



**SUBSTANCE ABUSE AND ITS PREVENTION PROGRAMS:
THE CASE OF REFUGEE YOUTH**

A Thesis submitted by

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ABSTRACT

Substance abuse is a growing concern in the world due to its health, social and economic consequences. Much research has been conducted on its prevalence and on substance abuse prevention programs designed to mitigate health, social and economic problems associated with this issue. Despite coordinated efforts of academics and policymakers, substance abuse is still prevalent, and many prevention programs are yet to reach their full potential amongst refugee youth aged 12-24 of African, Middle Eastern, and South American origins. Even though there are few studies in this area, this thesis provides a synthesis of the existing literature. The study outlines the state of substance abuse and its prevention programs in the context of refugee youth. The study uses Behavioural Choice Theory to explain how an individual can reduce substance abuse and the application of the theory to the synthesis of the findings from the literature further enhances understanding of substance abuse and its prevention programs amongst refugee youth. The study follows the 'Thesis by Publication' approach to present the outcomes of the research. As such, the thesis presents two papers that explore the state of substance abuse and its prevention programs amongst refugee youth. Paper one uses a scoping review method to map out the state of substance abuse amongst refugee youth using existing literature by synthesising three specific aspects of substance abuse: (i) the state of substance abuse amongst refugee youth, (ii) the risk factors that increase the prospect of substance abuse amongst refugee youth, and (iii) the consequences they experience and how substance abuse can be mitigated. While paper two uses a systematic literature review to examine substance abuse prevention programs amongst refugee youth by identifying such programs under the following subsections: (i) different substance abuse prevention programs that are used to assist refugee youth with substance abuse, (ii) refugee youth's attitudes toward substance abuse prevention programs, and (iii) the outcomes of substance abuse prevention programs. The findings from the two papers indicate that substance abuse is prevalent amongst refugee youth, exacerbated by pre-and post-migration risk factors. Refugee youth suffer negative consequences as a result but do not know where they could seek assistance. Findings also show a lack of focus on substance abuse prevention programs specifically related to refugee youth. As such, this research illuminates the state of substance abuse and its associated prevention programs amongst refugee youth. The findings from the study add value to the existing knowledge about the state of substance abuse amongst refugee youth. Directions for future research on substance abuse prevention programs are also indicated. The findings will assist stakeholders to better support refugee youth with substance-related issues by designing targeted interventions.

Keywords: Refugee youth; Scoping review; Substance abuse; Substance abuse prevention programs; Systematic literature review

CERTIFICATION OF THESIS

This Thesis is the work of Elijah Aleer except where otherwise acknowledged, with most of the authorship of the papers presented as a Thesis by Publication undertaken by the student. The work is original and has not previously been submitted for any other award, except where acknowledged.

Principal Supervisor: Professor Khorshed Alam

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STATEMENT OF CONTRIBUTION

All the work presented in this thesis was carried out solely by Mr Elijah Aleer under the guidance of his supervisors Professor Khorshed Alam, Dr Afzalur Rashid and Dr Mohd Mohsin. I gratefully acknowledge the guidance and support of others during my master's journey in the acknowledgement section of this thesis. The following detail is the agreed share of contribution for candidates and co-authors in the presented publications in this thesis:

Article 1:

Aleer, E., Alam, K., Rashid, A., Mohsin, M., & Eacersall, D. (2021). Substance abuse amongst refugee youth: A scoping review, *Journal of Current Addiction Reports*, under review, submission id: ADDI-D-22-00008.

The overall contribution of Elijah Aleer was 60% to the concept development, data management, analyses, interpretation, and drafting of the final manuscript; Professor Khorshed Alam, Dr Rashid, Dr Mohd Mohsin and Dr Douglas Eacerall were instrumental in developing the concept, editing, and offering critical intellectual feedback by 15%, 10%, 10%, and 5%, respectively.

Article 2:

Aleer, E., Alam, K., Rashid, A., & Mohsin, M. (2022). A systematic literature review of substance abuse prevention programs amongst refugee youth, *Substance Abuse: Research and Treatment*, under review, Manuscript ID is SAT-2022-0043.

The overall contribution of Elijah Aleer was 60% to the concept development, data management, analyses, interpretation, and drafting of the final manuscript; Prof. Khorshed Alam, Dr Rashid, and Dr Mohd Mohsin were instrumental in developing the concept, editing, and offering critical intellectual feedback by 20%, 10%, and 10% respectively.

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CHAPTER 1: INTRODUCTION

1.0 Introduction

Substance abuse is of great concern amongst the refugee youth aged 12-24 of African, Middle East and South American backgrounds. This thesis documents the exploration of substance abuse and its prevention programs amongst refugee youth aged 12-24 of African, Middle Eastern and South American backgrounds. There is a growing concern about the prevalence of substance abuse amongst the groups. However, there is scant literature on the topic while substance abuse can be detrimental to an individual's life. This thesis attempts to explore the issue in the extant literature to understand the prevalence, consequences, and prevention strategies for refugee youth from Africa, the Middle East, and South America. The knowledge of substance abuse and its prevention programs can assist these vulnerable people to mitigate the risk associated with substance abuse. Substance abuse is a condition whereby an individual loses control of their substance use and uses them hazardously, disregarding negative consequences, such as neglect of major responsibilities and interpersonal problems, for at least twelve months (*American Psychiatric Association, 2013*). In this research, substance refers to alcohol, cannabis, methamphetamine, khat, and other drugs. Without substance abuse prevention programs, the phenomenon becomes a concerning issue given its prevalence and significant effects on the health, social, and economic wellbeing of individuals (Booth et al., 2021; Kølves et al., 2017) The prevalence of substance abuse can only be reduced using a range of substance abuse prevention programs (Carswell et al., 2009). One of the major issues, however, is that people are not normally aware of the risk that substance abuse poses to an individual's wellbeing or what sort of assistance is available (Berg et al., 2021). Continuing substance abuse without substantial knowledge of prevention programs can present a significant risk to individuals' wellbeing.

In terms of health, numerous researchers have linked substance abuse to mental health issues such as mood and anxiety disorders (Reedy et al., 2012), which are commonly experienced by individuals affected by substance abuse (Bøhle et al., 2021; Pérez-Gómez et al., 2020; Richert et al., 2020; Richter et al., 2017; Yockey et al., 2020). Research indicates that a lifetime prevalence of substance abuse among people who suffer from mental health issues is typically estimated to be between 40% and 60%, while 51% of people with mental health disorders have a lifetime history of substance abuse (Reedy et al., 2012). Individuals affected by substance abuse may experience psychosis, mood disorders, and in the worst-case scenario, suicide attempts or completed suicide

(Trucco et al., 2021). Similarly, substance abuse ranks high amongst the key risk factors for diseases and could lead to death amongst refugee youth aged 12-24 of African, Middle Eastern, and South American origins (Degenhardt et al., 2019), because it causes damage to internal organ functions (Hawke, Koyama, & Henderson, 2018). This leads to further complications and compromises an individual's health. For example, research suggests substance abuse can exacerbate cancer-related morbidity and mortality in cancer survivors and place them at increased risk for adverse health outcomes (Ji et al., 2021). Notably, substance abuse can create significant mental and physical health problems for individuals, therefore, individuals need to understand substance abuse prevention programs and seek such assistance.

Governments and non-government organisations have petitioned for the reduction of substance abuse worldwide for a long time, based on its health, social and economic impacts. However, individuals affected by substance abuse do not present themselves to doctors like other patients. Research shows that individuals experiencing substance abuse could miss appointments or worse, become non-compliant with treatment requirements, and consequently, such non-compliance can lead to increased hospitalizations, relapse, and poorer prognosis (Crome, 2004). At the same time, the negative consequences of substance abuse in youth are said to prevent them from seeking assistance. Researchers have established that youth who are experiencing substance abuse do not seek professional help, claiming that the multiple psychosocial and neuropsychological impairments that have led to psychiatric comorbidity hinder the treatment process (Rattermann, 2014; Strakowski et al., 2000; Tian et al., 2021). This is not unexpected, as substance abuse interferes with the normal cognitive, emotional, and social development of an individual (Crome, 2004).

Substance abuse prevention programs encourage individuals to use substances safely. However, many people around the world still experience a wide range of problems due to substance abuse. As mentioned, such uncontrolled substance use may lead to health, social and economic problems (Kölves et al., 2017). This is because in a social setting when people abuse substances, it leads to societal issues, such as unemployment, domestic violence leading to family break-up, and children growing up in poverty with poor education outcomes. Such social issues affirm that substance abuse is of significant concern. For example, research has found that substance abuse is associated with school dropout, suspension, truancy, and academic failure (Hemphill et al., 2014; Townsend et al., 2007). Also, research suggests that substance abuse affects an individual's memory, hence resulting in learning difficulties (Barrett et al., 2015).

Dysfunctional school performance can be detrimental, especially to youth establishing their careers, and can lead to other social barriers.

Several studies have established a relationship between substance abuse and several other issues such as violence, assault, and road accidents, and their associated costs amongst individuals (Heydari et al., 2016; Karjalainen et al., 2012; Pino et al., 2015). Understanding substance abuse prevention programs can reduce such social issues. Research shows that substance abuse impairs one's ability to anticipate potential threats to one's own life and others in public spaces, hence increasing the likelihood of an individual making detrimental decisions. Researchers argue that preventing the prevalence of substance abuse is a cornerstone in reducing the reoccurrence of violence, assault, road accidents and associated costs (Carswell et al., 2009; Elias-Lambert et al., 2015; Wandersman et al., 2003). Without the prevention of substance abuse, the negative consequences are likely to increase significantly.

The health, social and economic impact of substance abuse on individuals' wellbeing and society has led to a growing need to understand the reasons for the prevalence of substance abuse. Understanding the risk factors of substance abuse is considered to be a pathway to an effective substance abuse prevention initiative (O'Keefe et al., 2020). As such, researchers have documented several risk factors of substance abuse, such as living in poor neighbourhoods, a family history of addiction, parental supply of substances, legal emancipation, physical abuse, emotional distress, changes in legislation, mental health disorders, peer pressure, lack of family involvement, early use, and taking a highly addictive substance (Merianos et al., 2015; Pirdehghan et al., 2017; Sweeney et al., 2018).

The aforementioned factors are believed to contribute to the commencement and maintenance of substance abuse amongst individuals. For example, early substance use is one of the factors associated with substance abuse amongst youth (Crome, 2004; Hudgins et al., 2019; Moonajilin et al., 2021). Yet, some parents give substances to their young children as a strategy to encourage responsible use; however, that practice is evidenced as a likely passage to substance abuse (Kelly et al., 2016). Legal emancipation plays a role in youths' substance abuse as well (Pettigrew, Jongenelis, Lawrence, & Ridders, 2017). Research indicates that after a child has reached their 18th birthday, they use legal privilege to socialise, and as a result, they interact with friends and may begin to use substances excessively (Dave et al., 2019). It is argued that this period comes with great freedom, independence, and plenty of time to spend with friends (Byrnes et al., 2016). Thus, youth imitate one another and pressure each other into using substances, leading to the

commencement and maintenance of substance abuse. The general view amongst researchers is that substance abuse becomes an issue amongst youth because this period is characterised by an increase in physical and psychological development and such a rapid change makes them acutely sensitive to their environment (Booth et al., 2021). This evidence is confirmed by a longitudinal study of more than one thousand youths, which found that over 60% had used substances in their lifetime (Casanueva et al., 2014). The health, social, and economic implications of substance abuse can be serious as youths grow into adulthood.

1.1 Background

The stated effects of substance abuse on the health, social and economic wellbeing of individuals demonstrate how serious the phenomenon can be if left unmitigated. Some groups experience additional risk factors, which can increase the prevalence of substance abuse. The confirmation of the prevalence of substance abuse amongst youths raises concerns about the potential impact that the phenomenon could present on refugee youth. Although the impact of substance abuse and its prevention programs are well documented amongst youth in general, there is not much literature in the specific context of refugee youth. This applies for instance to a group of refugee youth, aged 12–24 of African, Middle Eastern and South American origins who are exposed to difficult circumstances such as post-traumatic stress, language and communication difficulties, cultural barriers, discrimination, marginalisation, high unemployment, and abject poverty (Horyniak et al., 2016; Salama et al., 2020). Such risk factors can also hamper their ability to seek assistance for substance abuse. Even though there is a consensus that young age is a vital stage of life and development, research in the area of substance abuse and refugee youth is in its infant stage (Silins et al., 2015). Lack of specific research is a pressing issue because substance abuse, given the negative consequences it encompasses, hinders youth from establishing and accomplishing meaningful life goals (Hemphill et al., 2014).

Research has shown that refugees' cultural backgrounds and country of origin play a significant role in the way they try to adapt to a new country (Ghayour-Minaie et al., 2019). Some refugees leave their home country due to economic reasons, and others leave their country due to political reasons. It may be argued that the refugees with a political reasons may already be affected by anxiety, depression, and mental pressure, which may lead them towards substance use (Schweitzer et al., 2006), and substance abuse could be one of the issues adding to their plight. Understanding substance abuse prevention programs are vital for vulnerable people such as refugee youth so that they do not fall through the cracks without getting the help they need.

There are conflicting views about the prevalence of substance abuse amongst refugee youth and an overall lack of research on substance abuse prevention programs amongst this cohort. Therefore, this thesis aims to illuminate the state of substance abuse and its prevention programs amongst refugee youth. The findings from the study will address the existing knowledge gap and provide directions for future research. This study will assist stakeholders to better support refugee youth with substance-related issues by designing targeted interventions.

1.2. Empirical contextualisation

A refugee is defined as a person who has fled his or her country of birth due to fears of persecution based on race, religion, nationality, political opinion, or membership in a particular social group (UNHCR, 2020). Recent years have seen a surge in the number of refugees around the world due to wars, violence, and natural calamities. Unfortunately, in the last four years, the world has seen a sharp increase in the number of refugees as shown below (Table 1). In 2020 it was estimated that there were 26.4 million refugees and around half of them were under the age of 18 (UNHCR, 2020).

Table 1: Refugee Global Trends

Year	Number of refugees
2017	25.4 million
2018	25.9 million
2019	26.0 million
2020	26.4 million
Total	103.7 million

Source: (UNHCR Global Trends, 2020)

Many refugees escape their home country to live in displacement camps before settling in a new country. The journey is not easy and may involve movement through multiple displacement camps and countries. The process means that many refugees experience pre-migration problems, including loss of livelihood, injury, separation from family, witnessing death or being threatened with death, becoming a victim of human trafficking, or succumbing to diseases and rape (Semmlinger et al., 2021; Tippens et al., 2021). Currently, millions of refugees risk their lives by attempting difficult journeys and in the process, many lose their lives from diseases, or are killed or injured (Isaacs, 2013). Furthermore, human traffickers capitalise on refugees' desperation and have started to prey upon and lure them into taking risky journeys, which may end in tragedy

(Cassar, 2020). During these journeys, some refugees become separated from their families (Luster et al., 2009). As a result of migration, refugees suffer ambiguous losses (Boss, 2009). The pre-migration experiences refugees suffer from are particularly stressful because of the uncertainty surrounding the loss, and this can result in depression, hopelessness, and immobilisation in some individuals (Boss, 2009). Pre-migration experiences take a toll on refugees and culminate in what is called post-traumatic stress disorder. These are psychiatric disorders experienced by people who have witnessed traumatic events such as wars or natural disasters (Betancourt et al., 2012). Thus, research has documented the evidence of trauma amongst refugees which is associated with the hardship they suffered.

Even though it is a relief for refugees to be able to successfully cross borders, they are not free from difficulties. Refugees also experience problems adapting to living in a new country. It is evident that through this desperate journey, refugees often lose everything in their possession and become economically handicapped (Chen et al., 2019). Refugee youth may then struggle with everything in a new country including abject poverty accelerated by high unemployment, discrimination, language barriers, and acculturation (Arrocha, 2019; Posselt et al., 2015). Getting employment is not easy for them. The first thing they need to learn is a new language. However, as learning a new language is cumbersome, many refugee youths drop out of school (Praetorius et al., 2016). Sometimes, refugee youth end up living without a decent job or in most cases remain unemployed due to language barriers.

Refugee youth often struggle to settle into new communities. Several researchers have documented the impact of the politics of host countries (Isaacs, 2013; Zill et al., 2021). The toxic environment created by politicians disadvantages refugee youth further. This impact may lead to refugees being discriminated against (Crofts et al., 2019). Evidence shows that after September 11, 2001, levels of mistrust between refugees and host communities widened (Arrocha, 2019; Crofts et al., 2019). Mostly, refugee youth integrate into a new country and are likely to experience discrimination from the new community (Ee et al., 2020; Norton et al., 2019). The experiences add to the pre-migration experiences and make life difficult for refugee youth.

The numerous problems refugees face are often unbearable and inhumane. Sometimes, refugees can capitalise and turn their pre-and post-migration experiences into success. However, evidence indicates that the accumulation of the negative effects of pre-and post-migration experiences makes refugees vulnerable (Horyniak et al., 2016; Salama et al., 2020). An emerging

body of research indicates that refugees could be at risk of substance abuse because of having to cope with traumatic experiences and the acculturation process (Horyniak et al., 2016; Posselt et al., 2015). Therefore, the risk of substance abuse as a coping mechanism and acculturation could be an issue emerging amongst refugee youth, which remains scarce in the literature.

1.3. Theoretical perspectives

1.3.1 Behavioural Choice Theory

Whilst considering substance abuse and its prevention programs amongst refugee youth, this study adopts Behavioural Choice Theory (BCT) as a theoretical background. The concept of behavioural preferences between alternatives has been used in numerous studies concerning substance abuse and its prevention program (Murphy et al., 2005; Vuchinich et al., 1988). The findings from these studies are consistent with the BCT concept, which stipulates that an increase in substance use preference is due to constraints on substance-free activities (Correia et al., 2002). For instance, a study conducted on a sample of college students confirms that students who are involved in substance abuse score lower on a variety of substance-free activities (Fenzel, 2005). The findings from another study show that those students who are involved in substance-free activities such as studying, campus activities and volunteer work, are less likely to participate in substance-related activities (Murphy et al., 2006). BCT has been used in numerous study settings to explain how an individual establishes a preference between available alternative activities in the presence of contentious constraints, and it has been proven to be useful in conceptualising studies on substance use behaviour amongst young people (Correia et al., 2002). While this thesis is focused on refugee youth, BCT is suitable in that refugee youth experience some constraining factors related to substance-free activities, thereby alluding to substance-related activities.

This theory allows for the investigation of substance abuse, based on preferences for substance-related activities relative to substance-free activities (Vuchinich et al., 1983). The theory predicts that substance abuse increases when access to alternative reinforcers is constrained or limited, and that consumption decreases when access to the substance itself is constrained (Vuchinich et al., 1983). Subsequently, the theory considers substance-free interventions as a successful means of reducing substance abuse (Vuchinich & Tucker 1983). Therefore, this study uses BCT perspectives to explore and understand substance abuse and its prevention programs amongst refugee youth.

BCT has been used in numerous studies to explain how an individual establishes a preference between available alternative activities. The theory suggests that substance use begins

in a milieu that involves the availability of competing reinforcers such as substance-related activities, substance-free activities and related constraints (Correia et al., 2002). It recognises substance use as a modified behaviour that is influenced by its effects and the context in which it happens (Vuchinich et al., 1988). The approach is designed to make sense of the behavioural shift that occurs from substance-free activities to substance-related activities, as a basis for substance abuse (Vuchinich et al., 1988). Research shows that people who devote much of their time to health-compromising activities raise their potential for substance abuse behaviour (Murphy et al., 2005). Alternatively, individuals who devote much of their time to substance-free activities may reduce their chance of being affected by substance abuse (Murphy et al., 2006). This is the basis for substance-free interventions to reduce the substance as part of the intervention strategy. As illustrated in Figure 1 below, the present study will use BCT to delineate substance abuse amongst refugee youth, in terms of the preferences between substance-related activities and substance-free activities.

Figure 1: BCT for Understanding Substance Abuse

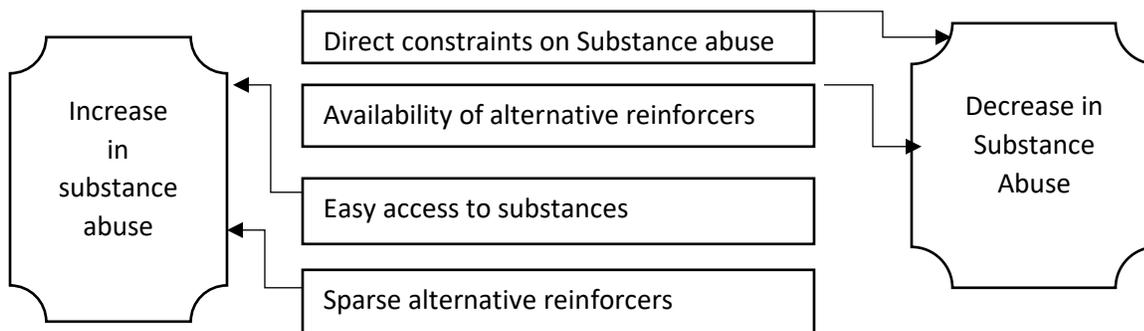


Table 2: Factors Affecting Increase and Cessation of Substance Abuse

Factors leading to Substance abuse	Factors leading to the cessation of substance abuse
Peer pressure	Counselling
Age susceptibility	Religious
Gender	Family involvement
Family history of addiction	High self-esteem
Mental disorder	Academic success
Early use	Substance abuse awareness
Taking highly addictive substances	Early intervention

Substance-free activities include (but are not limited to) educational engagements, recreational activities and employment programs, whilst substance-related activities encompass drinking alcohol and usage of other drugs (Murphy et al., 2015). Substance-free intervention is a mitigation strategy that aims to reduce substance use by providing substance-free activities (Correia et al., 2002).

Refugee youths experience some constraining factors, which allude to substance-related activities. These restrictions for substance-related activities happen when youths are below the legal age to purchase a substance; however, when they pass that stage, substance-related activities become abundant given the reduced legal constraints (Murphy et al., 2005). Due to lessened constraints on substance-related activities for youth, BCT assumes that most of them are likely to abuse substances (Vuchinich et al., 1983). Additionally, youths are believed to have plenty of time to socialise with friends and colleagues. According to BCT, the ample time spent socialising with friends and colleagues increases their propensity to engage in substance-related activities (Vuchinich et al., 1988). The benefits of social interaction associated with substance use make it a preference for a group of young people most likely youth that are out of school, unemployed or who want to fit in with a particular social group (Vuchinich et al., 1983). These factors constitute the behavioural shift to substance-related activities, as BCT posits that when access to substance-free environments is restricted, substance-related behaviour increases (Correia et al., 2002). Given the barriers refugee youth face while in their adopted countries, many substance-free activities may not be possible. Such constraints on substance-free activities may lead them to engage in substance-related activities hence potentially resulting in substance abuse. In light of such constraints, Vuchinich et al. (1983) propose that increasing substance-free activity may reduce substance abuse.

Moreover, previous literature supports the BCT proposition that substance-free interventions can reduce substance abuse. Treatments designed to increase the availability of substance-free activities have proven to be an effective means of addressing the problem of substance abuse. For example, research recommends that prevention programs aimed at reducing substance abuse should increase the availability of substance-free activities (Murphy et al., 2005). The findings from these studies depict the BCT perspective of preferences for substance-free activities that could reduce substance abuse and its prevention programs. This implies that the application of BCT will be useful for this research and help explain substance abuse and its prevention programs amongst refugee youth.

1.4. Research aims and questions

This thesis discusses the state of substance abuse and its prevention programs amongst refugee youth aged 12-24 of African, Middle Eastern and South American origins. Substance abuse and prevention programs are critically important and worth understanding, especially among vulnerable people. Numerous studies have investigated the state of substance abuse and prevention programs in the world in a general sense (Baumberg, 2006; Correia et al., 2005). By contrast, this study presents the state of substance abuse and prevention programs for refugee youth who may have encountered substantial changes in their lives. Vulnerable people like refugee youth in such uncertain environments can find themselves ill-equipped in terms of knowledge and understanding of substance abuse and prevention programs. Even though the existing research has contributed much to the conceptualization and exploring many aspects of refugees in general, the focus on the youth segment of refugees has escaped their attention.

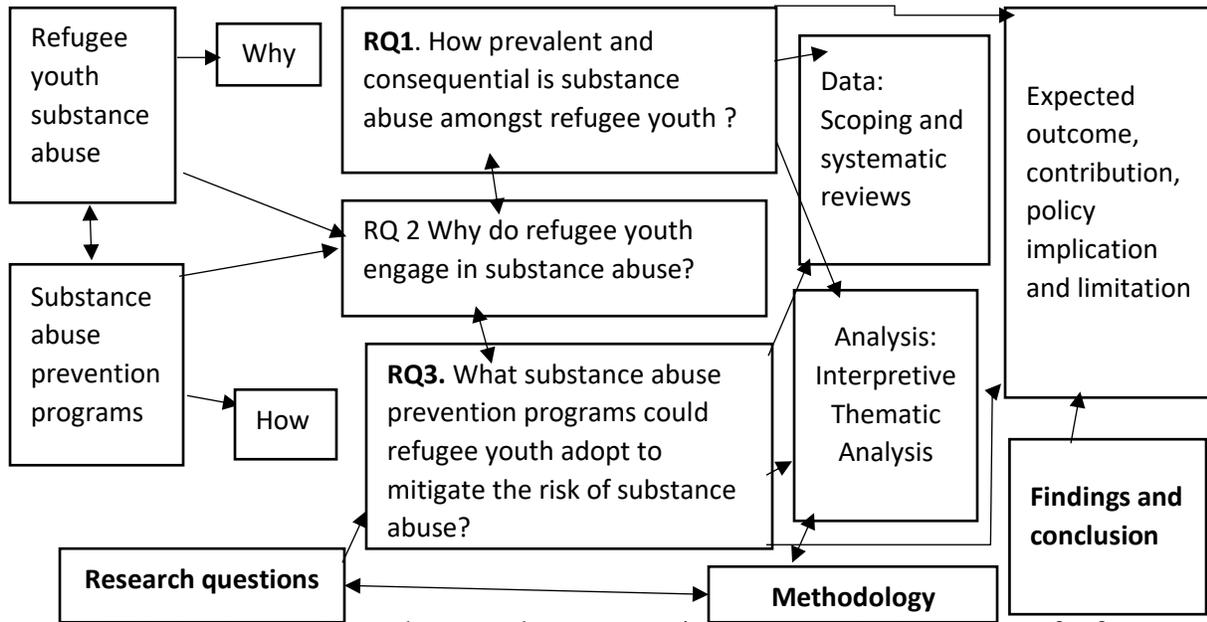
Motivated by a lack of research in the context of substance abuse amongst refugee youth, as discussed in the above section and identified in the literature review sections of the two papers (Chapters 2 and 3), this study outlines the state of substance abuse and systematically synthesises substance abuse prevention programs by addressing two main objectives:

Firstly, this study explored the state of substance abuse among refugee youth. To achieve this objective, the study examined the existing literature to ascertain the prevalence, the consequences, and/or whether refugee youth seek assistance for substance abuse. Secondly, this study systematically examined the existing literature to find out whether substance abuse prevention programs are adopted by refugee youth to mitigate the risk of substance abuse. The objective was to explore substance abuse prevention programs known to refugee youth, their attitudes, and the outcomes of substance abuse prevention programs.

1.5. Conceptual mapping

The present study fills a gap in the literature by exploring substance abuse and its prevention programs amongst refugee youth aged 12-24 of African, Middle East and South American origins. The number of factors identified in the literature such as post-traumatic stress, language and communication difficulties, cultural barriers, discrimination, marginalisation, high unemployment, and abject poverty suggests that refugee youth could be at increased risk of substance abuse (Horyniak et al., 2016). Exploring the state of substance abuse in the context of refugee youth informed this study in terms of how prevalent the phenomenon is amongst this group.

Figure 2: Conceptual mapping



This thesis examines substance abuse prevention programs in the context of refugee youth.

Several empirical studies have found that substance abuse prevention programs can reduce the risk and prevalence of substance abuse (Carswell et al., 2009; Elias-Lambert et al., 2015). It is strongly argued that without early intervention to reduce substance abuse, the phenomenon can escalate and consequently become catastrophic (O’Keefe et al., 2020). Therefore, this study examines prevention programs in the context of refugee youth to understand whether refugee youth seek assistance to reduce substance abuse through substance abuse prevention programs. Figure 2 illustrates the conceptualisation of this thesis to achieve its objectives.

1.6 Methodologies

This study intends to use a qualitative research methodology based on an interpretivist paradigm (Farghaly, 2018). Qualitative research based on an interpretive paradigm is adopted for this proposed study because research shows that qualitative research ensures a deeper understanding of the phenomenon when too little is known about it (Farghaly, 2018). Therefore, by adopting the qualitative methodology, this thesis will fulfil the gap in the literature regarding substance abuse and its prevention programs amongst refugee youth. Also, research shows that qualitative research has been central in studying substance-related studies due to the complexity of understanding the issue from the individual’s perspective (Andrews et al., 2012). Thus, the thesis assumes the ontological position of multiple truths (Farghaly, 2018) regarding substance abuse and its prevention programs amongst refugee youth. In consistent with the ontological

perspectives, the research will seek different perspectives by exploring the patterns and relationships to form a consensus.

This thesis adopts scoping and systematic literature reviews as methods of data collection to achieve the expected outcomes. Understanding the state of substance abuse and its prevention programs was the focus of this study; therefore, two main objectives were developed to facilitate answering the research questions. The data for the state of substance abuse amongst refugees were collected using a scoping review. The data search for substance abuse prevention programs was collected using a systematic literature review.

1.6.1 Scoping review

To explore the state of substance abuse amongst refugee youth, this thesis adopts the scoping review framework proposed by Arksey et al. (2005). The main aim of scoping reviews is to map the key concepts that underpin a field of research, the conceptual boundaries of the topic, and to clarify working definitions (Arksey et al., 2005). Evidence shows that scoping reviews are conducted for the following reasons: to explore the extent of the literature, map and summarise the evidence, and inform future research (Munn et al., 2018).

This thesis subscribes to exploring the state of substance abuse amongst refugee youth aged 12-24 of African, Middle East and South American origins. As such, the scoping review has informed this study by mapping and summarising the evidence of substance abuse amongst refugee youth in the extant literature.

1.6.2 Systematic literature review

The second objective of this thesis was to explore substance abuse prevention programs amongst refugee youth. To achieve this objective, systematic review methods were chosen to provide a comprehensive, unbiased synthesis of relevant studies on substance abuse prevention programs, using rigorous and transparent methods. The systematic literature review was chosen for this study because it uncovers all relevant evidence for a particular question (Munn et al., 2018; Rew, 2011). In evaluating existing evidence and minimising bias, that results from the random inclusion or exclusion of studies in the literature review process, systematic reviews require the collection of a representative or comprehensive dataset of available research and a replicable, scientific and transparent process (Linnenluecke et al., 2020). Therefore, this study attempted to uncover all the evidence on substance abuse prevention programs in the context of refugee youth by adopting a replicable, transparent, and scientific systematic literature review process.

1.6.3 Data sources

This thesis has used existing literature drawn from various databases such as Academic Search Ultimate, APA PsycArticles, APA PsycINFO, Biological Abstracts, CINAHL with full text, Humanities Source Ultimate, Psychology and Behavioural Sciences Collection, Sociology Source Ultimate, MEDLINE, and Scopus to inform its objectives denoted by the data collection methods. A comprehensive search for existing literature for scoping and a systematic literature review was conducted on academic databases.

1.6.4 Search strategy

As part of a scoping review, the search strategy follows these steps:

- The first step is an initial limited search of at least two appropriate online databases relevant to the topic.
- the second search uses all identified keywords and index terms across all included databases.
- and the third searches for additional sources from the reference list of identified reports and articles.

In the systematic literature review, the following steps were thus followed:

- The first step was an initial limited search of the library with simple search strings
- Search terms were identified using permutation keywords
- A database search using all identified keywords and index terms was applied across all included databases.

1.6.5. Inclusion and exclusion criteria

The development of inclusion and exclusion criteria for the scoping review and systematic literature review is at the discretion of the reviewers. This ensures the reviewers apply a rigorous process of deciding if the evidence, or the study's article, answers the question posed at the initial stage of the review (Brackett et al., 2021). The reviewers have to make sure the question guides and directs the development of the specific inclusion criteria for the scoping review and systematic literature review. Also, there must be clear congruence between the title, questions, the data sources, participants, concepts, and contexts that form the inclusion and exclusion criteria for the scoping review and systematic literature review.

1.6.6 Quality assessment

As the systematic review relies on existing literature, researchers have to always consider the risk of bias to ensure the results do not duplicate previous errors. The risk of bias can result from the studies included in the systematic review or from the synthesis of findings. Research suggests that the bias may be influenced by a conflict of interest between the researchers or funders (Savović et al., 2012). Therefore, to minimise the bias in the scoping review, this study used a data extraction chart as an audit trail for the readers. Additionally, this study used Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) items to assess the quality of studies included in the systematic literature review. These strategies were adopted to ensure the studies included in this study did not bear bias.

1.7 Significance

The knowledge of the state of substance abuse and prevention programs is important because the phenomenon is believed to be more acute and prevalent among the most vulnerable groups, such as refugee youth. Previous studies have shown a knowledge gap; hence, this study was undertaken to identify the state of substance abuse, and prevention programs necessary to overcome these critical issues by bringing the literature together and providing a synthesis of the literature that allows for a greater understanding of the important issues amongst this particular group.

1.8 Thesis structure

This is a 'Thesis by Publication'. The thesis consists of an introduction, two papers, and a conclusion. Thus, Chapter 1 is the introduction to the thesis. It discusses the background, followed by the research problem, aims and objectives, questions, method, and significance. Chapter 2 is Paper One; it is the scoping review discussing the state of substance abuse amongst refugee youth. Chapter 3 is Paper Two of this thesis, which is a systematic literature review exploring substance abuse prevention programs among refugee youth. Finally, Chapter 4 summarises the findings from both chapters and concludes the thesis.

CHAPTER 2: PAPER 1 - SCOPING REVIEW
SUBSTANCE ABUSE AMONG REFUGEE YOUTHS: A SCOPING REVIEW

ABSTRACT

This scoping review was conducted to exhibit gaps in the literature on the risk factors, consequences, and interventions of substance abuse amongst refugee youth and to provide a better understanding of refugee youth substance abuse. A systematic search for studies was conducted using Academic Search Ultimate, APA PsycArticles, APA PsycINFO, Biological Abstracts, CINAHL with full text, Humanities Source Ultimate, Psychology and Behavioural Sciences Collection, Sociology Source Ultimate, MEDLINE, and Scopus. Overall, the literature suggests that the prevalence of substance abuse amongst refugee youth experiences leads to negative consequences. However, findings show a lack of focus on interventions to mitigate the prevalence and negative consequences. Therefore, attention to substance abuse amongst refugee youth is increasingly important as global refugee migration continues.

Keywords: Substance abuse, refugee, youth, scoping review

1.0 Introduction

Substance abuse, defined as hazardous substance use that leads to substantial impairment or distress over 12 months (*American Psychiatric Association, 2013*), has become a growing public health concern in the world. Evidence suggests that it is prevalent among vulnerable young people (Hudgins et al., 2019; Moonajilin et al., 2021; Pirdehghan et al., 2017), and potentially refugees (Horyniak et al., 2016). The prevalence is driven by the risk factors such as parental substance use,

family relationship, peer pressure, coping strategy, ease of availability, and neighbourhood opportunities (Kaushik, 2020; Maseko et al., 2020; Zimmerman et al., 2017). Synthesising substance abuse among the group such as refugee youth is an important step in identifying the factors that influence their vulnerability to this phenomenon, the consequences they face as well as strategies they use to mitigate the risk.

The continuous changing geopolitical situation in the world has led to many people fleeing and causing numerous migration aspects (Salama et al., 2020). A recent United Nations report estimates that 79.5 million people have been forcibly displaced globally because of war, conflict and violence (UNHCR, 2020). Refugees endure hardship through displacement and the journey to hosting countries. The hardships included posttraumatic stresses, language and communication difficulties, cultural barriers, discrimination, marginalisation, high unemployment, and abject poverty have been associated with substance abuse (Horyniak et al., 2016). Among millions of forcefully displaced people could be thousands of vulnerable youth who are susceptible to substance abuse. Consequentially, substance abuse is associated with negative health, economic, and social issues (Moonajilin et al., 2021; Nishimura et al., 2020; Pirdehghan et al., 2017). The experience of substance abuse among refugee youth could be of concern for many reasons. Firstly, substance use leads to anti-social behaviours; secondly, substance abuse can significantly increase the likelihood of psychological distress and lead to substance use disorder (Knopf, 2021; Mamah et al., 2021; O'Leary-Barrett et al., 2017; Strakowski et al., 2000; Tian et al., 2021), thirdly, the psychological distress compounded with substance use disorder can pose potential distress to refugee youth given their previous vulnerability. fourthly, research shows that substance abuse is a leading cause of unintentional injury and premature mortality (Hudgins et al., 2019). fifthly, substance abuse can lead to absenteeism at work, and subsequently unemployment (Anglin et al., 2013; Birnbaum et al., 2011); finally, substance abuse to long-term antisocial behaviour, impaired memory, dysfunctional work, and school performance (Li et al., 2017; Rattermann, 2014). These negative health, economic, and social consequences could be distressful to refugee youth.

Most concerningly, refugee youth might not know the prevention strategies to reduce the harm of substance abuse. Prevention strategies play important role in mitigating the negative consequences of substance abuse. Research shows that prevention strategies such as family functioning and social support, training programs and festivals, treatment strategies and counselling, and media assist in mitigating the negative consequences of substance abuse (Bayly et al., 2021; Katz-Wise et al., 2021; Taylor, 2010). Unmitigated substance abuse can result in

health, social and economic issues.

Therefore, this scoping review provided an overview of studies conducted on substance abuse among refugee youth. There are various definitions of youth, however, according to this study, youth refers to a young person aged 12-24 (*Australian's Youth* 2021). The scoping review is limited to peer review articles on substance abuse among refugee youth published in English since 2000. The scoping review does not assess the quality of the research; rather it was conducted to provide a snapshot of the evidence available in the extant literature. The scoping review suited this study because it is used to investigate a complex area that has not been reviewed comprehensively before such as substance abuse among refugee youth (Arksey et al., 2005). The study will contribute to the knowledge of substance abuse among refugee youth by mapping out and visualizing the range of studies that might be available in the literature (Arksey et al., 2005).

2. Aims and Objectives of the Scoping Review

The study aims to explore the evidence available in the extant literature on the state, risk factors, consequences, and interventions of substance abuse among refugee youth. Underpinning this aim, three specific questions are set as follows:

RQ1. What is the state of substance abuse among refugee youth?

RQ2. What are the risk factors that increase the prospect of substance abuse among refugee youth?

RQ3. What consequences do they experience and how could this substance abuse be mitigated?

3. Methods

3.1 Identifying keywords and Search Strategy

The protocol was developed following the standard of Preferred Reporting Item for Systematic Review and Meta-Analysis (PRISMA-ScR) reporting guidelines. The search strategy was developed and agreed upon by the reviewers as per the Joanna Briggs Institute methodology for scoping reviews (Table 2).

The information search was performed in the Academic Search Ultimate, APA PsycArticles, APA PsycINFO, Biological Abstracts, CINAHL with Full Text, Humanities Source Ultimate, Psychology and Behavioural Sciences Collection, Sociology Source Ultimate, MEDLINE, and Scopus. The search was conducted, and 300 articles were retrieved.

3.2 Inclusion Criteria

The inclusion criteria include:

- (i) written in English,
- (ii) peer review and review article,
- (iii) reporting on substance abuse among refugee youth, and
- (iv) published from 2000 to 2021.

Table 3: Search Strategy

Search field	Title; abstract keywords	Title; abstract keywords	Title; abstract keywords
Number of results	84	109	107
Database	Academic Search Ultimate, APA PsycArticles, APA PsycInfo, biological Abstracts, CINAHL with Full Text, Humanities Source Ultimate, Psychology and Behavioural Sciences Collection, Sociology Source Ultimate	Scopus	MEDLINE
Search Strategy	(refugee? OR "asylum seeker" OR "asylum seekers" OR displaced) AND ("substance abuse" OR "substance use" OR "drug abuse" OR "drug addiction" OR "drug use") AND (youth? OR adolescent* OR "young people" OR teen* OR "young adult" OR "young adults")	(refugee? OR "asylum seeker" OR "asylum seekers" OR displaced) AND ("substance abuse" OR "substance use" OR "drug abuse" OR "drug addiction" OR "drug use") AND (youth? OR adolescent* OR "young people" OR teen* OR "young adult" OR "young adults")	(refugee? OR "asylum seeker" OR "asylum seekers" OR displaced) AND ("substance abuse" OR "substance use" OR "drug abuse" OR "drug addiction" OR "drug use") AND (youth? OR adolescent* OR "young people" OR teen* OR "young adult" OR "young adults")

3.3 Review Validation

All 300 identified citations collated and uploaded to EndNote X9, and duplicates removed. After removing duplicates, two independent reviewers screened the titles and the abstracts of 187 articles, and 167 studies excluded because they did not meet the inclusion criteria, mostly, they

did not address the issue of substance abuse among refugee youth. Twenty articles assessed by the same two reviewers for eligibility and ten articles excluded due to lack of focus on substance abuse or refugee youth, age variation or non-availability of full-text articles. A search of the included sources' reference lists did not find any potential articles to include in this scoping review.

3.4 Data Extraction

After the two phases of screening, selected data extracted into a chart developed by the reviewers. Further information recorded including objective, finding, concept, context, type of evidence, and future research. Finally, the results presented in a tabular form in a manner that aligned with the objective of this scoping review (Arksey & O'Malley, 2005) as shown in Table 3.

The data extraction chart provides an overview of studies that met the inclusion criteria. It shows objectives, methods, key findings, population, concept, context, and future research. Among the ten articles that met the inclusion criteria, nine were peer-review articles and one review, published between 2000 and 2021. The data extraction table is developed to ensure transparency and completion of the reporting of the scoping review (Arksey & O'Malley, 2005).

Table 4: Data Extraction

Authors & Title	Objective	Method	findings/conclusion	Population	Concept	Context	Types	Future Research
Damiri, 2019: The Use of Psychoactive Substances in a Conflict Area in the West Bank: Drug Use Risk Factors and Practices in Palestinian Refugee Camps	To investigate the prevalence of and risk factors associated with psychoactive substance (PS) use among 950 teenagers in different conflict zones in the West Bank.	Self-administered questionnaire Cross-sectional study (quantitation analysis)	Substance use was higher among refugee teenagers than among urban and rural teenagers due to easy access to alcohol. They lack knowledge of weaning strategies. Drink alcohol to feel high, fun, cope with friends, run from problems, get rid of anger, and satisfy an addiction. Involved in trouble with the police.	950 Palestinian teenagers	Prevalence of and risk factors associated with psychoactive substance (PS)	West Bank	Peer-reviewed article	Early intervention on refugee youth risk-taking behaviours.
Horyniak et al. 2016: Heavy alcohol consumption among marginalised African refugee young people in Melbourne, Australia: motivations for drinking, experiences of alcohol-related problems and strategies for managing to drink	To describe motivations for drinking, experiences of alcohol-related problems and strategies for managing drinking among marginalised African refugee young people in Melbourne, Australia.	A qualitative study (Thematic analysis)	Participants consume alcohol on a daily to cope with trauma, boredom, frustration, and as a social experience. Face health and social consequences including breakdown of family relationships, homelessness, interpersonal violence, contact with justice system. Self-isolation and counselling to reduce substance abuse.	16 African refugee youth	Heavy consumption of substances	Melbourne, Australia	Peer-Reviewed Article	1. Quantitative studies are required to measure the prevalence of harmful patterns of alcohol use and to identify risk and protective factor 2. Female participants to be included in the study.

<p>Horyniak et al. 2014: Experiences of and Attitudes Toward Injecting Drug Use Among Marginalized African Migrant and Refugee Youth in Melbourne, Australia</p>	<p>The study aimed to examine exposure to, attitudes toward, and experiences of IDU among marginalized African migrant and refugee youth from Melbourne’s western suburbs.</p>	<p>Participant Engagement (Thematic analysis)</p>	<p>Limited exposure to substances before resettlement but easy access to new country. Participants experience family separation, intergenerational conflict, disengagement from education and employment, unstable housing, and dependence on welfare. Served time in prison. Consume substances to cope with trauma, hardship, escape from these feelings; and social connections.</p>	<p>18 young people of African ethnicity</p>	<p>Injecting drug use (IDU)</p>	<p>Melbourne, Australia</p>	<p>Peer-Reviewed Article</p>	<p>1. Prevalence of both IDU and substance use more broadly among African women 2. Barriers to access and uptake of treatment for this group</p>
<p>Horyniak et al.,2017: The role of respect in interactions with police among substance-using African refugee young people in Melbourne, Australia</p>	<p>The study examined interactions with police among a sample of marginalized refugee-background young people who use alcohol or other drugs</p>	<p>Exploratory study (Face to face semi-structured interview) Thematic analysis</p>	<p>Participants consume alcohol daily. Participants' experience post-migration included family separation, disengagement from education and employment, and period of homeless. Participants regularly came into contact with police and predominantly described these interactions as negative experiences.</p>	<p>16 young refugees</p>	<p>Policing and substance among refugee youth</p>	<p>Melbourne, Australia</p>	<p>Peer-reviewed article</p>	<p>1.Cultural understandings of respect in interactions with police, particularly concerning gender. 2. Factors that promote resilience among ethnically diverse young people in their interactions with police.</p>

<p>Posselt et al., 2015: Aetiology of Coexisting Mental Health and Alcohol and Other Drug Disorders: Perspectives of Refugee Youth and Service Providers</p>	<p>This study was designed to identify risk factors and patterns of comorbidity development in young people from refugee backgrounds living in a disadvantaged urban region of Adelaide, South Australia</p>	<p>A qualitative study (Thematic analysis)</p>	<p>Risk factors include pre-migration experiences of torture, trauma, grief, and loss; familial factors of intergenerational conflict or separation. Also, post-migration factors, which include adjustment difficulties around culture and language, exposure to and availability of substances. The reasons for use included maladaptive coping strategies, self-medication, and misuse of prescription medication. Participants lack access to information, awareness, and concepts of mental health and drugs services.</p>	<p>Refugee youth and workers from MH, AOD, and refugee support services</p>	<p>Comorbid mental health (MH) and alcohol and other drugs (AOD) disorders</p>	<p>South Australia</p>	<p>Peer-reviewed article</p>	<p>1. Prevalence of comorbidity in resettled refugee populations 2. Institutional barriers preventing targeted early intervention initiatives</p>
<p>Posselt et al., 2017: Improving the provision of services to young people from refugee backgrounds with comorbid mental health and substance use problems: addressing the barriers</p>	<p>We investigated the barriers and facilitators to culturally responsive comorbidity care for these youth and whether the MH and AOD services were equipped to provide such support</p>	<p>This mixed-methods study</p>	<p>Young refugees are at a high risk of developing MH and AOD disorders, barriers to service engagement and service provision although willing to seek assistance from agencies if they considered that their services would be of benefit. Shame and stigma associated with experiencing MH and AOD problems was a frequently reported barrier to accessing service.</p>	<p>Thirty participants (15 refugee youth, 15 service providers)</p>	<p>Barriers And facilitators to culturally responsive comorbidity care</p>	<p>South Australia</p>	<p>Peer-reviewed article</p>	

<p>Posselt et al., 2015: Merging perspectives: obstacles to recovery for youth from refugee backgrounds with comorbidity</p>	<p>This research aimed to identify challenges encountered by young people from refugee backgrounds with co-existing mental health (MH) and alcohol and other drugs (AOD) problems (comorbidity) and sought to compare the perspectives of refugee youth and service providers in a metropolitan region of Adelaide, South Australia.</p>		<p>The refugee youth reported difficulties when they develop MH and AOD problems. These difficulties included lack of service provision, social disconnection, housing/homelessness, and employment/education. They lacked awareness that services are available to support them. Reported suicide as the most common problem associated with illicit drug use.</p>	<p>Young people from refugee backgrounds (African, Afghan, Bhutanese) and workers from MH, AOD and refugee support services</p>	<p>co-existing mental health (MH) and alcohol and other drugs (AOD) problems</p>	<p>Australia</p>	<p>Peer-reviewed article</p>	
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<p>Posselt et al., 2014: Mental health and drug and alcohol comorbidity in young people of refugee background: a review of the literature</p>	<p>The review explores the extent to which comorbid MH and alcohol and other drug (AOD) conditions (comorbidity) are likely to be experienced by young people of refugee background and investigate what is known about engaging and supporting young refugees with comorbidity in health services.</p>	<p>Review</p>	<p>Participants' experiences of socioeconomic status, educational difficulties, racism, language difficulties, and coming to terms with the refugee experience were common themes relating to drug-use problems. Young people of refugee backgrounds are at risk of developing MH and AOD disorders. Potential cultural and linguistic barriers put young, resettled refugees at a disadvantage when seeking help for their problems.</p>	<p>Refugee youths</p>	<p>the co-occurrence of MH and drug and alcohol disorders</p>	<p>Australia</p>	<p>Review article</p>	<p>Research should also address the lack of data concerning the prevalence of MH and AOD conditions in young Australians from refugee backgrounds.</p>
<p>Salas-Wright et al., 2020: Disconcerting levels of alcohol use among Venezuelan immigrant adolescents in the United States</p>	<p>To investigate the harmful alcohol use among Venezuelan migrant youth in the USA.</p>	<p>Quantitative: a web-based survey</p>	<p>Results indicate that migrant youth report lifetime alcohol initiation and past-month use. Presumably, in part, as a coping or self-medication response to migration-related stress/trauma and other mental health issues.</p>	<p>Venezuelan migrant youth</p>	<p>Harmful alcohol use</p>	<p>USA</p>	<p>Peer-reviewed article</p>	<p>Research to examine the prevalence and correlates of alcohol use in this population using recruitment and sampling methods that will allow for population-level estimates.</p>

<p>Glick et al., 2018: Health risk behaviours of Palestinian youth: findings from a representative survey.</p>	<p>Investigates patterns of risk behaviours among Palestinian youth, their perceptions of the risks and benefits of such behaviours, and the relationship of exposure to violence with mental health and engagement in risk behaviours.</p>	<p>Quantitative: stratified 2-stage random sample</p>	<p>Among youth aged 20-24 years, males and females reported trying alcohol. Close access to drugs or alcohol from Israel, economic depression, poor social services and significant social and political tensions contribute to substance use among refugee youth.</p>	<p>Palestinian youth</p>	<p>Risk behaviours among the youth</p>	<p>WHO</p>	<p>Peer-reviewed article</p>	<p>To investigate the determinants of risk behaviours.</p>
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(Developed for this study)

4. Findings

4.1 Descriptive overview

As per the aim of scoping review, we provide a succinct informative summary of the findings. The articles published in nine different journals focus mostly on prevalence, risk factors, intervention strategies, and challenges of substance abuse among refugee youth.

With regards to the study location, most of the studies (7) conducted in Australia, one study in the USA, one in the Middle East, and one article commissioned by the World Health Organisation. No studies from Europe, South America, Asia, or Africa met the inclusion criteria. The participants in all ten articles were refugee youth. Most of them identified themselves as of African, Middle Eastern and South American origins.

In terms of methodology, four studies conducted using different qualitative designs including participant engagement, thematic analysis, and exploratory. Three studies were conducted using quantitative designs namely a cross-sectional study based on a self-administered questionnaire, stratified 2-stage random sample, and multistage area probability sampling. Two studies used a mixed-method design, and one study was a literature review article.

4.2 Prevalence of Substance Abuse among Refugee Youth

Findings suggest the prevalence of substance abuse among refugee youth. Most of the ten articles that met the inclusion criteria confirmed refugee youth consume substances heavily and daily (Horyniak et al., 2017; Horyniak et al., 2016; Horyniak et al., 2014; Posselt et al., 2015). Other studies showed a significant number of refugee youth try substances. For example, the study reported that (19%) of all refugee youth surveyed ages 15–17 report lifetime alcohol-initiated substance use (Salas-Wright et al., 2020). Furthermore, the finding showed substance abuse is higher among refugee youth compared to non-refugee youth. The studies conducted to compare substance abuse among refugee youth with urban and rural youth depicted significantly higher substance among refugee youth than among urban and rural youth (Damiri, 2019; Glick et al., 2018).

4.3 Risk Factors for Substance among Refugee Youth

The finding linked the prevalence of substance abuse among the refugee youth to several risk factors. First, the finding indicated that refugee youth use substances to cope with pre-migration and postmigration experiences (Horyniak et al., 2016; Horyniak et al., 2014; Salas-Wright et al., 2020). For instance, some researchers reported that refugee youth consumed

substances to cope with problems, anger, and worse, to satisfy an addiction (Damiri, 2019; Horyniak et al., 2017; Horyniak et al., 2016; Posselt et al., 2015). Researchers demonstrated the link between substance abuse and past traumatic experiences (Damiri, 2019; Horyniak et al., 2016; Posselt et al., 2015; Posselt et al., 2015).

Apart from the use of substances to cope with pre-migration experiences, it is revealed that substance abuse problems may arise as means to cope with post-migration experiences (Horyniak et al., 2016; Posselt et al., 2015). The researchers have demonstrated a link between refugee youth substance abuse and experience of post-migration risk factors such as potential cultural and linguistic barriers, family separation, intergenerational conflict, disengagement from education and employment, unstable housing, and dependence on welfare (Horyniak et al., 2017; Horyniak et al., 2014; Posselt et al., 2015). It is suggested that potential attempts to identify with two different cultures, while dealing with the post-migration factors increase the risk of substance abuse among refugee youth (Posselt et al., 2014). These are the indication that post-migration issues make refugee youth susceptible to substance abuse.

Findings also revealed the ease of access and availability of substances play role in the prevalence of substance abuse among refugee youth. Exposure to substances leads to the formation of the belief that drug use will create the desired effect, including an escape from these feelings and eventually, lead to abuse (Horyniak et al., 2016). Most of the refugee youth were unaccompanied, unemployed, disengaged from school, or homeless (Horyniak et al., 2016; Horyniak et al., 2014; Posselt et al., 2015). These factors make them vulnerable and expose them to substance abuse (Posselt et al., 2015). Findings showed that refugee youth expressed in the study had limited exposure to substance use and had never used substances before resettlement, however, now they use substances regularly (Horyniak et al., 2014). Similarly, some refugee youth claimed to hold negative attitudes toward substance use but given the accessibility and availability of substances, they could still be tempted to use the substance (Horyniak et al., 2016; Posselt et al., 2015). The ease of access and availability of substances make refugee youth vulnerable to substance abuse.

Moreover, socialisation with peers emerged in this scoping review as one of the risk factors that increase the prevalence of substance abuse among refugee youth. Findings reported that refugee youth abuse substances as means to socialise with their peer (Damiri, 2019; Horyniak et al., 2017; Horyniak et al., 2016; Horyniak et al., 2014). For example, researchers indicated that refugee youth reported the use of substances as a means of social connection and experience

(Horyniak et al., 2017; Horyniak et al., 2016; Horyniak et al., 2014). They reported coming together every day to consume substances (Horyniak et al., 2017; Horyniak et al., 2016; Horyniak et al., 2014). The summary of the findings is presented in Table 4.

Table 5: Summary of the scoping review findings

Key issues	Research cluster 1	Research cluster 1	Research cluster 1
Prevalence	Prevalence 1	Prevalence 2	Prevalence 3
Risk Factors	Socialise with peers	Coping strategies	Ease of access and availability
Negative Consequences	<ul style="list-style-type: none"> • Poor physical and mental health • suicide • Social disconnection • Unemployment • Education dropout • Involved with police/justice system/prison • Family breakdown • Interpersonal violence 	<ul style="list-style-type: none"> • Poor physical and mental health • suicide • Social disconnection • Unemployment • Education dropout • Involved with police/justice system/prison • Family breakdown • Interpersonal violence 	<ul style="list-style-type: none"> • Poor physical and mental health • suicide • Social disconnection • Unemployment • Education dropout • Involved with police/justice system/prison • Family breakdown • Interpersonal violence
Interventions	<ul style="list-style-type: none"> • Counselling • Detoxication program • Committing crime to jail • Self-isolation 	<ul style="list-style-type: none"> • Counselling • Detoxication program • Committing crime to jail • Self-isolation 	<ul style="list-style-type: none"> • Counselling • Detoxication program • Committing crime to jail • Self-isolation

4.4 Consequences of Substance Abuse among Refugee youth

Given the prevalence of substance abuse, driven by a series of risk factors, the findings showed refugee youth experience negative consequences. It is evidence indicates that refugee youth with substance abuse had a poor interactions with the police, and justice system and most reported spending time in prison (Damiri, 2019; Horyniak et al., 2017; Horyniak et al., 2016; Horyniak et al., 2014). For example, studies demonstrated that refugee youth who reported negative interaction with police experience substance abuse (Horyniak et al., 2017; Horyniak et al., 2016). Also, a study comparing police interaction with refugee youth with substance abuse and nonrefugee youth found that refugee youth involved in trouble with the police was significantly

higher compared to rural and urban youth (Damiri, 2019).

Finding also, pointed out that refugee youth encounter a poor relationships with family and become socially disconnected as a result of substance abuse (Horyniak et al., 2016; Posselt et al., 2015). Other researchers reported that refugee youth with substance abuse become long-term unemployed, drop out of school and involve in violence (Horyniak et al., 2017).

Apart from social encounters, refugee youth with substance abuse reported poor health and suicide (Damiri, 2019; Horyniak et al., 2016; Posselt et al., 2014). Results showed refugee youth suffer from substance use disorder and other mental health issues as a result of substance abuse (Damiri, 2019; Posselt et al., 2017; Posselt et al., 2015; Posselt et al., 2015). For instance, some refugee youth are reported to be diagnosed with psychosis and suicide attempt as a result of substance abuse (Damiri, 2019). Findings also, point out that substance abuse among refugee youth causes physical health problems such as severe tooth decay and permanent damage to blood vessels (Damiri, 2019; Horyniak et al., 2016). The damage to the blood vessels, cause a stroke or even death (Damiri, 2019).

4.5 Interventions

Despite the revelation of negative consequences, finding revealed that some refugee youths are aware of the possible risk of substance abuse, but there is a lack of knowledge of appropriate strategies that could assist them to avert the potential risk (Damiri, 2019; Horyniak et al., 2014; Posselt et al., 2017; Posselt et al., 2015). Among ten articles, one indicated that refugee youth attended counselling or residential detoxification programmes, and self-imposed physical isolation to mitigate the negative consequences of substance abuse (Horyniak et al., 2016). Surprisingly, the result showed that some refugee youth intentionally commit a crime to go to jail as the only way to stop substance abuse (Horyniak et al., 2016).

5. Discussion

The evidence in the scoping review suggests that substance abuse is a prevalent phenomenon among refugee youth exacerbated by several risk factors. The factors investigated and found to be linked with substance abuse among refugee youth, include the availability of substances, the ease of accessing them, the need to cope with problems, and social/peer pressure. The findings confirmed the previous research assertion that refugee youth could be at risk of substance abuse due to their refugee experiences.

Speaking to the complexity of these experiences, the results indicate refugee youth

confronted with pre-migration and post-migration experiences would resort to substance use as a coping mechanism, which increases the risk of substance abuse. The researchers identified substance abuse as the coping strategy refugee youth opt to deal with pre-migration and post-migration issues such as potential cultural and linguistic barriers, family separation, intergenerational conflict, disengagement from education and employment, unstable housing, and dependence on welfare. The use of substances to cope with posttraumatic stresses and pre-migration experiences concurs with the Acculturative Stress Model which implies that resettling in a new country may be stressful and can contribute to substance abuse as a coping mechanism (Posselt et al., 2014). Also, researchers found that coping strategy largely associated with substance abuse (Neighbors et al., 2007). Therefore, complex pre-migration and post-migration risk factors increase the prospect of substance abuse among refugee youth.

Furthermore, researchers examined and found that the ease of access and availability of substances in the vicinity entice refugee youth to substance abuse. The refugee youth reported no access to substances before but currently can easily find substances. Also, the refugee youth acknowledged the availability of the substance the neighbourhood lured them to use substances even though they know the risk associated with them. In the situation of refugee youth, the ease of access to substances can be attributed to different societal norms (Neighbors et al., 2007) and parenting styles (Ghayour-minaie et al., 2019). Refugee youth from more authoritarian societies who resettle in authoritative communities can exploit the norms of that country, which can catalyse substance abuse.

Similarly, socialising with peers has been found as one of the risk factors that increase the prospect of substance abuse among refugee youth. Researchers reported that refugee youth consume substances to feel high and to have fun. Some initiated substance uses as a social experience. The use of substances as a means to socialize with peers increases the prospect of substance abuse among refugee youth.

Eventually, the finding found that refugee youth suffer negative consequences as a result of substance abuse. The consequences the refugee youth experience as a result of substance abuse are comprised of health, economic and social aspect. It is evidence indicates that refugee youth with substance abuse had poor interaction with the police, and justice system and most reported spending time in prison. They encounter a poor relationship with family and become socially disconnected. Other researchers reported that refugee youth become long-term unemployed, drop out of school, and are involved in violence. Report of mental and physical issues such as suicide

and death. The findings reinforced the previous research, which linked the phenomenon with social, health, and economic challenges (Anglin et al., 2013; Birnbaum et al., 2011; Horyniak et al., 2016). The negative consequences are exacerbated by a lack of knowledge in seeking professional assistance. The confirmation of negative consequences among the refugee youth has proven that substance abuse can have serious implications for this vulnerable group.

Much of the concern is on how to mitigate substance abuse among refugee youth. Findings indicate that refugee youth lack significant knowledge of prevention strategies that could help them to reduce substance abuse. Only one study has identified that refugee youth attended counselling or residential detoxification programmes, and self-imposed physical isolation. However, substance abuse harm reduction strategies such as family functioning and social support, training programs and festivals, and media are not mentioned in the finding. Some substance-free strategies, which can also assist in mitigating substance abuse such as sports and exercise are not mentioned in the findings (Correia et al., 2005; Seglem et al., 2014). Understanding such prevention strategies can assist refugee youth in reducing the prevalence and negative consequences of substance abuse.

The scoping review has highlighted additional opportunities for future research. Most of the articles suggest future studies that will include different genders in studies as researchers indicate a lack of gender parity in the research and research that focuses on traditional cultural beliefs. More importantly, scholars recommend research on early detection and prevention strategies to mitigate the risk of substance abuse among refugee youth.

6. Conclusion

This scoping review provides a snapshot of studies on refugee youth substance abuse. The review highlighted the need to explore the state of substance abuse among refugee youth as several pre-migration and post-migration risk factors exacerbate the vulnerability of the group. This group's experiences and level of vulnerability to substance abuse require further investigation. Findings demonstrated a gap in research on mitigation strategies to reduce the prevalence and negative consequences of substance abuse. It highlights the importance of understanding harm reduction as the findings demonstrate that refugee youth suffer numerous negative consequences and they do not know the best strategies to overcome substance abuse. Understanding and mitigating the substance abuse risk factors can lead to a reduction in the number of negative consequences. More importantly, understanding issues affecting refugee youth can assist them in resettling in a new country as the global refugee youth migration continues to rise.

CHAPTER 3: PAPER 2 - SYSTEMATIC LITERATURE REVIEW

A SYSTEMATIC LITERATURE REVIEW OF SUBSTANCE ABUSE PREVENTION PROGRAMS AMONGST REFUGEE YOUTH

ABSTRACT

Background: Substance abuse, which is prevalent amongst refugee youth, appears to be one of the issues affecting this particular group all around the world. Several studies have been conducted in recent years on substance abuse prevention programs for a wider population group. However, evidence of substance abuse prevention programs amongst refugee youth remains relatively limited in the literature.

Objectives: This paper explores existing literature on substance abuse prevention programs by answering questions particularly related to refugee youth. It identifies the availability of substance abuse prevention programs, summarises the evidence around refugee youth's attitudes towards interventions, and outlines the outcomes of such programs.

Method: A comprehensive search for relevant articles was conducted on Scopus, PubMed, and EBSCOhost Megafire databases, including Academic Search Ultimate, APA PsycArticles, APA PsycInfo, CINAHL with Full Text, E-Journals, Humanities Source Ultimate, Psychology and Behavioural Sciences Collection, and Sociology Source Ultimate. Initially, a total of 485 studies were retrieved. After removing duplicates, a thorough assessment of titles and abstracts was conducted, and further screening was performed using inclusion and exclusion criteria resulting in nine papers being identified for final review.

Finding: Findings suggest a dearth of empirical studies in the literature on substance abuse prevention programs amongst refugee youth. Of the nine studies identified for final review, only three addressed substance abuse prevention programs. From the final review, only two substantial substance abuse prevention programs were identified. These were Adelante Social and Marketing Campaign (ASMC) and Screening and Brief Intervention (SBI). The outcomes of these two programs are that refugee youth engaged with prevention topics, including substance abuse, at ASMC, while participants in the SBI program demonstrated a decrease in substance abuse as interactive activities increased. Six other studies explored protective factors and strategies for preventing substance abuse. In terms of refugee youth attitudes, finding shows that refugee youth expressed negative attitudes toward institutions that provide substance abuse prevention programs.

Conclusion: This review concludes that refugee youth often experience persistent substance abuse with limited knowledge of substance abuse prevention programs that could reduce the prevalence and/or severity of this issue. To mitigate the prevalent and related consequences of substance abuse, there is a pressing need to conduct in-depth studies focusing on substance abuse prevention programs amongst refugee youth.

Keywords: Refugee Youth, Systematic Literature Review, Substance Abuse Prevention Programs

1.0 Introduction

Substance abuse prevention programs use strategies to reduce substance abuse (Springer et al., 2004). Substance abuse is found to be a prevalent issue in society. As such, this issue has received considerable attention in the literature. It is a concerning issue because substance abuse can have severe and wide-ranging consequences, including an increased risk of a disorder, higher mortality, accidental injury, liver diseases, violence, dysfunctional work, and school dropout (Ji et al., 2021; Kuntsche et al., 2017; Li et al., 2017; Momeñe et al., 2021). The consequences could be detrimental to an already disadvantaged such as refugee youth through their pre-and post-migration experiences.

Research suggests that prevention programs play an important role in reducing the consequences of substance abuse (Springer et al., 2004). Without prevention programs, substance abuse can become a serious issue, especially amongst vulnerable groups like refugee youth (Goings et al., 2018). The last two decades have witnessed a surge in studies on substance abuse prevention programs for different socio-demographic groups, which have produced information about initiation, prevalence and associated behavioural, social, and educational outcomes (Fishbein et al., 2006; Gau et al., 2012; Gruenewald et al., 2009; Springer et al., 2004). Some of the known substance abuse prevention programs include individual and group counselling, alternative programs, and family and community interventions (Barrett et al., 1988; Foss-Kelly et al., 2021; Radoi, 2014). The effectiveness of an individual program depends on the participants' attitudes toward intervention and its outcomes (Espada et al., 2015). For instance, participants sometimes refuse to join due to fear of being reported to authorities (Kvillemo et al., 2021).

More importantly, these programs are designed to influence social and psychological factors associated with the initiation and maintenance of substance abuse (Barrett et al., 1988). The

social factors include peer pressure and a deviation from conventional values such as family, school, and religion, while the psychological characteristics include low self-esteem and an attitude of tolerance toward deviancy (Barrett et al., 1988; Hater et al., 1984; Radoi, 2014). Substance abuse prevention programs aim to approach social and psychological factors in a different way depending on their goals and outcomes. Each factor requires a different approach when designing a substance abuse prevention program. For example, counselling is offered to youth dealing with substance abuse mainly to increase their self-esteem and for them to adopt positive societal norms associated with substance abuse (Barrett et al., 1988).

On the other hand, peer pressure is considered by many researchers to be the source of the initiation and maintenance of substance abuse among youth, and according to social learning theory, youth substance abuse results from peer pressure originating from their reference groups (Watkins, 2016). To address substance abuse where peer pressure is deemed to be the initiation and maintenance factor, group counselling is believed to be a key prevention strategy (Barrett et al., 1988). This is because peer relations have a powerful influence, and researchers therefore often use group rather than individual counselling to promote healthy and acceptable relationships, social skills, and thus healthy forms of recreation amongst peers.

Apart from counselling, the initiation and maintenance factors of substance abuse can be mitigated by adopting alternative programs like substance-free strategies. Behavioural economic theory suggests that an increase in rewarding substance-free activities can lead to a reduction in substance abuse (Murphy et al., 2019). The structured substance-free activities approach is based on the relationship between reinforcement derived from substance-related activities to reinforcement derived from substance-free activities (Correia et al., 2005). Research shows that substance abuse programs that are supplemented with either relaxation training or a behavioural economic session focused on increasing substance-free activities are associated with reductions in substance abuse (Murphy et al., 2019). Notably, increasing substance-free activities is suggested to be useful in substance abuse prevention in vulnerable youth (Andrabi et al., 2017).

Also, community, family, school, work, and religious activities play a significant role in reducing the initiation and maintenance of substance abuse and its related consequences. Research has demonstrated a negative relationship between commitment to conventional values such as family, religion, and school and substance abuse among youth (Sussman et al., 2006). This evidence is supported by the social bond theory, which postulates that commitment to conventional

values of one's family, religion, and school act to prevent deviant responses (Nijdam-Jones et al., 2015). Similarly, Family Interaction Theory suggests that social learning, parent attachment, and intrapersonal characteristics discourage youth risk-taking behaviours (Ismayilova et al., 2019). This evidence has appeared in several substance abuse prevention programs (Huang et al., 2014; Ishaak et al., 2015; Liddle et al., 2006). For instance, the Adolescent Day Treatment Program (ADTP) in Canada uses a social learning approach, stressing positive support for appropriate substances, anti-social coping behaviour, and social skills (Liddle et al., 2006).

Furthermore, some substance abuse prevention programs are designed to assist individuals through the development of skills and attitudes in a community approach. The approach has seen youth cessation of substance abuse and helped them make changes leading to substance-free lifestyles (Wade-Mdivanian et al., 2016). One of the substance abuse prevention programs that adopt a community approach is Multidimensional Family Treatment (DFT). DFT targets the initiation and maintenance of youth substance abuse by addressing coping strategies, parenting practices, other family members, and interactional patterns that contribute to the continuation of substance abuse and related consequences (Liddle et al., 2006). Also, DFT addresses the youth's and family's functioning using social systems influencing the youth's life such as school, work, peer networks, and the juvenile justice system (Liddle et al., 2006; Valente et al., 2007). In support of the community approach, researchers argue for the inclusion of the perspectives of community members in substance abuse prevention programs because they understand the unique needs of the people with whom they share a bond (Bermea et al., 2019). Researchers also stress the interconnected nature of their environmental relationships that can facilitate advocacy for change at the community level (Bermea et al., 2019). In most cases, individual and group counselling, alternative programs, and family and community interventions have led to a reduction in the initiation and maintenance of substance abuse amongst youth.

A lot is known about the effect of substance abuse prevention programs, yet prevention programs to mitigate the prevalence and the related consequences remain largely unknown amongst the refugee youth. The lack of research on substance abuse prevention programs in the context of refugee youth may have arisen for various reasons. First, scholars might have ignored the severity of the issues amongst different youth groups yet literature suggests that substance abuse and its impacts varied amongst various demographics (Goings et al., 2018). Secondly, the socio-economic benefits of the prevention programs might have been underestimated in the literature. Thirdly, the political aspect of prevention programs for refugee youths might not have

been properly considered in policy frameworks. The socio-economic benefit of substance abuse prevention programs underscores a pressing need to begin synthesizing the evidence, given the deleterious nature of substance abuse if it is left unmitigated. Knowledge of substance abuse prevention programs is important for vulnerable groups like refugee youth because they seek assistance whenever they succumb to substance abuse. As a result, they may avoid the negative consequences of substance abuse and subsequently exploit the social benefits. Also, knowledge of substance abuse prevention programs can assist organisations and advocacy groups in assisting refugee youth and providing them with better services. This is because the knowledge of substance abuse prevention programs tailoring particular groups can reduce the barriers and provide culturally appropriate treatment (McCleary et al., 2016).

This study aims to contribute to substance abuse prevention programs literature by conducting a systematic literature review to synthesize the evidence of substance abuse prevention programs available in the literature amongst refugee youth to fill the gaps and highlight the directions for future research.

The following questions are designed to achieve the aims and objectives of the systematic literature review.

RQ1. Are refugee youth aware of different substance abuse prevention programs used to reduce substance abuse?

RQ2. What are the refugee youth's attitudes toward substance abuse prevention programs?

RQ3. What are the outcomes of substance abuse prevention programs?

1. Methods

To ensure the validity and reliability of this study, systematic review guidelines are followed (Toews, 2017). This is because a systematic review is useful in mapping out areas of uncertainty, identifying a lack of research on a particular topic, and pointing out an area where research is needed (Rethlefsen et al., 2021). Additionally, the systematic review method provides complete and accurate reporting, which facilitates the assessment of how well reviews have been conducted (Toews, 2017).

Unlike a traditional review, a systematic review uses a transparent, replicable, and scientific step purposely to mitigate the risk of bias by conducting a comprehensive literature search and providing an audit trail of procedures, decisions, and conclusions (Caldwell et al., 2020). The

systematic review reports on a reproducible search strategy that increases the reliability and validity of the study.

By following systematic review guidelines, this study will mitigate bias and increase its validity and reliability. The following steps are adopted to conduct the systematic review:

Step 1: Identifying keywords

To synthesize the evidence of substance abuse prevention programs available amongst refugee youth in the literature, a database search began with a simple string of “substance abuse AND Prevention AND Refugee AND youth” in the library. Then other search terms were obtained using a permutation of the keywords in EBSCOhost Megafire Ultimate (Table 5).

Table 6: Keywords and search strings

Concept	Keywords and Strings	Boolean Operators
Substance abuse	("substance abuse" OR "drug abuse" OR "alcohol abuse" OR addiction OR narcotics OR "substance use" OR "illicit drug" OR "drug use")	AND
Prevention program	(Prevention OR intervention OR treatment OR program OR therapy)	AND
Refugee	(refugees OR "asylum seekers" OR "displaced people")	AND
Youth	(youth OR adolescent OR "young adult" OR teen* OR "young people")	AND

Step 2: Search strategy

In the next step, a comprehensive search for relevant articles was conducted on Scopus, PubMed, and EBSCOhost Megafire databases including Academic Search Ultimate, APA PsycArticles, APA PsycInfo, CINAHL with Full Text, E-Journals, Humanities Source Ultimate, Psychology and Behavioural Sciences Collection, and Sociology Source Ultimate. A total of 485 studies were retrieved following a comprehensive search of the databases (Table 6).

2.1 Study selection

All the retrieved studies were exported to Endnote X9, and 199 duplicates were removed. The titles and abstracts of the remaining 286 studies were read and 253 studies were excluded because they were not addressing substance abuse prevention programs. A total of 33 studies were further screened using inclusion and exclusion criteria. As a result of the exercise, 24 studies were

excluded and nine were included for quality assessment. The small number of studies that met the inclusion criteria is significant because it is an indication of the gap in the literature about substance abuse and its prevention programs amongst refugee youth. Identification of a gap in the literature is one of the main purposes of conducting a systematic literature review (Paul et al., 2021). The PRISMA workflow diagram below shows the process of identifying and selecting eligible studies for this systematic review (figure 3).

Figure 3: PRISMA of workflow

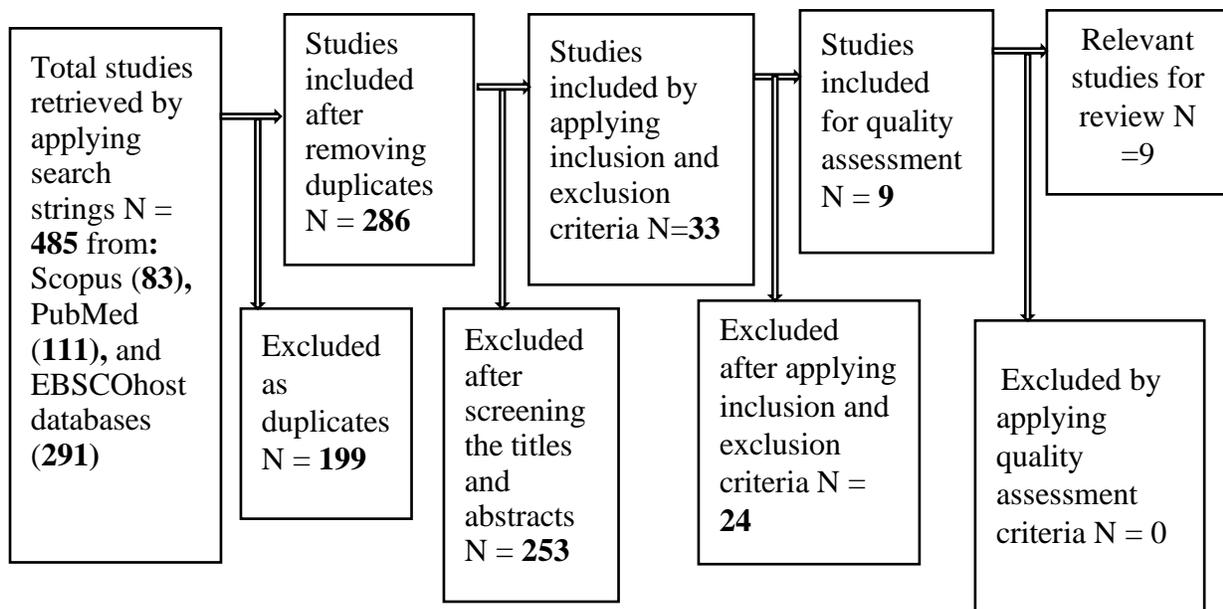


Table 7: Search log

Date	Search strategy	Database	Number of results	Field search	Limits
9/17/2021	("Substance abuse" OR "drug abuse" OR "alcohol abuse") AND ("prevention program" OR intervention) AND refugee* AND (youth OR teenager)	Library search	5686	All	Nil
9/17/2021	("Substance abuse" OR "drug abuse" OR "alcohol abuse") AND ("prevention program" OR intervention) AND refugee* AND (youth OR teenager)	PsycINFO	6	All	Nil
22/09/21	("substance abuse" OR "drug abuse" OR "alcohol abuse" OR addiction OR narcotics OR "substance use" OR "illicit drug" OR "drug use") AND (prevention OR intervention OR treatment OR program OR therapy) AND (refugees OR "asylum seekers" OR "displaced people") AND (youth OR adolescent OR "young adult" OR teen* OR "young people")	Academic Search Ultimate, APA PsycArticles, APA PsycInfo, Psychology and Behavioural Sciences Collection, Sociology Source Ultimate	93	all	
22/09/22	("substance abuse" OR "drug abuse" OR "alcohol abuse" OR addiction OR narcotics OR "substance use" OR "illicit drug" OR "drug use") AND (prevention OR intervention OR treatment OR program OR therapy) AND (refugees OR "asylum seekers" OR "displaced people") AND (youth OR adolescent OR "young adult" OR teen* OR "young people")	Academic Search Ultimate, APA PsycArticles, APA PsycInfo, Psychology and Behavioural Sciences Collection, Sociology Source Ultimate	78	all	Peer-reviewed

22/09/21	("substance abuse" OR "drug abuse" OR "alcohol abuse" OR addiction OR narcotics OR "substance use" OR "illicit drug" OR "drug use") AND (prevention OR intervention OR treatment OR program OR therapy) AND (refugees OR "asylum seekers" OR "displaced people") AND (youth OR adolescent OR "young adult" OR teen* OR "young people")	Scopus	90	All	
22/09/21	(prevention OR intervention OR treatment OR program OR therapy) AND (Adolescent [MeSH Terms]) AND (Refugees[MeSH Terms]) AND (Substance-Related Disorders[MeSH Terms])	PubMed	27		
12/10/2021	("substance abuse" OR "drug abuse" OR "alcohol abuse" OR addiction OR narcotics OR "substance use" OR "illicit drug" OR "drug use") AND (prevention OR intervention OR treatment OR program OR therapy) AND (refugees OR "asylum seekers" OR "displaced people") AND (youth OR adolescent OR "young adult" OR teen* OR "young people")	Academic Search Ultimate, APA PsycArticles, APA PsycInfo, Psychology and Behavioural Sciences Collection, Sociology Source Ultimate	291	All	Peer-reviewed, English
12/10/2021	("substance abuse" OR "drug abuse" OR "alcohol abuse" OR addiction OR narcotics OR "substance use" OR "illicit drug" OR "drug use") AND (prevention OR intervention OR treatment OR program OR therapy) AND (refugees OR "asylum seekers" OR "displaced people") AND (youth OR adolescent OR "young adult" OR teen* OR "young people")	PubMed	111	All	Peer-reviewed, English
12/10/2021	("substance abuse" OR "drug abuse" OR "alcohol abuse" OR addiction OR narcotics OR "substance use" OR "illicit drug" OR "drug use") AND (prevention OR intervention OR treatment OR program OR therapy) AND (refugees OR "asylum seekers" OR "displaced people") AND (youth OR adolescent OR "young adult" OR teen* OR "young people")	Scopus	83	All	Peer-reviewed, English

2.2.1 Inclusion criteria:

- Studies that explored substance abuse and prevention/reduction/treatment programs amongst refugee or immigrant youth.
- Studies that explored substance abuse amongst refugee youth and included another perspective of substance abuse prevention programs.
- Studies that investigated and reported motivation for substance abuse amongst refugee youth.

2.2.2 Exclusion Criteria:

- Studies that addressed substance abuse but did not include any intervention.
- Studies that addressed substance abuse prevention but never mentioned refugee youth.
- Studies that addressed substance abuse prevention programs amongst refugees in general.
- Studies that addressed immigrant youth but did not mention refugees.

2.2.3 Quality assessment

The quality of studies included in the systematic literature review was evaluated using the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) statement checklist (von Elm et al., 2007). This quality assessment tool was chosen for this study because the checklist is useful and can be applied to all studies (Vandenbroucke et al., 2014; von Elm et al., 2007). The explanation and elaboration of the 22 items of the STROBE checklist provide readers with a clear overview of a study (Vandenbroucke et al., 2014).

A total of twenty STROBE items from the checklist were used to assess the quality of the studies, including title, abstract, background/rationale, objective, design, setting, eligibility of the participants, variables, data source/measurement, study size, participant number, descriptive data, outcome data, main result, key results, limitation, interpretation, generalisation, and funding (items 1A, 1B, 2, 3, 4, 5, 6, 7, 8, 10 (study size), 13a, 14a, 15, 16a, 18, 19, 20, 21, 22). Each item was coded as Y = present, N = not present, P = partially present, N/A = not applicable, and finally, the percentage of the positive judgement's total calculation (Table 7).

2.2.4 Data extraction

Systematic reviews conduct data extraction as one of the processes of reducing human error and bias (Tranfield et al., 2003). The purpose of the data extraction is to directly link to the formulated review question and the planned assessment of the incorporated studies, providing a visual representation, and acting as a historical record of the decisions made during the process, and as the data-repository from which the analysis will emerge (Tranfield et al., 2003). The data extraction table developed for this systematic literature review (Table 8). Data extractions contain important information such as title, author, findings, concepts, journal, study design, setting, population, and emerging themes.

Table 8: Quality assessment

Strobe Items	1A	1B	2	3	4	5	6	7	8	10	13A	14A	15	16A	18	19	20	21	22	
Andrade et al. 2018	Y																			
		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Edberge et al. 2015	Y																			
		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	
Giuliani et al. 2010	Y	Y																		
			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Horyniak et al. 2016	Y	Y																		
			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Khader et al. 2009	Y	Y																		
			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	
Massad et al. 2016	Y	Y																		
			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
McCann et al. 2016	Y	Y																		
			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
McCleary et al. 2016	Y	Y																		
			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Wimann et al. 2017	Y	Y																		
			Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	
% Positive judgements total /total number of papers	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	78%

Table 9: Data extraction

Authors and Title	Objective	Population	Setting	Study design	Concept	Type of study	Journal	Future research
Andrade et al, 2018: Strategies to increase Latino immigrant youth engagement in health promotion using social media	Characterize Adelante participant Facebook reach and engagement, and features that resulted in greater user engagement.	Latino immigrant youth	USA	Mixed method	Strategies to increase youth engagement in health promotion	Peer reviewed	<i>JMIR Public Health Surveill</i>	Outreach strategies and engagement measurement in future studies.
Edberge et al. 2015: Defining the community applying ethnographic methods for a Latino immigrant health intervention	Community level health disparities intervention that aims to help close the gap.	Latino immigrant youth	USA	Ethnographic study	Health disparities	Peer reviewed	<i>Human organization</i>	N/A
Wimann et al. 2017: Comorbid psychopathology and everyday functioning in a brief intervention study to reduce khat use among Somalis living in Kenya.	Assessing baseline multimorbidity and its interactions with a Brief Intervention.	Somali refugee youth	Kenya	Random controlled trial	Khat use	Peer reviewed	<i>Social Psychiatry and Psychiatric Epidemiology</i>	Quantitative and qualitative studies which identify and include more hidden groups.
Giuliani et al. 2010: Characteristics and prevalence of tobacco use among Somali youth in Minnesota.	Factors related to tobacco use and cessation among Somali youth.	Somali refugee youth	USA	Mixed method	Factors related to tobacco use and cessation.	Peer reviewed	<i>American Journal of Preventive Medicine</i>	
Horyniak et al. 2016: Heavy alcohol consumption among marginalised African refugee young people in Melbourne, Australia.	Describe motivations for drinking, experiences of alcohol-related problems and strategies for managing drinking.	African refugee youth	Australia	Qualitative study	Substance use	Peer reviewed	<i>Ethnicity & Health</i>	

Khader et al. 2009: Tobacco use among Palestine refugee students (UNRWA) aged 13-15	Compare tobacco use among Palestine refugee students and students in the general population of the five fields of operation.	Palestinian refugee youth	Middle East	Two-stage cluster sample Design	Tobacco use	Peer reviewed	<i>Preventive Medicine</i>	
Massad et al.2016: Substance use among Palestinian youth in the West Bank, Palestine.	Provides insights into the perceived prevalence and patterns of alcohol and drug use among Palestinian youth.	Palestinian refugee youth	West Bank	Qualitative study	Substance use	Peer reviewed	<i>BMC Public Health</i>	
Mccann et al. 2016: Sub-Saharan African migrant youths' help-seeking barriers and facilitators for mental health and substance use problems.	Study aimed to identify the help-seeking barriers and facilitators for anxiety, depression and alcohol and drug use problems in young people from recently established sub-Saharan African migrant communities.	Sub-Sahara African refugee youth	Australia	Qualitative study	Barriers and facilitators for mental health and substance use problems	Peer reviewed	<i>BMC Psychiatry</i>	
Mccleary et al. 2016: Connecting refugees to substance use treatment.	Study explores factors that support and prevent refugees from connecting with chemical health treatment.	Refugee youth	USA	Qualitative study	Substance use treatment	Peer reviewed	<i>Social Work in Public Health</i>	

2.3 Study characteristics

2.3.1 Study objectives and designs

The study designs include four qualitative, one ethnographic, two mixed methods, one random controlled trial, and one two-cluster sample. The studies were published in nine different journals (Table 8).

2.3.2 Study setting and participants

Nine peer-reviewed articles met the inclusion criteria for this systematic literature review. They were published from 2009 to 2020. Four studies were conducted in the USA, two in Australia, two in the Middle East, and one in Kenya. Participants in these studies were refugee youth aged 12–24 of African, Middle Eastern, and South American origins.

2. Findings

3.1 Substance abuse prevention programs

The findings revealed a gap in the literature about substance abuse prevention programs amongst refugee youth. The substance abuse prevention programs identified in the study included Adelante Social and Marketing Campaign (ASMC) and Screening and Brief Intervention (SBI).

ASMC is a community-based intervention program offered by the Avance Center for the Advancement of Immigrant/Refugee Health in Washington, DC, USA. It is a branded primary prevention program, which addresses risk factors for co-occurring substance use, sexual risk, and interpersonal violence among Latino immigrant adolescents aged 12 to 19 years in a Washington, DC suburb (Edberg et al., 2015; Andrade et al., 2018). The study employed the 4-year Adelante Primary Prevention Program to address risk factors for co-occurring substance use, sexual risk, and interpersonal violence among Latino immigrant adolescents, aged 12 to 19 years (Andrade et al., 2018). In the two studies, ASMC was used to investigate two distinct scenarios. Firstly, it was used to identify post contents and features that resulted in greater user engagement (Andrade et al., 2018). Secondly, Edberg et al. (2015) used ASMC to provide a brief description of the background behind community-level health disparities interventions that aim to help close the gap.

This refers to a group of short psychotherapeutic interventions of about one to five sessions for substance users (Karno et al., 2021; Widmann et al., 2017). It consists of a standardized screening for substance-use problems, systematic feedback on substance-related risks, and a motivational intervention to reduce substance use (Saitz, 2014). SBI is often

employed by non-psychiatric healthcare providers and relies on a technique called motivational interviewing, which focuses on empowering patients during the intervention (Karno et al., 2021; Widmann et al., 2017). SBI was employed as a substance abuse prevention program to assist refugee youth with substance abuse.

Six studies explore the strategies and protective factors for substance abuse prevention. Giuliani et al. (2010) and McCann et al. (2016) have identified protective factors that influence the cessation of substance abuse among refugee youth, including strong community support systems, family, and friends. Protective factors such as trustworthiness, the confidentiality of help sources, perceived expertise of formal help sources, and increasing young people's and parents' substance abuse literacy play an important role in reducing the initiation and maintenance of substance abuse. Other studies suggest refugee youth should have access to counselling, ongoing case management coordination, and residential detoxification programs, and they discuss individual strategies such as self-imposed physical isolation, which can mitigate substance abuse amongst refugee youth (Horyniak et al., 2016; McCleary et al., 2016). Also, researchers have identified that protective factors, including academic success, and participation in voluntary activities, can assist in reducing substance abuse (Massad et al., 2016).

Furthermore, findings highlighted some protective factors that can shield refugee youth from substance abuse. These protective factors included religion, positive peer pressure, health, relief, and social services (Giuliani et al., 2010; Khader et al., 2009; McCann et al., 2016). More importantly, connecting with substance use treatment is suggested as one-way refugee youth can reduce substance abuse (McCann et al., 2016; McCleary et al., 2016).

Table 10: Finding summary

No.	Studies	Outcome	Prevention Program	Participant's attitudes
1	Andrade et al., 2018	Post content categories that were statistically significantly associated with post engagement were prevention topics, including substance abuse among others.	Adelante youth intervention and social media	Latino immigrant or refugee youth audience in this study tended toward more passive social media consumption
2	Edberge et al., 2015	Adelante intervention identified the following disparities: Lack of community attachment, lack of social support and social space, more isolation than connection and racialized identity and exclusion	Adelante youth intervention	Not stated
3	Giuliani et al., 2010	Overall, 22.2% of students reported being ever-users of any form of tobacco. The influence for tobacco use are friends and family on lifetime. Protective factors in tobacco use are positive peer pressure and religion appear.	Protective factor: religion and positive peer pressure	Not stated
4	Horyniak et al., 2016	Participants consume alcohol on a daily. Key motivations: coping with trauma, boredom, frustration, and social experience.	Strategies attending counselling, residential detoxification programmes, self-imposed physical isolation and intentionally committing crime	Not stated
5	Khader et al., 2009	There was no difference in current cigarette smoking, current use of shisha, or susceptibility to initiating smoking among the three groups of students.	Education, health, relief, and social services	Not stated
6	Massad et al., 2016	Most participants reported that substance use exists	Rehabilitation and counselling services	Do not trust the institution, social stigma or do not even know the institution exists.
7	McCann et al., 2016	Four help-seeking barriers: stigma, lack of mental health literacy, cultural competency of formal help sources, and financial costs deterring access. Five help-seeking facilitators: open with friends and family, strong community support systems, trustworthiness and confidentiality of help-sources, perceived expertise of formal help-sources, increasing young people's and parents' mental health literacy.	Educating people about the important mental health treatment	Do not seek help

8	McCleary et al., 2016	Barriers to treatment include lack of culturally informed treatment models, policy issues, and client characteristics act. important to successful linkage to treatment identified are ongoing case management and coordination.	Substance use treatment	Some participants are not motivated to seek treatment.
9	Wimann et al., 2017	Research found high rates of baseline multimorbidity: 51% (N = 168) for depression, 22% (N = 74) for PTSD and 23% (N = 73) for khat-psychotic symptoms. Group differences. Khat use-time decreased, and functional time increased with significant group interactions ($p \leq 0.046$). More khat use reduction after the intervention was found ($p = 0.024$).	Brief Intervention	Not stated

3.2 Participants' attitudes toward substance abuse prevention programs

Although participants report their experience with substance abuse such as breakdown of family relationships, homelessness, interpersonal violence, contact with the justice system and poor health (Horyniak et al., 2016), the studies that attempt to investigate the different substance abuse prevention programs and the attitudes of refugee youth towards substance abuse prevention programs revealed mixed results. First and foremost, refugee youth express distrust in the institutions that provide substance abuse prevention programs (Massad et al., 2016; McCann et al., 2016). For instance, refugee youth in substance abuse treatment showed mistrust in the institutions that provide counselling and rehabilitation (McCann et al., 2016; McCleary et al., 2016). Literature links mistrust in institutions providing substance abuse treatment to cultural, linguistic, or systems barriers compounded by post migration experiences (McCleary et al., 2016). Other researchers found that refugee youth's participation in substance abuse treatments is not motivated, which is why they are too reluctant to seek treatment (McCann et al., 2016; McCleary et al., 2016). Other research shows that refugee youth are unaware of any local institutions that support youth with substance use problems (Massad et al., 2016). On the other hand, the refugee youth participants in Adelante intervention and social media demonstrated a positive propensity toward more passive social media consumption (Andrade et al., 2018). The findings indicate that refugee youth have negative attitudes toward substance abuse prevention programs.

3.3 Outcomes of substance abuse prevention programs

Adelante Social and Marketing Campaign (ASMC) showed that prevention topics were significantly associated with post-engagement, including substance abuse (Andrade et al., 2018). Also, ASMC identified the inequalities that promote substance abuse amongst refugee youth such as lack of community attachment, lack of social support and social space, more isolation than connection, and racialized identity (Andrade et al., 2018; Edberg et al., 2015). For instance, the study indicated a lack of social space leading to refugee youth finding sanctuary in gang activities (Edberg et al., 2015). Yet, ASMC also indicated that the most engaging topic included in social media posts was substance abuse prevention, which accounted for 8.4% of the posts with the p-value <.001 (Andrade et al., 2018).

The outcome for SBI was significant. The findings indicate that refugee youth substance use-time decreased as refugee youth's functional time increased (Widmann et al., 2017). As a result, SBIs have been shown to reduce substance abuse to some extent.

4.0 Discussion

This study aimed to explore different substance abuse prevention programs, summarise refugee youth's attitudes toward substance abuse prevention programs and outline the outcomes of substance abuse prevention programs. This systematic literature review appears to be the first of its kind to systematically explore synthesis substance abuse prevention programs amongst refugee youth. The findings from this study support the expectation that research on substance abuse prevention programs amongst refugee youth is scarce. Only two substance abuse prevention programs were identified in the study (i.e. SBI and ASMC). Although ASMC was included in only one study of substance abuse prevention programs, its main objectives were to identify the content that refugee youth engage in and to map out the areas where intervention could be extended. ASMC did not employ strategies to reduce substance abuse. Yet, most studies included in this review presented strategies and protective factors that assist in reducing substance abuse and related consequences amongst refugee youth. If refugee youth adhere to protective factors such as family attachment, religion, and commitment to social norms, then they can likely avoid the initiation and maintenance factors of substance abuse. Another important strategy that emerges from this study is the need to increase refugee youth's and parents' substance abuse literacy. Increasing literacy can help refugee youth to understand the risk substance abuse can present to their health, social and economic wellbeing.

Previous studies have asserted that the efficacy of each substance abuse prevention program depends on the participants' attitudes toward intervention and their outcomes (Espada et al., 2015). However, refugee youth's negative attitudes towards institutions providing substance reduction services are alarming. Such attitudes can be associated with high dropout rates and, subsequently, poor outcomes of substance abuse prevention programs. If they have trust in professional services, then they seek assistance and therefore substance abuse is reduced.

The implications of the lack of research on substance abuse prevention programs can be concerning given the strong evidence in the literature that substance abuse is prevalent amongst refugee youth. There is convincing evidence that the refugee youth cohort could be at risk of substance abuse but are not seeking help. Furthermore, substance abuse has a debilitating impact on an individual's health and social and economic status. For refugee youth, not to be seeking assistance to reduce substance implies that this group may be suffering significant consequences in addition to their pre-and post-migration difficulties.

Previous studies amongst general youth show different substance abuse prevention programs that can mitigate the prevalence of substance abuse and related consequences (Barrett et al., 1988). However, little is available about the extent and effectiveness of substance abuse prevention programs, including individual and group counselling, alternative programs, and family and community interventions, as applied to refugee youth (Barrett et al., 1988; Foss-Kelly et al., 2021; Radoi, 2014). Researchers have only indicated that refugees are aware of some substance abuse treatment services. Yet, there are substantial differences between being aware of service and participating and engaging in it. Literature has demonstrated that individual and group counselling, alternative programs, and family and community prevention programs can reduce substance abuse. Therefore, it is significant for refugee youth to be aware of substance abuse prevention programs and seek assistance to reduce substance abuse.

5.0 Conclusion

In conclusion, substance abuse prevention programs remain unknown despite the prevalence of substance abuse amongst refugee youth. The prominent finding of this review is that most of the available studies have not addressed substance abuse prevention programs, as most studies explore the protective factors and strategies to reduce substance abuse. Even if a study attempts to address substance abuse prevention programs, it then incorporates other risk behaviours as well. It is hard to deduce the outcomes of, and attitudes of, the participants in such studies. Future research should put a greater emphasis on substance abuse prevention programs amongst refugee youth. The findings are an indication of the need to conduct a robust substance abuse prevention program that includes individual and group counselling, alternative programs, and family and community interventions tailored specifically to refugee youth. Also, research should demonstrate the efficacy of each substance abuse prevention program by exploring participants' attitudes toward interventions and measuring the outcomes of the study. This can fill the empirical evidence gap in the literature related to how refugee youth participate in substance abuse prevention programs can maximise their benefits through reduced substance abuse.

CHAPTER 4: SUMMARY AND CONCLUSION

4.1. Findings and discussion

This thesis has examined the state of substance abuse and its prevention programs amongst refugee youth aged 12-24 of African, Middle East and South American origins. As a ‘Thesis by Publication’, Chapter 2 (paper one) presented the state of substance abuse amongst refugee youth and Chapter 3 (paper two) presented substance abuse prevention programs amongst refugee youth. This chapter presents the summary, conclusion, and policy recommendations.

Previous studies have shown that understanding substance abuse and its prevention programs is important for individual wellbeing (Carswell et al., 2009; Greene et al., 2021). This thesis has explored the state of substance abuse and examined substance abuse prevention programs in the context of refugee youth. Although few studies met the inclusion criteria, multiple factors suggest that the experiences of refugee youth could put them at risk of substance abuse (Greene et al., 2021). Furthermore, the study has indicated that substance abuse prevention programs can play a substantial role in reducing substance abuse. The application of BCT to the synthesis of the findings from the literature further enhances understanding of substance abuse and its prevention programs.

The study conducted two major reviews of the existing literature. The first search was conducted to outline the state of substance abuse. A scoping review was used to summarise the state of substance abuse amongst refugee youth. This method has provided a good setting for mapping out studies and it was suitable for this study because it was used to investigate a complex area that had not been reviewed comprehensively. As suggested in the literature, the scoping review findings from ten studies revealed that substance abuse is prevalent amongst refugee youth and that they suffer negative consequences as a result (Horyniak et al., 2016). Unfortunately, findings also show that refugee youth do not know where to seek assistance for the negative consequences of substance abuse.

Secondly, the study conducted a systematic literature review to synthesise substance abuse prevention programs in the context of refugee youth. A systematic literature review was chosen to provide a transparent, replicable, and scientific purposeful study to mitigate the risk of bias and map out the areas of uncertainty, identifying a lack of research on a particular topic in the process, and pointing out an area where more research is needed. Major factors such as lack of trust in

professional services, language barriers and cultural differences emerged as factors that hinder refugee youth to seek assistance with substance abuse. Protective factors, such as religion, family attachment, adherence to societal norms and parent substance abuse literacy, play a significant role in reducing substance abuse. The major finding of the review however is that there is a lack of research on substance abuse prevention programs in the context of refugee youth.

4.2 Contribution of the study

Previous research focusing on substance abuse and its prevention amongst refugee youth has been mixed. Literature suggests that substance abuse is prevalent among refugee youth affected by pre-and post-migration experiences. Refugee youth suffer consequences as a result of substance abuse. However, the knowledge of substance abuse prevention programs remains limited.

To the best of the researcher's knowledge, this study is the first of its kind to explore the state of the literature in terms of refugee youth, substance abuse and prevention programs. Despite the risk posed by substance abuse to vulnerable cohorts such as refugee youth, research that explores substance abuse and its prevention programs remain limited. The literature reviews in Chapters 2 and 3 demonstrate that most studies explore either substance abuse or substance abuse prevention program itself. Therefore, this thesis is unique in devoting attention to both substance abuse and its prevention programs among refugee youth.

Synthesising substance abuse and its prevention programs amongst refugee youth from the existing literature can make a significant contribution to public health. First, this highlights the prevalence of substance abuse amongst refugee youths, yet knowledge of substance abuse prevention programs remains limited in the literature. Therefore, the study has used BCT to theoretically explain how an individual can reduce substance abuse by adopting substance-free strategies such as work participation, religious activities, volunteering work and sports involvement. For instance, based on the concept of BCT, those involved in substance abuse prevention programs can incorporate physical exercise and creative activities into substance abuse prevention programs to reduce substance abuse. These two substance-free activities have been proven useful in reducing substance abuse because research indicates that physical exercise can make individuals achieve enjoyment without resorting to substance-related activities. Similarly, creative activities can enable participants who cannot participate in an exercise to engage in some activities of their choice and achieve enjoyment without using substances. Thus, using BCT in this

thesis to understand substance abuse prevention programs has given insight into substance-free activities known to the participants, and could lead to designing substance abuse prevention programs tailored specifically to refugee youth. Subsequently, the results can increase knowledge of substance abuse prevention programs and, eventually, reduction of substance abuse.

This study can be used as a basis for policy formulation. The evidence of substance abuse amongst refugee youth could lead to an initial policy change about how to treat refugee youth with substance abuse. Often people with substance abuse are involved in crime and end up in jail, which could be prevented through the early introduction of substance abuse prevention programs specific to refugee youth. In this way, refugee youth could gain social benefits as could the public at large. The study can assist relevant stakeholders to bring to the attention of policymakers in various countries how they could support refugee youth affected by substance abuse.

4.3. Limitations and future research

This study has three limitations. First, it is based on information extracted using scoping and systematic literature reviews. Small-scale studies and a lack of quantitative analysis that can be applied to larger populations limit the generalisation of the findings.

Furthermore, the methods used to collect the data have some limitations: a scoping review does not evaluate the quality of the study and as a result, studies included in the scoping review paper may be of low quality, hence compromising the outcomes of the study. Also, the systematic literature review did not include grey literature, yet grey literature can add some vital information about the state of substance abuse and its prevention programs amongst refugees. The other limitation of the study is the limited sample of countries. The thesis is based on a small group of refugee youth aged 12–24 of African, Middle Eastern and South American origins. The findings cannot be generalised to wider refugee communities of refugee youths given that refugee youth from this thesis are from few countries. Future research is needed considering ethnicity, gender, age and other socio-economic circumstances and proportionate participation of refugee youths from diverse backgrounds to claim that the findings can be generalised.

Furthermore, future research in this area should focus on investigating factors that make refugee youth susceptible to substance abuse. Investigating such factors can lead to understanding why substance abuse is prevalent among refugee youth. Understanding those factors can assist in mitigating the factors. Moreover, future research in this area should examine substance abuse prevention programs that can be used to mitigate the consequences that refugee

youth experience as a result of the prevalence of substance abuse. The findings have revealed a lack of focus on substance abuse prevention programs in the context of refugee youth. Given the significant role of substance abuse prevention programs in reducing the negative consequences of substance abuse, future research could investigate substance abuse prevention programs in the context of refugee youth.

Some of the future research should include survey papers on an existing strand of literature on substance abuse amongst refugee youth in which findings are inconclusive. Furthermore, future research should encompass meta-regression analyses to address the relationship between substance abuse and refugee youth. Research in this area can help the stakeholders to provide necessary assistance like substance-free activities to refugee youth that can steer them away from substance abuse.

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