ABSTRACT A wide range of substance use problems are prevalent in a variety of humanitarian settings. The Inter Agency Standing Committee (IASC) guidelines on mental health and psychosocial support during emergencies highlights that during humanitarian and post conflict situations, substance use is associated with problems including gender-based violence, organized crime and the serious neglect of children. Although substance use is a public health issue in humanitarian settings it has always been a neglected area of public health with very limited information available in both published and grey literature on this matter. This review presents an overview of the problem and existing assessment and interventions tools to address substance use in conflict and post-conflict situations.
Introduction

The Eastern Mediterranean and North African Region has several countries facing conflict or post-conflict situations, which has caused areas of instability and unrest, and forced huge internal and external displacements. Conflict situations are affecting countries such as the Syrian Arab Republic, Yemen, Somalia, Iraq and Libya and post-conflict situations can be seen in Sudan (specifically Darfur) and Afghanistan. Huge numbers of migrants in countries like Lebanon and Jordan are another consequence of these instabilities in the region. To add to the list, natural disasters are a serious threat to the Region, happening almost every year in the form of earthquakes and floods (e.g., earthquake in Afghanistan in 2014 and floods in Pakistan in 2010). Substance use is already identified as a significant health problem in countries such as the Islamic Republic of Iran, Pakistan, Afghanistan and Libya and there are reports of rising problems in some other countries (1). The goal of this article is to present an overview of the problem and existing assessment and intervention tools to address substance use in conflict and post-conflict situations and to provide a set of recommendations to address this important public health matter.

Links between humanitarian situations and substance use
The evidence on correlation between substance use and conflict situation is not fully developed. Although increasing use of substances is reported among combatants and ex-combatants, probably as a means of coping with stress, changes in the pattern of use could also be of concern; similar to what has happened in Afghanistan and Libya (2). In Afghanistan, conflict and drug policy have been linked to a shift from traditional opiate use to the new pattern of opioid injection. In post-conflict Libya, a rapid increase in opioid injection with a subsequent HIV epidemic among drug users has struck the health system (3).

Specific patterns of drug use in conflict areas in the Region can be observed, such as using khat in Somalia. Khat is a traditional substance of use in Somalia, although a study in Northwest Somalia has shown a different pattern of traditional use, with 60% of recent khat use among ex-combatants compared to 28% of recent use among civilian war survivors and 18% in civilians with no war experience (4).

Increasing trends of substance use in areas of conflict and post-conflict and among displaced people can be attributed to several reasons. First, a situation of instability and inadequate rule of law leads to lack of proper border control and consequently new routes of trafficking and increased access to drugs. Additionally, when people who have already been under extreme stressful conditions gain access to drugs, they may use them to relieve stress or mental conditions such as depression and anxiety. According to Ezard et al. (5), several reasons are given for using substances, including self-medication for pain and mental health problems, the stress of adapting to life in a new environment, and exposure to unfamiliar patterns of alcohol and other substance use.

Among all the mental conditions associated with substance use in humanitarian situations, post-traumatic stress disorder (PTSD) has been studied more extensively. PTSD is a risk factor for substance abuse and addiction. Clinical observations suggest that PTSD patients may use psychoactive substances without a physician’s directions to relieve traumatic memories and other symptoms associated with PTSD (6). According to the National Institute on Drug Abuse, among individuals with substance use disorders, 30–60% meet the criteria for comorbid PTSD. Patients with substance use disorders tend to suffer from more severe PTSD symptoms than do PTSD patients without substance use disorders (7).

Another area of concern is disruption of the supply chain for opioid substitution treatment in conflict areas. A recent example of this condition occurred in the Ukraine conflict in 2014, which led to abrupt discontinuation of opioid substitution therapy in Crimea and lack of medical supply of methadone and buprenorphine in Eastern Ukraine (8). During or following emergencies, supply of substances and medications for treatment of substance use disorders can be
disrupted, causing sudden withdrawal among people dependent on substances. Additionally, social sciences highlight that alcohol and substance use among war-uprooted populations increases and causes further problems, such as domestic violence. For example, a study among 296 school children in the north-eastern provinces of Sri Lanka showed that fathers’ alcohol intake and previous exposure to war were significantly linked to the amount of maltreatment reported by their children (9). Finally, from a political sciences point of view, use of alcohol and drugs can be linked to violence during conflicts. Some studies have shown that after controlling for armed-group- and individual-level variables, drug intake and alcohol consumption boosts the number of violent actions perpetrated during conflicts (10).

### Substance use and veterans

Substance use is a major health problem among soldiers and combatants in conflict and war zones. Drugs can be used as stimulants for fighters, quell for traumatic situations, and even as an alignment with prevailing cultural practices in the serving area. Although drug use among soldiers is not a new phenomenon, the most prominent example in the modern world can be found among the American veterans during the Vietnam War (11). A national study in the United States of America found that 75% of Vietnam combat veterans with PTSD met criteria for substance abuse or dependence, mostly to heroin. In particular, Vietnam veterans with combat-associated PTSD face a heightened risk of dying from a fatal drug overdose (12).

The American veterans of the wars in Iraq and Afghanistan drew new attention to the problem of drug use among this population. Vietnam veterans famously struggled with heroin dependency, whereas more recent veterans are at increased risk of becoming dependent on opioid painkillers. One study of veteran affairs healthcare users reported that > 11% of veterans from operations in Afghanistan and Iraq have been diagnosed with a substance use disorder: an alcohol use disorder, a drug use disorder, or both. Additionally, veteran affairs data show that ~22% of those veterans with PTSD also have a substance use disorder (13). The existing literature mostly comprises studies on American veterans, although research on the situation of drug use in other conflict/war zones would enrich the existing knowledge, specifically on contextual factors that may affect emerging substance use disorders among veterans.

### Substance use and displaced population groups

Substance use in conflict-displaced populations can be a continuation or exaggeration of predisplacement patterns, or similar to the host population, or a mixed picture. In a review of 10 studies on substance abuse, Ezard has suggested that substance use (e.g., alcohol, opiates or minor tranquilizers) is common in some displaced settings (14).
Refugees can be at greater risk of substance use because of facing higher levels of stress, unemployment and problems in coping with a new culture. Substance use problems can develop in the country of origin, in transit, in temporary refuge or in resettlement. Two theories have tried to explain drug use pattern among refugees; one of which is the Assimilation/Acculturation Model, which adopts the social norms of the new community with regards to drug use; and the other is the Acculturative Stress Model, which focuses on difficulties of coping with new social and cultural norms that could result in drug use as a coping mechanism. A variety of risk factors for developing problem substance use in these settings has been reported, including male gender, exposure to war trauma, displacement, and coexisting mental health problems. Limited studies exist with regard to drug use pattern among children/adolescents and female refugees. Adolescents and young adults could be specifically vulnerable, considering that these age groups are more vulnerable to drug use, and disruption of social norms and family structure can add to their vulnerability. Women can be exposed to severe traumatic situations due to violence and sexual exploitation specifically in camps, which together with other stressful factors of refugees' lives can lead to substance use, although this phenomenon has not been studied fully (15).

Availability and access to treatment services for displaced populations is another challenging issue. Refugees may not be allowed to utilize local treatment services, services can be expensive, or refugees may not have access to services out of the camps. Cultural and language differences would add more complexity to this situation.

Available assessment tools for alcohol and substance use in humanitarian and post-conflict situations

The Economic and Social Council of the United Nations in its 2004 resolution on “Drug control and related crime prevention assistance for countries emerging from conflict” (16) has specifically tackled the increasing problem of drug use in conflict and post-conflict zones among the general population and soldiers, especially child soldiers, and the need for Member States to address this issue by adopting comprehensive measures. The resolution calls for action to enhance drug control measures from a supply and demand reduction perspective. It also draws the Member States’ attention to the full spectrum of the problem, ranging from the general population to more vulnerable groups, mainly women, children, combatants and ex-combatants. Today, there are limited tools available to assess the extent and nature of problems among different population groups. There are also a few intervention measures, although the existing literature suggests they are underutilized. An overview of existing assessment and intervention tools is presented here.

Rapid assessment of alcohol and other substance use in conflict-affected and displaced populations: a field guide

This is the main instrument available for rapid assessment of substance abuse in emergency
settings that focus only on substance abuse, and was developed by the Office of the United Nations High Commissioner for Refugees (UNHCR) and the World Health Organization (WHO). The tool has been used in several settings in 6 different countries: Kenya, Liberia, Northern Uganda, Islamic Republic of Iran, Pakistan and Thailand (17).

**Assessing mental health and psychosocial needs and resources toolkit for humanitarian settings**

This toolkit developed by WHO and UNHCR integrated items for assessment of alcohol and other substance use (AOSU) needs, resources and capacities as part of several instruments rather than as a discrete instrument.

Among the 12 instruments for assessment included in this toolkit, the following 3 have included substance abuse as part of the assessment (18). Tool number 1: who is where, when, doing what (4ws) in mental health and psychosocial support: summary of manual with activity codes. The 4Ws is nowadays a commonly used mapping tool in humanitarian and post-conflict settings (HPS), and alcohol and substance use disorders are included as 1 subcategory under section 8, namely 8.7 Interventions for alcohol/substance use problems. The 4ws were implemented following the Haiti earthquake in 2010 by the UN Children’s Fund to map the Mental Health and Psycho-Social Support response. One of the key findings was limited services for alcohol/substance use despite the high needs identified in the community at that time. Tool number 5: checklist for integrating mental health in primary health care in humanitarian settings: alcohol/substance use is mentioned in section 2 on worker capacity indicators at primary healthcare level. Tool number 6: neuropsychiatric component of the health information system: alcohol/substance use is a component of this system, and is one of 7 neuropsychiatric categories identified.

**Available interventions**

**Inter Agency Standing Committee guidelines**

The Inter Agency Standing Committee Guidelines on Mental Health and Psychosocial Support in Emergency Settings can help to plan, establish and coordinate a set of minimum multisector responses to protect, support and improve people’s mental health and psychosocial wellbeing in the midst of an emergency. These offer essential advice on how to facilitate an integrated approach to address the most urgent mental health and psychosocial issues in emergency situations, having a specified action sheet 6.5 for guidance on minimizing harm related to alcohol and other substance use. The guidelines also include recommendations to integrate substance and alcohol abuse in interventions of emergency preparedness, minimum response to emergencies, as well as comprehensive responses to emergencies (19).
Mental Health Gap Action Programme Humanitarian Intervention Guide (mhGAP-HIG)

The WHO mhGAP-HIG includes specific modules on alcohol and substance use disorder, designed mainly for training nonspecialized healthcare professionals. It was recently used to build the capacity of healthcare professionals to manage alcohol and substance use disorder in Iraq, while the main mhGAP-IG has been used in several countries affected by emergencies, including Syrian Arab Republic, Libya and Somalia (20).

It is important to mention that, in addition to the above tools that can be used at community/population level, there are some research, diagnostic and assessment tools with relevance to substance use in humanitarian settings. For example, the WHO Composite International Diagnostic Interview tool, which includes a component for assessment of substance use at individual case level (21). Additionally, the WHO Alcohol, Smoking and Substance Involvement Screening (ASSIST) Package and WHO Alcohol Use Disorders Identification Test (AUDIT) are simple methods for screening individual cases in primary healthcare settings and have been used in several humanitarian settings, including in low-income countries (22, 23).

**Conclusion and recommendations**

In humanitarian settings little attention is paid to substance use when other health, social and even other mental health problems are seen as more pressing; however, in some conditions emergencies can bring new opportunities for partnerships with the international community that strengthen national substance abuse management services.

There is evidence that substance use is a problem among affected populations and increases the burden on already overstretched mental health systems in post-conflict states. International organizations can take proactive measures for advocacy and awareness-raising, especially at the level of policy-makers, including donors, for humanitarian agencies to enhance their involvement in the area of substance use in humanitarian and post-conflict situations. At the national level, Member States should prioritize development of services for substance use in humanitarian and post-conflict situations, adapt the available tools for these contexts, and promote research and evidence on the subject of substance use in humanitarian and post-conflict situations.

In summary, addressing substance use requires a concerted effort involving multiple sectors and several levels of engagement. It is recommended that humanitarian efforts should include
advocacy for policy and decision makers to include substance use in responses. More experience is required collectively on how best to respond to substance use among populations affected by humanitarian and post-conflict situations. Interventions need to be conducted and results disseminated. International donors should dedicate funds for research on substance use and its treatment in post-conflict and humanitarian settings, and a global forum for exchange of experience, ideas, information and evidence is required.

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**References**


2. Hanna FB. Literature review and scoping to explore substance abuse management services in humanitarian and post conflict settings [thesis]. Aarhus University and Novara University; 2014.


5. Ezard N. Rapid assessments of substance use in populations displaced by conflict: a case study of alcohol use in Mae La refugee camp, Thailand [thesis] London School of Hygiene and Tropical Medicine; 2011.


21. Wangary MK. Cost effectiveness of community based and institution based
detoxification and rehabilitation of alcohol dependent persons in Kenya [thesis]. University of
Nairobi; 2010.

22. Salamé J, Barbour B, Salameh P. Do personal beliefs and peers affect the practice
of alcohol consumption in university students in Lebanon? East Mediterr Health J. 2013
Apr;19(4):340–7. PMID:23882959

modified ASSIST-linked Brief Intervention for khat users: a randomized controlled intervention
study. 34. Symposium der Fachgruppe Klinische Psychologie und Psychotherapie der DGPs,