴትእነደሚያገኙናየተሞከረዉየህክምናዉያመጣዉንለዉጥመገምገም።

ጥናቱንየሚያካሂደዉአካል፡

ይህጥናትበአ.አዩኒቨርሲቲስርበሚገኘውበPRIME ፕሮጀክትየሚካሄድሲሆን.

የሚካሄደዉበዶክትሬትተማሪሰላማዊትዘዉዱእናአማካሪመምህሮችነቸው።

የምርምሩአላማ

ይህጥናትከአልኮልሱስያለባቸውሰዎችንበጤናጣቢያደረጃየተሰጣቸህዉንየህክምናእንዴትእነደሚየዩት፣

ህመማቸውንእንዴትእንደሚያዩትእናየሚያስፈልጋቸውንህክምናእንዳያገኙየሚያደርጋቸውንምክንያቶችንየ

ሚለይጥናትነዉ።

በጥናቱእንዲሳተፉየሚመረጡትእነማንናቸው?

ከላይበተጠቀሰውርእስላይመረጃሊሰጡንእንደሚችሉየምናስባቸውለአልኮልየምክርህክምናበጤናጣቢያየተ

ሰጣቸዉሰዎች፣ቤተሰቦቻቸዉእናህክምናዉንየሰጡባለሞያዎችይካተታሉ።

በጥናቱለመሳተፍቢስማሙምንይደረጋል?

በዚህጥናትእንዲሳተፉተጋብዘዋል።

በጥናቱለመሳተፍከመወሰንዎበፊትጥናቱለምንእንደሚሰራናየእርስዎተሳትፎምንእንደሚያካትትመረዳቱአ

ስፈላጊነው።ስለዚህበጥንቃቄማንበብወይምማዳመጥአለብዎ።

ለመሳተፍፍቃደኛመሆንወንለመግለጽየሚቀጥለዉፎርምላይመፈረምይኖርብወታል፤

ቀጥሎቃለመጠይቅይደረግለዎታል፣

ፍቃደኛከሆኑበድምጽዎየሚሰጡትመረጃስምወወይምማንነትዎሳያካትትበመቅረጸድምጽቀረጻል።

ካተስማሙበጽሁፍማሰታዎሻመረጃዎችይያዛሉ።

የከተመራማሪዎችዉጭየሚሰጡትመረጃለሌላሚስጥራዊነቱይጠበቃልእናምማንምሌላሰውመረጃውየእር

ስዎስለመሆኑየሚያውቀውአይኖርም።የመረጃቴፖችበሚቆለፉመሳቢያ / መደርደርያ / እናስቀምጣለን።
ከጥናቱማለቅበኋላየሰጡንመረጃሌሎችተመራማሪዎችይጠቀሙበትይሆናል።
ግንበማንኛውምመንገድመረጃየሰጠውንሰውመለየትእንዳይችሉይደረጋል።

<u>በጥናቱመሳተፍምንጉዳትይኖረዋል</u>?

በቃለመጠይቁመሳተፍየሚያስከትለውችግርየለም።
ቢሆንምአንዳንድሰዎችበሚነሱጥያቄዎችሊረበሹይችሉይሆናል።
እርስዎበጥያቄዎቹደስተኛካልሆኑመልስይሰጡዘንድአይገደዱም።ቃለመጠይቁምእዚሁላይመቆምይችላል።

<u>በጥናቱመሳተፍምንጥቅምይኖረዋል</u>?

ቃለመጠይቁየሚያጠፋብዎትንሰዓትለማካካስእናለትራነሰፖርትወጭ 50 ብርየሰጠዎታል።

<u>በሰጡንመረጃምንእናደርግበታለን?</u>

የሚገኘውመረጃበኢትዮጵያምሆነበሌሎችሀገሮችያለውንየአእምሮጤናአገልግሎትእንደሚያሻሽለውተስፋእ
ናደረጋለን።ጥናቱሲጠናቀቅግኝታችንንለማወቅይችሉዘንድበወረዳውውስጥለህዝብእንዲገለጽእናደርጋለን።

በጥናቱመሳተፍየእርስዎውሳኔጉዳይይሆናል።
በጥናቱለመሳተፍከወሰኑበማንኛውምሰአትምክንያትመስጠትሳይጠበቅብዎትበነጻነትተሳትፎውንማቋረጥ
ይችላሉ።ወደመጨረሻሪፖርትነትእስኪቀየርድረስበፈለጉትሰአትመረጃዎንከፕሮጀክቱሊያወጡይችላሉ።

ይህጥናትበማንኛውምመንገድጉዳትካደረሰብዎትየአዲስአበባዩኒቨርሲቲየህክምናፋኩልቲየስነምግባር
(ኢቲክስ) ተቋማዊየክለሳቦርድንከዚህበታችበተጠቀሰውአድራሻማነጋገርይችላሉ።- ስልክቁጥር 0115-553
87 34

ሊያገኙንከፈለጉ፡WLT©ƒ ²¨Æ XMMI / ª“ }S^T]/

eM¡: +251-913-13-94-74

›=T@M: selaminana@gmail.com

<u>ማስታወሻ፡</u>

በጥናቱለመሳተፍከወሰኑይህንየመረጃቅጽይሰጥዎትናስምምነትግንበፊርማእንዲያረጋግጡይጠየቃሉ።

<u>የፈቃደኝነትመጠየቅያቅጽ-</u>

የመረጃወረቀቱንካነበቡእናወይምስለምርምሩየተሰጠውንመግለጫካዳመጡ/ካነበቡበኋላእባክዎንይህን**የፈቃደኝነትመጠ**

እባክዎከመረጃውውረቀትወይምከተደረገልዎትገለጻየመነጨጥያቄካለዎትበምርምሩለመሳተፍከመወሰንዎበፊትመጠይቁንየ

በእጅዎይኖርዘንድእናበፈለጉጊዜእንዲያመሳክሩበትየዚህየስምምነትቅጽግልባጭይሰጥዎታል።

በማንኛውምጊዜበምርምሩላለመሳተፍከወሰንኩኝ፤

ለምርምሩለሚያካሂዱትወይምወኪሎቻቸውማሳወቅእንደምችልናምንምምክንያትሳላቀርብከምርምሩእራሴንላገልእንደም

ከዚህምባሻገርጥናቱእስኪታተምድረስየሰጠሁትንቅጽመረጃዎችማውጣትእንደምችልተረድቻለሁ።

የሰጠሁትየግልመረጃለተገለፀልኝአላማጥቅምላይይውልዘንድተስማምቻለሁ።

በጥልቀትቃለመጠይቁንበምሰጥበትጊዜቃለመጠይቁበመቅረጸድምጽይቀዳዘንድእስማማለሁ።

የሰጡንመረጃእንደሪፖርትይታተማል።

የሚሰጡንመረጃሚስጥራዊነትእንደሚጠበቅናከሚወጡትምሪፖርቶችማንነቶንለማወቅእንደማይቻልልናረጋግጥእንወዳለን

የምርመራቡድኑቅድመመረጃውንለወደፊትምርምርሊጠቀምእንደሚችልእስማማለሁ።

<u>የተሳታፊውመግለጫ</u>

እኔ

_____ከላይየተጠቀሰውየምርምርፕሮጀክትበበቂሁኔታተብራር

ቶልኝበጥናቱለመሳተፍተስማምቻለሁ።

ከላይየተጻፉትንማሳሰቢያዎችእናስለፕሮጀክቱየሚገልጽየመረጃወረቀትአንብቤጥናቱየሚያካትተውንተረድ

ቻለሁ።

ፊርማ_____ ቀን _____

<u>የምስክርቃል (ተሳታፊውያልተማረከሆነ)</u>

እኔ

_____ከላይየተጠቀሰውየምርምርፕሮጀክትበበቂሁኔታለ_____

_____ ተብራርቶላቸውበምርምሩለመሳተፍተስማምተዋል።

ከላይየተጻፉማሳሰቢያዎችእናስለፕሮጀክቱየሚገልጽየመረጃወረቀትየተነበበላቸውሲሆንጥናቱየሚያካትታቸ
ውንምጉዳዮችተረድተዋል።

ፊርማ_____ ቀን _____

<u>የቃለመጠይቅአቅራቢቃል፡-</u>

እኔ_____የጥናቱንምንነት፣

የሚፈልጋቸውንነገሮችናበጥናቱመሳተፍሊያከትልየሚችለውንችግር (አግባብካለው) የሚችለውንጉዳዮች(
አስፈላጊሲሆን) ለተሳታፊውበጥንቃቄአብራርቻለሁ።

ፊርማ _____ ቀን _____

5. Questionnaires

A. Questionnaires for the Community Survey–English Version

PRIME ETHIOPIA

ADDIS ABABA UNIVERSITY IN COLLABORATION WITH

THE FEDERAL MINISTRY OF HEALTH

Federal Ministry of Health

Note for interviewer: Please make sure that the participant agreed.

INTERVIEW DETAILS		
Questionnaire ID	**[ ] [ ] [ ] [ ]**	
Household address	**Kebele _____** **"Got" _____** **House number _____**	
Household member #, name		
Interview contact attempt 1	DD / MM / YYYY	HH : MM
Contact result 1		
Interview contact attempt 2	DD / MM / YYYY	HH : MM
Contact result 2		
Interview contact attempt 3	DD / MM / YYYY	HH : MM
Contact result 3		
Interviewer ID		
Supervisor ID		
Contact result codes: 1=Completed; 2=Not at home; 3=Postponed; 4=Refused; 5=Partly completed; 6=Incapacitated; 7=Other (specify)		

001	Interview date (E.C.)	**[ ] [ ] / [ ] [ ]/ [ ] [ ] [ ] [ ]**		clinicdate6
002	Assessor's name			intname
003	Assessor's ID	**[ ] [ ]**		intid
004	PRIME ID	AE **[ ] [ ] [ ] [ ]**		parid
005	Interview start time	**[ ] [ ] : [ ] [ ]**		clinicst6
006	Interview finish time	**[ ] [ ] : [ ] [ ]**		clinicfi6

Socio-demographic Information				
101	Age (How old are you?)	---------- [ ] [ ]		AGE
102	Sex	Male	0	SEX
		Female	1	
103	Marital status (What is your current marital status)?	Single	1	MARIT
		Married	2	
		Divorced	3	
		Widowed	4	
		Married but not living together	5	
104	Living place (where do you live, in urban or rural kebele?)	Urban	0	RES
		Rural	1	
105	Educational background (What is the highest level of education you have completed?)	didn't attend formal eduction	1	EDU
		Can read and write but	2	
		Primary	3	
		Secondary	4	
		College or university	5	
106	How much is your daily/monthly/ yearly income? If the respondent is day laborer or merchant ask for daily, if employed monthly if farmer ask yearly	Daily_____ Monthly ---------- Yearly ----------		INCOME
107	How would you express your family's current income when you compare with other famies?	lower	1	WEALTH
		middle	2	
		higher	3	
108	What is your religion	Orthodox	1	RELIG
		Muslim	2	
		Protestant	3	
		Others _____	4	
109	What is your ethinicity?	Gurage	1	ETHNIC
		Oromo	2	
		Amhara	3	
		Others	4	
110	How long you lived in this keble?	[ ] [ ] year		RESDUR
111	Total number of family	[ ] [ ]		HHTOTAL
112	Number of children under 7 year in the family	[ ] [ ]		HHDEP
113	Occupation (what is your work from which you get your income or how spend your day)	House wife	1	EMP
		Farming	2	
		Merchant	3	
		student	4	
		Governmentemployee	5	
		Daily labourer	6	

		Other (please specify)	7	
114	Your spouse's occupation (what is your spouse's work from which she/he gets his/her income or how they spend their day)?)) [ask only if the respondent is married or his spouse is alive) If not married go to question 201	House wife	1	EMPSP
		Farming	2	
		Merchant	3	
		student	4	
		Governmentemployee	5	
		Daily labourer	6	
		Other (please specify)	7	
115	Educational background of your spouse (What is the level of education of your spouse?)	didn't attend formal eduction	1	
		Can read and write	2	
		Primary	3	
		Secondary	4	
		College or university	5	

Depression

Patient health questionnaire / PHQ-9/				
Over the past 2 weeks, have you been bothered by any of the following problems? **Note: ፡-Explain to the interviewee that occasionally means (2-6 days), several days means 7-11 days and nearly every day means 12 -14 days**.				
201-0	Little interest or pleasure in doing daily activities?	Yes	1	PHLI
		No [→go to Q 202-0]	0	
201-1	If yes, how frequently in the last 2 weeks?	Occasionally	1	
		Several days	2	
		Nearly every day	3	
202-0	Feeling down, depressed, or hopeless?	Yes	1	PHFS
		No [→go to Q 203-0]	0	
202-1	If yes, how frequently in the last 2 weeks?	Occasionally	1	
		Several days	2	
		Nearly every day	3	
203-0	Trouble falling/staying asleep? OR Sleeping too much?	Yes	1	PHIS
		No [→go to Q 204-0]	0	
203-1	If yes, how frequently in the last 2 weeks?	Occasionally	1	
		Several days	2	
		Nearly every day	3	
204-0	Feeling tired or having little energy?	Yes	1	PHLE
		No [→go to Q 205-0]	0	
204-1	If yes, how frequently in the last 2 weeks?	Occasionally	1	
		Several days	2	
		Nearly every day	3	
205-0	Poor appetite? OR Overeating	Yes	1	PHLR
		No [→go to Q 206-0]	0	
205-1	If yes, how frequently in the last 2 weeks?	Occasionally	1	
		Several days	2	
		Nearly every day	3	
206-0		Yes	1	PHFH
		No [→go to Q 207-0]	0	
206-1		Occasionally	1	PHLRIF6
		Several days	2	
		Nearly every day	3	
207-0	Trouble concentrating on things, such as reading the newspaper or watching television?	Yes	1	PHFH
		No [→go to Q 208-0]	0	

207-1	If yes, how frequently in the last 2 weeks?	Occasionally	1	
		Several days	2	
		Nearly every day	3	
208-0	Moving or speaking so slowly that other people could have noticed? OR Being so fidgety or restless that you have been moving around a lot more than usual that other people could have noticed?	Yes	1	PHDC6
		No [→go to Q 209-0]	0	
208-1	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHDCIF6
		Several days	2	
		Nearly every day	3	
209-0	Thoughts that you would be better off dead or of hurting yourself in some way? If the interviewee ANSWERS YES, refer him/ HER to THE PROJECT COORDINATOR FOR CLINICAL REVIEW	Yes	1	PHDT6
		No [→go to Q 210-0]	0	
209-1	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHDTIF6
		Several days	2	
		Nearly every day	3	
210	Sum 201-209	✍[ ][ ]		PHQTOTO
211	If the sum is 5 and above for the above problems, ask the following? : How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all	0	PHDR
		Somewhat difficult	1	
		Very difficult	2	
		Extremely difficult	3	
		Yes	**1**	

Alcohol use disorder

Alcohol Use Disorders Identification Test /AUDIT/				
Now I am going to ask you some questions about your use of alcoholic beverages during the past 3 months. Because alcohol use can affect many areas of health (and may interfere with certain medications), it is important for us to know how much you usually drink and whether you have experienced any problems with your drinking. Please try to be as honest and as accurate as you can be. Show cards for standard drinks measures				
301	How often do you have a drink containing alcohol?	Never [→ go to Q 309]	0	AUD1
		Monthly or less	1	
		2-4 times a month	2	
		2-3 times a week	3	
		4 or more times a week	4	
302	How many drinks containing alcohol do you have on a typical day when you are drinking?	1 -2	0	AUD2
		3-4	1	
		5-6	2	
		7-9	3	
		10 or more	4	
303	How often do you have six or more drinks on one occasion?	Never	1	AUD3
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
	[skip to Questions 309 if scored 0 on Q 302 and Q 303]			
304	How often during the last year have you found that you were not able to stop drinking once you had started?	Never	1	AUD4
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
305	How often during the last year have you failed to do what was normally expected from you because of drinking?	Never	1	AUD5
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
306	How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking	Never	1	AUD6
		Less than monthly	2	
		Monthly	3	
		Weekly	4	

	session?	Daily or almost daily	5	
307	How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	1	AUD7
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
308	How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never	1	AUD8
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
309	Have you or someone else been injured as a result of your drinking?	No	1	AUD9
		Yes, but not in the last year	2	
		Yes, during the last year	3	
310	Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down?	No	1	AUD10
		Yes, but not in the last year	2	
		Yes, during the last year	3	
311	***please wait for*** ***sum up 301-310***	✍ _____ If the result is 16 and above go to 401 if		AUDTOT

Help- seeking for Alcohol problem

Alcohol help-seeking (life-time)				
401	You just mentioned experiencing several problems with drinking on a daily or weekly basis. How long ago did you notice this problem for the first time?	✍---------- Years ago		AUDSTART
402	Did you ever seek any help for these problems with alcohol? By help I mean the kind of support you can get from someone like a traditional healer, community health worker or medical professional.	No [→go to 501]	0	AUDRECHELP
		Yes	1	
403	How long after you first noticed these problems did you first seek help for these problems?	✍ ---------- Years ago [If here today for help →go to 501]		ALTHLPD
404	Who did you first seek help from when you sought help for the first time?	Traditional healer/awaki/tenquai	1	AUDRECWHO
		Holy water	2	
		Church/mosque/Religious or spiritual advisor	3	
		Health post (health extension worker)	4	
		Health Centre	5	
		Hospital	6	
		Pharmacy	7	
		Specialist hospital	8	
		Psychiatrist	9	
		Another mental health worker		
		Someone else (e.g., private clinic) [specify] ✍----------	10	
405	What treatment were you given? (describe)	✍ ----------		
406	Did you have follow-up monitoring?	No	0	
		Yes	1	
407	How long did the treatment last? (specify length of treatment)	✍ ------- Days ✍-------- Weeks ✍ ---------- Months ✍---------- Years		
408	Did you take the treatment as advised?	No	0	
		Yes	1	
409	Overall, how satisfied were you with the treatment you received?	Not satisfied at all	0	
		Somewhat satisfied	1	
		Satisfied a lot	2	
410	How much did [person in 404] help you?	Did not help at all	0	AUDRECHOW
		Helped a bit	1	
		Helped a lot	2	

Barriers for alcohol care

BACE Alcohol				
I am going to tell you some conditions which prevents or delays people to seeking professional help for problems with alcohol, even when they think they might need it. Just tell me "yes" or "no" whether each statement applies to you.				
	[Read each statement]			AUDAPPLY_
501	I thought the problem would get better by itself	No	0	_BETTER
		Yes	1	
502	I was concerned about how much money it would cost to get professional help.	No	0	_COST
		Yes	1	
503	I was unsure about where to go or who to see for professional help.	No	0	_WHO
		Yes	1	
504	I was concerned about what others might think if they found out I was seeking professional help.	No	0	_FIND
		Yes	1	
505	I thought getting professional help would take too much time or be inconvenient.	No	0	_TIME
		Yes	1	
506	I wanted to handle the problem on my own.	No	0	_SELF
		Yes	1	
507	I was scared about being put into a hospital against my will.	No	0	_HOSP
		Yes	1	
508	I was not satisfied with available services.	No	0	_SATIS
		Yes	1	
509	I received treatment before and it did not work.	No	0	_PREV
		Yes	1	
510	The problem didn't bother me very much.	No	0	_BOTHER
		Yes	1	
511	I had problems with things like childcare or scheduling that would have made it hard to get to treatment.	No	0	_LOGIST
		Yes	1	
512	I had problems with things like transportation that would have made it hard to get to treatment.	No	0	_TRANSP
		Yes	1	
513	I did not think this was a problem that could be treated	No	0	_NOTX
		Yes	1	
514	I was concerned that people would think less of me if they found out I am seeking professional help for this problem	No	0	_LESS
		Yes	1	
515	I was concerned that people might treat me differently if they found out that I am seeking professional help for this problem	No	0	_DIFFER
		Yes	1	
516	I was concerned that it might harm my chances of finding or keeping work if people found out I am seeking professional help for this problem	No	0	_WORK
		Yes	1	
517	I was concerned that my family members would not approve	No	0	_FAM
		Yes	1	
518	I was concerned that it might harm my own or my family members' chances of getting married if people found out I am seeking	No	0	_MARRY
		Yes	1	

	professional help for this problem			
519	I felt ashamed or embarrassed to seek professional help for this problem	No	0	_SHAME
		Yes	1	
520	I was concerned about the treatment I would get, for example, about possible side effects	No	0	
		Yes	1	_SFX
521	Any other reasons or concerns [specify] ✍----------			_OTHER AUDAPPLYO

Internalized Stigma				
You have mentioned that you frequently experience some problems with your drinking in the past year. I will ask you some questions about these problems. Let me know if you agree or disagree with the following statements.				
601	I feel out of place in the world because of these problems	Strongly disagree	1	ISMI01
		Disagree	2	
		Agree	3	
		Strongly agree	4	
602	I am embarrassed or ashamed of these problems	Strongly disagree	1	ISMI05
		Disagree	2	
		Agree	3	
		Strongly agree	4	
603	I am disappointed in myself due to these problems	Strongly disagree	1	ISMI16
		Disagree	2	
		Agree	3	
		Strongly agree	4	
604	These problems have spoiled my life	Strongly disagree	1	ISMI17
		Disagree	2	
		Agree	3	
		Strongly agree	4	
605	Because of these problems, I need others to make most decisions for me	Strongly disagree	1	ISMI19
		Disagree	2	
		Agree	3	
		Strongly agree	4	
606	I can't contribute anything to society because of these problems	Strongly disagree	1	ISMI23
		Disagree	2	
		Agree	3	
		Strongly agree	4	
607	People discriminate against me due to these problems	Strongly disagree	1	ISMI03
		Disagree	2	
		Agree	3	
		Strongly agree	4	
608	People often patronize me, or treat me like a child, just because of these problems	Strongly disagree	1	ISMI15
		Disagree	2	
		Agree	3	
		Strongly agree	4	
609	People ignore me or take me less seriously just because of these problems	Strongly disagree	1	ISMI22
		Disagree	2	
		Agree	3	
		Strongly agree	4	
610	Nobody would be interested in getting close to me because of these problems	Strongly disagree	1	ISMI25
		Disagree	2	
		Agree	3	
		Strongly agree	4	
611	Others think that I can't achieve much in life	Strongly disagree	1	ISMI28

	because of these problems	Disagree	2	
		Agree	3	
		Strongly agree	4	

Suicide

Suicidal ideation and action				
701	Have you thought of taking your life in the past 12 months? ➡ If the answer is No go to Q709	No	0	SUITHINK
		Yes	1	
702	Did you ever make a plan for taking your own life at any time in the past 12 months?	No	0	SUIPLAN
		Yes	1	
703	Have you attempted to take your own life in the past 6 months?	No	0	SUIATT
		Yes	1	
704	Did you receive any treatment for thinking about or attempting to take your own life?	No	0	SUIMED
		Yes	1	
705	In the past 6 months, have you spoken to anyone about thinking about or attempting to take your own life?	No	0	SUIDISC
		Yes	1	
706	To whom have you spoken?	Friend / neighbor	1	FRIEND
		Spouse/partner	2	SPOUSE
		Other family member	3	OFAM
		Employer/co-worker	4	EMPL
		Religious advisor, spiritual advisor or traditional healer	5	REL
		Health care worker (e.g. nurse/doctor, specialist)	6	HCWORK
		Other (specify)	7	OTHER
707	Did you receive any treatment for thinking about or attempting to take your own life? Note: If the response is no and the,	No [→go to next section]	0	SUITX
		Yes	1	
interviewee still has thought of suicide refer him/her to THE PROJECT COORDINATOR FOR CLINICAL REVIEW				
708	What treatment did you receive?	✍ ----------		SUITXO
709	Did you attempted to take your own life in the past out of this 12 months?	No		SUICDLT
		Yes		

Stressful life events

List of Threatening Events (LTE)				
801	In the last 6 months, have you yourself suffered a serious illness, injury or an assault?	Yes	1	**LEILL9**
		No	2	
802	In the last 6 months has a serious illness, injury or assault happened to a close relative?	Yes	1	**LEIRE9**
		No	2	
803	In the last 6 months has your spouse, parent or child died?	Yes	1	
		No	2	**LEBE9**
804	In the last 6 months has a close family friend or another relative died?	Yes	1	
		No	2	**LEBEF9**
805	In the last 6 months have you had a separation due to marital difficulties?	Yes	1	
		No	2	**LEMAR9**
		Not applicable	3	
806	In the last 6 months have you broken off a steady friendship or relationship?	Yes	1	
		No	2	**LEREL9**
807	In the last 6 months have you had a serious problem with a close friend, neighbor or relative?	Yes	1	**LEFR9**
		No	2	
808	In the last 6 months have you had a major financial crisis (serious money worries)?	Yes	1	
		No	2	**LEFIN9**
809	In the last 6 months have you lost or had anything stolen which mattered a lot to you?	Yes	1	
		No	2	**LETHE9**
810	In the last 6 months have you had any problems with the police or courts?	Yes	1	
		No	2	**LEPOL9**
811	In the last 6 months has your husband been unemployed? not been able to work	Yes	1	
		No	2	**LEUNH9**
		Not applicable	7	
812	In the last 6 months have you had a physical fight with your husband ?	Yes	1	LEVH9
		No	0	
813	In the last 6 months, has anyone been violent towards you? (for example beating, hitting, kicking)	Yes	1	
		No	0	**LEPVA9**
814	In the last 6 months has anything else seriously upset you?	Yes	1	**LEPST9**
		No	2	

Social support

Social support (OSLO 3-item social support scale)				
Please circle the option that represents your experience.				
901	How many people are so close to you that you can count on them if you have serious personal problems (choose one option)?	None	1	SSNU
		1 or 2	2	
		3-5	3	
		More than 5	4	
902	How easy is it to get practical help from neighbors if you should need it ?	Very easy	5	SSCON
		Easy	4	
		Possible	3	
		Difficult	2	
		Very difficult	1	
903	How much concern do people show in what you are doing (choose one option)?	A lot of concern and interest	5	SSNEIGH
		Some concern and interest	4	
		Uncertain	3	
		Little concern and interest	2	
		No concern and interest	1	

Disability

WHO Disability Assessment Schedule/WHODASS/ II – 12 item scale				
The next few questions are about difficulties people have because of health conditions. [Hand flashcard to respondent] By health condition I mean diseases or illnesses, other health problems that may be short or long lasting, injuries, mental or emotional problems and problems with alcohol or drugs. I remind you to keep all of your health problems in mind as you answer the questions. When I ask you about difficulties in doing an activity think about [Point to flashcard #1]. • Increased effort • Discomfort or pain • Slowness • Changes in the way you do the activity [Point to flashcard #1]. When answering, I'd like you to think back over the last 30 days. I also would like you to answer these questions thinking about how much difficulty you have, on average over the past 30 days, while doing the activity as you usually do it. [Hand flashcard #2 to interviewee] Use this scale when responding. [Read scale aloud]: None, mild, moderate, severe, extreme or cannot do. [Flashcards #1 and #2 should remain visible to the respondent throughout the interview]				
1001	How do you rate your overall health in the past 30 days?	Very good	1	OVERALL
		Good	2	
		Moderate	3	
		Bad	4	
		Very bad	5	
	[Show flashcard #2 to participant.] In the last 30 days how much difficulty did you have in:			
1002	Standing for long periods such as 30 minutes?	None	1	STAND
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1003	Taking care of your household responsibilities?	None	1	HOUSE
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1004	Learning a new task, for example, learning how to get to a new place?	None	1	LEARN
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1005	How much of a problem did you have in joining community activities (for	None	1	JOIN
		Mild	2	

	example, festivities, religious or other activities) in the same way as anyone else can?	Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1006	How much have you been emotionally affected by your health problems?	None	1	EMOTE
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
	In the last 30 days, how much difficulty did you have in:			
1007	Concentrating on doing something for 10 minutes?	None	1	CONC
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1008	Walking a long distance such as a kilometer?	None	1	WALK
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1009	Washing your whole body?	None	1	WASH
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1010	Getting dressed?	None	1	DRESS
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1011	Dealing with people you do not know?	None	1	DEAL
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1012	Maintaining a friendship?	None	1	FRIEND
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1013	Your day to day work?	None	1	DAY
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	

1014	Overall, how much did these difficulties interfere with your life?	None	1	INTERF
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
1015	Overall, in the past 30 days, how many days were these difficulties present?	✍_____ days		DIFFDAYS
1016	In the past 30 days, for how many days were you totally unable to carry out your usual activities or work because of any health condition?	✍ _____ days		UNABLE
1017	In the past 30 days, not counting the days you were totally unable, for how many days did you cut back or reduce your usual activities or work because of any health condition?	✍ _____ days		CUTBACK

B. Questionnaires for the Community Survey –Amharic Version

የአዕምሮ ሕመምን በተመለከተ የማህበረሰቡን ጤንነትና ግንዛቤ ለመመዘን በሶዶ ወረዳ የሚካሄድ ጥናት

Federal Ministry of Health

PRIME ETHIOPIA

ADDIS ABABA UNIVERSITY IN COLLABORATION WITH

THE FEDERAL MINISTRY OF HEALTH

የአዕምሮ ሕመምን በተመለከተ የማህበረሰቡን ጤንነትና ግንዛቤ ለመመዘን በሶወረዳ የሚካሄድ ጥናት

<u>ለጠያቂ ማስታወሻ</u>፡ ያቄ ከመጀመርዎ በፊት ተጠያቂዉ እንዲጠየቁ መስማማታቸዉን አረጋግጠዉ ይጀምሩ።

ተሳታፊ ለማግኘት የተደረገ ጉብኝት

የመጠይቁ(የተጠያቂዉ) መለያቁጥር	[ ] [ ] [ ] [ ] [ ]	
የቤቱ አድራሻ	ቀበሌ: _____ ጎጥ: _____ የቤትቁጥር:_____	
የተጠያቂዉ ስም		
መጠይቅ ለማድረግ የመጀመር ያሙከራ	DD / MM / YYYY	HH : MM
ውጤት 1		
መጠይቅ ለማድረግ ሁለተኛ ሙከራ	DD / MM / YYYY	HH : MM
ውጤት 2		
መጠይቅ ለማድረግ ሶስተኛ ሙከራ	DD / MM / YYYY	HH : MM
ውጤት 3		
የጠያቂው ተ.ቁ		
የመስክ ተቆጣጣሪ ተ.ቁ		
<u>መጠይቅ ለማድረግ የተደረገ ሙከራ ዉጤት</u>: 1= መጠይቁ ተካሂዷል; 2=ተጠያቂዉ እቤት የሉም; 3=መጠይቁ ለሌላ ቀን ተቀጥሯል; 4=ተጠያቂዉ ፈቃደኛ አይደሉም; 5=መጠይቁ በከፊል ተጠናቋል; 6=ተጠያቂዉ ብቁ አይደሉም; 7=ሌላ (ይጥቀሱ)		

ቀበሌ		ጐጥ	
የተጠያቂው ቁጥር	[ ][ ][ ][ ]	የጠያቂው ቁጥር	[ ][ ][ ]
የተጠያቂ ውስም		የጠያቂው ስም	
የቤት ቁጥር			
የተጠያቂው ተጨማሪ ስም (ካለ)		መጠይቁ የተሞላበት ቀን	[ ][ ]/[ ][ ]/[ ][ ][ ][ ]

1. የግለሰቡመረጃ በቅድሚያ ስለእርስዎ አጠቃላይ መረጃ እጠይቃለሁ።በአብዛኛው መወቅ የምፈልገው አሁን ስላሉበት ሁኔታነው።				
101	እድሜ (እድሜዎት ስንትነው?)	[ ] [ ]		AGE
102	ፅታ	ወንድ	0	SEX
		ሴት	1	
103	የጋብቻ ሁኔታ (በአሁኑ ወቅት የትዳር ሁኔታ እንዴትነው?)	ያላገባ	1	MARIT
		ያገባ	2	
		በፍቺ የተለያየ	3	
		በሞት የተለየ	4	
		ያገባ ግን በስራ ወይም በሌላ ምክንያት አብሮ የማይኖር	5	
104	የመኖሪያቦታ (የሚኖሩበትቀበሌከተማነውወይስገጠር?)	ከተማ	0	RES
		ገጠር	1	
105	የትምህርት ሁኔታ (የትምህርትደረጃዎምንድንነው?)	ትምህርት ቤት ያልገቡ	1	EDU
		ማንበብና መፃፍየሚችል	2	
		አንደኛ ደረጃ	3	
		ሁለተኛ ደረጃ	4	
		ኮሌጅ ወይም ዩኒቨርሲቲ	5	
106	የገቢ ሁኔታ (የቀን/የወር/ የዓመት ገቢዎ ምን ያህልነው?) ማስታዎሻ፡ተጠያቂው ነጋዴ ወይም የቀን ሰራተኛ ከሆኑ የቀንገቢ፤የመንግስት ሰራተኛ ከሆኑ የወር ገቢ፤ገበሬ ከሆኑ የዓመት ገቢ ጠይቂ	የቀን ገቢ_____ ብር (ነጋዴ/የቀንስራ) የወር ገቢ_____ ብር (ተቀጣሪ) የዓመት ገቢ_____ ብር (ገበሬ)		INCOME
107	ተነጻጻሪ ሃብት (በአካባቢዉ ካሉ ሌሎች ቤተሰቦች ጋር ሲያስተያዩ በሃብት ደረጃ እራስዎን የት ያስቀምጡታል?)	ዝቅተኛ	1	WEALTH
		መካከለኛ	2	
		ጥሩኑሮያለዉ	3	
108	ሀይማኖት (ሀይማኖትዎ ምንድን ነው?)	ኦርቶዶክስ ክርስትያን	1	RELIG
		ሙስሊም	2	
		ፕሮቴስታንት	3	
		ሌላ_____	4	
109	ብሔር (ብሔርዎ ምንድን ነው?)	ጉራጌ	1	ETHNIC
		ኦሮሞ	2	
		አማራ	3	

		ሌላ_____	4	
110	በቀበሌው የቆዩበት ጊዜ (በቀበሌዉ ወይም በአካባቢዉ ምን ያህል ጊዜ በነዋሪነት ቆዩ?)	[ ] [ ]ዓመት		RESDUR
111	ጠቅላላ የቤተሰብ አባላት ቁጥር (እራስዎትን ልጆችንና ሌሎችንም ጨምሮ ጠቅላላ የቤተሰብ አባላት ቁጥርስንት ነው?)	[ ] [ ]		HHTOTAL
112	ህፃናት (በቤት ውሰጥ የሚኖሩከ 7 አመት በታች የሆኑ የቤተሰብ አባላት ቁጥር ስንት ነው?)	[ ] [ ]		HHDEP
113	ስራ (ገቢ የሚያገኙበት ስራዎ ምንድ ነዉ?)	የቤት እመቤት	1	EMP
		አርሶ አደር	2	
		ነጋዴ	3	
		ተማሪ	4	
		የመንግስት ሰራተኛ	5	
		የቀንስራ (የጉልበት ሰራተኛ)	6	
		ሌላ_____	7	
114	የባለቤትዎስራ (የባለቤትዎስራምንድነዉ?)	የቤት እመቤት	1	EMPSP
		አርሶ አደር	2	
		ነጋዴ	3	
		ተማሪ	4	
		የመንግስት ሰራተኛ	5	
		የቀን ስራ (የጉልበት ሰራተኛ)	6	
		ሌላ_____	7	
115	የባለቤትዎየትምህርትደረጃ (የባለቤትዎየትምህርትደረጃምንድነዉ?) ካላገቡ ወደ ቁ 201 ይለፉ	ትምህርት ቤትያልገቡ	1	EDUSP
		ማንበብና መፃፍ የሚችል	2	
		አንደኛ ደረጃ	3	
		ሁለተኛ ደረጃ	4	
		ኮሌጅ ወይም ዩኒቨርሲቲ	5	

Depression

2. PHQ-9				Code
ላለፉት ሁለት ሳምንታት ከነዚህ ከምዘረዝራቸዉ ችግሮች ዉስጥ የትኞቹ ደርሰዉብዎት (በየትኞቹ ተቸግረዉ) እንደነበር እጠይቅዎታለሁ። **ማስታወሻ**፡አልፎ ብቻ (2-6 ቀናት)፣ በዛላለጊዜ (7-11ቀናት) ከሞላጎደል በየቀኑ (12-14 ቀናት) መሆኑን ይግለፁ።				
201-0	የእለት ተእለት ተግባርዎን ለማከናወን (ለመስራት) ያለዎት ተነሳሽነት ወይም ፍላጎት በጣም ቀንሶ ነበር; መልሱ የለም ከሆነ ወደ 202-0 ይለፉ	አዎ	1	PHLI
		የለም	0	
201-1	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማቸዉ;	አልፎ ብቻ	1	
		በዛ ላለጊዜ	2	
		ከሞላጎደል በየቀኑ	3	
202-0	የመከፋት፣የመደበት ወይም ተስፋ የመቁረጥ ስሜት ይሰማዎ ነበር; መልሱ የለም ከሆነወደ 203-0 ይለፉ	አዎ	1	PHFS
		የለም	0	
202-1	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማቸዉ;	አዎ አልፎ	1	
		ለአንድ ሳምንት ያህል	2	
		ከሞላጎደል በየቀኑ	3	
203-0	እንቅልፍ አልወስድዎ ብሎ ወይም በደንብ መተኛት አቅቶዎት **ወይም** እንቅልፍ እየበዛብዎት ይቸገሩ ነበር; መልሱ የለም ከሆነ ወደ 204-0 ይለፉ	አዎ	1	PHIS
		የለም	0	
203-1	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማቸዉ;	አዎ አልፎ አልፎ	1	
		ለአንድ ሳምንት ያህል	2	
		ከሞላ ጎደል በየቀኑ	3	
	የድካም ወይም የአቅም ማነስ ስሜት	አዎ	1	PHLE

204-0	ይሰማዎት ነበር; መልሱ የለም ከሆነ ወደ 205-0 ይለፉ	የለም	0	
204-1	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማቸዉ;	አዎ አልፎ አልፎ	1	
		ለአንድ ሳምንት ያህል	2	
		ከሞላ ጎደል በየቀኑ	3	
205-0	የምግብ ፍላጎትዎ ቀንሶ ወይም ከተለመደዉ በላይ ጨምሮ ነበር; መልሱ የለም ከሆነ ወደ 206-0 ይለፉ	አዎ	1	PHLR
		የለም	0	
205-1	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማቸዉ;	አዎ አልፎ አልፎ	1	
		ለአንድ ሳምንትያህል	2	
		ከሞላጎደል በየቀኑ	3	
206-0	ራስዎን የመጥላት ወይም ዋጋ የለኝም የማለት ወይም ራሴንም ሆነ ቤተሰቤን አሳዝኛለሁ/አሳፍሬያለሁ/ የሚልስሜትተሰምቶዎትነበር; መልሱየለምከሆነወደ 207-0 ይለፉ	አዎ	1	PHFH
		የለም	0	
206-1	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማቸዉ;	አዎ አልፎ	1	
		ለአንድ ሳምንት ያህል	2	
		ከሞላ ጎደል በየቀኑ	3	
207-0	በሚሰሩት ስራ ላይ ሃሳብዎን መሰብሰብ / ትኩረት መስጠት (ለምሳሌ፡ከሰዎች ጋር ሲጨዋወቱ ትኩረት ሰጥቶ ማዳመጥ) አስቸግሮዎት ነበር; መልሱየለምከሆነወደ 208-0 ይለፉ	አዎ	1	PHDC
		የለም	0	
207-1	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማቸዉ;	አዎ አልፎ አልፎ	1	
		ለአንድ ሳምንት ያህል	2	
		ከሞላጎደል በየቀኑ	3	

208-0	ለሌሎች ሰዎች እስከሚታወቅ ድረስ በእንቅስቃሴዎ ወይም በንግግርዎ በጣም ቀስብለዉ **ወይም** በተቃራኒዉ መረጋጋት አቅቶዎት፣ አንድ ቦታ አርፎ መቀመጥ ወይም መቆም እስከማይችሉ ሆነዉ ነበር;	አዎ	1	PHDT
		የለም	0	
	መልሱ የለም ከሆነ ወደ 209-0 ይለፉ			
208-1	መልሱ አዎ ከሆነ፣ [illegible] ለምን ያህል ጊዜ ተሰማቸዉ;	አዎ አልፎ አልፎ	1	
		ለአንድ ሳምንት ያህል	2	
		ከሞላጎደል በየቀኑ	3	
209-0	ከምኖር ብሞት ይሻላል ብለዉ አስበዉ ወይም ራስዎን በሆነ መንገድ ሊጎዱ አስበዉ ነበር;	አዎ	1	PHWD
		የለም	0	
	መልሱየለምከሆነወደ 210 ይለፉ			
209-1	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማቸዉ;	አዎ አልፎ	1	
	ተጠያቂው ነ ወይም ከዚያ በላይ ከመረጡ ወደ ሳይካትሪ ነርስ ሪፈር	ለአንድ ሳምንት ያህል	2	
		ከሞላጎደል በየቀኑ	3	
210	ከተራ ቁጥር 201-209 ድምር	□[ ][ ]		PHQTOTO
211	**በተራ ቁጥር 210 ላይያለዉ ድምር 5 እና ከዚያ በላይ ከሆነ የሚከተለዉን ይጠይቁ።አለበለዘያ ወደቁ. 212 እለፉ።**	በጭራሽ አልተቸገርኩም	0	PHDR
	በእነዚህ ችግሮች ምክንያት ስራዎን ለመስራት፣ የቤት ሀላፊነትዎን ለመወጣት ወይም ከሰዎች ጋር ተስማምተዉ ለመኖር ምን ያህል አስቸጋሪ ሆኖብዎት ነበር ;	በመጠኑ ተቸግሬ ነበር	1	
		በጣም ተቸግሬ ነበር	2	
		እጅግ በጣም ተቸግሬ ነበር	3	

Alcohol use disorder

3. ኦዲት የመጠጥ አጠቃቀም መገምገም ያቅፅ				
በመቀጠልም ባለፈው አንድ አመት ስለነበሮት የመጠጥ (አልኮል) አጠቃቀም አንዳንድ ጥያቄዎች እጠይቆታለሁ። ምክንያቱም መጠጥ (አልኮል) ብዙ ተጓዳኝ የጤናችግሮችን ያስከትላል (በተጨማሪም ሃኪም አዞልን ከምንወስዳቸው መድሃኒቶች ጋር ሊጋጭ ይችላል)፡ ስለዚህ የመጠጥ (አልኮል) አጠቃቀምዎን ወይም ምን ያህል እንደሚጠጡ ከመጠጥ ጋር የተያያዙ ችግሮች እንዳጋጠሞት ማወቁ ጠቃሚ ነው።ስለሆነም እባክዎን ግልፅ እና ትክክለኛውን መረጃ በመስጠት ይተባበሩን። [እባክዎን የመጠጥ ስዕላዊ መግለጫዎችን ለተጠያቂው ያሳዩ]				
301	አልኮል ያላቸው መጠጦችን በየስንት ጊዜው ይወስዳሉ?	ፈፅሞ አልጠጣም [ምላሹ ይህከሆነ ወደ→ 401 ይለፉ]	0	AUD1
		በወር ከአንዴ ያነሰ	1	
		2-4 ግዜ በወር	2	
		2-3 ግዜ በሳምንት	3	
		4 ወይምከዚያበላይበሳምንት	4	
302	በሚጠጡበት ቀን ምንያህል መለኪያ ይጠጣሉ?	1-2	0	AUD2
		3-4	1	
		5-6	2	
		7-9	3	
		ወይም ከዚያ በላይ	4	
303	በየስንት ጊዜው ከስድስት እና ከዚያ በላይ መለኪያ ይጠጣሉ?	ፈፅሞ አልጠጣም	0	AUD3
		በወርከ አንዴያነሰ	1	
		በወር	2	
		በሳምንት	3	
		በየቀኑ ወይም ከሞላጎደል ሁልቀን	4	
	⌈መላሹ ውጤት ለጥያቄ 302 እና 303 ሁለቱም 0 ከሆነ→ወደ 309			
304	ባለፈው ዓመት ውስጥ በየስንት ጊዜው መጠጣት ጀምረው ለማቆም ተቸግረዋል?	ፈፅሞ አልተቸገርኩም	0	AUD4
		በወር ከአንዴ ያነሰ	1	
		በወር አንዴ	2	
		በሳምንት አንዴ	3	
		በየቀኑ ወይም ከሞላጎደል ሁልቀን	4	
305	ባለፈውዓመትውስጥበየስንትጊዜውበመጠጣትዎምክንያትመስራትያለብዎትንሳይሰሩቀርተዋል?	ፈፅሞ ሳልሰራ አልቀረሁም	0	AUD5
		በወር ከአንዴ ያነሰ	1	
		በወር አንዴ	2	
		በሳምንት አንዴ	3	
		በየቀኑ ወይም ከሞላ ጎደል ሁልቀን	4	
306	ባለፈው ዓመት ውስጥ በየስንት ጊዜው በጠዋት	ፈፅሞ አላስፈለገኝም	0	AUD6

	ለመነቃቃት መጠጣት አስፈልጎዎታል ?	በወር ከአንዴ ያነሰ	1	
		በወር አንዴ	2	
		በሳምንት አንዴ	3	
		በየቀኑ ወይም ከሞላጎደልሁ ልቀን	4	
607	ባለፈው ዓመት ውስጥ በየስንት ጊዜው በመጠጣትዎ ተጸጽተዋል?	ፈፅሞ አልተጸጸትኩም	0	AUD7
		በወር ከአንዴ ያነሰ	1	
		በወር አንዴ	2	
		በሳምንት አንዴ	3	
		በየቀኑ ወይም ከሞላጎደል ሁልቀን	4	
308	ባለፈው ዓመት ውስጥ በየስንት ጊዜው በጠጡበትጊዜየሆነውንለማስታወስተቸግረዋል?	ፈፅሞ አልተቸገርኩም	0	AUD8
		በወርከአንዴያነሰ	1	
		በወርአንዴ	2	
		በሳምንትአንዴ	3	
		በየቀኑወይምከሞላጎደልሁልቀን	4	
309	በመጠጣትዎ ምክንያት እርስዎ ወይም ሌላሰው ተጎድቶ/አደጋደርሶበት ያውቃል?	አያውቅም	0	AUD9
		አዎ፣ዓመትአልፎታል	2	
		አዎ፣ባለፈውዓመትውስጥ	4	
310	ዘመድ/ወዳጅ/ የጤናባለሙያመጠጥእንዲያቆሙመክሮዎትያውቃል?	አያውቅም	0	AUD10
		አዎ፣ዓመትአልፎታል	2	
		አዎ፣ባለፈውዓመትውስጥ	4	
311	እባክዎን ለጥቂት ደቂቃዎች እስካሁን የሰጡኝን መልስእስክደምር ይታገሱኝ [ከ 601-610; ያሉት ምላሾችን ይደምሩ]	ጩጤቱ ነ6 እናከዚያበላይከሆነወደ 40ነ ይለፉ።ከነ6 በታችከሆነግንወደ 70ነ ይለፉ።		AUD TOT

Help seeking for Alcohol use disorder

4. Alcohol help-seeking (life time)				
401	አሁን እንደገለፁልኝ ከመጠጥጋር የተያያዙየተለያዩችግሮችበየቀኑምሆነበየሳምንቱእየተሰ ማዎትነው፤ ይህንንከመጠጥጋርየተያያዘችግርለመጀመሪያግዜካስተ ዋሉትምንያህልግዜይሆነዋል?	□_____ ከአመታትበፊት		AUDST ART
402	ለዚህከመጠጥጋርተያይዞላጋጠሞትችግርእስከዛሬድረስ መፍትሄፈልገውለትያውቃሉ ? መፍትሄስልማንኛውምአይነትእርዳታወይምህክምናነው ።ለምሳሌከባህልመድሃ ኒትቀማሚ፤የጤ. ኤ. ሰ. ወይምየጤናባለሙያ	አይ [→ወደ501እለፍ/ፊ]	0	ALTHLP
		አዎን	1	
403	ከመጠጥጋር ተያይዞ ላጋጠሞት ችግር ከምን ያህል ግዜ በኋላ ነበር መፍት ሄፍለጋ ለመጀመሪያ ግዜየሄዱት?	□□_____ ከአመታትበፊት [ለመጀመሪያግዜመፍትሄፍለጋየመጡትዛሬከሆነ →ወደ501እለፍ/ፊ]		406
404	ከመጠጥ ጋርተያይዞ ላጋጠሞት ችግር ለመጀመሪያ ግዜ መፍትሄ ፍለጋ ወደማን ነበር የሄዱት?	የባህልሃኪም/አዋቂ/ጠንቋይ	1	ALTHLP WHO
		ፀበል	2	
		ቤተክርስቲያን/መስጊድ/ሃይማኖታዊወይምመን ፈሳዊአማካሪ	3	
		ጤናኬላ (የጤ. ኤ. ሰ.)	4	
		ጤናጣቢያ	5	
		ሆስፒታል	6	
		ፋርማሲ	7	
		እስፔሻላይዝድሆስፒታል	8	
		ሳይካትሪስት	9	
		ሌላየአእምሮጤናባለሙያ	77	
		ሌላሰው (ለምሳሌከየግልክሊኒክ) ይገለፅ□□----------		
405	ምንአይነትህክምናነበርየተሰጠዎት?	[ይገለፅ]		

406	አሁንምየህክምናክትትልአለዎት?	አይ	0	
		አዎን	1	
407	ህክምናውምንያህልግዜፈጀ (ለምንያህልጊዜነበር) ይገለፅ	□ _____ ቀናት □ _____ ሳምንታት □ _____ ወራት □_____ አመታት		
408	ህክምናውንእንደታዘዘሎትነበርየተጠቀሙት?	አይ	0	
		አዎን	1	
409	በጥቅሉበህክምናውምንያህልረክተዋል ?	ፈፅሞአልረካሁም	1	
		የተወሰነረክቻለሁ	2	
		በጣምረክቻለሁ	3	
410	ለመፍትሄየሄዱበትስፍራወይምሰው [በ404የገለፁት] ምንያህልረድቶታል?	ጎድቶኛል	0	ALTHLP IMP
		ፈፅሞአልረዳኝም	1	
		በመጠኑረድቶኛል	2	
		በጣምረድቶኛል	3	

Barriers for using alcohol care

5. **BACE Alcohol**				
ከዚህበመቀጠልየምዘረዝራቸዉሁኔታዎችሰዎችከባለሙያርዳታእንዳያገኙሊያግዷቸዉ፣ ሊያዘገዩዋቸዉወይምርዳታዉንእንዳይቀጥሉበትሊያደርጉዋቸዉይችላሉ።ባለሙያማለትነርስ፣የጤናመኮንን፣ ሃኪምለማለትነዉ። **እነኚህነገሮች**ከባለሙያርዳታእንዳያገኙ**<u>አግዶት</u>፣** **<u>አዘግይቶት</u>**ወይም**<u>ርዳታዉንእንዳይቀጥሉበትአድርጎዎት</u>**ነበር;				
501	[እያንዳንዱንጥያቄለተጠቂውያንብቡ]			AUDAPPLY_
	ሳስበውነገሩበራሱየሚሻሻልይመስለኛል	አይ	0	_BETTER
		አዎን	1	
502	ለህክምናውየሚያስፈልገውወጪአሳስቦኝነበር	አይ	0	_COST
		አዎን	1	
503	የትሞያዊድጋፍ(ህክምና) እንደሚገኝአላወቅሁኝምነበር	አይ	0	_WHO
		አዎን	1	
504	ወደህክምናብሄድሌሎችምንይላሉብዬፈርቼነበር	አይ	0	_FIND
		አዎን	1	
505	ህክምናውብዙግዜይፈጃልወይምአይመችምብዬአስቤነበር	አይ	0	_TIME
		አዎን	1	
506	ችግሬንበራሴእፈታዋለሁብዬነበር	አይ	0	_SELF
		አዎን	1	
507	ተገድጄሆስፒታልእንዳያስገቡኝፈርቼነበር.	አይ	0	_HOSP
		አዎን	1	
		አይመለከትም	77	
508	በነበረውአገልግሎትአልረካሁምነበር	አይ	0	_SATIS
		አዎን	1	

509	ከዚህበፊትታክሜአልረዳኝም	አይ	0	_PREV
		አዎን	1	
510	ችግሩያንያህልአላሳሰበኝም	አይ	0	_BOTHER
		አዎን	1	
511	ልጅየመያዝእናሌሎችየቤትውስጥችግሮችስላሉብኝለመታከምአልቻልኩም	አይ	0	_LOGIST
		አዎን	1	
		አይመለከትም	77	
512	የመጓጓዣገንዘብስላልነበረኝመታከምአልቻልኩም	አይ	0	_TRANSP
		አዎን	1	
513	ይህችግርየሚፈታችግርአይመስለኝም	አይ	0	_NOTX
		አዎን	1	
514	ሰዎችለዚህነገርመታከሜንካወቁይንቁኛልብዬአስቤነበር	አይ	0	_LESS
		አዎን	1	
515	ሰዎችለዚህነገርመታከሜንካወቁያገሉኛልብዬአስቤነበር	አይ	0	_DIFFER
		አዎን	1	
516	ሰዎችለዚህነገርመታከሜንካወቁይጎዱኛልወይምእድሌንያበላሸሹብኛልብዬአስቤነበር	አይ	0	_WORK
		አዎን	1	
517	ቤተሰቦቼይቃወሙኛልብዬአስቤነበር	አይ	0	_FAM
		አዎን	1	
518	ሰዎችለዚህነገርመታከሜንካወቁበቤተሰቦቼላይችግርይፈጠራልብዬአስቤነበርለምሳሌ፡የጋብቻእድልሊዘገይችላል	አይ	0	_MARRY
		አዎን	1	
519		አይ	0	_SHAME

	የህክምናእርዳታመፈለግአሳፍሮኝወይምተሸማቅቄነበር	አዎን	1	
520		አይ	0	_SFX
	ስለህክምናውስጋትነበረኝለምሳሌህክምናውየጎንዮሽጉዳትእንዳይኖረው	አዎን	1	
521	ሌላመንገርየሚፈልጉትሃሳብካለ [ይግለፁ] □□			_OTHER □AUDAPPLYO

6. Internalized stigma for alcohol				
ቀደምብሎእንደነገሩኝመጠጥከመጠጣትዎጋርበተያያዘየተወሰኑችግሮችበተደጋጋሚእንደገጠመዎገልጸዉልኛል። ስለነዚህችግሮችየተወሰኑጥያቄዎችንእጠይቅዎታለሁ። የሚከተሉትንአረፍተነገሮችሳነብልዎመስማትወይምአለመስማማትዎንይግለጹልኝ።				
601	በነዚህችግሮችምክንያትበዚህዓለምቦታየሌለኝይመስለኛል።	በጣምአልስማማም	1	_ISMI01
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
602	በነዚህችግሮችየተነሳእሸማቀቃለሁወይምአፍራለሁ ።	በጣምአልስማማም	1	_ISMI05
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
603	በነዚህችግሮችምክንያትበራሴእበሳጫለሁ።	በጣምአልስማማም	1	_ISMI16
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
604	በነዚህችግሮችምክንያትህይወቴተበላሽ;ኢል።	በጣምአልስማማም	1	_ISMI17
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
605	በነዚህችግሮችምክንያትየእኔንጉዳይሌሎችሰዎችእንዲወስኑልኝእፈልጋሁ።	በጣምአልስማማም	1	_ISMI19
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
606	በነዚህችግሮችምክንያትለህብረተሰቡምንምአስተዋጽኦማበርከትአልችልም።	በጣምአልስማማም	1	_ISMI23
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
607	በነዚህችግሮችየተነሳሰዎችያገሉኛል።	በጣምአልስማማም	1	_ISMI03
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
608	በነዚህችግሮምክንያትሰዎችብዙጊዜየሚያዉቁልኝ ይመስላቸዋልወይምእንደህጻንያዩኛል።	በጣምአልስማማም	1	_ISMI15
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
609	በነዚህችግሮችምክንያትሰዎችቸልይሉኛልወይምአነስተኛትኩረትይሰጡኛል።	በጣምአልስማማም	1	_ISMI22
		አልስማማም	2	

		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
610	በነዚህችግሮችምክንያትማንምእኔንለመቅረብፍላጎ ትየለውም።	በጣምአልስማማም	1	_ISMI25
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	
611	በነዚህችግሮችምክንያትሰዎችቁም-ነገርያለዉጉዳይየምሰራአይመስላቸውም።	በጣምአልስማማም	1	_ISMI28
		አልስማማም	2	
		እስማማለሁ	3	
		በጣምእስማማለሁ	4	

Suicide

7. እራስንየማጥፋትሀሳብእናሙከራ				
701	ባለፉት 12 ወራትውስጥእራስዎንለማጥፋት ያሰቡበትጊዜነበር? →	አይ	0	SUITHINK
		አዎን መልሱ አይ ከሆነ ወደ 709 ይለፉ	1	
702	ባለፉት 12 ወራትውስጥእራስዎንለማጥፋት ያቀዱበትጊዜነበር?	አይ	0	SUIPLAN
		አዎን	1	
703	ባለፉት 12 ወራትውስጥእራስዎንለማጥፋት ሙከራያደረጉበትጊዜነበር?	አይ	0	SUIATT
		አዎን	1	
704	የህክምናእርዳታአግኝተዉነበር?	አይ	0	SUIMED
		አዎን	1	
705	ባለፉት 12 ወራት ውስጥ እራስዎን ለማጥፋት ስለማሰብዎ ወይም ስለመሞከርዎ ለሰው አውርተው ነበር?	አይ	0	SUIDISC
		አዎን	1	
706	ለማንነበር ያወሩት? (የሚመለከተውን አክብብ/ቢ) ሌላሰውስ?	ጓደኛ/ጎረቤት	1	SUIDISC_ _FRIEND _SPOUSE _OFAM _EMPL _REL _HCWORK _OTHER SUICDISCO
		የትዳርአጋር	2	
		ሌላየቤተሰብአባል	3	
		የስራባልደረባ/ቀጣሪ	4	
		የሃይማኖትወይምመንፈሳዊአማካሪየባህልሀኪም	5	
		የማህበረሰብጤናሰራተኛ(የጤ. ኤ. ሰ.)	6	
		ሌላ[ይገለፅ] □	7	

707	እራስዎንለማጥፋትስለማሰብዎወይምስለመሞከርዎየህክምናእርዳታአግንተውነበር?	አይ	0	SUITX
		አዎን	1	
708	ምንአይነትየህክምናእርዳታነበርየተሰጠው?	[ይገለፅ] □		SUITXO
709	ከላይካሉትከዚህ 12 ወራትዉጭራስዎትንለማጥፋትሙከራአድርገዉያዉቃሉ?	አይ	0	SUICDLT
		አዎን	1	
[Prepare suicidality referral]				

8. በሰዉ ላይ ሊደርሱየሚችሉመጥፎየህይወትገጠመኞችማህበራዊድጋፍ አሁንደግሞ፤በማንምሰውላይሊደርሱስለሚችሉመጥፎአጋጣሚወችእጠይቅዎታለሁ። ጥያቄዎቹንእንደማንኛውምጥያቄብዙምሳይጨነቁለመመለስይሞክሩ።				
801	**<u>ህመም</u>**(ባለፉት 6 ወራትዉስጥእርስዎላይከበድያለህመምየአካልጉዳትወይም ድብደባአጋጥሞዎትነበር;)	አዎ የለም	1 2	LEILL9
802	**<u>ህመም</u>**ባለፉት 6 ወራትህመም፣ ድብደባወይምየአካልጉዳትበቅርብ**<u>ዘመድዎላይ</u>**ደርሶነበር;)	አዎ የለም	1 2	LEIRE9
803	**<u>ሞት</u>**(ባለፉት 6 ወራትዉስጥበቤተሰብመካከል፣ማለትም፣ባለቤትዎ፣ ከወላጆችዎአንዱወይምከልጆችዎአንዱ (አንዷ) የሞተሰዉነበር;)	አዎ የለም	1 2	LEBE9
804	**<u>የቅርብሰዉ፤ወይምጓደኛሞት</u>**(ባለፉት 6 ወራትዉስጥየሞተብዎየቅርብጓደኛየሆነሰዉወይምሌላየቅርብዘመድአ ለ;)	አዎ የለም	1 2	LEBEF9
805	**<u>በትዳርዉስጥየተፈጠረአለመስማማት</u>** (ባለፉት 6 ወራትዉስጥበትዳርዉስጥበተፈጠረአለመስማማትምክን ያትከባለቤትዎተለያይተዉያዉቃሉ;)	አዎ የለም አይመለከትም (ለምሳሌአላገቡም)	1 2 3	LEMAR9
806	**<u>የቅርብግንኙነትወይምጓደኝነትመፍረስ</u>**(ባለፉት 6 ወራትዉስጥጠንካራየነበረግንኙነትወይምጓደኝነትአፍርሰ ዋል;)	አዎ የለም	1 2	LEREL9
807	**<u>ጠብ</u>**(ባለፉት 6 ወራትዉስጥበእርስዎእናበቅርብጓደኛዎ፣ ጎረቤቶችዎወይንምዘመዶችዎመካከልጠንከርያለችግርወይ ምጠብአጋጥሞዎትያዉቃል;)	አዎ የለም	1 2	LEFRE9
808	**<u>የገንዘብችግር</u>** ((ባለፉት 6 ወራትዉስጥከአቅምዎበላይየሆነከባድየገንዘብችግርአፋጥ ሞትነበር;)	አዎ የለም	1 2	LEFIN9
809	**<u>ዕቃመጥፋት፡</u>** (ባለፉት 6 ወራትዉስጥትልቅግምትየሚሰጡትእቃወይምንብረትጠፍ ቶብዎትወይምተሰርቆብዎትያዉቃል;)	አዎ የለም	1 2	LETHF9
810	**<u>ፍርድቤትየሚያስኬድችግር</u>** ((ባለፉት 6 ወራትዉስጥከፖሊስጋርየሚያገናኝዎወይምፍርድቤትየሚ ያስኬድችግርነበረብዎት;)	አዎ የለም	1 2	LEPOL9
811	**<u>ስራማጣት</u>** (ባለፉት 6 ወራትዉስጥባለቤትዎስራፈተዉ (ስራአጥሆነዉ) ወይምስራመስራትአቅ…አዉየነበረበትሁኔታነበር;)	አዎ የለም አይመለከትም (ለምሳሌአላገቡም)	1 2 7	LEUNH9
812 813	**<u>ድብድብ</u>**(ባለፉት 6 ወራትዉስጥከባለቤትዎጋርተደባድበዉያዉቃሉ;)	አዎ የለም	1 2	LEVH

		አይመለከትም (ለምሳሌአላገቡም)	7	
813	**<u>ጥቃት</u>** (ባለፉት 6 ወራትዉስጥሀይልየተጠቀመብዎትሰዉነበር; ለምሳሌየመታዎት፣የደበደበዎት፣ ወሲባዊጥቃትያደረሰብዎት)	አዎ	1	LEVI
		የለም	2	
814	**<u>ብስጭት</u>** (ባለፉት 6 ወራትዉስጥከላይያልተጠቀሰሌላበጣምያበሳጨዎትችግር አጋጥሞትነበር;)	አዎ	1	LEOT
		የለም	2	

9.	**ማህበራዊድጋፍ**			
901	**<u>የቅርብሰዉ፣</u>** (በህይወትዎዉስጥበጣምየቅርብየሆኑእናችግርዎትን የሚካፈሉስንትሰዎችአሉ;)	ማንም	1	SSNU
		1 ወይም 2	2	
		ከ 3-5	3	
		ከ 5 በላይ	4	
902	**<u>የሰዎችግድመሰኘት</u>** (ሌሎችሰዎችእርስዎበሚያደርጓቸዉነገሮችላይምንያ ህልየሚጨነቁልዎትናየሚያስቡልዎትይመስልዎታል;)	በጣምግድይላቸዋል	5	SSCONC
		በመጠኑግድይላቸዋል	4	
		እርግጠኛመሆንአልችልም	3	
		ብዙምግድየላቸውም	2	
		ጨርሶግድየላቸውም	1	
903	ከጎረቤትዎ**<u>እርዳታማግኘት</u>** (ከጎረቤትዎእርዳታማግኘትምንያህልቀላልነዉ;)	በጣምቀላል	5	SSNEIGH
		ቀላል	4	
		ቀላልባይሆንምርዳታማግኘትእችላለሁ	3	
		ከባድነው	2	
		በጣምከባድነው	1	

Disablity

10. WHO Disability Assessment Schedule/ WHODASS/ II – 12 item scale

ይህቃለመጠይቅሰዎችበጤናእክልምክንያትስለሚኖራቸዉችግርይሆናል።የጤናእክልስልበሽታወይምህመም፣ ሌሎችለአጭርወይምለረጅምጊዜየሚቆዩየጤናችግሮች፣ጉዳቶች፣የአእምሮወይምየመንፈስመታወክ፣ እንዲሁምከመጠጥእናከእጽጋርየተገናኙችግሮችንይሆናል።ቃለ-መጠይቆቹንሲመልሱሁሉንምየጤናችግሮችዎንእንዲያስቡእፈልጋለሁ።

<u>ለጠያቂማስታወሻ</u>፡ካርድቁጥር ፣ንያመልክቱወይምለተጠያቂዉያንብቡእናየሚከተለዉንማብራርያይስጡ።

<u>አንድንተግባርለማከናወንመቸገርማለት፤</u>

ስራዉንለማከናወንተጨማሪጥረትሲያስፈልግ

ስራዉንማከናወንአለመመቸትወይምየህመምስሜትሲፈጥር

ስራዉንማከናወንብዙጊዜሲፈጅ

ስራዉንለማከናወንቀድሞከሚሰሩበትሌላመንገድለመጠቀምሲገደዱማለትነዉ።
እንግዲህአንድንተግባርለማከናወንስለሚገጥምዎትችግርስጠይቅዎትእነዚህንእያሰቡመልስይስጡ።

<u>ለጠያቂማስታወሻ</u>፡ለተጠያቂየሚከተለዉንማብራርያይስጡ።

ጥያቄዎቹንሲመልሱያለፉትን 30 ቀናትእያስታወሱይሁን።እንዲሁምእነዚህንጥያቄዎችሲመልሱበአማካይባለፉት 30 ቀናት<u>ብዙጊዜ</u>የሚያከናዉኑትንስራለመፈጸምምንያህልችግርይገጥምዎትእንደነበርእያሰቡይሁን።

ካርድቁጥር

ጥያቄዎቹንሲመልሱእነዚህን 5 የችግርወይምየእክልደረጃዎችይጠቀሙ።

1. ምንምችግርየለም 2. አነስተኛችግር 3. መካከለኛችግር 4. ከፍተኛችግር 5. በጣምከፍተኛችግርወይምፈጽሞመስራትአለመቻል።

ለጠያቂማስታወሻ፡መጠይቁእስኪጠናቀቅድረስካርድቁጥር ፣

1001	ባለፉት 30 ቀናትውስጥየጤናዎትንአጠቃላይሁኔታእንዴትይ መዝኑታል?	በጣምጥሩ	1	OVERALL
		ጥሩ	2	
		መካከለኛ	3	
		የከፋ	4	
		በጣምየከፋ	5	
	ባለፉት 30 ቀናትየሚከተሉትንሲያደርጉምንያህልይችግርዎትነበር?			
1002	ረዘምላለጊዜመቆምምንያህልይችግርዎትነበር? ለምሳሌግማሽሰዓት	ምንም	1	STAND
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1003	የቤትዉስጥሃላፊነቶችንመወጣትምንያህልይችግር ዎትነበር?	ምንም	1	HOUSE
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1004	አዲስነገርወይምስራለመማርይችገሩነበር? (ለምሳሌየእርሻስራ፣ባልትና፣የእጅስራ፣	ምንም	1	LEARN
		አነስተኛ	2	

	የሞባይልአጠቃቀም፣ወዘተ…)	መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1005	በማህበራዊእንቅስቃሴዉስጥ (ለምሳሌ፡- ዓመትበዓል፣ድግስ፣ለቅሶ፣እድር፣ሊቃ…ወዘተ) ልክእንደሌላዉሰዉመሳተፍምንያህልይቸግርዎትነበር?	ምንም	1	JOIN
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1006	የርስዎየጤናችግርምንያህልስሜትዎትላይተጽእኖአደረገብዎት?	ምንም	1	EMOTE
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
	ባለፉት 30 ቀናትየሚከተሉትንሲያደርጉምንያህልይቸግርዎትነበር?			
1007	በሚሰሩትስራላይሀሳብዎንለጥቂትጊዜ (ለ10 ደቂቃ) ያህልመሰብሰብይቸገሩነበር?	ምንም	1	CONC
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1008	ረዘምያለርቀትለመጓዝምንያህልይቸገሩነበርምንያህልይቸገሩነበር? ምሳሌየሩብሰአትመንገድ (1ኪ.ሜትር)	ምንም	1	WALK
		አነስተኛ	2	
		መካከለኛ	3	

		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1009	ሰዉነትዎንመታጠብምንያህልይቸግርዎትነበር?	ምንም	1	WASH
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1010	ልብስዎትንመልበስምንያህልይቸግርዎትነበር?	ምንም	1	DRESS
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1011	ከማያዉቁዋቸዉሰዎችጋርተግባብቶጉዳይመፈጸም ምንያህልይቸግርዎትነበር?	ምንም	1	DEAL
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1012	በጓደኝነትመቆየትምንያህልይቸግርዎትነበር?	ምንም	1	FRIEND
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	

1013	የዕለትተዕለትስራዎንወይምትምህርትዎንለማከናወንምንያህልይቸግርዎትነበር?	ምንም	1	DAY
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1014	በአጠቃላይእነዚህችግሮችበህይወትዎጣልቃእየገቡ ምንያህልአስቸገርዎት?	ምንም	1	INTERF
		አነስተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
1015	በአጠቃላይባለፉት 30 ቀናትዉስጥእነዚህችግሮችለምንያህልቀናትነበሩ?	□_____ ቀናት		DIFFDAYS
1016	ባለፉት 30 ቀናትዉስጥበማንኛዉምየጤናችግርምክንያት፣ የተለመደስራወይምእንቅስቃሴዎትንሙሉበሙሉ ማድረግያልቻሉትለምንያህልቀናትነበር?	□ _____ ቀናት		UNABLE
1017	ባለፉት 30 ቀናትዉስጥበማንኛዉምየጤናችግርምክንያት፣ ሙሉበሙሉምንምስራመስራትያልቻሉባቸዉንቀናትሳይጨምር፣ የተለመደስራወይምእንቅስቃሴዎትንለመቀነስየተገደዱባቸዉምንያህልቀናትነበሩ?	□ _____ ቀናት		CUTBACK

C. Questionnaire for AUD Cohort, English Version

PRIME Ethiopia

Addis Ababa University in collaboration with

The Federal Ministry of Health

AUD Cohort (baseline)

SECTION TWO (lay interviewer administered)

Federal Ministry of Health

INTERVIEW DETAILS				
001	Interview date (E.C.)	[ ] [ ] / [ ] [ ]/ [ ] [ ] [ ] [ ]		clinicdate6
002	Assessor's name			intname
003	Assessor's ID	[ ] [ ]		intid
004	PRIME ID	AE [ ] [ ] [ ] [ ]		parid
005	Interview start time	[ ] [ ] : [ ] [ ]		clinicst6
006	Interview finish time	[ ] [ ] : [ ] [ ]		clinicfi6

SECTION 1. Socio-demographic Information

101	Participants card No (fill it by looking at the participants card)			PCNO
102	Sex (fill it by looking the sex of the participant)	Male	0	SEX
		Female	1	
103	Age (How old are you?)	[ ] [ ]		AGE
104	Living place (where do you live, in urban or rural kebele?)	Urban	0	RES
		Rural	1	
105	For how long did you live in your kebele?	[ ][ ]year [ ][ ]month		RESDUR
106	Educational background (What is the highest level of education you have completed?)	Illiterate	1	EDU
		Can read and write but didn't attend formal education (e.g learn at church or mosque or got non formal basic education)	2	
		Attend formal education	3	
107	If you attend formal education, up to what grade/ level did you learn?	[ ][ ]year		EDUYR
108	Occupation (what is your work from which you get your income or how spend your day)	Farming	1	EMP
		Privateorganization employee	2	
		Self-employed	3	
		Volunteer	4	
		House wife	5	
		Unemployed	6	
		Student	7	
		Pensioner	8	
		Government employee	9	

		Daily laborer	10	
		Other (please specify)	77	
109	How would you express your family's current income or life?	Very low	1	REINC
		Lower	2	
		Middle	3	
		Higher	4	
		Very high	5	
110	Marital status (What is your current marital status? (if the response is 1,3 0r 4, go to question 113)	Single	1	MARIT
		Married	2	
		Divorced	3	
		Widowed	4	
		Married but not living together	5	
		Cohabitating	6	
111	Your spouse's occupation (what is your spouse's work from which she/he gets his/her income or how they spend their day)?)) [ask only if the respondent is married or his spouse is alive)	Farming	1	EMPSP
		Private organization employee	2	
		Self-employed	3	
		Volunteer	4	
		House wife	5	
		Unemployed	6	
		Student	7	
		Pensioner	8	
		Government employee	9	
		Daily laborer	10	
		Farming	77	
112	Educational background of your spouse (What is the level of education of your spouse?)	Non literate	1	SEDL
		Read and write without formal education (e.g. through adult literacy education)	2	
		Formally educated	3	
113	Religion (what is your religion?)	Orthodox Christian	1	RELIG
		Muslim	2	
		Protestant	3	
		If other [specify]_____	4	
114	Ethnicity (what is your ethnicity?)	Gurage	1	ETHNIC
		Oromo	2	
		Amhara	3	
		If other [specify]_____	4	
115	How many people, including yourself, are there in your household?	[____] [____]		
116	[For female interviewees] Are you pregnant?	No	0	PREG
		Yes	1	
		Not applicable	66	
		Do not know	88 8	

117	Do you have children (including your own children and adopted ones)? If the response is no, go to question 120	No	0	KIDS
		Yes	1	
118	How many children do you have?	[ ][ ]		KIDSNO
119	How old is your youngest child?	[ ][ ] year		KIDYR
120	How long does it take you to get to the nearest health center?	[ ] [ ] [ ] minute		DFHC
121	Have you been the manager of your families before you got ill?	No	0	
		Yes	1	
122	Who is manages your family currently?	No	0	HHO
		Yes	1	

SECTION 2: DEPRESSION (PHQ 9 +1)

	Over the past 2 weeks, have you been bothered by any of the following problems? **Note: ፡-Explain to the interviewee that occasionally means (2-6 days), several days means 7-11 days and nearly every day means 12 -14 days**			
201a	Little interest or pleasure in doing daily activities?	Yes	1	PHLI6
		No [→go to Q 202a]	0	
201b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHLIIF6
		Several days	2	
		Nearly every day	3	
202a	Feeling down, depressed, or hopeless?	Yes	1	PHFS6
		No [→go to Q 203a]	0	
202b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHFSIF6
		Several days	2	
		Nearly every day	3	
203a	Trouble falling/staying asleep?	Yes	1	PHIS6
		No [→go to Q 204a]	0	
203b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHISIF6
		Several days	2	
		Nearly every day	3	
204a	Sleeping too much?	Yes	1	PHOS6
		No [→go to Q 205a]	0	
204b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHOSIF6
		Several days	2	
		Nearly every day	3	
205a	Feeling tired or having little energy?	Yes	1	PHLE6
		No [→go to Q 206a]	0	
205b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHLEIF6
		Several days	2	
		Nearly every day	3	
206a	Poor appetite?	Yes	1	PHLR6
		No [→go to Q 207a]	0	
206b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHLRIF6
		Several days	2	
		Nearly every day	3	
207a	Overeating	Yes	1	PHFH6
		No [→go to Q 208a]	0	
207b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHFHIF6
		Several days	2	

		Nearly every day	3	
208a	Trouble concentrating on things, such as reading the newspaper or watching television?	Yes	1	PHDC6
		No [→go to Q 209a]	0	
208b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHDCIF6
		Several days	2	
		Nearly every day	3	
209a	Moving or speaking so slowly that other people could have noticed?	Yes	1	PHDT6
		No [→go to Q 210a]	0	
209b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHDTIF6
		Several days	2	
		Nearly every day	3	
210a	Being so fidgety or restless that you have been moving around a lot more than usual that other people could have noticed?	Yes	1	PHDS6
		No [→go to Q 211a]	0	
210b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHDSIF6
		Several days	2	
		Nearly every day	3	
211a	Thoughts that you would be better off dead or of hurting yourself in some way? If the interviewee ANSWERS YES, refer him/ HER to THE PROJECT COORDINATOR FOR CLINICAL REVIEW	Yes	1	PHWD6
		No [→go to Q 212]	0	
211b	If yes, how frequently in the last 2 weeks?	Occasionally	1	PHWDIF6
		Several days	2	
		Nearly every day	3	
212	If the interviewee responded Yes to one of the above problems, ask the following? : How difficult have these problems made it for you to do your work, take care of things at home, or get along with other people?	Not difficult at all	0	PHDR6
		Somewhat difficult	1	
		Very difficult	2	
		Extremely difficult	3	
213	In addition to what we have been discussing, in the past 12 months have you ever feel depressed and loss of interest for two weeks or more?	No	0	PHWFG6
		Yes	**1**	
214	**What is the total of 201b,202b, 203b, 204b, 205b, 206b, 207b, 208b, 209b, 210b and 211b?** **IF THE TOTAL is 10 or greater→**refer him/HER to THE PROJECT COORDINATOR FOR CLINICAL REVIEW			phrefer6
215	**<u>Source of information for PHQ-9</u>**	Patient	1	phqinfo6
		Caregiver	**2**	
		Both	**3**	

SECTION 3: SUICIDAL IDEATION AND ACTION (CIDI)

301	Have you thought of taking your life in the past 6 months?	No	0	SUITHINK6
		Yes	1	
302	Did you ever make a plan for taking your own life at any time in the past 6 months?	No	0	SUIPLAN6
		Yes	1	
303a	Have you attempted to take your own life in the past 6 months?	No	0	SUIATT6
		Yes	1	
303b	If you have attempted to take your own life in the past 6 months, how many times have you attempted?	[ ] [ ] times		SUIATF6
304	Did you receive any treatment for thinking about or attempting to take your own life?	No	0	SUIMED6
		Yes	1	
305	In the past 6 months , have you spoken to anyone about thinking about or attempting to take your own life?	No	0	SUIDISC6
		Yes	1	
306	To whom have you spoken?			
306a	Friend / neighbour	No	0	FRIEND6
		Yes	1	
306b	Spouse/partner	No	0	SPOUSE6
		Yes	1	
306c	Other family member	No	0	OFAM6
		Yes	1	
306d	Employer/co-worker	No	0	EMPL6
		Yes	1	
306e	Religious advisor, spiritual advisor or traditional healer	No	0	REL6
		Yes	1	
306f	Health care worker (e.g. nurse/doctor, specialist)	No	0	HCWORK6
		Yes	1	
306g	Other (specify)	No	0	OTHER6
		Yes	1	
307	Did you receive any treatment for thinking about or attempting to take your own life? Note: If the response is no and the interviewee still has thought of suicide, refer him/HER to THE PROJECT COORDINATOR FOR CLINICAL REVIEW	No [→go to next section]	0	SUITX6
		Yes	1	
308	What treatment did you receive?	----------		SUITXO6
309	Source of information for Suicide ideation and action	Patient	1	suiinfo6
		Caregiver	2	
		Both	3	

SECTION 4: Alcohol Use Disorders Identification Test (AUDIT): Self-Report Version

Now I am going to ask you some questions about your use of alcoholic beverages during the past 3 months. Because alcohol use can affect many areas of health (and may interfere with certain medications), it is important for us to know how much you usually drink and whether you have experienced any problems with your drinking. Please try to be as honest and as accurate as you can be.
Show cards for standard drinks measures

401	How often do you have a drink containing alcohol?	Never [→ go to Q 609]	0	AUHO6
		Monthly or less	1	
		2-4 times a month	2	
		2-3 times a week	3	
		4 or more times a week	4	
402	How many drinks containing alcohol do you have on a typical day when you are drinking?	1 -2	0	AUHM6
		3-4	1	
		5-6	2	
		7-9	3	
		10 or more	4	
403	How often do you have six or more drinks on one occasion?	Never [skip to Questions 9 and 10 if scored 0 on Q 602 and never for Q 603]	1	AUHS6
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
404	How often during the last year have you found that you were not able to stop drinking once you had started?	Never	1	AUDS6
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
405	How often during the last year have you failed to do what was normally expected from you because of drinking?	Never	1	AULD6
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
406	How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?	Never	1	AUEO6
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	

407	How often during the last year have you had a feeling of guilt or remorse after drinking?	Never	1	AUFG6
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
408	How often during the last year have you been unable to remember what happened the night before because you had been drinking?	Never	1	AUUR6
		Less than monthly	2	
		Monthly	3	
		Weekly	4	
		Daily or almost daily	5	
409	Have you or someone else been injured as a result of your drinking?	No	1	AUID6
		Yes, but not in the last year	2	
		Yes, during the last year	3	
410	Has a relative or friend or a doctor or another health worker been concerned about your drinking or suggested you cut down?	No	1	AUAR6
		Yes, but not in the last year	2	
		Yes, during the last year	3	
411	***Main source of information for AUDIT***	Patient	1	auditinfo6
		Caregiver	2	
		Both	3	

SECTION 5: SHORT INVENTORY OF PROBLEMS (SIP-2R)				
Here are a number of events that people sometimes experience. Read each one carefully, and indicate how often each one has happened to you DURING THE PAST 3 MONTHS (0 = Never, 1 = Once or a few times, etc.). If an item does not apply to you, circle zero (0).				
501	I have been unhappy because of my drinking.	Never	0	sip1-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
502	Because of my drinking, I have not eaten properly.	Never	0	sip2-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
503	I have failed to do what is expected of me because of my drinking.	Never	0	sip3-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
504	I have felt guilty or ashamed because of my drinking	Never	0	sip4-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
505	I have taken foolish risks when I have been drinking.	Never	0	sip5-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
506	When drinking, I have done impulsive things that I regretted later.	Never	0	sip6-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
	Now answer these questions about things that may have happened to you. During the Past 3 Months, how much has this happened?			
507	My physical health has been harmed by my drinking	Never	0	sip7-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
508	I have had money problems because of my drinking	Never	0	sip8-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
509	My physical appearance has been harmed	Never	0	sip9-3

	by my drinking.	One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
510	My family has been hurt by my drinking	Never	0	sip10-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
511	A friendship or close relationship has been damaged by my drinking.	Never	0	sip11-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
512	My drinking has gotten in the way of my growth as a person.	Never	0	sip12-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
513	My drinking has damaged my social life, popularity, or reputation.	Never	0	sip13-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
514	I have spent too much or lost a lot of money because of my drinking	Never	0	sip14-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	
	Has this happened to you DURING THE PAST 3 MONTHS?			
515	I have had an accident while drinking or intoxicated	Never	0	sip15-3
		One or a few times	1	
		Once or twice a week	2	
		Daily or almost daily	3	

SECTION 6: Social support (OSLO 3-item social support scale)				
Please circle the option that represents your experience.				
601	How easy is it to get practical help from neighbours if you should need it ?	Very easy	1	OSAS6
		Easy	2	
		Possible	3	
		Difficult	4	
		Very difficult	5	
602	How many people are so close to you that you can count on them if you have serious personal problems (choose one option)?	None	1	OSCRS6
		1 or 2	2	
		3-5	3	
		More than 5	4	
603	How much concern do people show in what you are doing (choose one option)?	A lot of concern and interest	1	OSNPS6
		Some concern and interest	2	
		Uncertain	3	
		Little concern and interest	4	
		No concern and interest	5	
604	***Main source of information for OSS***	Patient	1	ossinfo6
		Caregiver	2	
		Both	3	

SECTION 7: *WHO Disability Assessment Schedule II– 12 item scale*

The next few questions are about difficulties people have because of health conditions.
[Hand flashcard to respondent]
By health condition I mean diseases or illnesses, other health problems that may be short or long lasting, injuries, mental or emotional problems and problems with alcohol or drugs.
I remind you to keep all of your health problems in mind as you answer the questions. When I ask you about difficulties in doing an activity think about [Point to flashcard #1].

- Increased effort
- Discomfort or pain
- Slowness
- Changes in the way you do the activity

[Point to flashcard #1]. When answering, I'd like you to think back over the last 30 days. I also would like you to answer these questions thinking about how much difficulty you have, on average over the past 30 days, while doing the activity as you usually do it.
[Hand flashcard #2 to interviewee] Use this scale when responding.
[Read scale aloud]: None, mild, moderate, severe, extreme or cannot do.
[Flashcards #1 and #2 should remain visible to the respondent throughout the interview]

701	How do you rate your overall health in the past 30 days?	Very good	1	OVERALL
		Good	2	
		Moderate	3	
		Bad	4	
		Very bad	5	
	[Show flashcard #2 to participant.] In the last 30 days how much difficulty did you have in:			
702	Standing for long periods such as 30 minutes?	None	1	STAND
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
703	Taking care of your household responsibilities?	None	1	HOUSE
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
704	Learning a new task, for example, learning how to get to a new place?	None	1	LEARN
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
705	How much of a problem did you have in joining community activities (for example, festivities, religious or other activities) in the same way as anyone else can?	None	1	JOIN
		Mild	2	
		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
706	How much have you been emotionally affected by your health problems?	None	1	EMOTE
		Mild	2	

		Moderate	3	
		Severe	4	
		Extreme/cannot do	5	
	In the last 30 days, how much difficulty did you have in:			
707	Concentrating on doing something for 10 minutes?	None	1	
		Mild	2	
		Moderate	3	CONC
		Severe	4	
		Extreme/cannot do	5	
708	Walking a long distance such as a kilometer?	None	1	
		Mild	2	
		Moderate	3	WALK
		Severe	4	
		Extreme/cannot do	5	
709	Washing your whole body?	None	1	
		Mild	2	
		Moderate	3	WASH
		Severe	4	
		Extreme/cannot do	5	
710	Getting dressed?	None	1	
		Mild	2	
		Moderate	3	DRESS
		Severe	4	
		Extreme/cannot do	5	
711	Dealing with people you do not know?	None	1	
		Mild	2	
		Moderate	3	DEAL
		Severe	4	
		Extreme/cannot do	5	
712	Maintaining a friendship?	None	1	
		Mild	2	
		Moderate	3	FRIEND
		Severe	4	
		Extreme/cannot do	5	
713	Your day to day work?	None	1	
		Mild	2	
		Moderate	3	DAY
		Severe	4	
		Extreme/cannot do	5	
714	Overall, how much did these difficulties interfere with your life?	None	1	
		Mild	2	
		Moderate	3	INTERF
		Severe	4	
		Extreme/cannot do	5	

715	Overall, in the past 30 days, how many days were these difficulties present?	☐ _____ days	DIFFDAYS
716	In the past 30 days, for how many days were you totally unable to carry out your usual activities or work because of any health condition?	☐ _____ days	UNABLE
717	In the past 30 days, not counting the days you were totally unable, for how many days did you cut back or reduce your usual activities or work because of any health condition?	☐ _____ days	CUTBACK

D. Questionnaire for AUD Cohort, Amharic Version

PRIME ETHIOPIA

ADDIS ABABA UNIVERSITY IN COLLABORATION WITH

THE FEDERAL MINISTRY OF HEALTH

Alcohol Use Disorder Cohort (baseline)

SECTION TWO (lay interviewer administered)

Federal Ministry of Health

INTERVIEW DETAILS

001	ቃለ-መጠይቅ የተደረገበት ቀን (E.C.)	[ ] [ ] / [ ] [ ]/ [ ] [ ] [ ] [ ]	laydate6
002	የቃለ-መጠይቅ አድራጊው ስም		intname
003	የቃለ-መጠይቅ አድራጊውኮድ	[ ] [ ]	intid
004	PRIME ኮድ	AE [ ] [ ] [ ] [ ]	parid
005	የቃለ-መጠይቁ የተጀመረበት ሰዓት	[ ] [ ] : [ ] [ ]	layst6
006	የቃለ-መጠይቁ የተጠናቀቀበት ሰዓት	[ ] [ ] : [ ] [ ]	layfi6

SECTION 1፡Socio-demographic Information				
1. የግለሰቡአጠቃላይመረጃ				
101	ካርድቁ. [ከካርድ ማውጫው ላይ ተመልክተው ይሙሉ]			PCNO
102	ፆታ [የተጠያቂውን ፆታ አይተው ይመዝግቡ]	ወንድ	0	SEX
		ሴት	1	
103	**እድሜ(ስንትአመትዎነው)**	[ ] [ ]		AGE
104	**መኖሪያ ስፍራ** (የሚኖሩበት ቦታ የከተማ ወይስ የገጠር ቀበሌ ነው?)	የከተማ	0	RES
		የገጠር	1	
105	አሁንባሉበትቀበሌለምንያህልጊዜቆዩ;	**[ ][ ]ዓመት** **[ ][ ]ወር**		RESDUR
106	የትምህርትሁኔታ (የትምህርትደረጃዎምንድንነው?) ምንምያልተማሩከሆነወደጥያቄቁ. 108 ይለፉ	ምንምያልተማሩ	1	EDU
		ማንበብናመፃፍየሚችልግንመደበኛትምህርትየሌለው (ለምሳሌየቄስትምህርት፣ መሰረተትምህርትየተማረ)	2	
		መደበኛትምህርትተከታትያለሁ	3	
107	መደበኛትምህርትከተከታተሉ፡ እስከስንተኛክፍልለምንያህልአመታትትምረዋል?	**[ ][ ]ዓመት**		EDUYR
108	ስራ (ገቢየሚያገኙበትወይምቀንዎንየሚያሳልፉበትስራዎ ምንድንነው?)	ግብርና	1	EMP
		የግልድርጅትተቀጣሪ	2	
		የግልስራ	3	
		በጎፈቃደኛስራ	4	
		የቤትእመቤት	5	
		ስራአጥ	6	
		ተማሪ	7	
		ጡረተኛ	8	
		የመንግስትሰራተኛ	9	
		የቀን/ የጉልበትስራ	10	

		ሌላ [ይገለፅ]	77	
109	አሁን እየኖሩበት ያለው ቤተሰብ የገቢ (የኑሮ) ሁኔታእንዴትይገልፁታል?	በጣምዝቅተኛ	1	REINC
		ዝቅተኛ	2	
		መካከለኛ	3	
		ከፍተኛ	4	
		በጣምከፍተኛ	5	
110	የጋብቻሁኔታ (በአሁኑወቅትየትዳርሁኔታእንዴትነው?) ***[ምላሹ 1,3 እና 4 ከሆነወደጥያቄ 113 ይለፉ]***	ያላገባ	1	MARIT
		ያገባ	2	
		በፍቺየተለያየ	3	
		በሞትየተለየ	4	
		ያገባግንበስራወይምበሌላምክንያትአብሮየማይኖር	5	
		ያለህጋዊጋብቻአብሮየሚኖር	6	
111	የባለቤትዎስራ (ገቢየሚያገኙበትወይምቀናቸውንየሚያሳልፉበትስራቸውምንድንነው?) [ባለትዳርለሆነእናየትዳርአጋርበህይወትላለተጠያቂብቻ የሚጠየቅ]	ግብርና	1	EMPSP
		የግልድርጅትተቀጣሪ	2	
		የግልስራ	3	
		በጎፈቃደኛስራ	4	
		የቤትእመቤት	5	
		ስራአጥ	6	
		ተማሪ	7	
		ጡረተኛ	8	
		የመንግስትሰራተኛ	9	
		የቀን/ የጉልበትስራ	10	
		ሌላ [ይገለፅ]	77	
112	የባለቤትዎየትምህርትሁኔታ (የትምህርትደረጃዎምንድንነው?)	ምንምያልተማረ	1	SEDL
		ማንበብናመፃፍየሚችልግንመደበኛትምህርትየሌለው (ለምሳሌየቄስትምህርት፣ መሰረተትምህርትየተማረ)	2	
		መደበኛትምህርትየተከታተለ	3	
113	ሀይማኖት(ሀይማኖትዎምንድንነው?)	ኦርቶዶክስክርስቲያን	1	RELIG
		ሙስሊም	2	
		ፕሮቴስታንት	3	
		ሌላ [ይገለፅ]_____	4	
114	ብሔር (ብሔርዎምንድንነው?)	ጉራጌ	1	ETHNIC
		ኦሮሞ	2	
		አማራ	3	
		ሌላ [ይገለፅ]_____	4	
115	የቤተሰብመጠን (እርሶንጨምሮበቤትዎስንትሰውይኖራል?)	[ ][ ]		

116	[ለሴትተጠያቂብቻ] ነፍሰጡርነዎት?	አይ	0	PREG
		አዎን	1	
		አይመለከተኝም	66	
		አላውቅም	888	
117	ልጆች(የወለደእናየማደጎልጅንጨምሮ) አለዎት? *[ምላሹአይከሆነወደጥያቄ 120 ይለፉ]*	አይ	0	KIDS
		አዎን	1	
118	ስንትልጆችአለዎት?	[ ][ ]		KIDSNO
119	የመጨረሻው/ ትንሹልጅዎእድሜውስንትነው?	[ ][ ] አመት		KIDYR
120	ለእርስዎቅርብወደሆነዉየጤናጣቢያለመድረስምንያህ ልደቂቃዎችይጓዛሉ?	[ ] [ ] [ ] ደቂቃ		DFHC
121	ህመሙከመጀመሩበፊትየቤተሰቦአስተዳዳሪ (አባወራ/እማወራ) ነበሩ?	አይ	0	
		አዎን	1	
122	በአሁኑሰአትየቤተሰቦአሰተዳዳሪ(አባወራ/እማወራ) ነዎት?	አይ	0	HHO
		አዎን	1	

SECTION 2: DEPRESSION (PHQ 9 +1)				
	ላለፉት ሁለት ሳምንታት ከነዚህ ከምዘረዝራቸው ችግሮች ውስጥ የትኛዎቹ ደርሰውቦት (በየትኛዎቹ ተቸግረው) እንደ ነበር እጠይቆታለሁ :: ***<u>ማስታወሻ፦ አልፎ አልፎብቻ (2-6 ቀናት) ፣በዛላለ ጊዜ (7-11 ቀናት) ከሞላ ጎደል በየቀኑ (12-14 ቀናት) መሆኑን ይግለፁ።።</u>***			
201a	የእለት-ተእለት ተግባርዎን ለማከናወን (<u>ለመስራት</u>) ያለዎት ተነሳሽነት ወይም ፍላጎት ቀንሶ ነበር;	አዎ	1	PHLI3
		የለም [→ወደ 202a ይለፉ]	0	
201b	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎአልፎብቻ	1	PHLIIF3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
202a	የመከፋት፣ የመደበት፣ ወይም በብዙ ነገሮች ላይ ተስፋ የመቁረጥ ስሜት ይሰማዎት ነበር;	አዎ	1	PHFS3
		የለም [→ወደ 203a ይለፉ]	0	
202b	መልሱ አዎ ከሆነ በሁለቱ ሳምንታት ዉስጥ ለምን ያህል ጊዜ ተሰማዎት;	አልፎአልፎብቻ	1	PHFSIF3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
203a	እንቅልፍአልወስድዎበብሎ፣ ወይምበደንብመተኛትአቅቶዎትይቸገሩነበር;	አዎ	1	PHIS3
		የለም [→ወደ 204a ይለፉ]	0	
203b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን ያህልጊዜተሰማዎት;	አልፎአልፎብቻ	1	PHISIF3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
204a	እንቅልፍበዝቶብዎትይቸገሩነበር;	አዎ	1	PHOS3
		የለም [→ወደ 205a ይለፉ]	0	
204b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን ያህልጊዜተሰማዎት;	አልፎአልፎብቻ	1	PHOSIF3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
205a	የድካምወይምየአቅምማነስስሜትይይማዎትነበር;	አዎ	1	PHLE3
		የለም [→ወደ 206a ይለፉ]	0	
205b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን ያህልጊዜተሰማዎት;	አልፎአልፎብቻ	1	PHLEIF3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	

206a	የምግብፍላጎትዎቀነሶነበር;	አዎ	1	PHLR3
		የለም [→ወደ 207a ይለፉ]	0	
206b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን ያህልጊዜተሰማዎት;	አልፎአልፎብቻ	1	PHLRIF3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
207a	የምግብፍላጎትዎከተለመደውበላይጨምሮነበር;	አዎ	1	PHFH3
		የለም [→ወደ 208a ይለፉ]	0	
207b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን ያህልጊዜተሰማዎት;	አልፎአልፎብቻ	1	PHFHIF3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
208a	ራስዎንየመጥላትወይምዋጋየለኝምብሎየማለ ትወይምራሴንምሆነቤተሰቤንአሳዝኛለሁየሚ ልስሜትተሰምትዎትነበር;	አዎ	1	PHFAIL 3
		የለም [→ወደ 209a ይለፉ]	0	
208b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን ያህልጊዜተሰማዎት;	አልፎአልፎብቻ	1	PHFAILI F3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
209a	በሚሰሩትስራላይሃሳብዎንመሰብሰብ/ ትኩረትመስጠትአስቸግርዎትነበር; (ለምሳሌ፣ ከሰዎችጋርሲጨዋወቱትኩረትሰጥቶማዳመጥ)	አዎ	1	PHDC3
		የለም [→ወደ 210a ይለፉ]	0	
209b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን ያህልጊዜተሰማዎት;	አልፎአልፎብቻ	1	PHDCIF 3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
210a	ለሌሎችሰዎችአስኪታወቅድረስበእንቅስቃሴዎ ወይምበንግግርዎበጣምቀስብለውነበር;	አዎ	1	PHDT3
		የለም [→ወደ 211a ይለፉ]	0	
210b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን ያህልጊዜተሰማዎት;	አልፎአልፎብቻ	1	PHDTIF 3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
211a	ለሌሎችሰዎችእስኪታወቅድረስመረጋጋትአቅት ዎት፣ አንድበታአርፎመቀመጥወይምመቆምእስከማ ይችሉድረስሆነውነበር;	አዎ	1	PHDS3
		የለም [→ወደ 212a ይለፉ]	0	
211b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን	አልፎአልፎብቻ	1	PHDSIF3

	ያህልጊዜተሰማዎት;	በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
212a	ከምኖርብሞትይሻለኛልብለውአስበውወይም ራስዎንበሆነመንገድሊጎዱአስበውነበር; ቃለ-መጠይቅተደራጊውአዎከሆነመልሱእሱን/አንወደፕሮጀክቱጥናትአስተባባሪረፈርያድርጓቸው	አዎ	1	PHWD3
		የለም[→ወደ 213 ይለፉ]	0	
212b	መልሱአዎከሆነበሁለቱሳምንታትዉስጥለምን ያህልጊዜተሰማዎት;	አልፎአልፎብቻ	1	PHWDIF3
		በዛላለጊዜ	2	
		ከሞላጎደልበየቀኑ	3	
		በጭራሽአልተቸገርኩም		
213	ከላይከተዘረዘሩትጥያቄዎችመካከልለአንዳቸው ምአዎየሚልምላሽከሰጡየሚከተለውንጠይቅ በእነዚህችግሮችምክንይትስራዎንለመስራት፣ የቤትሀላፊነትዎንለመወጣትወይምከሰዎችጋር ተስማምተውለመኖርምንያህልአስቸጋሪሆኖብዎትነበር;	በጭራሽአልተቸገርኩም	0	PHDR3
		በመጠኑተቸግሬነበር	1	
		በጣምተቸግሬነበር	2	
		እጅግበጣምተቸግሬነበር	3	
214	**አሁንከተነጋገርነውበተጨማሪባለፉት 12 ወራትውስጥሁለትሳምንትናከዚያበላይየ ቆየየመደበር/ የመደበትእናበብዙነገሮችፍላጎትማጣትተ ሰምቶትነበር**;	**አይ**	**0**	PHWFG3
		አዎን	**1**	

	የPHQ ውጤት (0,1, 2 or 3)	
ተራቁጥር 201b		
ተራቁጥር 202b		
ከተራቁጥር 203b ወይምተራቁጥር 204b ከፍተኛውውጤት		
ተራቁጥር 205b		
ከተራቁጥር 206b ወይምተራቁጥር 207b ከፍተኛውውጤት		
ተራቁጥር 208b		
ተራቁጥር 209b		
ከተራቁጥር 210b ወይምተራቁጥር 211b ከፍተኛውውጤት		
ተራቁጥር 212b		
ጠቅላላድምር		Phrefer3

SECTION 3: Alcohol Use Disorders Identification Test (AUDIT): Self-Report Version				
አዲት የአልኮል መጠጥ አጠቃቀም መጠይቅ				
በመቀጠልምባለፈውአንድአመትስለነበሮትየመጠጥ (አልኮል) አጠቃቀምአንዳንድጥያቄዎችይቀርብሎታል። ምክንያቱምመጠጥ (አልኮል) ብዙተጓዳኝየጤናችግሮችንያስከትላል (በተጨማሪምሃኪምአዞልንከምንወስዳቸውመድሃኒቶችጋርሊጋጭይችላል)፡ስለዚህየመጠጥ (አልኮል) አጠቃቀምዎንወይምምንያህልእንደሚጠጡከመጠጥጋርየተያያዙችግሮችእንዳጋጠሞትማወቁጠቃሚነው። ስለሆነምእባክዎንግልፅእናትክክለኛውንመረጃበመስጠትይተባበሩን።የእርስዎምላሽሚስጥራዊነቱየተጠበቀነው። ስለዚህበግልፅነትሃሳቦንይግለፁ።የአልኮልመጠጥመለኪያካርድያሳዩ				
301	አልኮልያላቸውመጠጦችንበየስንትጊዜውይወስዳሉ?	ፈፅሞአልጠጣም [ምላሹይህከሆነወደሚቀጥለውክፍልይለፉ]	0	AUHO6
		በወርከአንዴያነሰ	1	
		2-4 ግዜበወር	2	
		2-3 ግዜበሳምንት	3	
		4 ወይምከዚያበላይበሳምንት	4	
302	በሚጠጡበትቀንምንያህልመለኪያይጠጣሉ?	1 -2	0	AUHM6
		3-4	1	
		5-6	2	
		7-9	3	
		10 ወይምከዚያበላይ	4	
303	በየስንትጊዜውከስድስትእናከዚያበላይመለኪያይጠጣሉ?	ፈፅሞአልጠጣም[ወደጥያቄ 309 እና 310 ይለፉለጥያቄቁጥር 302 መልሱ 0 ከሆነናለጥያቄቁጥር 303 ፈፅሞአልጠጣምከሆነ]	1	AUHS6
		በወርከአንዴያነሰ	2	
		በወር	3	
		በሳምንት	4	
		በየቀኑወይምከሞላጎደልሁልቀን	5	
304	ባለፈውዓመትውስጥበየስንትጊዜውመጠጣትጀምረውለማቆምተቸግረዋል?	ፈፅሞአልተቸገርኩም	1	AUDS6
		በወርከአንዴያነሰ	2	

		በወርአንዴ	3	
		በሳምንትአንዴ	4	
		በየቀኑወይምከሞላጎደልሁልቀን	5	
305	ባለፈውዓመትውስጥበየስንትጊዜውበመ ጠጣትዎምክንያትመስራትያለብዎትንሳይ ሰሩቀርተዋል?	ፈፅሞሳልሰራአልቀረሁም	1	AULD6
		በወርከአንዴያነሰ	2	
		በወርአንዴ	3	
		በሳምንትአንዴ	4	
		በየቀኑወይምከሞላጎደልሁልቀን	5	
306	ባለፈውዓመትውስጥበየስንትጊዜውበጠኋ ትለመነቃቃትመጠጣትአስፈልጎዎታል ?	ፈፅሞአላስፈለገኝም	1	AUEO6
		በወርከአንዴያነሰ	2	
		በወርአንዴ	3	
		በሳምንትአንዴ	4	
		በየቀኑወይምከሞላጎደልሁልቀን	5	
307	ባለፈውዓመትውስጥበየስንትጊዜውበመ ጠጣትዎተጸጽተዋል?	ፈፅሞአልተጸጸትኩም	1	AUFG6
		በወርከአንዴያነሰ	2	
		በወርአንዴ	3	
		በሳምንትአንዴ	4	
		በየቀኑወይምከሞላጎደልሁልቀን	5	
308	ባለፈውዓመትውስጥበየስንትጊዜውበጠ ጡበትጊዜየሆነውንለማስታወስተቸግረዋል ?	ፈፅሞአልተቸገርኩም	1	AUUR6
		በወርከአንዴያነሰ	2	
		በወርአንዴ	3	
		በሳምንትአንዴ	4	
		በየቀኑወይምከሞላጎደልሁልቀን	5	
309	በመጠጣትዎምከንያትእርስዎወይምሌላሰ ውተጎድቶ/አደጋደርሶበትያውቃል?	አያውቅም	1	AUID6
		አዎ፣ዓመትአልፎታል	2	
		አዎ፣ባለፈውዓመትውስጥ	3	
310	ዘመድ/ወዳጅ/ የጤናባለሙያመጠጥእንዲያቆሙመክሮዎ ትያውቃል?	አያውቅም	1	AUAR6
		አዎ፣ዓመትአልፎታል	2	
		አዎ፣ባለፈውዓመትውስጥ	3	
311	አዲትንበተመለከተመረጃየሰጠውግለሰብ	ታማሚው	1	auditinfo6
		አስታማሚው	2	
		ሁለቱም	3	

SECTION 4: SUICIDAL IDEATION AND ACTION (CIDI)				
401	ላለፉት 6 ወራትህይወትዎንለማጥፋትአስበውያውቃሉ?	አይ	0	SUITHINK6
		አዎ	1	
402	ባለፉት 6 ወራት ውስጥበማኝኛውምጊዜየገዛህይወትዎንለማጥፋትአቅደውያውቃሉ?	አይ	0	SUIPLAN6
		አዎ	1	
403a	ላለፉት 6 ወራትህይወትዎንለማጥፋትሞክረውያውቃሉ?	አይ	0	SUIATT6
		አዎ	1	
403b	ላለፉት 6 ወራትህይወትዎንለማጥፋትሞክረውከሆነስንትጊዜሞከሩ?	[ ] [ ] ጊዜ		SUIATF6
404	ከላይበተጠቀሰውምክንያትየህክምናትኩረትመግኘትአስፈልግዎትነበር?	አይ	0	SUIMED6
		አዎ	1	
405	ላለፉት 6 ወራትህይወትዎንለማጥፋትስለማሰብዎ/ስለመሞከርዎለሌላ ሰውአውርተውያውቃሉ?	አይ	0	SUIDISC6
		አዎ	1	
406	ለማንነገሩ?			
406a	ጓደኛ/ለጉረቤት	አይ	0	FRIEND6
		አዎ	1	
406b	ለባለቤትዎ/ለኑሮ/ አጋርዎ	አይ	0	SPOUSE6
		አዎ	1	
406c	ሌላለቤተሰብአባል	አይ	0	OFAM6
		አዎ	1	
406d	ለአሰሪዎ/ለስራባልደረባዎ	አይ	0	EMPL6
		አዎ	1	
406e	ለመንፈሳዊአባትዎ/ለባህልሀኪም	አይ	0	REL6
		አዎ	1	
406f	ለጤናባለሞያ (ምሳሌ፡ነርስ/ሀኪም፣ስፔሻሊስት)	አይ	0	HCWORK6
		አዎ	1	
406g	ሌላ (ይግለጹ)	አይ	0	OTHER6
		አዎ	1	
407	የራስዎንህይወትለማጥፋትበማሰብዎ/በመሞከርዎምክንያት	አይ	0	SUITX6

	የህክምናአገልግሎትአግኝተውያውቃሉ? <u>ማስታወሻ፡</u> ምላሹአይከሆነናተጠያቂውአሁንምእራሱንየማጥፋትሀሳብካ ለውእባክዎንተጠያቂውን/ዋንወደጥናቱአስተባባሪለተጨማሪ ምርምርይላኩ	[→ወደጥያቄቁጥር 309 ይለፉ]		
		አዎ	1	
408	ምንአይነትህክምናአገኙ?	_____ _____ _____ _____		SUITXO6
409	ስለእራስንማጥፋትማሰብናሙከራበተመለከተበዋናነትመረጃ ውንየሰጡውግለሰብ	ታማሚው	1	suiinfo6
		አስታማሚው	2	
		ሁለቱም	3	

SECTION 5: SHORT INVENTORY OF PROBLEMS (SIP-2R)				
ከዚህበመቀጠልምሰዎችአልፎአልፎየሚያጋጥማቸውነገሮችተዘርዝረዋል ሁሉንምበጥንቃቄያንብቡበባለፈውሶስትወራትውስጥለምንያህልጊዜእያንዳንዱከስተትእንዳጋጠሞትአመልክቱ (0= የለም 1= አንድጊዜወይምለጥቂትጊዜየማይመለከቶትከሆነዜሮንይክበቡ)				
501	በመጠጥመጠጣትምክንያትደስተኛ አልነበርኩም	የለም	0	sip1
		አንዳንድጊዜወይምጥቂትጊዜ	1	
		አንዳንድጊዜወይምበሳምንትሁለትጊዜ	2	
		በየቀኑወይምአዘውትሮበየቀኑ	3	
502	በመጠጥመጠጣትምክንያትበስነስ ርዓትመመገብአልቻልኩም	የለም	0	sip2
		አንዳንድጊዜወይምጥቂትጊዜ	1	
		አንዳንድጊዜወይምበሳምንትሁለትጊዜ	2	
		በየቀኑወይምአዘውትሮበየቀኑ	3	
503	በመጠጥመጠጣትምክንያትመስራ ትየሚጠበቅብኝነገርመስራትአልቻል ኩም	የለም	0	sip3
		አንዳንድጊዜወይምጥቂትጊዜ	1	
		አንዳንድጊዜወይምበሳምንትሁለትጊዜ	2	
		በየቀኑወይምአዘውትሮበየቀኑ	3	
504	በመጠጥመጠጣትምክንያትየጥፋተ ኝነትወይምየማፈርስሜትይሰማኛል	የለም	0	sip4
		አንዳንድጊዜወይምጥቂትጊዜ	1	
		አንዳንድጊዜወይምበሳምንትሁለትጊዜ	2	
		በየቀኑወይምአዘውትሮበየቀኑ	3	
505	መጠጥስጠጣአላስፈላጊተጋላጭነት ንእወስዳለሁ	የለም	0	sip5
		አንዳንድጊዜወይምጥቂትጊዜ	1	
		አንዳንድጊዜወይምበሳምንትሁለትጊዜ	2	
		በየቀኑወይምአዘውትሮበየቀኑ	3	
506	When drinking, I have done impulsive things that I regretted later.መጠጥስጠጣቅፅበታዊውሳኔ አስተላልፍናበኃላግንእፀፀታለሁ	Neverየለም	0	sip6
		One or a few timesአንዳንድጊዜወይምጥቂትጊዜ	1	
		Once or twice a weekአንዳንድጊዜወይምበሳምንትሁለትጊዜ	2	
		Daily or almost dailyበየቀኑወይምአዘውትሮበየቀኑ	3	
	Now answer these questions about things that may have happened to you. During the Past 3 Months, how much has this happened? ቀጥለው የሚከተሉትን ጥያቄዎች እርስዎን አጋጥመዎት ከሆነ ይመልሱ በባለፈው 3 ወር ውስጥ ምንያህል አጋጥሞት ያውቃ			
507	My physical health has been harmed by my drinkingመጠጥበመጠጣቴየሰውነ	Neverየለም	0	sip7
		One or a few timesአንዳንድጊዜወይምጥቂትጊዜ	1	
		Once or twice a	2	

	ትአካሌጤንነትተጎድቷል	weekአንዳንድጊዜወይምበሳምንትሁለትጊዜ		
		Daily or almost dailyበየቀኑወይምአዘውትሮበየቀኑ	3	
508	I have had money problems because of my drinkingመጠጥበመጠጣቴየገንዘብ አጠቃቀምችግርነበረብኝ	Neverየለም	0	sip8
		One or a few timesአንዳንድጊዜወይምጥቂትጊዜ	1	
		Once or twice a weekአንዳንድጊዜወይምበሳምንትሁለትጊዜ	2	
		Daily or almost dailyበየቀኑወይምአዘውትሮበየቀኑ	3	
509	My physical appearance has been harmed by my drinking.መጠጥበመጠጣቴየሰውነ ትአካሌዕይታላይጉዳትነበረብኝ	Neverየለም	0	sip9
		One or a few timesአንዳንድጊዜወይምጥቂትጊዜ	1	
		Once or twice a weekአንዳንድጊዜወይምበሳምንትሁለትጊዜ	2	
		Daily or almost dailyበየቀኑወይምአዘውትሮበየቀኑ	3	
510	My family has been hurt by my drinkingመጠጥበመጠጣቴቤተሰቤ ተጎድቷል	Neverየለም	0	sip10
		One or a few timesአንዳንድጊዜወይምጥቂትጊዜ	1	
		Once or twice a weekአንዳንድጊዜወይምበሳምንትሁለትጊዜ	2	
		Daily or almost dailyበየቀኑወይምአዘውትሮበየቀኑ	3	
511	A friendship or close relationship has been damaged by my drinking.መጠጥበመጠጣቴምክን ያትጓድኝነቴንወይምጥብቅደጓኝነቴ ንአጥቻለሁ	Neverየለም	0	sip11
		One or a few times አንዳነድጊዜወይምጥቂትጊዜ	1	
		Once or twice a week አንዳነድጊዜወይምበሳምንትሁለትጊዜ	2	
		Daily or almost dailyበየቀኑወይምአዘውትሮበየቀኑ	3	
512	My drinking has gotten in the way of my growth as a person.መጠጥበእኔእድገትላይአሉ ታዊተፅዕኖአድርሶብኛል	የለም	0	sip12
		አንዳነድጊዜወይምጥቂትጊዜ	1	
		አንዳነድጊዜወይምበሳምንትሁለትጊዜ	2	
		በየቀኑወይምአዘውትሮበየቀኑ	3	
513	መጠጥየእኔንማህበራዊህይወትዕው ቅናእንዲሁምተቀባይነትላይተፅዕኖ አድርሶብኛል	የለም	0	sip13
		አንዳነድጊዜወይምጥቂትጊዜ	1	
		አንዳነድጊዜወይምበሳምንትሁለትጊዜ	2	
		በየቀኑወይምአዘውትሮበየቀኑ	3	
514	መጠጥበመጠጣቴምክንያትበዙገን ዘብአጠፋለሁወይምአጥቻለሁ	የለም	0	sip14
		አንዳነድጊዜወይምጥቂትጊዜ	1	
		አንዳነድጊዜወይምበሳምንትሁለትጊዜ	2	
		በየቀኑወይምአዘውትሮበየቀኑ	3	
	በባለፉትሶስትወራትውስጥይህነገርአጋጥሞታል			
515	አልኮልበመጠጣቴምክንያትወይምበ	የለም	0	sip15

	መስከሬምክንያትአደጋደርሶብኛል	አንዳነድጊዜወይምጥቂትጊዜ	1	
		አንዳነድጊዜወይምበሳምንትሁለትጊዜ	2	
		በየቀኑወይምአዘውትሮበየቀኑ	3	

SECTION 15: Social support (OSLO 3-item social support scale)				
የኦስሎማህበራዊድጋፍመለኪያመጠይቅ				
ለእርሶሁኔታትክክለኛየሆነውንመልስይስጡ				
15 01	ከጎረቤትዎቾእርዳታ/ድጋፍቢያስፈልግዎማግኘትምንያህልቀላልነው?	በጣምቀላል	1	OSAS6
		ቀላል	2	
		ቀላልምባይሆንየሚቻል	3	
		አስቸጋሪ	4	
		በጣምአስቸጋሪ	5	
15 02	ከፍተኛችግርቢያጋጥምዎየቅርብየሆኑእናይረዱኛልብለውየሚተማመኑባቸውምንያህልሰዎችይኖራሉ?	ምንም	1	OSCRS6
		1-2	2	
		3-5	3	
		5+	4	
15 03	ሌሎችሰዎችስለእርሶጉዳይምንያህልግድይላቸዋልወይምያስቡሎታል	በጣም	1	OSNPS6
		የተወሰነ	2	
		አላውቅም	3	
		ትንሽ	4	
		ምንም	5	
15 04	የኦስሎማህበራዊድጋፍመለኪያበተመለከተበዋናነትመረጃየሰጠውግለሰብ	ታማሚ	1	OSSINFO6
		አስታማሚ	2	
		ሁሉቱም	3	

SECTION 7: Functioning –WHODAS 12
እክልናየጤናእንክብካቤጥቅም
የአለምጤናድርጅትየእክልመለኪያዝርዝር

የሚቀጥሉትጥቂትጥያቄዎችሰዎችበጤናቸውሁኔታምክንያትስለሚኖራቸውችግርይሆናል።

[ለመላሹካርዱንይስጡ]

የጤናሁኔታስልህመምወይምበሽታ፤ሌሎችለአጭርወይምረጅምጊዜየሚቆዩየጤናችግሮች፤አደጋዎች፤

የአእምሮወይምስሜትአለመረጋጋትእንዲሁምከመጠጥናእጾችጋርየተያያዙችግሮችንይሆናል።

ጥያቄዎቹንበሚመልሱበትጊዜሁሉንምየጤናችግርዎንበሀሳብዎእንዲይዙአሳስቦታለሁ።

አንድንተግባርለማከናወንየሚገጥምዎትንችግርስጠይቅዎትየሚከተሉትንያስቡ።

[ወደካርድ#1 ያመልክቱ]

- ተጨማሪጥረት
- አለመመቸትወይምህመም
- ቀስታ/ዝግመት
- የሚሰሩበትንመንገድመለወጥ

[ወደካርድ#1 ያመልክቱ]

በሚመልሱበትጊዜያለፉትን 30ቀናትወደኋላእንዲያስታውሱእፈልጋለሁ።እንዲሁምእነዚህንጥያቄዎችሲመልሱበአማካይባለፉት 30ቀናቶችተግባሩንእንደወትሮውለመፈፀምምንያህልችግርእንደገጠመዎትእያሰቡእንዲሆንእፈልጋለሁ።

[ለመላሹካርድ#2 ንይስጡ]

ጥያቄዎቹንሲመልሱእነዚህንደረጃዎችይጠቀሙ።

[ደረጃዎቹንጮክብለውያንብቡ]: ምንም፣በጥቂቱ፣በከፊል፣በጣም፣እጅግበጣምወይምመስራትአልቻሉም።

[ካርድቁጥር #1 እና #2 በቃለመጠይቁወቅትለመላሹእንዲታዩመሆንአለባቸው]

701	ባለፉት 30 ቀናትአጠቃላይጤንነትዎምንደረጃላይነበር?	በጣምጥሩ		**OVERALL**
		ጥሩ		
		መካከለኛ		
		የከፋ		
		በጣምየከፋ		
	[ለተሳታፊውካርድ#2 ንያሳዩ] ባለፉት 30 ቀናትየሚከተሉትንሲያደርጉምንያህልይቸገሩነበር፡			
702	ረዘምላለጊዜመቆምለምሳሌለ30 ደቂቃ	ምንም	1	**STAND**
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግ በጣም/መስራትአልቻሉም	5	
703	የቤትውስጥሃላፊነቶችንመወጣት	ምንም	1	**HOUSE**
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	

704	አዲስንነገር/ተግባርመማርለምሳሌእንዴትወደአንድየማያውቁትቦታእንደሚደረስመማር	ምንም	1	LEARN
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
705	እንደማንኛውምሰውማህበራዊእንቅስቃሴዎችላይተሳተፎለማድረግ (ለምሳሌበአላት፣ሐይማኖታዊናሌሎችእንቅስቃሴዎች)	ምንም	1	JOIN
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
706	በጤናዎምክንያትስሜትዎምንያህልታውኪል?	ምንም	1	EMOTE
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
	ባለፉት 30 ቀናትየሚከተሉትንሲያደርጉምንያህልይቸገሩነበር፡			
707	የሚሠሩትሥራላይሀሳቦትንለ10ደቂቃመሰብሰብ	ምንም	1	CONC
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
708	ረዘምያለርቀትመራመድለምሳሌ 1ኪ.ሜ	ምንም	1	WALK
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
709	ገላዎትንመታጠብ	ምንም	1	WASH
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
710	መልበስ	ምንም	1	DRESS
		በጥቂቱ	2	
		በከፊል	3	

		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
711	ከማያውቋቸውሠዎችጋርመግባባት	ምንም	1	**DEAL**
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
712	በጓደኝነትመቆየት	ምንም	1	**FRIEND**
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
713	የዕለትተዕለትሥራዎንመሥራት	ምንም	1	**DAY**
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
714	በአጠቃላይአነዚህችግሮችህይወትዎንምንያህልአወኩ?	ምንም	1	**INTERF**
		በጥቂቱ	2	
		በከፊል	3	
		በጣም	4	
		እጅግበጣም/መስራትአልቻሉም	5	
715	ባጠቃላይባለፉት 30ቀናትእነዚህችግሮችለምንያህልቀናትነበሩ?	☐ _____ ቀናት		**DIFFDAYS**
716	ባለፉት 30ቀናትበማንኛውምየጤናሁኔታምክንያትለምንያህልቀናትየተለመዶእንቅስቃሴዎንወይምሥራዎንማከናወንሙሉለሙሉአቃተዎት?	☐ _____ ቀናት		**UNABLE**
717	ባለፉት 30ቀናትሙሉለሙሉያቃተዎትንቀናትሳይቆጥሩበማንኛውምየጤናሁኔታምክንያትለምንያህልቀናትየተለመዶእንቅስቃሴዎንወይምሥራዎንቀነሱወይምበከፊልተዉ?	☐ _____ ቀናት		**CUTBACK**

E. Topic Guides for Qualitative Study- English Version

People with Alcohol Use Disorders in the PRIME Treatment Cohort

I would like to start by asking you a few questions about your alcohol use.

1. In your view, is your alcohol drinking a problem?

- Probe: Do others consider it to be a problem?
- What do they say is the problem?
- What did the health workers say that your problem is?

[DEPENDING ON HOW THE PERSON FRAMES THEIR ILLNESS, ADAPT THE PHRASE 'THIS PROBLEM' OR 'YOUR CONDITION' ACCORDINGLY]

2. How did you find out that you might have an alcohol problem?

- Probe for whether they knew they had an alcohol problem was before they attended the health facility.
- Probe for their understanding of the nature of the alcohol problem: does the person minimize the problem? Do they see it as a medical problem? A character problem? Etc.
- Probe for how they felt when informed they might have an alcohol problem.
- Probe for usefulness of diagnosis, acceptability, the way in which they were informed.
- Probe for how informative the health provider was about alcohol problems
- How well-informed do they feel about what they can do to manage their condition in the best way?

3. When you first got diagnosed with an alcohol problem and offered treatment, how was your experience in the health center?

- Probe for long waits, being sent to multiple people, waiting around for test results, referred to other places?
- Probe for how this might be improved.

4. What has been your overall experience with the care you have received for this health problem? Why?

5. What treatments were you offered at the health center for your alcohol problem?

[For patients offered 'talking treatments']

- How did you feel about being offered treatment?
- What has been your experience of treatment? Has it been helpful? If not, why not? What might make it more helpful?
- What information was you given about treatment Was the information adequate?
- What was your experience attending for regular sessions? Any difficulties with this?
- If offered other kinds of intervention [COUNTRY TEAMS TO ADAPT FOR THE CONTEXT],
- How did you feel about being offered treatment?
- What has been your experience of treatment?
- What information were you given about treatment [**]? Was the information adequate?

6. For people who have the kind of problem that you describe, health workers might ask whether they had been feeling like giving up on life or even whether they had thought about ending their life.

Probes:

- What do you think about health workers asking these types of questions?
- Did you experience anybody asking you these questions? Who?
- [If was asked] What was your experience of being asked?
- [If was not asked] How did you feel about not being asked?

7. How much did the health worker spend time talking with you about the difficulties you have been facing with alcohol?]

- Probe: [If did ask about difficulties] what was your experience of being asked about your difficulties? To what extent was this helpful for you?
- [If not] How did you feel about not talking to the health worker about your problems?

8. How did you find the health worker's attitude towards you and your condition?

- Probe about how sympathetic the health worker was, any feelings of being stigmatized or discriminated against.
- Probe about how respectful the health worker was, whether they spoke to them directly, whether they involved them in the decisions about treatment.

9. How did you feel about the way that your personal information was handled by health staff?

- Probe about how much of an issue concerns about privacy and confidentiality were and how it affected their behavior e.g. willingness to disclose personal information.

10. After your first appointment, were you given another appointment? Did you attend?

- Probe whether the health worker made them feel comfortable enough to want to come back
- Probe about obstacles to the person attending for follow-up e.g. time, money, stigma

11. When coming for follow-up appointments, did you see the same health worker each time?

- Probe for how much this mattered to the patient, how it affected their satisfaction with care.

12. How has the care you've received in the health center fitted in with treatment you are receiving from other sources?

- Probe: where else are you getting treatment and support for your problem?
- Probe explicitly for treatment from traditional and religious healers. Probe about how the different treatments complement or oppose one another and how the person has handled that conflict.

13. How confident were you in the ability of the health care workers to help you with your condition?

- Probe about any concerns with quality of care, competence of the health workers. Ask for specific examples.

14. Tell me about your ability to do the things that you need to do in the last few months. How has it changed?

  - Probe about work, relationships, self-care, community participation
  - Probe about the extent to which they are able to independently attend the health facility, manage their own treatment?
  - Probe about how the person sees any change in functional status in relation to the treatment for alcohol problems.

15. Tell me about your economic status over the last few months. How has it changed?

- Probe specifically about food insecurity (whether ever short of food in the home, how many meals they have a day, whether they go hungry or miss meals because there is not enough).
- Probe for the reason for the change in economic status – related to receiving treatment for alcohol problems? Related to cost burden of medication and travel to the clinic?

16. Overall, what has been your experience of being diagnosed and treated for alcohol problems in the health center?

- Probe for things that could be improved.
- What are the expectations you have from the service which have not yet been met?
- How could the service better meet these needs?

17. Is there anything else you would like to tell me about your experience being diagnosed and treated for alcohol problems?

People with AUDs in the PRIME Cohort Who Have Dropped Out of Care

I would like to start by asking you a few questions about your recent health problems

1. In your view, what is this problem?

Probe:

- Is it a problem at all?
- Do others consider it to be a problem? What do they say is the problem?
- What did the health workers say that your problem is?
- What do you think is the cause of the problem?

[DEPENDING ON HOW THE PERSON FRAMES THEIR ILLNESS, ADAPT THE PHRASE 'THIS PROBLEM' OR 'YOUR CONDITION' ACCORDINGLY]

2. In general, what is your view of the idea of providing care for people with mental illness [or alcohol problems] in the health centre?

3. What is your view of getting treatment for your problems in the health centre?

- **Probe for acceptability.** Does it fit with their views on the cause of illness, the most appropriate treatment and whether or not they think that they can improve with medications? Do they have concerns about the quality of care? Do they have concerns about stigma? Do they have concerns about confidentiality? Previous bad experiences at health centre?

4. Can you tell me about the care (if any) that you are getting for your problems at the moment?

- Probe for use of traditional and religious healers, support from family, and attendance at private clinics or other health settings.
- Probe for their views on the type of care they care currently receiving [if any] in terms of adequacy and preferences.

5. What reasons did you have for not returning to the health centre for treatment for your problems?

- Probe for acceptability and quality of care, practical difficulties such as the availability of suitable transport, the distance to be covered, the costs associated, the convenience of the opening times, the need to be escorted by a family member, the lack of time, the cost of losing a day's work...

6. How would you feel about going back to the health centre to get care for your problem?

7. How would health centre care fit in with treatment that you are receiving from other sources?

Probe about how the different treatments complement or oppose one another.

8. If you needed to attend regular appointments at the health centre to be reviewed because of your mental health problems, how would that be? [PRIME: barriers to care]

- Probe about difficulties with transport, distance, cost, getting permission, stigma.

9. If you needed to take medication for your mental health problems, how would you feel about that? [PRIME: barriers to care / acceptability]

- Ask about their experience taking medication on an ongoing basis, any difficulties they anticipate with obtaining medication, remembering to take the medication.

10. How would you feel about the idea of somebody from the neighbourhood giving you some extra support? For example, checking on you from time to time, chatting with you and seeing if everything is ok.

11. Is there anything else that might help you with your [mental health] problems?

<u>Caregivers of People with AUDs Who Were Engaged in Prime Cohort</u>

I would like to start by asking you a few questions about the recent health problems experienced by your family member.

1. In your view, what is this problem?

Probe:

- Is it a problem at all?
- Do others consider it to be a problem? What do they say is the problem?
- What did the health workers say that the problem is?
- What do you think is the cause of the problem?

ADAPT THE PHRASE 'THIS PROBLEM' OR 'THIS CONDITION' ACCORDINGLY]

2. Please tell me about the experience you had of your family member being identified as having [MNS disorder] and being referred to the health centre? [EMERALD: pathway through care] / [PRIME stigma]

Probes:

- How the problem was first identified?
- Was he/she referred to the health centre from the community? How did that work?
- How was the transport? Did you face any difficulties bringing your family member to the health facility?
- Probe for abusive behaviour from the guards or other patients, long waits, being sent to see multiple people.
- Probe for how this might be improved.

3. What has been your overall experience with the care your relative has received for this health problem? Why?

4. Did the health worker explain to you about your relative's condition and treatment?

- Do you feel adequately informed? What else would you have liked to have known about? Did the health worker explain in a way that you could understand?
- Did you have enough time with the health worker?

5. What treatments were offered to your family member at the health centre? [PRIME: process / acceptability / barriers] [For patients receiving medication]

1. [For patients offered 'talking treatments']

- How did you feel about being offered [**] treatment? What has been your experience of [**] treatment? Has it been helpful? If not, why not? What might make it more helpful?
- What information were you given about treatment [**]? Was the information adequate?

6. How did you find the health worker's attitude towards you and your relative? [PRIME: stigma / satisfaction]

- Probe for any feelings of being stigmatised or discriminated against.
- Probe about how respectful the health worker was.

7. Tell me about your experiences with bringing your relative back for regular appointments / [PRIME: Barriers to treatment]

- Probe about obstacles to the person attending for follow-up e.g. time, money, stigma

9. How has the care your relative has received in the health centre fitted in with treatment that they are receiving from other sources?

- Probe: where else is your relative getting treatment and support?
- Probe explicitly for treatment from traditional and religious healers. Probe about how the different treatments complement or oppose one another and how the caregiver has handled that conflict.

10. Tell me about your relative's ability to do the things that they should be doing in the last few months. How has it changed? [PRIME: impact functioning]

- Probe about work, relationships, self-care, community participation
- Probe about how the person sees any change in functional status of their relative in relation to the treatment for the MNS disorder.
- Probe for impact of the relative's illness on the caregiver's ability to function optimally e.g. in social roles or work.

11. Tell me about the economic status of your family over the last few months. How has it changed?

- [PRIME: impact economic]
- Probe specifically about food insecurity (having enough food to eat, missing meals, numbers of meals per day].
- Probe for the reason for the change in economic status – related to family member receiving treatment? Related to cost burden of medication and travel to the clinic?
- Probe for impact of relative's illness and treatment on their ability to work. Probe for the time and financial burdens associated with caregiving.
- Probe in relation to access to treatment.

13. Caring for a person with mental illness can have its ups and downs. Can you tell me about your experiences, both good and bad? Has there been any change in the last few months?

- Probe for types of caregiver burden – worry and emotional stress, feeling in danger, stigma / social exclusion, financial, and relationship to having access to treatment.
- Are you caring for any other people? Probe for children, elderly, disabled. How do you manage?

14. Overall, what has been your experience of your relative being diagnosed and treated for [MNS disorder] in the health centre? [PRIME: satisfaction]

- Probe for things that could be improved.

15. Is there anything else you would like to tell me about the care your relative has received?

- Probe for how the experience could be improved.

<u>Caregivers of People with alcohol use disorders Who Have Dropped Out of Care</u>

I would like to start by asking you a few questions about the recent health problems experienced by your family member.

1. In your view, what is this problem?

Probe:

- Is it a problem at all?
- Do others consider it to be a problem? What do they say is the problem?
- What did the health workers say that the problem is?
- What do you think is the cause of the problem?

2. What is your view of the idea of providing care for people with mental disorders in the health centre?

- **Probe for acceptability**. Does it fit with their views on the cause of illness, the most appropriate treatment and whether or not they can improve with medications? Do they have concerns about the quality of care? Do they have concerns about stigma? Do they have concerns about confidentiality

3. Can you tell me about the care (if any) that your relative is getting for his/her problems at the moment?

- Probe for use of traditional and religious healers, support from family, attendance at private clinics or other health settings.
- Probe for their views on the type of care the relative is currently receiving [if any] in terms of adequacy and preferences.

4. What reasons did your relative have for not returning to the health centre for treatment of his/her problems?

- Probe for acceptability and quality of care, practical difficulties such as the availability of suitable transport, the distance to be covered, the costs associated, the convenience of the opening times, the need to be escorted by a family member, the lack of time, the cost of losing a day's work...

5. How would you feel about your relative going back to the health centre to get care for his/her problem?

- [If willing] what would be needed for them to be able to return to the health centre for care?

6. How would health centre care fit in with treatment that your relative is receiving from other sources?

- Probe about how the different treatments complement or oppose one another.

7. Please tell me about your experience caring for your family member, both the good and the bad experiences.

- Probe for types of caregiver burden – worry and emotional stress, feeling in danger, stigma / social exclusion, financial

8. Tell me about your relative's ability to do the things that they should be doing in the last few months. Has it changed in the last few months? [PRIME: impact functioning]

- Probe about work, relationships, self-care, community participation

9. Tell me about the economic status of your family over the last few months. Has it changed? [PRIME: impact economic]

- Probe specifically about food insecurity
- Probe for the reason for the any change in economic status
- Probe for impact of relative's illness and treatment on their ability to work
- Probe for the time and financial burdens associated with caregiving.

10. Sometimes people with mental illness are chained up when they are very ill. Can you tell me about that in relation to your family member? Has there been any change in the last few months? [PRIME: impact human rights abuses]

- Probe in relation to access to treatment or awareness through community education

Health Facility-Based Primary Care Workers

We would like to know about your experiences in using mhGAP (PRIME version) to identify and provide treatment for patients with alcohol use disorders.

1. What was your experience of diagnosing risky alcohol use after being trained in mhGAP?

- How useful did you find the training and guidelines in helping to identify risky alcohol use?
- How has the training affected your awareness of the problem of alcohol misuse among patients?

Prompt for:

- Whether they consider alcohol misuse a serious issue (as opposed to somewhat normative).
- Whether or not they believe that alcohol misuse is a problem among their patients**.**
- Whether they believe that alcohol misuse is too big a problem to solve.
- Whether they are concerned about patient reactions to hearing that he/she has a problem with alcohol.

2. How easily were you able to establish the amount of alcohol a patient drink per week or in a session?

Prompt for:

- If they found it difficult, what were the challenges?
- How could the training better prepare you to diagnose risky alcohol use?

2. What was your experience of managing risky alcohol use after being trained in mhGAP?

- How confident did you feel about providing brief advice to a patient with risky alcohol use following the mhGAP training?

Prompt for:

- Whether they found the advice on the training manual helpful

- How did the patient react to the advice?
- Did you have an experience of diagnosing someone with dependent alcohol use? If yes, can you tell me what happened?

3. How did treating people for alcohol problems affect the rest of your work?

4. How well did the referral of people with alcohol (to and from more specialist services / Butajjira hospital) work?

5. How could the training prepare you better?

6. Overall, what kind of impact do you think providing mental health care has had upon individuals affected by alcohol disorders?

7. What do you think the challenges will be to make this new programme sustainable? How might those challenges be overcome?

- Probe for specific examples of challenges from the person's experience

8. Is there anything else you would like to mention about the new program?

6. Published paper and manuscripts under review

Impact of brief intervention for alcohol use disorder delivered by primary health care workers in Ethiopia: a pilot before-after study

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Abstract

Introduction: Brief interventions (BI) in primary health care (PHC) are recommended to address the treatment gap for alcohol use disorders (AUDs). There is limited evidence about the impact of this approach in routine settings in low-income countries. This study aimed to assess the impact of BI for people with AUD in Ethiopian PHC.

Methods: A pilot before-after study was conducted. Non-physician PHC workers were trained, screened attendees for recent drinking and then for AUD using the Alcohol Use Disorder Identification Test (AUDIT). Those scoring eight or more received a single session BI and were assessed at three and 12-months. The primary outcome was change in AUDIT score; secondary outcomes were consequences of drinking (Short Inventory of Problems, revised version), depressive symptoms (Patient Health Questionnaire-9) and functioning**.** Mixed-effects models were used for analysis**.**

Results: Forty-nine people with AUD received BI and 92 (%) completed the assessments. Following the BI, there wassignificant reduction in AUD severity, consequence of drinking and depressive symptoms. The adjusted mean difference (AMD) in AUDIT score at 3-months was -2.66; 95% confidence interval (CI) -5.21, -0.11; and -4.15; 95% CI -6.76, -1.54 at 12-months. For SIP-2R score, it was -2.52 (95% CI -4.86, -0.18) at 3-months and -3.00 (95% CI -5.87, -0.14) at 12-months. For PHQ-9 score AMD was -2.06 (95% CI -3.35, -0.77) at 3-months and -2.03 (95% CI -3.35, -0.72) at 12-months. The intervention had no effect on functioning.

Conclusions: Although the intervention showed promise, it needs to be tested on a larger scale.

Key words: alcohol use, Ethiopia, PHC, brief intervention, task-sharing, global mental health.

Introduction

Problematic use of alcohol is a major contributor to the global burden of disease (155). Alcohol consumption was estimated to have caused 5.1% of disability-adjusted life years (DALYs) and 5.3% of deaths in 2016 (11). According to a world health organization (WHO) report, an estimated 283 million adults worldwide (237 million men and 46 million women, representing 5.1% of all adults) had alcohol use disorders in 2016 (11). Even though Africa does not have the highest levels of alcohol consumption per capita in global comparisons, the continent experiences the heaviest burden of alcohol-related disease and injury (3, 11). This is due, in part, to the large burden of disease caused by tuberculosis, cardiovascular diseases, digestive diseases and injuries, to which alcohol is a contributing factor.

Despite this burden, very few people receive treatments for AUDs, and the treatment gap is extremely high in low and middle income countries (LMICs) (16-18). There are many reasons for this. First, AUDs have not been given required priority in settings where the focus is on infectious disease control, improving maternal and child health, and addressing under-nutrition (10). This causes inadequate allocation and inequitable distribution of financial and human resources (23). For instance, AUD services are mostly located in big cities, meaning that they are not accessible for the majority of people. Second, most alcohol treatment services in LMICs are located at the tertiary level and cater to people with more severe form of AUDs (dependent drinking); however, most of the population burden of AUDs occurs at lower levels of severity (10). Third, people frequently present to PHC with alcohol-related problems. However, AUDs are rarely identified (25) in PHC and are not managed well because of inadequate training among providers (26), workload and resources (27). Fourth, services are often not evidence-based, and may be costly for patients (24). Relative to the demonstrated economic benefits from alcohol taxes which reduce alcohol use (1), upgrading services for AUD may be less of a priority for governments. Fifth, at the individual and community level, there are low levels of awareness of AUDs and their treatability and high levels of stigma and discrimination attached to alcohol problems (18, 30), which are barriers for people to access care.

To narrow the wide treatment gap, WHO has recommended that alcohol services be integrated into routine PHC (31, 32). However, there is a substantial shortfall in the mental health workforce in most LMICs (33), hence, there are inadequate numbers of specialists to deliver these services. Task-shared care for people with AUDs, whereby PHC workers are

trained to deliver interventions while supported by mental health professionals, is used routinely in high-income countries (34) and may be even more beneficial in more severely resource-constrained settings (35).

Brief Interventions (BI) for alcohol use disorders are designed to promote awareness of the negative effects of drinking and to motivate positive behavior change among hazardous and harmful drinkers (26). Brief interventions are both effective (38) and cost-effective (39, 156, 157) evidence-based interventions. This approach is practical for delivery in the primary healthcare setting and can facilitate referral of people with more severe forms of AUDs to specialized treatment (26, 38). While there is considerable evidence for the efficacy of BI in PHC from high income countries (HICs), there is a scarcity of evidence from low-income countries (40-43) and BI has not been implemented widely in routine PHC settings.

Ethiopia has a high prevalence of AUD, estimated to range from 13.9% (18) to 21% in the general population (15). The country has few mental health specialists (0.02 psychiatrists, 0.26 psychiatric nurses per 100,000 population) (33) and very limited availability of alcohol treatment services (49). High stigma towards people with AUDs, low awareness about the disorder (18) and low levels of training of PHC workers in identification and management of AUD, contribute to the large treatment gap. However, before attempting to scale-up BIs in PHC in Ethiopia, the intervention must be piloted and evaluated for its feasibility in this setting.

The aim of this study was to evaluate the impact of a pilot screening and BI for AUD implemented by PHC workers in Ethiopia over a period of 12 months.

Methods

Study design and setting

This study was conducted as part of a larger implementation research study, the Programme for Improving Mental health carE (PRIME) (101). PRIME was a consortium of research institutions and Ministries of Health in five countries in Asia and Africa (Ethiopia, India, Nepal, South Africa and Uganda), with partners in the UK and the WHO. The overall aim of PRIME was to implement and evaluate district level mental health care plans (MHCPs) for care of four priority mental disorders (depression, alcohol use disorder, psychosis and epilepsy) integrated into routine primary care. The evaluation of the MHCPs was carried out

at different levels (district, community, facility and individual) (158). The clinical, social and economic outcomes of people with the priority disorders who engaged with care were evaluated using intervention cohort studies to demonstrate whether task-shared, evidence-based treatments are feasible and can bring benefits when delivered in these settings (129).

A pilot before-after study was conducted for AUD, with assessments carried out pre-intervention and at three-and 12-months post-intervention. The AUD cohort study was conducted in Sodo district, in the Gurage Zone, Southern Nations, Nationalities and Peoples' Region of Ethiopia, which is 100km south of the capital city, Addis Ababa. The majority (97.0%) of the population are Orthodox Christian, from the Gurage ethnic group (85.3%) and are engaged in farming as their main livelihood (159).

There are eight health centers and one primary hospital in the district, with eight to 24 health professionals per facility. The average number of people served by each health center is around 20,000 (159). Four out of eight health centers (*Kella, Tiya, Gerino and Buee*) were included in this study, with the latter recently upgraded to primary hospital. Three of the selected health centers are located on the main road and in small urban settlements. There was no mental health or alcohol treatment service in the district before PRIME started (104). People in Sodo district mostly consult traditional healers for mental and neurological disorders. In the district, there were 49 herbalists, 21 "*tanqways"* ('witch doctors'), 52 traditional birth attendants and 56 "*wogeshas*" (bonesetters or traditional physiotherapists) and 27 holy water sites in 2014 (160).

Locally made and utilized alcoholic drinks in the setting include '*tella*' (a traditional beer brewed from various grains and shiny-leaf buckthorn (gesho); alcohol content 2-4 %), '*tejj'* (honey wine; alcohol content 7-11 %) and distilled liquor '*areqi*' (alcohol content 45 %). These homemade drinks are consumed at home during social and religious events and holidays, and sold in traditional establishments called '*mesheta bet*' or "*tejj bet*" or '*tella bet*' or '*areqi bet*'(151). In 2014, there were 50 *tella bets, 22 tejj bets and 50 areqi bets* in the district (160).

Participants, sample size and recruitment process

The source population for the current study was all adults with probable AUD who could potentially visit the selected four health centers in Sodo district if they faced any health problems. Eligibility criteria were: attending the four selected health centers for any purpose

during data collection period, having an AUDIT score eight and above, age 18 and above years, and living in the district for at least the past six months.

Originally, the PRIME study had planned to recruit 300 people who scored positive for AUDs (100 with alcohol dependence, 100 with alcohol abuse and 100 with hazardous use of alcohol) in order to detect a minimum of 20% change in the primary outcome symptom severity (AUDIT score) at the 12-month follow-up, and adjusting for 10% loss to follow-up, at 90% power and 95% confidence (129). However, the uptake of screening and the intervention was much lower than anticipated. Hence, only a smaller sample size was achievable in the time available.

Primary care attendees who were eligible for the study and who attended the health centers from August to November in 2015 were screened using a NIAAA's single question that asked whether they had drunk alcohol recently (in the past 12 months) or not. All who were positive on the initial screening question were then screened for alcohol use disorder by trained PHC health staff using the AUDIT. Those people who gave consent and who scored eight or above on the AUDIT were recruited into the study.

The intervention

At the health care facility, the MHCP included training of all PHC workers in the district (n = 128) using the WHO mental health Gap Action Programme intervention guide (mhGAP-IG); supported by monthly supervision by a psychiatric nurse. The evidence-based mhGAP clinical guidelines (31) recommended screening people with a history of recent alcohol drinking for AUD; provision of BI for people with AUDs and referral of severe cases to a general hospital in the neighboring district (SBIRT). The PHC health workers in the four health centers included in this study received an additional five days of training on this approach.

Eligible participants received a single session of the brief intervention individually in the PHC setting, delivered by trained non-specialist health workers. The BI was structured according to the FRAMES approach which involves the provider: giving **F**eedback on the person's intake, emphasizing personal **R**esponsibility, offering **A**dvice, listing a **M**enu of options for behavioral change, having an **E**mpathic approach and building **S**elf-efficacy in the person receiving the brief intervention (78).

Assessment and measures

The baseline assessment was carried out in the PHC setting just after screening for AUDs and recruitment. The three-and 12-month assessments were conducted in the home of the participant. Information was collected on self-reported age, sex, residence, duration of residence in the study area, marital status, educational status, income, perceived relative wealth, occupation and a range of outcome measures (described below). Data collectors were experienced lay interviewers with a degree level education who had been trained in administration of the measures. Trained and experienced PRIME field staff supervised the data collection process. Baseline data collection was conducted from August to November 2015, midline was after three months and end line was after 12 months.

Primary outcome

Alcohol use disorder symptom severity

This was assessed using the WHO Alcohol Use Disorder Identification tool (AUDIT), at baseline, three months and 12 months (reporting period: in the last 3 months) (51). The AUDIT is a 10-item screening tool that assesses alcohol consumption in terms of standard drinks, drinking behaviors and alcohol-related problems. Each item was rated on a five-point scale, with the total score ranging from zero to 40. A score of eight or more on the AUDIT indicates the presence of a probable AUD. The AUDIT has been validated in a wide range of racial/ethnic groups and LMIC settings (106, 107), and is well suited for use in primary care settings (51). A chart illustrating the approximate number of standard drinks for different alcohol beverages, adapted for the Ethiopian context (151), was included for reference.

Secondary outcomes

Consequence of drinking: The revised version of the Short Inventory of Problems (SIP-2R) was used to measure problems secondary to drinking over the preceding three months (161).

Depressive symptoms: Depressive symptoms were assessed using the Patient Health Questionnaire (PHQ-9) (162). The PHQ-9 is a nine-item questionnaire designed to elicit symptoms over the preceding two weeks that allow a diagnosis of probable major depressive disorder. Each item on the PHQ-9 can be scored as 0 (not at all), 1 (several days), 2 (more than half the days) and 4 (nearly every day), with the total score ranging from 0-27. The

PHQ-9 allows rating of symptom severity so that change over time can be monitored. PHQ-9 was validated and used in PHC settings in Ethiopia (110, 111).

Functioning: Disability was assessed using the WHO Disability Assessment Schedule (WHODAS) version 2.0 (112). The instrument has 12 items and assesses functioning in the previous 30 days. Each item was scored from zero (none) to four (extreme or cannot do). A higher score indicates greater severity of disability. The WHODAS covers the functional domains of understanding and communicating, getting around, self-care, getting along with people, life activities, and participation in society. The WHODAS has been validated for use in the Ethiopian setting (163).

Suicidality: Suicidal behavior was measured using the WHO Composite International Diagnostic Interview (CIDI) (164) .

Data management and analysis

Data were double-entered using Epi-data (135)version 3.1 and analysed using Stata version 13 software(128). We used descriptive statistics to summarize the sociodemographic characteristics of participants, the distribution of each outcome variable and independent variables. The proportion of people with particular patterns of drinking (harmful, dependent and hazardous) based on AUDIT cut offs at each time of assessment and items of AUDIT was summarized descriptively. To investigate the potential impact of BI on each outcome of interest over the course of one year, we first determined the best fitting unconditional change model (i.e. we compared random intercept and mixed effects models). We then used the best fitting change models to interpret the impact of intervention on the outcome of interest. We used a mixed-effects linear model to assess the change in AUDIT symptom severity over time (baseline, three months and 12months). For functioning, mixed-effects negative binomial regression was performed. The level of analysis was assessment time-points and individual patients. The statistical significance of the association was set at $p< 0.05$ and 95% confidence intervals were reported for each effect estimate. We used the Strengthen the Reporting of Observational studies in Epidemiology (STROBE) statement (165) and template for intervention description and replication (TIDieR) checklist for reporting (supplementary files1 and 2) (166).

Results

Characteristics of study participants

A total of 214 PHC attendees reported drinking alcohol, of whom 49 (22.8%), one woman and 48 men, scored 8 or more on the AUDIT and were eligible for brief intervention.

Table 1 Characteristic of participants

Variables		Baseline n=49	3 months n=48	12 months n=45
		N (%)	N (%)	N (%)
Age (years)	≤25	6 (12.2)	6 (12.5)	4 (8.9)
	26-35	14 (28.6)	13 (27.1)	13 (28.9)
	36-50	14 (28.6)	14 (29.2)	14 (31.1)
	≥51	15 (30.6)	15 (31.2)	14 (31.1)
Sex	Male	48 (98.0)	47 (98.0)	44 (97.8)
	Female	1 (2.0)	1 (2.0)	1 (2.2)
Residence	Urban	14 (29.2)	13 (27.7)	11 (25.0)
	Rural	34 (70.8)	34 (72.3)	33 (75.0)
Education	No formal education	29 (59.2)	29 (60.4)	27 (60.0)
	Formal education	20 (34.7)	18 (35.4)	16 (35.6)
Occupation	Farming	35 (71.4)	35 (72.9)	33 (73.3)
	Others	14 (28.6)	13 (27.1)	12 (26.8)
Perceived relative income	Lower	27 (55.1)	26 (54.2)	23 (51.1)
	Better	22 (44.9)	22 (45.8)	22 (48.9)
Marital status	No partner	9 (18.4)	8 (16.7)	7 (15.6)
	Has a partner	40 (81.6)	40 (83.3)	38 (84.4)
Social support	Poor/average	33 (67.3)	28 (58.3)	31 (68.9)
	Higher	16 (32.7)	20 (41.7)	14 (31.1)

'Others occupation' include self-employed, housewife, unemployed, pensioner, government employee, daily laborer Perceived relative income 'Lower' includes very low and lower 'better' includes middle and high; N = number of study participants

The mean age of the study participants was 42.8 years (standard deviation (SD) 15.9). The majority were farmers (71.4%), had no formal education (59.2%), were married (81.1%) and resided rurally (70.8%).

Of those who were recruited, 98% (n=48) were assessed at the 3-month time point and 92% (n=45) were assessed at 12 months. Three were lost to follow-up (one at three months, two at 12 months) and one person died before the 12-month time point (Figure 1) The participants who were lost to follow up were men aged between 20 and 29 years with AUDIT scores of 14, 19, and 22 at baseline. The participant who died during the follow-up period was a 66-year-old farmer with probable dependence at both baseline (AUDIT score 31) and midline (AUDIT score 24).

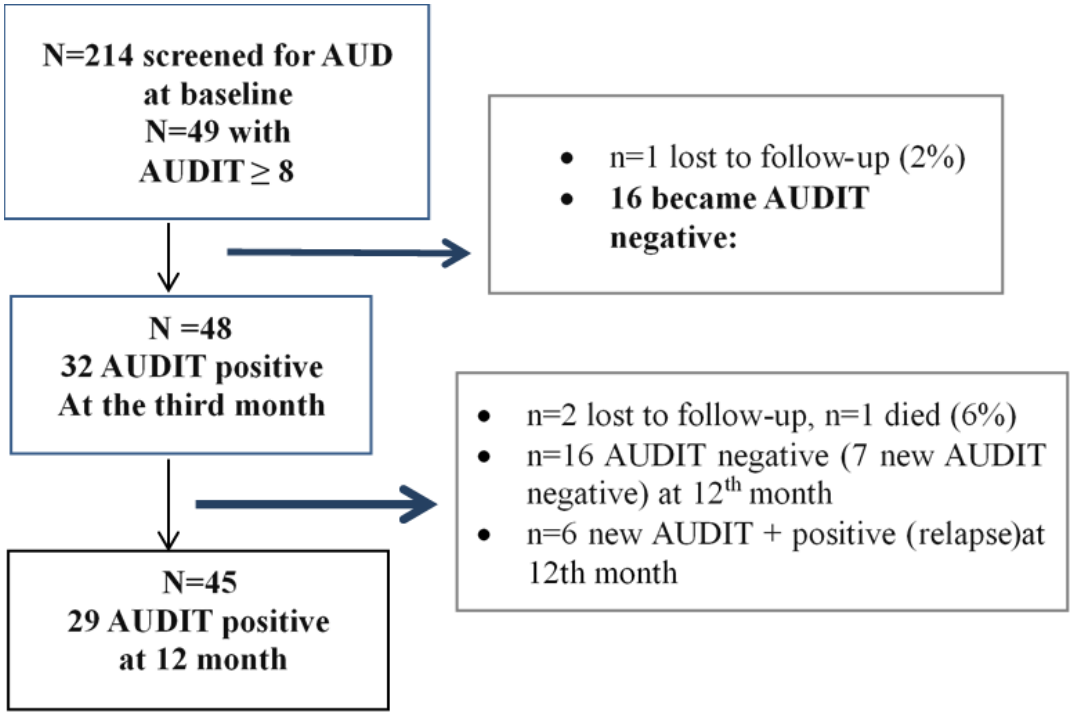

Figure1 Flow diagram of recruitment and follow-up

Primary outcome

At baseline, 28 of the 48 participants (57.1%) drank hazardously (AUDIT score 8 -15), 16.3 % (n=8) harmfully (AUDIT score 16-19) and 26.5 % (n=13) had probable alcohol dependence (AUDIT score >19) (Table 2). By the 3-month time point, 33.3% (16/48) were in the low-risk drinking category (AUDIT<8), which remained similar at the 12-month time point (16/45; 35.6%). Most of the reduction in AUD occurred in the 'hazardous drinking' category (reduced from 57.1% to 26.7%), with levels of probable dependence staying relatively stable between baseline (26.3%), 3-months (29.2%) and 12-months follow-up (20.0%). However, the individuals who were classified as probably dependent varied over time. Out of the baseline dependent group (n=13), six remained dependents at 3 months and four remained dependents at 12 months. At 3-months and 12-months, eight people moved into the probable dependence category. At the three-month assessment, 14 people had probable dependence. Of these, eight had deteriorated (6 hazardous drinking and 2 harmful drinking at baseline). Between 3- and 12-months follow-up, seven out of 14 shifted to harmful drinking, four remained in probable dependency, one shifted to low risk drinking and two were lost to follow up.

Table 2. Alcohol drinking pattern and mental health

		Baseline N=49 n (%)	3 months N=48 n (%)	12 months N=45 n (%)
Drinking pattern (AUDIT score)	Low risk (0-7)	0 (0.0)	16 (33.3)	16 (35.5)
	Hazardous(8-15)	28 (57.1)	14 (29.2)	12 (26.7)
	Harmful(16-19)	8 (16.3)	4 (8.3)	8 (17.8)
	Dependent (>19)	13 (26.5)	14 (29.2)	9 (20.0)
Alcohol use disorder	Yes (AUDIT≥8)	49 (100.0)	32 (66.7)	29 (64.4)
Depression symptom severity (PHQ-9 score)	None	15 (30.6)	20 (41.6)	22 (48.9)
	Mild	17 (34.7)	24 (50.0)	13 (28.9)
	Moderate	13 (26.5)	2 (4.2)	9 (20.0)
	Moderately severe	4 (8.2)	2 (4.2)	1(2.2)
	Severe	0 (0)	0 (0)	0 (0)
Suicidal ideation	Yes	6 (12.2)	4 (8.3)	4 (8.9)

AUDIT, Alcohol Use Disorder Identification Test; IQR, interquartile range, PHQ Patient Health Questionnaire

The baseline mean AUDIT score was 16.8 (SD 7.3). There was a statistically significant reduction in mean AUDIT score over 12 months of follow up: mean difference (MD) -2.66 (95% CI: -5.21, - 0.11) at 3 months and -4.15 (95%CI: -6.76, -1.54) at 12 months (Table 3). Examination of each AUDIT item over time shows that the biggest change appears on items that asked typical quantity of alcohol consumed, binge drinking, and symptoms of harmful drinking (see table 4 at the end of the document).

Secondary outcomes

Consequences of drinking and depressive symptoms

The mean SIP-2R score (consequences of drinking) at baseline was 13.2 (SD 7.9). There was a significant reduction in mean SIP-2R score both at the three-month (MD = -2.52; 95% CI (-4.86, -0.18) and 12-month time points (MD = -3.00; 95% CI -5.87, -0.14). In terms of depressive symptoms, at baseline, the mean PHQ-9 score was 7.5 (SD 4.5). There was a statistically significant reduction in PHQ-9 score at both follow-up assessment time points: mean difference -2.06 (95% CI -3.35, -0.77) at 3 months and mean difference = -2.03 (95% CI -3.35, -0.72) at 12 months (Table 3).

Table 3**: The effect of intervention on clinical and functional outcomes**

Outcome	Crude mean change (95% confidence interval)		
	Baseline (n=48)	**3 months (n=47)**	**12 months (n=45)**
Alcohol use severity (AUDIT score)	Mean 16.8 (SD 7.3) Median 15 (IQR 11 to 21)	-2.66 (-5.21, - 0.11)	-4.15 (-6.76, -1.54)
Consequences of alcohol (SIP-2R score)	Mean 13.2 (SD 7.9) Median 15 (IQR 7.5 to 17)	-2.52 (-4.86, - 0.18)	-3.00 (-5.87, - 0.14)*
Depressive symptoms (PHQ-9 score)	Mean 7.5 (SD 4.5) Median 8 (IQR 4 to 11)	-2.06 (- 3.35, - 0.77)	-2.03 (-3.35, - 0.72)
		Crude RR (95%CI)	
		3 months (n=47)	**12 months (n=44)**
Functional impairment (WHODAS score)	Mean 14.3 (SD 14.5) Median 10.4 (IQR 4.1 to 18).	1.01 (0.66, 1.53) P value 0.947	1.13 (0.74, 1.73) P value 0.554

*n=44

AUD, alcohol use disorder; AUDIT, Alcohol Use Disorders Identification Test; IQR, interquartile range; PHQ-9, Patient Health Questionnaire–9 item; RR, Relative Risk; SD, Standard Deviation; SIP-2R, Short Inventory of Problems–Revised; WHODAS, WHO Disability Assessment Schedule.

Functioning and suicidal ideation

At baseline, mean WHODAS score was 14.3 (SD 14.5) and median was 10.4 (IQR 4.1 to 18). There was no statistically significant change in WHODAS score over the 12-month follow-up period (Table 3). Suicidal ideation decreased non-significantly from 12.2 % at baseline to 8.3 % at three-months and to 8.9% at 12-months (Table 2).

Discussion

In this pilot before-after study of a brief intervention for AUD implemented in PHC in rural Ethiopia, we found significant reductions in severity of alcohol use disorder, problems resulting from AUD and depressive symptoms. There was no evidence of significant change in functioning scores over the follow-up period.

About one in three people who had probable AUD (AUDIT≥8) before the intervention became low-risk drinkers (AUD<8) at both follow-up time points. This finding is comparable to the findings of a study from Nepal where primary care workers (medical officers, a nurse and auxiliary nurse mid-wive) were trained in mhGAP based training for five to nine days to provide psychosocial support and a community counsellor (new cadre of psychosocial

workers trained by NGOs) was trained for 10 days to provide brief psychological support and Counselling for Alcohol Problem (CAP) (148). It is also consistent with a randomized controlled trial (RCT) from India, where 36% of participants received enhanced usual care plus brief intervention (CAP) attain remission at three months (147). Problems resulting from AUD (SIP-2R score) and depressive symptoms were significantly reduced at both times which was also found in the Nepal studies (148, 167). These findings indicate that, in low-resource countries like Ethiopia without many resources, a single session brief intervention provided by non-specialist health workers at the PHC might contribute to the reduction of risky alcohol consumption and related problems.

However, similar to the India RCT (147) functional improvement was not seen in our study, but it was achieved in Nepal study. This might be because of small sample size in our study or the added effect of community intervention in Nepal study. Alternatively, our findings might be indicating that more intensive therapy or therapy delivered over a longer period of time may be needed to bring functional improvement in our setting.

This pilot study has several limitations. First, the small sample size means the study may have been underpowered. Second, the absence of a comparison group means that we cannot confidently attribute the improved clinical outcomes to the intervention. Regression to the mean, spontaneous remission (153), assessment reactivity and the effect of assessment frequency could all have contributed to the observed improvement (168).Third, the provider side fidelity of the intervention was not measured. Fourth, self-report data on drinking is prone to social desirability bias (152); biological measures of alcohol consumption would have resulted in more reliable information.

The proportion of people with probable dependence in our study was higher than expected. It seems likely that PHC workers were tending to screen PHC attendees who they already suspected had alcohol problems (indicated screening) rather than universal screening of all attendees. Furthermore, as part of the stepped care model, people with more severe AUD should have been referred to the psychiatric nurse-led unit in the neighboring district, however, none of the cases were referred. This indicates that closer supervision was needed and that the referral chain required strengthening. The finding may also reflect the reality in this setting that economic status is a substantial impediment to uptake of more specialist healthcare which is not locally available

Ample evidence exists for the effectiveness of BI in primary care, although most evidence comes from HICs (40). With the above limitations, to our knowledge, this study was one of few studies that tried to evaluate the impact of a brief intervention for problematic alcohol use delivered by none-specialist health worker in primary care in routine practice in a low-income setting. Our findings support the usefulness of a single session brief intervention provided for people with AUD by non-specialist workers in a PHC setting in rural Ethiopia. This contributes to the evidence base for LMICs.

Future research must test the intervention on a larger scale with and including larger numbers of women with AUDs both genders. Studies focusing on the effectiveness and cost-effectiveness of BI against other interventions and implementation strategies are required in our setting. Qualitative studies, which help to explore the real-life experience of intervention, its implementation, acceptability to service users and providers, and feasibility, are crucial and will be reported in a separate paper.

In conclusion, a single session brief intervention delivered in PHC by non-specialist health workers had a positive impact on the severity of AUD, consequences of drinking, and depressive symptoms over a period of 12 months. We did not find evidence for an effect of the intervention on the functioning of individuals with AUDs. With intensive training and more frequent supervision, non-specialized workers at the PHC level might contribute to the reduction of the burden of AUD, by early screening, brief intervention, and refer people with severe AUD for specialist treatment.

Authors' contributions

AF, CH, GM, ST contributed to the design of the study. SZ analyzed the data with support from CH and GM. SZ wrote the first draft. All authors contributed to interpretation of the findings and reviewed the full draft of the paper. All authors approved the final manuscript.

Ethics approval and consent to participate

This study was approved by the Scientific Committee of the Department of Psychiatry, Addis Ababa University, and the Institutional Review Board of the College of Health Sciences of Addis Ababa University (084/11/PSY). All participants gave written informed consent; if non-literate, participants gave a thumb print to signify consent. Participants with suicidal

thoughts or high scores on AUDIT or PHQ-9 were referred to psychiatric nurses for further evaluation.

Consent for publication

In this MS we are not reporting individual details or images or videos.

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DECLARATION

I declare that, 'ALCOHOL USE DISORDER, HELP-SEEKING BEHAVIOR AND IMPACT OF BRIEF ALCOHOL INTERVENTION IN SODO DISTRICT, GUARAGE ZONE, SOUTH ETHIOPIA 'is my own original work and has not been presented for a degree in any other university and that all sources of materials used for this proposal are duly acknowledged.

Signature_____

Selamawit Zewdu Salilih Date: June 2021

This dissertation proposal has been submitted for examination with our approval as supervisors:

Name: _____

Signature: _____

Date of approval: _____

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